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SPRING ISSUE  
MARCH 2011

# Air-Britain ARCHIVE

The AIR-BRITAIN Civil Aviation Historical Quarterly



China : Civil Air Transport Incorporated (CATI)

FMA : IA-63 Pampa

Farman F.190 series

YU- and F- Registers

Caproni Ca.100

AIR-BRITAIN - Founded 1948



The AIR-BRITAIN Civil Aviation  
Historical Quarterly

No.1 2011

ISSN: 0262-4923

32nd YEAR

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<<http://www.air-britain.com>> where details  
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ARCHIVE is published quarterly, in March,  
June, September and December by  
Air-Britain (Historians) Ltd., in association  
with *Air-Britain Aviation World*, *Aeromilitaria*  
and the monthly *Air-Britain News*.

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## COVER PHOTO



Caproni Ca.100 floatplane I-ABOU wearing  
vintage marks "COM-11" and former serial  
MM65156, on its beaching trolley at Lake  
Como on 10.9.91.

(Don Hewins / ABPic)

**CLOSING DATE for contributions to next  
ARCHIVE:** April 22nd 2011

## Contents:

<b>FMA: IA-63 Pampa and and present situation</b>	<b>2011/003</b>	<b>F-1922 Register Head-on View:</b>	<b>2011/027</b>
<b>Commercial Aviation in China:</b>		<b>The Caproni Ca.100</b>	<b>2011/031</b>
<b>CAT 1946-1950</b>	<b>2011/009</b>	<b>Free French: ALAM</b>	<b>2011/037</b>
		<b>Registers of Yugoslavia</b>	<b>2010/041</b>
		<b>The Farman F.190</b>	<b>2011/043</b>



## HEAD-ON VIEW - WHAT IS IT? Number 39

What have we here? At first sight this could perhaps be mistaken for a Miles Falcon with those trousered undercarriage legs but look again at the cockpit and there's a somewhat less powerful engine under the cowlings too. Full details next time. (via JM Collection)

## In this issue

Welcome to readers new and old to another year of *Archive* material. It may be worth mentioning, just in case anyone actually reads this, that it is frequently apparent from the editor's mail that his association with the term "Air-Britain Archive" leads many members and perhaps non-members to assume that he is in charge of some massive supply of source material - an archive in fact! While having close access to the Jack Meaden Collection of photos, which supports not only this magazine but also other Air-Britain publications, anything else is strictly beyond his means (particularly USN shipboard codes or dates of airport visitors!). If you are an *Archive* subscriber it may help to spread the word but meanwhile it is important to remember two things: 1. Quote your membership number in any correspondence or a reply, even a rejection, may not be forthcoming. 2. Use the specialists listed on the Information Service leaflet or ask the Co-ordinator for help. Simple!

This issue sees the final instalment of Michael Magnusson's history of **FMA** aircraft design and production. The research, information, contacts and sourcing of photos has been excellent and we trust that readers have enjoyed this, not always civil, series of articles. Michael has promised to supply further details of Argentine production by other manufacturers for us in the future, so watch this space.

The story of the **Development of Commercial Aviation in China** has a small number of detractors because of its length. This instalment contains material only very recently revealed and not previously published. Some US publications have looked at the founding of C.A.T.I. before, but this has never been viewed from the British point of view through our involvement in Hong Kong and post-war politics. Yes, there are fewer photos in this part (actually we have run out of N83xxC and N84xxC images!) but the content will throw

new light on the events that took place in 1949 and 1950 and enable us to understand 'what happened next' in China, Hong Kong and Taiwan.

Our new series, started in the previous issue, on the **Farman 190** has moved into the detailed production histories. Michel Barrière has provided many colour illustrations to accompany his in-depth research on the type. It is hard to believe that we are describing the histories of a type that would now be over 80 years old!

Once again we must thank Ognan Petrovic for his excellent illustrations for the complete register of **Yugoslavia**. It may be worth pointing out that we are only covering the period up to the dissolution of the federal republic and not the YU- registrations subsequently issued by Serbia. Incidentally, any photos of pre-1990 registrations would still be welcome! At the same time the **French** register moves onward through 1929 - researching the photos for this is always an interesting exercise particularly when the types are one-off products!

This was also the case for the Head-on View article on the **Caproni Ca.100**. The editor fervently hopes that the different engine combinations have been accurately identified but no doubt someone will tell him if this is not so. Having to draw on Italian language sources using lessons from some 50 years ago was also interesting. The idea of compiling a list of civil registrations did occur, but it was quickly put aside when the difficulties were realised!

Finally our thanks to Michael West for compiling the information on the Free French A.L.A.M. as one of his **Airliners in Warpaint** subjects. It still seems surprising that a number of civil Lodestars remain effectively unidentified but maybe there are still sources that lie hidden away somewhere?

# FMA : from 1945

## The story of Fabrica Militar de Aviones, Argentina

Michael Magnusson

Part 14

*Right: FMA Cordoba facility from the air in the early 1970s with main production factory in the middle and maintenance hangars in the foreground. (A Marino-Collection)*

### Part 15: IA-63 Pampa and the present situation

In parallel to the previously described IA-58 Pucara program, FMA launched and studied various other projects. One was a small "UAV" called **IA-59**. Only one was manufactured and it flew on 9th December 1972. It could be used with a camera or towing small practice targets. It was powered by a McCulloch engine with fixed pitch propeller. Today it is preserved at the Museum of Industry in Cordoba.

FMA also briefly studied a single engine two seater trainer to replace the Beech Mentor, this was given the project name **IA-62**. It was intended to have the French Turboméca Astazou engine but it never went beyond the drawing board.

Instead FMA began a much more ambitious programme, namely a new jet trainer. An initial concept was studied as the **IA-60** with supersonic capability and delta wing but this was far too ambitious. Instead the **IA-63** was launched as a simple light two-seat jet trainer to replace the MS.760 Paris in the Air Force inventory. It was still an ambitious project so Dornier was contracted to provide technical assistance and a number of German engineers got involved. FMA also had to invest to new machinery, including five German numerically controlled milling machines. Preliminary design studies began in 1979 and FMA submitted a basic layout to the Air Force which was accepted in November 1979. Initially FMA had selected the Pratt & Whitney JT15D engine but switched to Garrett TFE731 in April 1980 due to delays in the JT15D programme.

On 5th May 1980 the formal agreement was signed with Dornier for technical and design assistance. Some FMA engineers travelled to Dornier's facility in Germany whilst other German teams came to Cordoba. A mockup was presented at Paris Air Show in June 1981. The joint design team peaked at 130 in 1983 and one can see certain similarities to the Alpha Jet design. Wind-tunnel testing was done in both countries. Already at this stage FMA ran into budget restrictions and a planned fourth prototype was cancelled. After the Falklands conflict in 1982, Argentina reverted to democracy in 1983 consequently the newly elected Raul Alfonsin government was less interested in military projects than the previous military governments and this would affect budget allocations.

The objective was to design a simple small jet trainer that was affordable but yet functional. Thus a straight wing layout was chosen with a single

*Right: The IA-63-prototype EX-01 outside the main factory building at the time of its first flight in October 1984. (A Marino collection)*



*Above: The IA-59 UAV project now preserved at the Museo Industria in Cordoba as seen in June 2005. Serial IA-X-59-1 is applied to the fuselage and the fin/rudder. (M Magnusson)*

small 3500lbs jet engine. The wing design was very much a Dornier influence. Empty weight was 2600kg (later became 2820kg) and max take-off weight 3,800kg. Span was 9.68m, length 10.9m and height 4.28m with a wing area of 15.63 sq.m. Internal fuel tank holds 970 litres and it can carry two external tanks of 207 litres each. Max speed 840 km/h, service ceiling 12,900m and max range on internal fuel 2500km. It is stressed for +7g and -3g. Both pilot positions have ejection seats.

First prototype of the **IA-63 Pampa** (EX-01) flew ten months behind schedule on 6th October 1984 powered by a Garrett TFE731-2-2N





**Left:** The second prototype, EX-02, doing demonstrations at the FIDA air show in March 1988 at Santiago. Soon afterwards it was repaired as shown below. (M Magnusson)

**Below:** The IA-63 prototypes EX-01 and EX-02 in revised blue, red and white livery at Aeroparque in Buenos Aires, November 1989. (Horacio Gareiso)

engine. Pilots were Genaro Sciolla and Horacio Orefice. At this point FMA somewhat optimistically planned to build 300 units of which they hoped to export 200 and deliver 100 to the Argentine AF. The Air Force had at this time signed a firm order for 64 IA-63s. Unit price was estimated to be \$3-3.5m. The second prototype (EX-02) followed on 7th August 1985 and the third (EX-03) on 25th March 1986. In 1988 FMA took two IA-63 including EX-02 on a demonstrator in Latin America and US.

Meanwhile in May 1988 FMA began delivering IA-63s to IV Brigada Aerea in Mendoza which was using the MS760 Paris at this time. Here they made up "Escuadron II del Grupo 4 de Caza". In a 15th anniversary celebration held in Mendoza in 2003, it was revealed that the unit had flown 22,400hrs with its Pampas.

When the Americans announced the "J-PATS" program to select a new basic trainer for USAF, FMA obviously saw an opportunity to offer the IA-63 but also realized they would need a US partner. Soon 7 aircraft types were competing for the 700 aircraft order. FMA teamed up with Vought (later Northrop) in May 1990 and launched the "Pampa 2000". In May 1993 Vought began flight testing a modified Pampa (E-812) which together with E-814 and EX-02 had been transferred to the US company. The "Pampa 2000" had modifications in avionics with EFIS, modified brakes, and Martin-Baker ejection seats. However, in November 1994 the Pampa 2000 was eliminated from the competition leaving 6 contenders. One reason given was the aircraft's unsatisfactory spin characteristics. The final winner became the Beech-led T-6 Texan based on the Pilatus PC-9. The Pampa program never achieved the production rate envisaged and by 1992 only 15 aircraft had been constructed. In that year the production line shut down for economic reasons. Once Lockheed-Martin got involved (see below), they tried to reinvigorate the



**Above:** A pair of IA-63 prototypes in formation with a Pucara. The Pampa in the foreground, EX-01, is fitted with underwing tanks and a belly pack, possibly for a long-distance demonstration tour. In the background, the Pucara, complete with underwing stores, appears to be A-584. (VCettolo-collection)



**Left:** Three IA-63s in formation in the original grey-green camouflage scheme in which they were delivered to IV Brigada Aerea. (via V Cettolo)

**Right:** One of three IA-63 Pampa 2000 variants sent to the USA for the J-PATS competition, E-814 is seen here at Vought's facility amid much publicity. (Alberto Martin Collection)



programme and delivered another aircraft (E-815?) on 28th September 1995. In September 2000 FMA took the newest IA-63 (E-815) to South Africa, it was dismantled and carried aboard the Argentine AF L100. Quoted price was now \$7-8m per unit. In 2002 it was decided to offer an upgraded IA-63, called "AT-63" with radar to be more competitive in the international market. One target was Colombia. Meanwhile production continued at a very slow pace, the 20th and 21st examples were seen on the production line in June 2004. On June 23rd, 2005 the first upgraded "AT-63" version of the Pampa (EX-03 converted and rolled out December 15th, 2004) first flew at Cordoba and launched the upgrade program on 12 remaining Pampas. As they come in for overhaul they are upgraded and repainted from original grey/green camouflage to new light grey livery. At the same time, FMA will build another 12 new airframes, 6 for the Argentine AF as "Serie II" and another six which can be available for export or Argentine Navy. Bolivia has also been mentioned. The initial six have now been delivered but the fate of the final six is still undecided.

It is a pity that FMA was unable to turn the Pampa into more of a success, it's an attractive jet trainer much liked by its pilots in Mendoza. Financial and political constraints certainly played a role in its struggles.

In the late 1970s FMA also briefly again turned its attention to a transport aircraft. The FMA design office evaluated a high wing twin engine concept similar to the Arava, this was called the IA-67 "Cordoba". Another high wing conventional concept for 23-30 passenger was named IA-68 "ATL", neither went any further.

With the new President Menem in place, a closer relationship was sought with Brazil. Embraer had initiated studies of a new 19-seat aircraft to complement its larger E-120 Brasilia and replace the older E-110 Bandeirante. Menem signed a cooperation agreement with the Brazilians on 17th January 1986 to explore this concept, which was named CBA-123 (CBA-Cooperacion Brasil-Argentina). The actual project cooperation was firmed up on 21st May 1987 and the pro-



**Above:** IA-63 E-815 seen climbing away at Mendoza in November 2005. At that time this was the latest production example. (Chris Lofting)

**Below:** Upgraded IA-63 at official rollout ceremony at the factory in December 2004. This we presume to be EX-03. (V Cettolo)



**Above:** The stillborn transport project IA-67 ATL model at the FMA offices in October 2008. (M Magnusson)

**Left:** The joint-venture CBA-123 prototype with Argentine president Menem on the airstairs. (via argohtypermedia)



**Left:** The CBA-123 Vector prototype c/n 123801 PT-ZVE about to demonstrate at Farnborough on 2.9.90. The 19-seat regional airliner had many advanced features and was powered by two rear-mounted Garrett turboprops fitted with 6-blade pusher propellers. The second prototype PT-ZVB was flown at Paris the following year but no further examples were completed.  
(Dave Partington)

programme proceeded with the design and construction of two prototypes, PT-ZVE and PT-ZVB. With many advanced design features and powered by two Garrett TPF351 turboprops mounted as pushers on the rear fuselage, the first flew on 18th July 1990 as the CBA-123 Vector. The intention was that the third prototype was to be built in Cordoba (as the IA-70 Parana LV-X134) but before they reached this stage, the project was struggling and the aircraft was not completed. The market did not respond well to a \$5 m 19-seat aircraft and due to poor market response and certification problems Embraer cancelled the programme in 1993 and later turned its attention to the E-145 program, a wise decision considering they have sold over 1000 E-135/140/145. Unfortunately this would not benefit FMA.

The Argentine AF picked Lockheed-Martin to supply refurbished exUSNavy A-4M Skyhawks to replace the older A-4B Skyhawks from the late-1960s. As part of its bid, Lockheed offered to take over FMA in Cordoba and turn this into a private venture in accordance with the then government policies of the Menem regime. Thus "LMAASA" (Lockheed Martin Aircraft Argentina SA) was born in 1995 with an American president. The intention was to partially turn the factory into an overhaul facility for C-130s, P-3s and some commercial aircraft such as the B737 family which was popular in Argentina. The facility would continue to provide overhauls to the Argentine AF C-130s, F-27s, F-28s, MS760s and Beech Mentors under a ten year agreement which was extended in June 2005 for another five years. At the time of the extension, the then LMAASA president Daniel Patterson was still upbeat about its future. However things did not develop as expected. For various reasons the attempts to get third party work on C-130s and P-3s never materialized, FMA did a few C-130s, including two for the Colombian AF and only a few B737s. The relationship between

"LMAASA" in Cordoba and the Argentine AF deteriorated, the Air Force felt the facility was inefficient and aircraft could literally take years until they got finished. Lockheed accused the Air Force of not paying or supplying proper spares support. The Air Force began sending aircraft abroad for overhauls, including C-130s to Canada and F28s to Holland.

However, the facility launched a modification program in 2007 with the Air Force called "MATE" (Modernizacion de Aviones Transporte y Enlace) for C-130s, F27/28s, Twin Otter, Learjet and B707s. The intention was to install an updated avionics package consisting of TCAS II, enhanced GPWS, updated flight data and voice recorders and ELT, all in line with new civil requirements. However the programme has been slow to implement, few aircraft have been completed (at least one F27 and one Twin Otter are known).

Things came to a head in 2009 when the contract was due to expire again. Lockheed had by now lost interest in the factory and the politics behind it. The Argentine government tried to get Embraer interested but got a cool response. In line with the acting policies of President Christina Kirchner, the government nationalized the facility again after its 14 year stint in the private sector. The government also nationalized Aerolineas Argentinas thus reversing the policies of the Menem administration from the 1990s. The facility was now given a new name, Fabrica Argentina de Aviones "Brig San Martin" (FAdeA). Minister of Defence Nilda Garre signed the paperwork 17th December 2009. The government intention is to position the facility to become subcontractor

**Below:** The only IA-63 retained by the flight test facility in Cordoba these days is EX-03, seen here in October 2008. (M Magnusson)



**Right:** IA-63 Pampa prototype EX-01 seen at the flight test facility in June 2004, a few months before its demise. (M Magnusson)



**Left:** IA-63 E-803 being refueled and made ready for flight on the ramp at IV Brigada, Mendoza, in April 2005. At that time it still wore the original grey/green camouflage scheme. (M Magnusson)

**Below:** E-803 seen later, being upgraded at the factory in October 2008 and now wearing the light grey camouflage. (M Magnusson)

to other aircraft manufacturers and not much later, the same minister Nilda Garre signed a preliminary agreement with Embraer for KC-390s and the intention is for "FAdeA" to supply parts.

When the Argentine government ordered 20 E190s for state-owned Aerolineas Austral, an attempt was made to get sub-contract work but this was not successful. Unfortunately the factory is currently suffering from poor labor relations and regular strikes and interruptions so much has to be done to make the facility attractive and competitive. It now employs only about 1,100, a far cry from its glory days. But there are many capable experienced people at the factory and hopefully their skills can be better utilized. Meanwhile FAdeA is working on completing the final six IA-63s but work is progressing slowly.



**IA-63 Production:**

c/n 1001	-84	<b>EX-01</b>	FF 6.10.84 "Gato". W/o 10Dec2004 Punta Indio, pilot killed.
1002	-85	<b>EX-02</b>	FF 5.8.85 "Mancha", rebuilt as <b>E-816</b> , FF again 13Feb06, del 2007 to IV Brig.
1003	-86	<b>EX-03</b>	FF 25.3.86, upgraded AT-63 in 04/05, flew June 2005. Kept by Flight Test Dep.

1004/1005			ground test airframes (static & dynamic)
1006	-88	<b>E-801</b>	seen Mendoza May 2000, seen factory Jun04 for upgrade
1007	-88	<b>E-802</b>	w/o 23Nov91 Mendoza, pilot killed.
1008	-88	<b>E-803</b>	seen Mendoza Aug97, FIDA Air show Mar98, factory Oct08 for upgrade
1009	-89	<b>E-804</b>	seen Mendoza May00, seen factory Jun04 for upgrade, Mendoza i/s Jun08.
1010	-89	<b>E-805</b>	seen Mendoza Nov96, seen factory Oct08 upgraded.
1011	-89	<b>E-806</b>	seen Mendoza May00, seen Jun08 upgraded.



**Left:** IA-63 Pampa Series II E-817 in the new two-tone grey scheme at Mendoza in June 2008. (M Magnusson)

**Below:** Another Series II, E-819 on approach to Posadas during exercises in October 2008. (Marcelo Allende)

**Bottom:** IA-63 construction number 1031 seen in the foreground on the Cordoba assembly line in October 2008. (M Magnusson)

1012	-89	<b>E-807</b>	seen Mendoza May00 & Apr05, not upgraded.
1013	-89	<b>E-808</b>	w/o 17Sep99, engine failure with a USAF instructor/Argentine student
1014	-89	<b>E-809</b>	seen Mendoza Nov96 & Apr05. Seen Jun08 not upgraded.
1015	-89	<b>E-810</b>	w/o 14Dec94, hit terrain near Cerro San Isidro, Mendoza, pilot killed.
1016	-90	<b>E-811</b>	seen Mendoza Aug97, at factory Jun04 for upgrade, Mendoza Jan08 seen i/s
1017	-91?	<b>E-812</b>	"Pampa 2000" JPATS. To IV Brigada.97. Seen Mendoza May00 & Jun08 upgraded.
1018	-91?	<b>E-813</b>	w/o 31Aug92 near Bournemouth practising for Farnborough, 2 killed.
1019	-91?	<b>E-814</b>	"Pampa 2000" JPATS. To IVBrigada .97. Seen Mendoza May00 & Jun08 upgraded.
1020	-95??	<b>E-815</b>	seen Mendoza May00, seen again Jun08 upgraded.
1021	-08?	<b>E-817</b> Srs.II	on final production line mid-2004, seen Mendoza i/s Jun08
1022	-08?	<b>E-818</b> Srs.II	on final production line mid-2004, seen Mendoza i/s Jun08
1023	-08?	<b>E-819</b> Srs.II	seen Posadas Oct08 i/s.
1024	-08?	<b>E-820</b> Srs.II	seen Mendoza Jun08 i/s & Aeroparque Sep09.



1025	-08?	<b>E-821</b> Srs.II	Seen Posadas Oct08 i/s & Aeroparque Feb10
1026	-08?	<b>E-822</b> Srs.II	seen factory Oct08, seen Aeroparque Sep09.
1027		<b>E-823</b> ???	sub-assemblies at prod line June 04 (Final customer not defined...)
1028		<b>E-824</b> ???	
1029		<b>E-825</b> ???	fuselage section seen factory June 04
1030		<b>E-826</b> ???	components seen factory June 04
1031		???	components seen factory June 08
1032		???	

**FMA IA-63 Pampa: annual flying hours:**

1989: 2000hrs	1991: 1550hrs	1993: 1740hrs
1990: 1900hrs	1992: 1800hrs	1994: 1790hrs
		1995: 1790hrs
		1996: 1250hrs
		1997: 1880hrs
		1998: 1800hrs
		1999: 1700hrs
		2000: 1700hrs
		2001: 1810hrs
		2002: 1228hrs
		2003: 1620hrs
		2004: 1320hrs
		2005: ??
		2006: 1510hrs
		2007: 1000hrs
		2008: 1000hrs
		2009: 2000hrs

TOTAL: about 35,000 hours



# The Development of Commercial Aviation in China

PART 13A

## Civil Air Transport, Incorporated and C.A.T. Incorporated, 1949-1950



EDITED BY MARTIN S BEST,  
CHINA HISTORY RESEARCH GROUP

### Introduction

In this series of articles we are studying the airlines of Nationalist China, whereas Civil Air Transport, Incorporated (CATI) was incorporated in the American state of Delaware. It is included in this series because the data from the FAA registry files on the aircraft registered to Civil Air Transport, Incorporated and C.A.T., Incorporated can reveal valuable information on the identities of these Chinese aircraft and the histories of the Chinese airlines.

This article follows on from the immediate post-war histories of Central Air Transport Corporation (CATC, Part 8A/B, *Archive* Summer & Autumn 2009), China National Aviation Corporation (CNAC, Part 10A/B, *Archive* Spring & Summer 2010), and Civil Air Transport (CAT, Part 11, *Archive* Autumn 2010). To tell this story in full, we will repeat certain information included within these previous articles. For simplicity, we will use the acronym 'CATI' as an abbreviation for both Civil Air Transport, Inc. and C.A.T., Inc. and will explain the distinction between these two American companies later.

Apart from studying most of the FAA registry files for CATI aircraft, the author has also performed extensive research in the British National Archives (TNA) at Kew into the legal disputes that resolved the ownership of these ex-CATC and ex-CNAC aircraft. This is a long and complicated story that we will try to explain as clearly and simply as possible. To keep the articles of manageable length, we will cover the period 1949- March 1950 in Part 13A and April 1950-1953 & 1955 in Part 13B etcetera.

The story of the legal disputes over ownership of Chinese aircraft has been told before but only from American viewpoints, e.g. by Nancy Allison Wright and William M Leary. As far as we know, it has not been told before from the British point of view. In fact many of the British Government files on this subject have only been released to TNA during the course of the author's research.

### Research resources

This article contains information from two significant research resources: FAA aircraft registry files, and British National Archives (TNA) files.

*Above:* A CAT Curtiss C-46 landing at Kai Tak in October 1949 on one of the last flights from Canton before services were suspended and the CAT and CNAC fleets impounded at Hong Kong. (via JM Collection)

FAA registry files were ordered for all registrations from N8300C to N8392C and N8400C to N8425C, either using these N-numbers or subsequent US identities. Many but not all of these files have been received. Some files were not found or had been destroyed by the FAA. A list of FAA registry files received is included below.

An extensive programme of research was performed using British government files in The National Archives at Kew. Initially, relevant files were identified by searching the TNA online catalogue. Relevant documents were located in Colonial Office (CO) and Foreign Office (FO) files from 1950 to 1952 and 1955. Although many government files had been released under the thirty-year rule, some others were released during the course of this research, which started in 2002, but two files had been retained by their departments, i.e. the FCO. The two retained files were released in late 2009, following application under the British Freedom of Information (FOI) Act. The FCO reported that unfortunately the remaining files had been destroyed. This meant that a complete history could not be obtained from TNA resources and other resources will need to be consulted. A list of the TNA files consulted is given below.

During early visits to TNA, then known as the Public Records Office (PRO), it was possible to get documents photocopied on site but this system was later changed to an equally expensive do-it-yourself system. A member of the TNA staff kindly recommended the use of a digital camera. This technique has been used since 2008 with mixed results. Many of the original documents on file are carbon copies with poor black and white contrast so, as not all images taken were usable, it was still necessary to make copious notes on relevant documents. There is some duplication between CO and FO files, so it may be possible to construct a fuller story by using both sources. The text of much of this current article is taken from a chronology prepared by the Colonial Office and Foreign Office for the Law Officers of the Crown. [TNA CO537/5628 #150 & FO371/84786 GA81/72]

According to TNA, Crown Copyright has been waived with the proviso that the exact origin of any quotation is clearly identified. To be compliant with this requirement, extracts are tagged with the TNA file reference(s) plus an additional document reference, where appropriate. In the case of CO files, the documents are filed from the rear in numerical order with the document numbers usually written in red and with an

index at the front of the rather large files. This document number is identified here with a hash mark (#). FO files contain small, bound dossiers, usually with a 'GA' reference (for General Department, Civil Aviation), as explained below. Crown Copyright rules do not apply to documents from external sources, such as CATI, but reportedly similar rules apply to US government documents, such as FAA records. Given the waiving of Crown Copyright, this article includes many direct quotations from FCO documents, including text with poor English. Factual errors are addressed in footnotes.

## **Formation of Civil Air Transport, Inc. of Delaware**

### **1949 – Chinese aircraft congregate at Kai Tak**

During the waning months of 1949, the Nationalists faced final defeat on the mainland. Based in Hong Kong since the fall of Shanghai in May 1949, CNAC had been operating sporadic air service to Nationalist-held areas. Although rumours had been circulating for months about discontent among employees, many of whom feared for the safety of relatives on the mainland should the Nationalist government attempt to relocate the companies on Taiwan, the defection of the general managers of both airlines to Peking with twelve fully manned aircraft on 9th November was a shock. Seventy-one transports, including modern Convairs and DC-4s, remained on the ground in Hong Kong. Communist authorities promptly claimed the aircraft as the "sacred property" of the Chinese People's Republic. [Leary PM p.91]

#### **January 1949**

"The main aircraft base of C.N.A.C. and C.A.T.C., the officially designated airlines of the Chinese Government was moved to Hong Kong consequent on the Communist advance in China. CNAC in particular occupied much valuable accommodation at the only airfield there (Kai Tak)." [TNA CO537/5628 #150]

#### **June 1949**

"The R.A.F. at Hong Kong was reinforced in June 1949 and this was made an excuse for requiring CNAC to remove their base from Hong Kong since they were overcrowding the airfield and the possibility of their transferring their allegiance to the Communists pointed to a potentially difficult situation. The Government's instructions to CNAC to move out were bitterly resisted particularly by Alison [*sic*: correctly Ernest M Allison], the American Operations Manager of CNAC. The Hong Kong government proceeded to requisition half of the accommodation occupied by CNAC, who however found additional accommodation for equipment in Bailey's Yard adjacent to the airfield [Apparently Bailey's Dockyard is about a mile from Kai Tak]. It was the hope of the Hong Kong Government that CNAC would remove entirely to Formosa but the Americans were anxious to remain in Hong Kong as long as possible in view of the highly lucrative air traffic centred on the Colony. Warnings were given by the Hong Kong authorities to the Americans (notably by the Governor to Mr Bond of CNAC) of the risks entailed in retaining the aircraft in Hong Kong, having regard to the fact that the Communists might become the recognised Government of China and would claim the aircraft as their property, but these warnings were ignored. The Americans replied that they were only interested in operating aircraft in China, and would hope to operate them under a Communist regime. The Governor has quoted conversations with US airline officials in early December from which he concluded that they were less concerned at the fate of the aircraft than with pulling Pan American Airways chestnuts out of the fire. General Chennault on the other hand who controlled the third air operating company, CAT (whose operations had been confined to internal services) was careful at this time to buy out the existing small Chinese nationalist holdings in his Company." [TNA CO537/5628 #150]

## **Defection of Chinese aircraft to mainland China**

### **Hong Kong, 9th November 1949**

"The Chinese individuals who were the Managing Directors of CNAC and CATC defected to the Communists and went to Peking, taking with them 9 CNAC and 2 CATC aircraft [We think 10 CNAC and 2 CATC, total 12 aircraft - see Archive Part 10]. This caused a split amongst employees of the two air operators in Hong Kong, the majority siding with People's Government but a part with the Nationalists. The American operations manager (Alison) announced publicly that CNAC had defected to the Communists and was awaiting orders from Peking. The Governor of Hong Kong reported that the American personnel of the Company were

in complete support of this move, and that the position of CATC appeared to be similar." [TNA CO537/5628 #150, See also *Archive* pp.2009/084-085 & 2010/28-29.]

Chennault and Willauer reacted with surprise and dismay to news of the defection. Communist control of the aircraft, they feared, would place the final resistance of Chiang Kai-shek on Taiwan in grave danger. According to their information, the Communists were training paratroopers for an assault on Chiang's last and somewhat shaky redoubt.

Willauer flew to Taipei on 10th November to consult with Nationalist officials. He found General Chou Chih-jou highly agitated, although the air force commander appeared less concerned over the danger to Taiwan than over the possibility that he might be held personally responsible for the defection of the two general managers, both of whom were former high-ranking air force officers. Conversations with Chou and other senior officials revealed that everyone was very much distressed about the situation, but that no one had any idea what to do about it. Willauer realised that it was up to him to formulate a plan of action before a scheduled meeting with Chiang Kai-shek at 8:30 the following morning."

Willauer's last-minute proposal, embodied in a memorandum handed to the generalissimo at their meeting, began by stressing the gravity of the circumstances. Not only did the defection place Taiwan in danger from invasion, but it also represented a severe political defeat that could have fatal effects on Nationalist morale.

In an effort to prevent the aircraft in Hong Kong from falling under Communist control, Willauer offered the services of CAT. CAT would act as agent for the Nationalist government, with full authority to change title of the aircraft or take any other action necessary to forestall Communist possession of the transports and – it was hoped – to deliver them to Taiwan. Chiang agreed. He made available teletype equipment and codes for speedy communications with Taipei, a high-ranking air force officer for liaison duties, and an official from the Ministry of Finance, who would attempt to freeze the bank accounts of CNAC and CATC. [Leary PM pp.91-92]

### **Hong Kong, 13th November 1949**

"George Yeh, the Chinese Nationalist Minister of Foreign Affairs informed the Governor of Hong Kong that:

- (i) registration certificates of the aircraft of the two companies were cancelled, and
- (ii) air crew licenses of all pilots were also of no effect until further notice. [In fact the registrations were "temporarily suspended", not cancelled. The pilot licences of all CNAC and CATC pilots were cancelled. (See Leeker China2 p.29)]

"Yeh asked for the immobilisation of the aircraft and that all identification permits granted to C.N.A.C. and C.A.T.C. employees (permitting them to enter Kai Tak) be suspended. The Governor replied that the companies should collect the permits and send them in for cancellation; and that since the registration certificates were suspended no clearance could be granted for any of the aircraft to fly. There was after this date no other request for executive action made by Nationalist interests to the Hong Kong Government, but the Nationalist Government appointed new Managing Directors who went to solicitors in Hong Kong and briefed counsel. Owing to the inability of the Nationalist interests to collect the passes for cancellation from the defecting employees, as required by the Governor, those employees remained in possession and control of the aircraft." [CO537/5628 #150]

## **Detention of Chinese aircraft at Kai Tak**

"Returning to Hong Kong, Willauer lost no time in putting his 'neutralisation programme' into effect. On November 13 the Nationalist Civil Aeronautics Administration in Taiwan suspended the registration certificates of the aircraft. Three days later, after 'disloyal' employees of the two airlines had been dismissed, a squad of twenty newly hired Sikh guards went on duty to prevent removal of the transports. Willauer personally led a group of CAT pilots and crew chiefs in a midnight foray to the airport, where they immobilised the aircraft, at least temporarily, by letting all the air out of the tires. Willauer also spread rumours that trucks would be driven across the path of any aircraft that attempted to take off.

"The aircraft dispute only added to the woes of the British authorities in Hong Kong. Nervously eyeing Communist troops massed on the border of the New Territories, fearing invasion or interruption of their vital water

supply and hoping to work out an accommodation with Peking, colonial officials welcomed CAT's intervention in the dispute as they would as outbreak of the Black Death. But legal formalities had to be observed even under the most trying of circumstances.

"On November 17 Sir Alexander Grantham, governor of the colony, announced that no aircraft would be permitted to depart for the mainland until the Sino-British air agreement had been clarified [This is not consistent with evidence in TNA files]. At the same time, in an effort to avoid trouble with Communist sympathisers, he ordered the removal of CAT's security force. No sooner had the guards left than a number of CNAC and CATC employees, who had declared their allegiance to Peking, took physical possession of the aircraft. The pro-Communist group vowed to stay until the British government recognised the new Chinese regime, which was expected by the end of the year, and the assets of the two airlines passed over to the People's Republic. Although Willauer obtained an injunction from Sir Leslie Gibson, chief justice of Hong Kong, to restrain the defectors from remaining on Kai Tak airport and from removing or tampering with the disputed property, the civil authorities refused to enforce it, fearing a riot that might endanger the security of the colony." [Leary PM pp.92-93]

The letters that were sent to CATC and CNAC by the Acting Director of Civil Aviation on 13th November have been quoted in *Archive* pages 2009/086-087 and 2010/29. Apart from listing the aircraft of each airline at Kai Tak, the letters state:

*"I have been advised by the Chinese Civil Aeronautics Administration that the Certificates of Registration of aircraft owned by your Corporation have been suspended. ...*

*"Article 4 of the Air Navigation (Colonies, Protectorates and Mandated Territories) Order states that aircraft shall not fly unless registered and consequently it will be an offence against this Order for any of the above aircraft to take off from Hong Kong Airport. Article 11 of the Order gives a person authorised by the Governor authority to take steps, by way of detention or otherwise of aircraft, to prevent flight in contravention of the Order.*

*"In accordance with these powers conferred upon me I therefore direct that no aircraft of the China National Aviation Corporation [or Central Air Transport Corporation] shall fly, or attempt to fly to or from Hong Kong Airport." [TNA CO537/5629 #207]*

The Americans thought that the Hong Kong government had no intention of taking action in support of property owned by a discredited Nationalist regime. They thought that colonial officials were prepared to hand over the aircraft to the Communists as soon as London extended formal diplomatic recognition to the People's Republic.

Their plan to act as agents for the Nationalists a failure, Chennault and Willauer realised that the only remaining chance for success lay in transfer of the equipment to American ownership. To do so would require extensive and expensive litigation, as well as support from Washington, and they asked Alfred T Cox if the CIA's Office of Policy Coordination (OPC) would be willing to help. Cox favoured the idea. Indeed, he was prepared to go further.

Cox sent an urgent recommendation to Washington, strongly recommending that the US Government assume the initiative in controlling, and to the extent necessary underwriting the actions that might have to be taken. It was recognised that this would have to be done covertly, and therefore Cox recommended also that the service of the Willauer-Chennault group be utilised as principal agents, acting ostensibly as private citizens already deeply committed to the Chinese Nationalist cause. The reply was simple, direct and firm. Every encouragement should be given to Thomas Corcoran's group to continue their efforts as private citizens, to obtain possession of the CNAC & CATC assets. The US Government did not wish to and did not intend to get involved, not deeming it in the national interest. This information was passed to Willauer and Chennault.

"Despite the disappointing news, Chennault and Willauer sought authority from Corcoran [Thomas G Corcoran - see Cast List and Part 11] and his associates in the United States to proceed with the scheme. Corcoran tested the political waters in Washington and came away impressed. Although the government would not underwrite the project, considerable sentiment existed for action by CAT. The State Department saw the issue less as assistance to the Nationalists - which it continued to oppose - than as implementation of overall American civil aviation policy toward the Soviet Union and its satellites

as spelled out in NSC 15/1. Applied to the Far East, this policy opposed establishment of Communist airlines that could become instruments of Chinese infiltration into South Asia. Fearing that such an airline could emerge from the assets of CNAC and CATC, responsible officials confirmed to Corcoran that it was in the "national interest" to do everything possible to keep the aircraft from the Communists.

"Because US government assistance could be made effective and given openly only to at least apparent American citizens or corporations, Corcoran put together a complicated organisational structure for the recovery operation. At the top of the table of organisation stood C.A.T., S.A., incorporated under liberal Panamanian laws that afforded tax, secrecy and other desirable benefits. Civil Air Transport, Inc. (CATI), was then incorporated under Delaware laws to act as C.A.T., S.A.'s nominee in the legal battles to follow. Because ownership of the disputed aircraft must appear to be American, the relationship between C.A.T., S.A. and CATI was kept secret.

"Although the primary purpose of the operation was to deny the aircraft to the Communists, the corporate documents made provision for the possibility of recovering all the assets of the two airlines, including their aircraft, frozen bank balances, and other property. Expenses incurred during the operation would have first claim on any assets recovered. The remainder, if any, would be divided equally among the stockholders of C.A.T., S.A.: Chennault, Willauer, Thomas G Corcoran, David M Corcoran, William S Youngman and James J Brennan." [Leary PM pp.93-94]

## 1949 - Litigation in Hong Kong

### Hong Kong, 24th November, 1949

Litigation began in the Hong Kong Courts in respect of the following cases:

Case No. 1: CNAC v. 15 named individuals who were defecionist employees. Application for an injunction restraining defendants from dealing with or disposing of assets and claiming damages for trespass.

Case No. 2: CATC v. a further number of named individuals, employees of CATC and also defecionist. Application for an injunction and damages for trespass as in case No.1.

Case No. 3: National Resources Commission v. named individuals who were defecionist employees of this Commission. Application for a similar injunction and claim for damages.

The Court granted an interim injunction on the same day on which it was applied for, i.e. an *ex parte* injunction, which operated against the named employees and their servants or agents. [CO537/5628 #150]

### Hong Kong, 25th November 1949

"The defendants to the injunctions in cases 1, 2 and 3 consulted solicitors and counsel in Hong Kong and they came before the court and obtained counter-injunctions in similar terms to the interim injunctions already granted restraining any dealings with the planes. As a result, therefore, in cases Nos. 1, 2 and 3 respectively there were two injunctions, one obtained by the plaintiff and the other by the defendant." [CO537/5628 #150]

### Washington, 1st December 1949

"The State Department informed His Majesty's Embassy in Washington of their concern at the fate of these aircraft. They understood that the aircraft were impounded and went on to ask whether (whilst fully aware that the legal processes which might have been started could not be influenced in any way), there were any "extraordinary measures" which the Governor of Hong Kong could take to prevent the aircraft falling into the hands of Communists."

"Meanwhile, in Hong Kong, about the 1st December the plaintiff solicitors came to see the Attorney General. They expressed anxiety lest the injunctions obtained by the plaintiffs in cases 1, 2 and 3 would not be obeyed and the assets would be interfered with and dispersed. They pointed out that some of the fifteen employees named as defendants were actually the individuals on the airfield who had custody of the aircraft and they did not know the names of the individuals who had this custody. They contended that the bailiffs of the Supreme Court and the Hong Kong police had a duty to see that the injunctions were not disobeyed. They maintained that the only way to ensure this was for the police to take the names of those individuals and to supply them to the plaintiffs, so that the plaintiffs might, on the basis of this information, make further applications to the court. They would then allege that the individuals in actual physical custody of the aircraft were servants and agents of the defendants against whom injunctions had been obtained

and were in contempt as having already to some extent disobeyed the injunctions and were likely to disobey them still more seriously in the future. The solicitors could not quote authority, nor could the Attorney-General find any grounds for the proposition that in private litigation the bailiffs or the police had any obligation or lawful orders of the court to take action in enforcement of an injunction unless and until orders of the court consequent upon the proceedings and content had been secured by the party interested in enforcement. It appeared to be probable that, if the plaintiffs went to the airfield to inform the individuals whom they found in custody of the aircraft of the injunctions they had obtained to give warnings against disobedience to them, and to take the names of the individuals whom they found there, the plaintiffs might be met by violence and a breach of the peace might ensue. The Hong Kong Government did not want such a breach of the peace and the Attorney General accordingly offered that at an agreed time a sufficient body of police under proper supervision would be present at the airfield and the plaintiffs could, under this protection, go to the airfield, give the warnings and take names.

"The police went to the airfield as arranged, but the plaintiffs did not however arrive. The plaintiffs' solicitors then explained by telephone to the Commissioner of Police that individuals on the Nationalist side were apprehensive of subsequent Communist reprisals. The incident reflected the plaintiff's appreciation that the employees in control of the aircraft were Communist sympathisers and claimed to hold them on behalf of the Communist Government. No further step was taken to challenge the defecting employees possession of the aircraft until the application for a receiver was made in a further case (No. 5) on 6<sup>th</sup> January by CAT Inc., after the American intervention described below. In cases Nos. 1, 2 and 3 the plaintiffs also proceeded in a dilatory manner, and filed no pleadings. This was at a later stage pointed out by the Chief Justice, in reply to American complaint of delay." [CO537/5628 #150]

### **Hong Kong, 3rd December 1949**

"The Governor informed His Majesty's Government (HMG) that he had granted consent, on application, to George Yeh Foreign Minister and various Nationalist officials to function on behalf of the Government of China for the purposes of proceedings in the Courts. Hearings in the injunction cases were adjourned until 21st December." [CO537/5628 #150]

### **Hong Kong, 20th-23rd December 1949**

"Application was made to the Hong Kong Court to join Messrs. Chennault and Willauer as additional plaintiffs in cases Nos. 1 and 2. The application was rejected by the Chief Justice on the grounds that the interests of Chennault and Willauer conflicted with those of the present plaintiffs. (N.B. Chennault and Willauer presumably took the wrong step. They should have started a new case themselves and the previous plaintiffs in cases Nos. 1 and 2 should have withdrawn. Also the step was further wrong because Chennault and Willauer had already by this date sold to CAT Inc.) About the same date, the defendants in cases Nos. 1, 2 and 3 applied to the court for the discharge of all injunctions. Case No. 3 was taken as a test case and the Chief Justice refused to take off the injunctions. He said he was asked to remove them on grounds of fact and law which could only be decided in the action. In the end both parties agreed to the indefinite continuance of the injunction." [CO537/5628 #150]

## **Sale of CATC and CNAC to Chennault and Willauer partnership**

Armed with the necessary authorisation from Corcoran, Chennault and Willauer began negotiations with the Nationalist government in Taiwan to purchase CNAC and CATC. Chinese officials, to Willauer's chagrin, insisted on a purchase price (on paper) equal to the fair market value of the two companies. The Nationalists obviously would never recoup a penny of their investment without American assistance, but the negotiators feared that they would be placed in a bad light should any assets be recovered and the government not get a fair share. As a result, Willauer signed – on behalf of Chennault and himself – personal promissory notes for \$4.75 million, although the notes were later made the obligation of a corporation (CATI). The Executive Yuan approved the sale on 12th December 1949. [Leary PM pp.94-95]

### **12th December, 1949**

"Chinese Nationalist Government and Chennault and Willauer concluded a contract on this date, whereby Chennault and Willauer purchased all the assets wherever situated of CNAC and CATC. It was subse-

quently alleged that the sale was ratified at a meeting of the Board of Directors in Hong Kong by persons acting on behalf of the shareholders of CNAC including persons acting on behalf of the 20% Pan-American interest." [CO537/5628 #150]

Letter from Chennault & Willauer to His Excellency the Minister of Communications, National Government of China, Taipei, Taiwan, dated 5th December 1949:[NB: It was difficult to transcribe this text from the images of a carbon copy - errors may be included.]

*This letter is written to confirm our mutual agreement that whereas:*

*A) The National Government of the Republic of China (hereinafter referred to as the Government) is the legal and beneficial owner of all the outstanding shares of stock of the Central Air Transport Corporation (hereinafter referred to as CATC) and 80% of the outstanding shares of stock of the China National Aviation Corporation (hereinafter referred to as CNAC), and*

*B) We, the undersigned C L Chennault and Whiting Willauer (hereinafter referred to as Chennault and Willauer) desire to purchase and operate the physical assets of the said CATC and CNAC, and to acquire the shares and stock in CATC and CNAC held by the Government.*

*C) These physical assets, a major part of which are now located in the Colony of Hong Kong, are now subject to various injunctions issued by the Supreme Court of the said Colony of Hongkong, with the result that the said CATC and CNAC have been forced to cease their operations and the said physical assets have materially decreased in value, and*

*D) The Government is unwilling to sell or otherwise dispose of the said physical assets or stock except upon the most binding assurance that after such sale or disposition they will not be used in any way for the benefit of or for the carriage of passengers or goods within, to or from the Communist areas of China, and*

*E) The Government is concerned and anxious to secure the future of the loyal staff members of the said CATC and CNAC, and*

*F) The Government is particularly anxious to sell the physical assets and the stock of the said CATC and CNAC to Chennault and Willauer because of the trust and confidence it imposes in them by virtue of their loyal and devoted services during the war of liberation to China and to the cause of the United Nations, because the Government recognizes that Chennault and Willauer have amply demonstrated their ability to operate efficiently air transport services, and because the Government is confident that Chennault and Willauer will always use their best efforts to insure that the said assets will never be used for the benefit, directly or indirectly, of the Communist areas of China but rather will be used in furtherance of the anti-Communist cause.*

NOW THEREFORE it is agreed as follows:

*1) The Government agrees to cause the said CATC and CNAC to sell, and Chennault and Willauer agree to buy, all of the physical assets and such stock as is owned by the Government of the said CATC and CNAC, free and clear of encumbrances, for the sum of United States Currency One Million Five Hundred Thousand Dollars (US\$1,500,000.00) in the case of the CATC assets, and the sum of United States Currency Two Million Dollars (US\$2,000,000.00) in the case of the CNAC assets, and for the further considerations referred to herein.*

*2) Chennault and Willauer agree to pay the said purchase price as follows:*

*a) By issuing to the said CATC three joint promissory notes, numbered serially, each in the sum of United States Currency Five Hundred Thousand Dollars (US\$500,000.00), payable to bearer without interest, and subject to the terms and conditions set forth in the form of note attached to this letter, and*

*b) By issuing to CNAC three joint promissory notes, numbered serially, and payable to bearer without interest, of which the such note shall be in the sum of United States Currency Six Hundred Thousand Dollars (US\$600,000.00), and the second and third such notes shall be in the sum of United States Currency Seven Hundred Thousand Dollars (US\$700,000.00) each, subject to the terms and conditions set forth in the form of note attached to this letter, and*

*c) By causing to be organised a corporation or corporations or other legal entitled under the laws of such country or countries or place or places as Chennault and Willauer may select, to which corporation or corporations or legal entities Chennault and Willauer shall transfer the*

**Right:** Copy of the US Bill of Sale dated 19th December 1949 by means of which Chennault & Willauer as Civil Air Transport, Inc., acquired the assets of CATC and CNAC. (via Prof. J Leeker)

said physical assets and shares of stock of CATC and CNAC in consideration of which the corporation or corporations shall issue its or their promissory notes, payable to bearer without interest, in substitution for the aforesaid notes jointly issued by Chennault and Willauer; the said substitute notes shall be in the same amounts and substantially subject to the same terms and conditions as the notes of Chennault and Willauer for which they are substituted, excepting only that corporation notes shall not be limited to payment out of the said physical assets of CATC and CNAC but shall be fully payable out of the assets of any nature belonging to the new corporation, corporations or legal entities.

3) Chennault and Willauer agree that at any time after the organisation of said corporation or corporations or legal entities referred to in paragraph 2) b) above they will, at the option of the holder of any of the said promissory notes and upon surrender of such note, instead of paying cash, issue or transfer to the holder or holders of each note a proportion of stock or evidence of ownership in the new corporation or corporations or legal entities equal to the proportion the note surrendered bears to all the notes issued, provided, however, that the holders of such note who wishes to exercise such option shall be a person whom Chennault and Willauer in their uncontrolled discretion shall consider a) to be a person free of any connection with or commitments to any Communist forces or powers in China but who rather represent the true forces of anti-Communism in China, and

b) to be a person designated or intended to exercise such option by the authorised representative of the Government or their designees, and further provided that there shall have first been executed between the said corporation or corporations or legal entities and Chennault and Willauer a management contract in form, duration and terms satisfactory to Chennault and Willauer.

4) Chennault and Willauer agree to use their best efforts and to do everything within their power to reduce the said assets to their possession and absolute control.

5) The Government agrees to use its best efforts and to do everything within its power to assist Chennault and Willauer to reduce the said assets to their possession and absolute control.

6) Chennault and Willauer agree that the said assets shall not be used, directly or indirectly, for the benefit of or for the carriage of passengers or goods within, to or from the Communist areas of China.

7) Chennault and Willauer agree to use their best efforts to continue in their employment as many of the legal employees and staff members of the said CATC and CNAC as is reasonably possible and to dispose of the rightful claims of Pan American Airways, if any are proved, in the case of CNAC.

8) This letter and the promissory notes and bills of sale issued hereunder contain the whole and entire agreement between the parties.

If this letter meets with your approval and agreement will you kindly sign and return to us the enclosed duplicate copy.

Yours respectfully,

C.L. Chennault and Whiting Willauer  
signed by C L Chennault, U.S. citizen  
signed by Whiting Willauer, U.S. citizen

the above terms accepted and approved:

signed Kih Chan-dung, Deputy Secretary General of Executive Yuan and ? concurrently Chairman of Board of Directors of CNAC, 13 December 1949.

signed Lin Khao-ding, Vice-Minister of Communications and concurrently Chairman of Board of Directors of CATC, 12 December 1949.

[CO537/5633 RPH3]

In reply, the following letter, dated 12th December 1949, was sent from The Executive Yuan, China to General C.L. Chennault and Whiting

**FORM ACA-500**  
(5-47) **DEPARTMENT OF COMMERCE**  
**PART C** Civil Aeronautics Administration  
**BILL OF SALE**

**For and in consideration of \$1:00 and other good consideration the undersigned owner of the full legal and beneficial title of the aircraft described as follows:—**

<b>Aircraft make</b>	<b>Serial No.</b>	<b>CAA Registration No.</b>
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As per the annexed schedule made a part hereof  
**Does this 19th day of December 1949 hereby sell, grant, transfer, and deliver all of his right, title, and interest in and to such aircraft unto:**  
**Name of Purchaser:** CIVIL AIR TRANSPORT, INC.  
**Address of Purchaser (Number, street, city, zone and State):**  
317-325 South State St., Dover, Del., USA  
and to executors, administrators, and assigns, to have and to hold singularly, the said aircraft forever, and certifies the same is not subject to any mortgage or other encumbrance except:

<b>Type of Encumbrance</b>	<b>Amount</b>	<b>Date</b>
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in favour of  
in testimony whereof we have set our hands and seals this 19th day of December 1949.

**Name of Seller:** C.L. Chennault and Whiting Willauer (L.S.)  
**By (Signature in ink):** (Sgd.) Thomas G. Corcoran  
**Title (if signed on behalf of a Corporation or Partnership or if signed by an Agent):** Attorney-in-Fact

**Acknowledgment:** City of Washington, District of Columbia on this 19th day of December 1949 before me personally appeared the above-named seller, to me known to be the person described in and who executed the fore-going Bill of Sale, and acknowledged that he executed the same as his free act and deed. Given under my hand and official seal the day and year above written.

**Notary Public**  
(Sgd.) Annetta M. Bohan My Commission expires 6/14/56  
Seal Read instructions at right carefully

Willauer, c/o Chennault and Willauer (a partnership pursuant to the laws of Delaware U.S.A.):

We take pleasure in notifying you that your offer to purchase CNAC and CATC has been accepted by the highest authority of the Government of the Republic of China.

The Government of the Republic of China has sold and transferred to you and you are now the sole owners of all the assets, airplanes, spare parts, machinery, tools and other property of whatsoever nature of CNAC and CATC including also all of the shares of stock or other evidence of ownership in CNAC and CATC held by the Government.

This sale and transfer has been made to you in appreciation of promises and undertakings heretofore made by you.

It is hereby certified that the foregoing action is final and complete.

We have instructed the Minister of Foreign Affairs to make all necessary certification of this sale and transfer to any foreign governments upon your request.

We have further instructed all officials of the Government to execute any necessary documents required by you as evidence of your ownership and title.

Signed by Premier Yen Hsi-shan for the Government of the Republic of China.

This English letter is legal and true; any Chinese version is but a translation of it.

[CO537/5633 RPH1, see also Leeker China2 p.31]

A copy of the Bill of Sale from the Chennault and Willauer partnership to CATI is included in TNA files:

**BILL OF SALE**

KNOW ALL MEN BY THESE PRESENTS, that on this Nineteenth day of December, 1949, Chennault and Willauer, a partnership organized and existing under the laws of Delaware, for and in consideration of unconditional bearer notes in the sum of \$3,900,000 United States currency, to be issued by Civil Air Transport, Inc., a corporation organized and existing under the laws of Delaware, and for other good and valuable consideration, do hereby grant, bargain, convey, assign, transfer and set over, unto Civil Air Transport., its successors and assigns, all their right, title and interest, in and to the following described property:

1) All the property and assets real, personal or mixed, tangible and intangible, of whatsoever kind and wheresoever situated, including (without limiting the generality of the foregoing) all airplanes, spare parts, tools, machinery, equipment, real estate, leases, contracts, choses-in-action, bank accounts, accounts receivable, and cash, formerly owned by China National Aviation Corporation as of December 12th, 1949; all the aforesaid property and assets having on that day been sold and transferred to Chennault and Willauer as sole owners by deed of the Government of China;

2) All the property and assets real, personal or mixed, tangible and intangible, of whatsoever kind and wheresoever situated, including (without limiting the generality of the foregoing) all airplanes, spare parts, tools, machinery, equipment, real estate, leases, contracts, choses-in-action, bank accounts, accounts receivable, and cash, formerly owned by Central Air Transport Corporation as of December 12th 1949; all the aforesaid property and assets having on that day been sold and transferred to Chennault and Willauer as sole owners by deed of the Government of China;

Chennault and Willauer do, for themselves and their successors, covenant that on demand of Civil Air Transport Inc., its successors or assigns, they and their successors will execute, acknowledge, and deliver all such further deeds, conveyances and assurances as may be necessary for effecting the intention of these presents and for the better assuring unto Civil Air Transport Inc., its successors and assigns, the property and assets conveyed by these presents.

IN WITNESS WHEREOF Chennault and Willauer have caused these presents to be signed in their name by a partner this Nineteenth Day of December, 1949.

CHENNAULT & WILLAUER  
(Sd.) C.L. Chennault (L.S.), Partner.  
[TNA CO537/5633 RPH5]

In December 1949, Claire L. Chennault and Whiting Willauer acquired the assets of Central Air Transport Corporation (CATC) and China National Aviation Corporation (CNAC). Many of these aircraft had been 'detained' at Kai Tak airport, Hong Kong and were the subject of litigation over rightful ownership. Thomas Corcoran, an associate of Chennault and Willauer in Washington, DC formed a new company, Civil Air Transport, Inc. (CATI), incorporated in Delaware, and ownership of these fleets was transferred to CATI on 19th December 1949 by means of non-standard Bills of Sale (BoS). The ownership of aircraft belonging to Civil Air Transport (CAT) was also transferred to CAT Incorporated, although these aircraft were not directly involved in litigation.

Three BoS documents were prepared. The first covered 43 aircraft acquired from CATC, which were allocated registrations N8300C to N8342C (see *Archive* p.2009/087); the second covered 51 aircraft acquired from CNAC, which were allocated registrations N8343C to N8393C (see *Archive* p.2010/31); and the third covered 26 aircraft belonging to CAT, which were allocated registrations N8400C to N8425C. Details of these 120 aircraft are given in Table 1. Individual Bill of Sale documents were not prepared, so generally the FAA files do not include any information on the Chinese identities of these aircraft. The BoS documents supplied to the Supreme Court of Hong Kong dated 19th December, illustrated in Leeker China2 page 32, show aircraft identities as N-numbers and c/ns or USAAF serial numbers, not XT- registrations. (Note: The master file for FAA documents is that for N8300C, which unfortunately has not yet been obtained from the FAA, so the content is not available for inclusion in this article.)

Intensive legal and political manoeuvring began on two continents. In London former OSS chief William J. Donovan, senior partner in the law firm hired by Corcoran to represent CATI, called at the Foreign Office on 15th December and informed the British that Americans had purchased CNAC and CATC. [William J. Donovan had been a successful New York lawyer, trusted friend of President F. D. Roosevelt and was a former director of the Office of Strategic Studies (OSS), wartime predecessor of the CIA.] He spoke about plans to use the aircraft for a 'peripheral airline', operating non-scheduled service from Tokyo to Singapore, and he stressed the great strategic value of such airlift capability, especially in case of emergency evacuation. Although obviously not expecting courts to exceed their authority, Donovan said, he did urge "all possible speed" in removing legal obstacles to an arrangement that would serve the best interests of Great Britain and the United States. [Leary PM p.95]

#### London, 15th December 1949

"General Donovan and Colonel Heppner (two lawyers retained by C.A.T.) and two United States Embassy officials informed the Foreign

Office of the alleged sale on the 12th December. The price paid for the assets was said to have been \$2 million. It was the intention to register the aircraft in the United States. The Americans hope that the sale and new registration would influence the court's decision when hearings were resumed on the 21st December." [CO537/5628 #150]

"Chargé Julius Homes, US State Department representative who accompanied Donovan to Whitehall, expressed the strong official interest of the American government in the matter. The United States, he told the British, was concerned in seeing all precautions taken to forestall transfer of equipment and facilities to the Communists. He urged greatest speed possible in resolving legal problems. The Foreign Office, cautious as usual, promised to 'act immediately' to review the situation in light of recent developments; however, no action could be taken at present." [Leary PM p.95]

#### Hong Kong, 21st December 1949

Chennault & Willauer and the US Consul General "showed to Governor of Hong Kong a document signed by Nationalist Prime Minister purporting to certify the sale of assets to C.A.T. The Governor stated that clarification of title to the aircraft depended entirely on the outcome of proceedings in the Courts and informed HMG that in his view executive action to place American interests in possession of the aircraft would precipitate "disturbances and sabotage". On the same day, the United States Civil Air Attaché in London informed Foreign Office that Pan-American Airways had confirmed the sale of their 20% interest in C.N.A.C. to C.A.T." [TNA CO537/5628 #150]

#### London, 28th December 1949

"A note was received from the Chinese Embassy in London to the effect that all the shares and assets owned by the Chinese Government in the two corporations had been sold to Messrs. Chennault and Willauer and that Mr. Sing, Assistant Secretary General of the Executive Yuan has been authorised to act on behalf of the Chinese Government in all matters affecting the two corporations."

"Another Note of the same date gave the text of a letter addressed by the Chinese Premier to Chennault and Willauer accepting their offer to purchase the assets. This Note stated that Chennault and Willauer were "now the sole owners of all the assets, airplanes, spare parts, machine tools and other property" of C.N.A.C. and C.A.T.C. and that the sale has been made "for consideration of the promises and undertakings heretofore made". This latter Note urgently requested HMG to advise the Colonial Secretary in Hong Kong of "the above certificate of sale". [CO537/5628 #150, FO371/84786 GA81/72]

"The United States Civil Air Attaché called at the Foreign Office accompanied by a Mr. Malcolm Fooshee, a New York lawyer. They reiterated their concern lest the question of ownership be undecided on the date when the Communist Government was formally recognised. Mr. Fooshee said that the aircraft were registered as American owned by the Civil Aeronautics Administration on the 19th December, and that the application made by Chennault and Willauer to be associated with other plaintiffs had been disallowed by Hong Kong courts. The Foreign Office stated that the matter was still *sub judice* and that HMG could not contemplate any extra legal political action. Americans asked for early information on the state of proceedings (which was promised). Mr. Fooshee went on to say that Governor of Hong Kong was discriminating against C.A.T. and instanced a report that certain "radio rights" had been cancelled. The Governor of Hong Kong was immediately asked for a general report and for explanation of the allegations regarding radio rights."

"(The radio rights issue were linked by Mr. Fooshee with the other general question as an example of an "uncooperative" attitude. It was quite extraneous, and was subsequently explained to the satisfaction of the Americans.)" [CO537/5628 #150]

#### London, 30th December 1949

"First interview between United States Chargé d'Affaires and Sir William Strang [See Cast List]. The United States Chargé d'Affaires stated that C.A.T. officials were not allowed access to the aircraft but that pro-Communist employees had access. Sabotage was occurring and vital parts were being removed. Could anything be done to expedite the legal procedure? The title of the United States company to the aircraft should be "clearly established". United States Chargé d'Affaires also asked for a statement to the effect that we shared the concern of the United States Government that the aircraft should not fall into Communist hands, for communication to Washington; and whether recognition of the Chinese Peoples' Government by HMG would affect the legal proceedings." [CO537/5628 #150]

### London, 4th January 1950

"A third Note was received from the Chinese Nationalist Ambassador stating that 20% interest in C.N.A.C. formerly owned by Pan American had been transferred to C.A.T. Inc.; that the corporate name of the Chennault/Willauer Corporation is "Civil Air Transport Inc." and that the Government of China "for good and valid consideration given to and received by it" has sold all the assets of C.N.A.C. and C.A.T.C. to C.A.T. Inc. The Note went on urgently to request HMG to make a full certification of this Note and also the previous one dated 28th December to Hong Kong. The substance of this Note and the two previous Notes were telegraphed to Hong Kong." [TNA CO537/5628 #150]

### Hong Kong questionnaire

#### Hong Kong, 30th December 1949

"Letter was addressed to the Governor of Hong Kong by the Chief Justice, who stated that in the course of the Court hearings the question of which Chinese Government was recognised by HMG at various dates would arise. The letter enclosed a questionnaire setting out the points on which the Chief Justice asked for guidance. These were as follows:

(1) Does His Majesty's Government recognise the Republican Government of China (the Nationalist Government) as the *de jure* government of China?

(2) If not, when did His Majesty's Government cease so to recognise that government?

(3) Is the Central People's Government or any other government recognised as the *de jure* government and, if so, from what date?

(4) Has the Republican Government ceased to be the *de facto* government (either at time of moving seat of government to Formosa or otherwise) and if so, from what date?

(5) Is any other government recognised as the *de facto* government and, if so, from what date?

(6) What is the status of Formosa? Is Formosa part of China or is it foreign territory vis-à-vis China?

These questions were transmitted to HMG for consideration. (For replies see under 14th February below)." [CO537/5628 #150]

#### London, 31st December 1949

"The whole question was considered at a meeting at the Foreign Office with the Colonial Office and the Foreign Office legal advisers.

The main conclusions were:

(a) that recognition might or might not affect the court's decision;

(b) that HMG could not comment on the validity of the sale of the assets to C.A.T., but that if the U.S.A. wished to inform the court of the sale a copy of the Chinese Ambassador's Note of 28th December would be made available to them.

(c) that the Colonial Office would enquire about the allegations of sabotage and that if they were confirmed we presumed that the U.S. interests would take the appropriate steps to request the Courts to protect the machines.

(d) that HMG should warn the U.S.A. that there were no measures which we could take to forestall or frustrate the court's decision, but that steps would be taken by either side (i.e. by appealing) to prolong the proceedings and by these means to immobilise the aircraft.

(e) that the next step to expedite proceedings lay in U.S. hands as plaintiffs. The Governor of Hong Kong was informed on the same day of the U.S. Charge Affaires demarche and also informed that notification of the sale might be made available to the Americans. The Governor was also asked for a report on the allegations of sabotage." [CO537/5628 #150]

#### London, 2nd January 1950

"A complete brief, incorporating these decisions, and also pointing out the policy considerations affecting our relations with both China and U.S.A., was considered by Ministers. Mr Hector McNeil and Mr Creech-Jones discussed the question with Mr Attlee, who agreed to the Americans being informed that:

(i) His Majesty's Government sympathised with their anxiety to prevent the aircraft falling into Communist hands,

(ii) His Majesty's Government did not think that it would be right and proper or desirable to interfere with the normal courses of justice;

(iii) That if the verdict in the Hong Kong Court went against

the United States claimants, they might, by process of appeal in Hong Kong, and ultimately to the Privy Council, ensure a delay of 12 months or so (though it is now felt that this estimate may have been over-optimistic in view of the slackening of the pressure of work in the Privy Council, who might be able to deal with an appeal in a considerably shorter time);

(iv) That if and when it became legally possible in accordance with the decisions of the Courts for the aircraft to be flown out of Hong Kong by the American parties to the dispute, we would do everything possible to facilitate their departure." [CO537/5628 #150]

#### London, 3rd January 1950

"This Ministerial statement was communicated to the U.S. Chargé d'Affaires verbally by Mr Berthoud, Foreign Office." [CO537/5628 #150]

#### London, 4th January 1950

"The assurance given by Mr Berthoud verbally was telegraphed to Washington, together with statement that United States Embassy here had been informed that we did not wish to give the Communist Government of China a gratuitous weapon with which to damage our large business interests in China." [CO537/5628 #150]

#### London, 14th February 1950

"Replies to the Chief Justice of Hong Kong's questionnaire (see under December 30th) as to the dates on which HMG recognised *de facto* and *de jure* the Nationalist and Communist Governments of China, were given in writing as follows:

(1) His Majesty's Government in the United Kingdom do not recognise the Nationalist Government (Republican Government) as the *de jure* government of the Republic of China.

(2) Up to, and including midnight of the 5th/6th January, 1950, His Majesty's Government recognised the Nationalist Government as being the *de jure* Government of the Republic of China and as from midnight of the 5th/6th January, 1950, His Majesty's Government ceased to recognise the former Nationalist Government as being the *de jure* Government of the Republic of China.

(3) As from midnight of the 5/6th January, 1950, His Majesty's Government recognised the Central People's Government as the *de jure* Government of the Republic of China.

(4) His Majesty's Government recognise that the Nationalist Government has ceased to be the *de facto* Government of the Republic of China. It ceased to be the *de facto* Government of different parts of the territory of the Republic of China as from the dates on which it ceased to be in effective control of those parts.

(5) His Majesty's Government do not recognise any Government other than the Central People's Government of the People's Republic of China as the *de facto* Government of the Republic of China. Attention, however, is invited to the second sentence of the answer to Question 4.

(6) In 1943, Formosa was part of the territory of the Japanese Empire and His Majesty's Government consider that Formosa is still *de jure* part of that territory. On the 1st December, 1943, at Cairo, President Roosevelt, Generalissimo Chiang Kai-shek and Prime Minister Churchill declared that all the territories that Japan had stolen from the Chinese, including Formosa, should be restored to the Republic of China. On the 26th July, 1945, at Potsdam, the Heads of the Governments of the United States of America, the United Kingdom and the Republic of China reaffirmed that "the terms of the Cairo Declaration shall be carried out". On October 25th, 1945, as a result of an Order issued on the basis of consultation and agreement between the Allied Powers concerned, the Japanese Forces in Formosa surrendered to Chiang Kai-shek. Thereupon, with the consent of the Allied Powers, administration of Formosa was undertaken by the Government of China. At present, the actual administration of the Island is by Wu Kuo-Cheng who has not so far as His Majesty's Government are aware, repudiated the superior authority of the Nationalist Government."

"Copies of the Questions and Replies were made available to the United States Embassy." [CO537/5628 #150]

On 14th February 1950, Mr F S Tomlinson of the Foreign Office sent the following letter to Mr Arthur R Ringwalt at the United States Embassy in London:

"You will be aware that in the cases involving disputed ownership of the C.N.A.C. and C.A.T.C. aircraft and assets in Hong Kong, it soon became apparent that questions would inevitably arise as to which gov-

ernments were at various dates recognised as the *de jure* and *de facto* governments of China, and that the status of Formosa might also be relevant to the cases before the Court. In this connection, in accordance with normal practice in such cases, the Chief Justice of Hong Kong referred a questionnaire to the Secretary of State for Foreign Affairs.

"I now enclose a copy of the text of this questionnaire, together with the answers to it which have now been sent for transmission to the Chief Justice of Hong Kong. It would be appreciated if you could ensure in transmitting these to your government that attention is drawn to the confidential character of this information which has not yet been produced in the Hong Kong Court." [FO371/83302 FC1025/6]

#### Hong Kong, 15th February 1950

In Hong Kong The Chief Justice of Hong Kong received the answers of HMG to the questions regarding recognition which he had formulated on the 30th December for the purposes of cases 1 and 2. (In his judgement in cases 5 and 6 the Chief Justice referred to and relied upon the answers which he had received to these questions)." [CO537/5628 #150]

#### Washington, 16th February 1950

"The State Department represented to His Majesty's Embassy in Washington their concern at the reply given to question 4 of the Chief Justice's questionnaire, because of the implication of *de facto* recognition at the time of the sale of the assets on 12th December."

#### Hong Kong, 17th February 1950

"On the 17th February the Chief Justice formulated a further question which was transmitted to the Foreign Office, asking whether HMG recognised the Chinese People's Government *de facto* at any date between the 1st October and 5th January, i.e. between the dates when the Government was set up and the date of formal *de jure* recognition. (For reply see under 13th March)." [CO537/5628 #150]

#### London, 13th March 1950

"A reply to the Chief Justice of Hong Kong's question of 17th February concerning *de facto* recognition of the Chinese People's Government was formulated; the reply stated that His Majesty's Government recognised that in the period between 1st October 1949 and the 5/6th January, 1950, the Central People's Government was the *de facto* Government of those parts of the territory of the Republic of China over which it has established effective control and if control was established after the 1st October, 1949, as from the dates when it so established control. This reply was transmitted to Hong Kong on 15th March." [CO537/5628 #150, see also FO371/83302 & 83449]

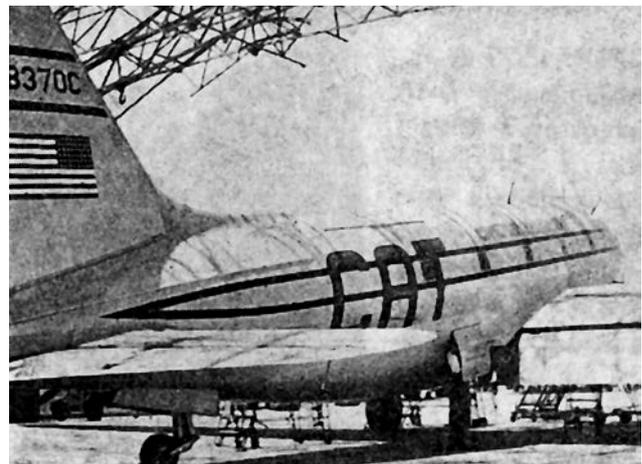
### Registration of aircraft by the American CAA

Activity in Washington centred on securing American registration for the aircraft, an essential step to establish ownership in any legal proceeding and a point the British had raised during the meeting with Donovan. H F Amrine of the State Department's Far Eastern division and Civil Aeronautics Administration head Delos W Rentzel met at the Statler Hotel on 17th December to discuss this problem. Amrine wrote that Rentzel "expressed his desire to cooperate by cutting any corners necessary to expedite placing the aircraft concerned under US registry". In response to Rentzel's query about State's position, Amrine replied "that the Department's chief interest is to see the aircraft moved out of Hong Kong and beyond the reach of Chinese Communists legal action through Hong Kong courts or of physical seizure by the Communists." Only one problem stood in the way, Amrine and Rentzel agreed: Pan American still owned 20% of CNAC and would no doubt protest transfer of registration. The new American owners had to establish clear title before registration documents could be issued.

Negotiations between Pan American and the State Department were always delicate. The government did not want to give the appearance of telling a private company how to act or to ask for favours that would have to be repaid. In a meeting with W L Bond on 19th December, Deputy Assistant Secretary Livingston T Merchant attempted to suggest, with elaborate circumlocution, the department's position.

Bond got the message. The next day, he and T V Soong, representing the Nationalist government, negotiated the sale of Pan American's interest in CNAC for \$1.25 million. Within hours, the CAA waived airworthiness inspection requirements and granted American registration to the aircraft in Hong Kong.

While lawyers in London and Washington piled up papers and fees, Chennault and Willauer faced a financial crisis. They needed money to



**Above:** Curtiss C-46F N8370C was formerly a CNAC aircraft XT-134 and is seen here with CAT (I) titles and a reversed US flag. (via Prof. J Leeker)

pay preliminary legal costs and to bribe Communists with access to the disputed aircraft for information on registration numbers and other data required by the CAA to issue American documentation. [Leary PM pp.95-96]

Most of the 94 FAA registry files (for N8300C to N8393C) contain two applications for registration (Form ACA-500 Part B, 5-47). The first is dated 19th December 1949 and is signed by Thomas G Corcoran, Third Vice President & Secretary. The address given for Civil Air Transport, Inc. is 317-325 South State St., Dover, Del., USA, i.e. the registered address of the company. The second application is dated 20th December 1949 and is signed by Whiting Willauer, Director & Vice President. The address given is c/o 1016 Investment Bldg, 1511 K St., N.W. Washington 5, D.C., the address of Corcoran's law firm. The second application was ignored by the CAA, who issued certificates of registration (Form ACA-500 Part A, 5-47) to CATI on 19th December 1949 using the Delaware address.

There are no bills of sale for individual aircraft transferred from Chennault & Willauer to CATI. Instead there is a schedule of aircraft for each group (N8300C to N8342C, ex CATC; N8343C to N8393C, ex CNAC, and N8400C to N8425C, ex CAT) attached to the group bills of sale, which are only filed in the 'master' file for each group, i.e. for N8300C, N8343C and N8400C. For the remaining files, there is a Certification and Recordation Work Sheet only, which refers back to the bills of sale documents. The schedules include aircraft that defected to China in November 1949, so were not available for sale to Chennault & Willauer in December, and they do not give any indication of previous Chinese identities.

In the case of the ex-CAT aircraft (N8400C to N8425C), the applications for registration are dated 5th January 1950 and are signed by Thomas G Corcoran, using the Delaware address, but for this group the name of applicant is given as C.A.T., Inc., which is believed to be a separate legal entity to Civil Air Transport, Inc., although we will refer to both companies collectively as "CATI".

These N8300C/N8400C series registrations were progressively cancelled in groups on dates that may be associated with the shipments of aircraft to the USA. Our analysis indicates that these cancellation dates are also associated with the location of the aircraft, as follows:

- > Registrations of aircraft located on Taiwan were cancelled in 1950;
- > Registrations of aircraft shipped from Hong Kong to the USA were cancelled in 1952 or 1953;
- > Registrations of aircraft that were not handed over to Chennault & Willauer, e.g. because they defected to China in November 1949, were cancelled on 7th October 1965. One could say that these registrations were not taken up (NTU) although certificates of registration were issued but never used. [MSB 05Jun2006]

### Meetings with the Governor of Hong Kong

#### Hong Kong, 29th December 1949

"Willauer and Heppner (see 15th December above) saw the Governor of Hong Kong and informed him of the sale which had taken place on 12th December. They indicated that sale meant that in their view United

States markings should now be put on them but said they were ready to await recognition by His Majesty's Government of the validity of the sale before doing so." [CO537/5628 #150]

Hong Kong authorities, however, remained intransigent. Despite protests by Chennault and Willauer, local courts refused to permit the new owners access to the aircraft. On 4th January 1950, General Donovan and legal associate Richard P Heppner, wartime head of OSS in China, called on Governor Grantham. Donovan, the governor reported, "insisted that the planes be handed over to him without further ado, for, he said, if it had not been for the United States, Britain would have lost the war. Moreover, he added, if I did not do as he demanded he would make it hot for me with authorities in London." Grantham refused to issue an executive order to deliver the aircraft to their new owners. The following day, at midnight, Great Britain formally recognised the Communist regime." [Leary PM p.96]

#### **Hong Kong, 4th January 1950**

"Meanwhile General Donovan, on behalf of Chennault and Willauer in an endeavour to secure the release of the C.N.A.C. and C.A.T.C. property, went to see the Governor of Hong Kong accompanied by the United States Consul General.

"Donovan had given no indication of his intention to hold a press conference and discuss such interviews. Much publicity was given in the entire press of Hong Kong to what he had said. A statement was issued by the Hong Kong Government on the following day (see below) in which the Hong Kong Government confirmed the refusal expressed at the interview to take "executive action" in a matter *sub judice*. Donovan's action made it for the future all the more difficult for the authorities of Hong Kong to take any action to help, even assuming the propriety of so doing."

A transcript of Donovan's press conference, which was also attended by Chennault and Willauer, is included in CAT Bulletin, Volume 3, No.5, dated 15th February 1950. [FO371/84786 GA81/72]

The following statement was issued by the Hong Kong Government on 6th January 1950:

*"On the morning of Wednesday, the fourth January, His Excellency the Governor at the request of the American Consul General received a visit from Major General Donovan, who was accompanied by the Consul General. It was explained that General Donovan is acting as legal adviser (in the United States) for a company named CAT Incorporated, which has recently been formed and which has purchased from Major General Chennault and Mister Willauer all assets of CNAC and CATC which are claimed to have been sold to them by the National Government of China.*

*"In response to this enquiry General Donovan was informed by His Excellency that information had been received to the effect that certification of sale to General Chennault and Mister Willauer had been presented by the Chinese Embassy to the Foreign Office in London. In answer to General Donovan's further enquiry His Excellency explained that while information certification of the sale had been received by the Governor there was, as far as they know, no acknowledgement by His Majesty's Government that ownership in the assets of CNAC and CATC had passed. Nevertheless, at the interview General Donovan advanced the opinion that by reason of the existence of such certification of sale it was open to the Hong Kong Government and appropriate for that Government by executive action now to place CAT Incorporated in possession of CNAC and CATC assets at present in the colony. His Excellency was unable to accept this contention and so informed General Donovan to whom he stressed the fact that the assets in question were at present sub judice in proceedings pending before the Supreme Court.*

*Also upon the request of the American Consul General, General Donovan, who was accompanied by the Consul General, Mister D B Blake of Messrs. Wilkinson and Grist, and Mister Hepner [sic], visited the Attorney General in the afternoon of the fourth January. On that occasion General Donovan again strongly argued his view that the Hong Kong Government (CAT Incorporated not being a party to pending proceedings) was free by executive action to place CNAC and CATC assets in the colony in the possession of CAT Incorporated. The Attorney General intimated that he would not be prepared to advise the action suggested by General Donovan could be taken independently of decision of the courts.*

*In the course of the above discussions and, also independently of them, by personal application the Acting Director of Civil Aviation, request*

*was made by representatives of the American Civil Aeronautical Administration that they should be permitted to inspect and thoroughly examine the aircraft belonging or, as claimed, formerly belonging to CNAC and CATC which are at Kai Tak, and also to initiate changes in markings upon the aircraft rendered necessary in their view by the fact that the aircraft in question have been admitted to registration in the United States. Having regard to the fact that the aircraft in question are the subject of pending proceedings in the Supreme Court and that by consent of all parties to such proceedings injunctions continue in force in relation to them, the Director of Civil Aviation was reluctant to give authority to the officers concerned immediately upon application. Consent has now been given to the officers to visit Kai Tak but the stipulation has been made that no interference with the aircraft may take place. It is considered by government necessary that this stipulation be made since the action contemplated by the officers as above described might result in a breach of the peace with consequent danger to the aircraft in question and other aircraft at Kai Tak.*

*Request has also been received by the Director of Civil Aviation by Messrs. Wilkinson and Grist acting for CNAC and CATC that passes to permit access to Kai Tak should now be withdrawn. This request, which also refers to sale of CNAC and CATC assets to the new company CAT Incorporated, remain under consideration.*

*At the interviews above mentioned reference was made to the existence of danger of sabotage to the aircraft in question by the continued presence for maintenance of the persons whose passes it is desired to withdraw. Government is aware that risk exists generally and not only because of the presence of persons above mentioned and a special detail of police have at all times been present at Kai Tak for this reason and to prevent any breach of the peace. [FO371/84782 GA81/13]*

These meetings are described in less diplomatic terms by the Governor in his telegram No. 9 dated 5th January 1950 to the Secretary of State for the Colonies:

"C.N.A.C. – C.A.T.C. dispute

"Major General Donovan who arrived here yesterday called on me this morning with United States Consul General and Hepner to represent Chennault and Willauer interests. This afternoon together with local lawyer Blake they saw Attorney General.

"2. Donovan, who is breathing fire and thunder, emphasised to Attorney General following points

(a) Background is that there are many people in United States who are opposed to Marshall Aid. If we fail in to fall in more with American ideas this would react on Britain and the Empire in less United States help.

(b) C.A.T. Incorporated are the rightful owners. The U.S. Government have so informed the British Government and therefore the Executive in Hong Kong could and should assist C.A.T. to obtain possession of the aircraft (i.e. take executive action to hand the planes over to Donovan and his friends or by exercise of ingenuity intervene in pending court proceedings to secure acknowledgement that ownership and right to possession of aircraft must be with C.A.T. Inc.)

(c) As a concrete step passes to enter Kai Tak should be removed from the dissident staffs at present physically in occupation of the workshops and aircraft.

"3. A further request was that two United States Civil Aeronautics Administration Officials should go to Kai Tak and inspect the C.N.A.C. and C.A.T.C. aircraft there. It also appeared that they intended to put some American registration marks on them. Reluctance by the Director of Civil Aviation to agree to this infuriated Donovan who instanced it as another example of Hong Kong Government lack of cooperation and obstructiveness although Attorney General explained risk of breach of peace. Donovan said he would report to his Government that the Attorney General was obstructive and non cooperative.

"4. While we deplore the unpleasantness this matter is causing between us and the Americans and have given fullest thought to possible means to meet them we have also to think of the effect on the Chinese Communists of any intervention by Government. Plain fact is that action by transfer to American interests has come too late. Donovan's attitude is not conducive to harmony particularly when he lets it be known that he does not believe that judiciary in Hong Kong is not controlled or, at least, influenced by Executive.

"5. We are agreeing to request for two C.A.A. officials to enter Kai Tak but warning them that they cannot interfere with aircraft subject to court

injunctions. We are reluctant to withdraw passes to Kai Tak still held by dissident personnel since this would tend to throw responsibility for maintenance and protection of the property on our shoulders and because risk exits of disorder if passes are withdrawn. With present labour troubles we are anxious to avoid increasing burden of police. C.N.A.C. and C.A.T.C. are unable even to produce accurate list of persons holding passes. We are however asking them for this and suggesting that if passes are withdrawn they should endeavour to make mutual arrangements with the other side for maintenance work to be continued.

"6. Finally, I must stress that throughout dispute Nationalist side never made real effort to re-enter into possession and it was not for government to evict the defectors if proceedings for contempt not brought by litigants. Early December Nationalists proposed to take proceedings but got cold feet at last moment. Defecting employees have therefore been in undisturbed physical occupation all the time.

"7. There have been no reports of sabotage (other than case with C.A.T. resulting in two years sentence) but it is likely that parts have been removed to prevent efforts to fly aircraft away surreptitiously." [FO371/84782 GA81/13]

#### **Hong Kong, 5th January 1950**

"Donovan wrote a letter to the Attorney General suggesting that the Hong Kong court be moved to take cognisance to new facts, i.e. the Chinese Nationalist certificate of that the assets had been sold. He said that the Attorney General should himself appear either directly or as an *amicus curae* to make a submission in this sense. He added that C.A.T. Inc. was ready to explore with the Hong Kong Government any suitable method of enabling C.A.T. Inc. to obtain possession of the aircraft by executive action. He made the point that this executive action might be possible if British recognition of the Chinese Communists (which was hourly anticipated) was deliberately expressed to be non-retroactive. The Attorney General in reply simply acknowledged this communication but said he was not willing to continue the discussion."

"(To provide for the non-retroactivity of recognition is beyond the powers of His Majesty's Government; the question is a legal one for decision by the courts in accordance with the law of the United Kingdom and Hong Kong; see also below 6th January.)" [CO537/5628 #150]

#### **London – January 1950**

##### **London, 5th January 1950**

"Fooshee and United States Embassy representative again called at the Foreign Office, bringing with them copy of the United States Consul-General's telegram describing the interview Donovan had had with the Governor. Apart from the points made above in interview Donovan had apparently also stated that aircraft had originally been paid for by American taxpayers under Lend Lease; and had stressed the security danger to Hong Kong and to Formosa if the aircraft found their way to the Chinese People's Government. (Simultaneously the Governor's telegram describing the interview (in somewhat different tone and terms) added also that Donovan had complained that American officials had not been allowed to paint United States registration markings on the aircraft. When the Attorney General explained the risk of breach of the peace Donovan let it be known that he did not believe that the judiciary was not influenced by the executive. Governor explained that officials of the United States Civil Aeronautics Administration were being allowed to enter Kai Tak but they would not be allowed to interfere with the aircraft.)

"At the discussion with Mr Fooshee the Foreign Office were again pressed very hard to recognise the validity of the sale and to telegraph authority to the Governor of Hong Kong to provide certified copies of the Chinese Ambassador's notes on this subject. Mr Fooshee went on to complain of the uncooperative attitude of the Governor as alleged by General Donovan.

"The Foreign Office replied (1) that the certificates from the Chinese Nationalist Government would be made available to the court in Hong Kong if the United States interests wanted to produce them there; (2) that the validity of the sale was a question for the court and not a matter for decision by executive action. In the event, the United States interests applied to have these certificates, ... their request was met, and the certificates were put in cases 5 and 6." [CO537/5628 #150]

At midnight on 5th/6th January HMG ceased to recognise the former Nationalist Government *de jure*. On the same date HMG recognised

the Chinese People's Government *de jure*.

##### **London, 6th January 1950**

"The Foreign Office were given copies of telegrams from Donovan to Fooshee, which stated that acknowledgement by the British Government that ownership of the assets had passed to the Americans was "an essential element in our whole position". The telegram instructed Fooshee to insist that the Foreign Office should recognise the sale and also that the Foreign Office should "provide" that recognition of the Chinese People's Government would not be retroactive. (This point had been made to the Attorney-General in Hongkong previously: see 5th January.)"

"The Colonial Office telegraphed to the Governor of Hong Kong informing him that both the Chinese and American Embassies had asked that an affidavit covering delivery of the Note and certifying its text might be made available." [CO537/5628 #150]

##### **London, 10th January 1950**

"Copies of various telegrams from the United States Consul General in Hong Kong to United States Embassy were handed to Foreign Office on 10th January. The United States Embassy pressed the Foreign Office urgently to consider the suggestion in one of these telegrams that as C.A.T. were not parties to query the original injunctions the Foreign Office had the possibility of recommending executive assistance to the United States interests "despite seeming opposition of Attorney General."

##### **London, 11th January 1950**

"Certified true copies of the Chinese Embassy notes were prepared and given to the United States Embassy on 11th January."

"Sir William Strang's second interview with United States Chargé d'Affaires. Sir William Strang expressed the concern of the Foreign Office and Colonial Office at the unscrupulous threats used by General Donovan in Hong Kong especially as the presence of the United States Consul General at the interview appeared to give official countenance to Donovan's actions. The United States Chargé d'Affaires admitted that General Donovan was "a difficult man to curb". The United States Chargé d'Affaires asked two questions: (a) if judgement went in favour of C.A.T., would we facilitate departure of the aircraft from Hong Kong and (b) would we recognise C.A.T.'s ownership on the strength on the Chinese Embassy notes, if the courts left the question of ownership undecided?" [CO537/5628 #150]

##### **London, 12th January 1950**

"The United States Embassy were informed in reply to their question of 10th January that while it might be true that C.A.T. itself is not *sub judice*, the courts were deciding the question whether the aircraft belonged to C.A.T.C. and C.N.A.C. at the time of their sale to C.A.T. It was pointed out to the Americans that the purchase of C.N.A.C. and C.A.T.C. by the Chennault/Willauer Combine could not confer on the latter any greater title to the aircraft than that possessed by C.N.A.C. and C.A.T.C. at the time of sale, which was admitted to be in dispute.

"On the same day a letter was received from the United States Embassy enclosing a memorandum by Fooshee, which included extracts from reports of Donovan's press conference and also of a report from a Scripps-Howard journalist saying that the aircraft are "serving the British as a good bait for diplomatic settlement with Red China." The United States Embassy were informed verbally that no cases of sabotage were known to us." [CO537/5628 #150]

##### **London, 13th January 1950**

"We were informed from Hong Kong that General Donovan proposed to discontinue the actions, so that all injunctions would be discharged. Before doing so, Donovan wanted an assurance from the Governor that if the injunctions were discontinued executive action would be taken immediately to place C.A.T. Inc. in possession of the aircraft." [CO537/5628 #150]

##### **London, 14th January 1950**

"We replied in writing to United States Embassy on the points they raised on 28th December regarding sabotage and discrimination against C.A.T. The reply also contained answers to the two questions raised by the United States Chargé d'Affaires in the interview with Sir W Strang on 11th January (see 11th January above)." [CO537/5628 #150]

##### **London, 20th January 1950**

"The United States Chargé d'Affaires was dissatisfied with the replies

to his questions given in the letter of 14th January. Accordingly a meeting was arranged at the Foreign Office and United States Embassy officials, accompanied by Mr Foo-Shee, were received by Sir Eric Beckett. Mr Foo-Shee re-drafted the two questions put previously by the United States Chargé d'Affaires in the form of the following single question:- "If the Plaintiffs discontinued all actions so that the Court orders obtained by the Defendants would fail, would HMG be willing to authorise the Hong Kong authorities to take executive action to place the assets effectively in the hands of C.A.T. Inc."

"To this Sir E Beckett drafted the following reply: "If there should be a situation where there is no injunction or similar order applicable to those planes, and there are no proceedings before the Court relating to them, and there is no judgement by the Hong Kong Court deciding to whom the planes belong, the actions, if any, which the executive authorities could legally take to facilitate the departure of the planes from Hong Kong would depend on the manner in which the factual situation developed, and it is not possible to forecast how it would develop. The hypothesis, however, on which the question depends seems rather an improbable one."

"It became clear during the course of discussions that despite the frequent references to it as "complete" and legally "clear", the nature of the transaction between Nationalist and American interests concerning the share holdings in the two corporations was extremely vague. Mr Foo-Shee repeated accusations of unhelpfulness and delaying tactics. He was asked to quote a single instance when the Courts had failed to act as quickly as possible and was unable to do so." [CO537/5628 #150]

#### **London, 21st January 1950**

"The United States Embassy transmitted another statement from the State Department to the effect that certification that the interests and assets of the two Chinese corporations had been transferred to Chennault and Willauer should be accepted by all Governments under the accepted principles of international law. Further protection of this property "as an American interest" was requested.

"A United States Embassy official added verbally that the reason for this communication was that Chennault and Willauer feared that a hiatus might occur in the course of the proceedings if all injunctions were lifted and sometime elapsed before an appeal could be lodged, during which the Communists might endeavour to fly the aircraft away (i.e. previously, the help of HMG had been asked in enabling the Americans to fly away the aircraft; now HMG were asked to prevent the Communists from doing the same thing.)

"NOTE: Similar State Department communication was given to the Governor in Hong Kong).

"The Governor of Hong Kong was asked to notify HMG as quickly as possible of any decision by the Court in favour of the Communists; at the same time he was asked to send air mail copies of pleadings and injunctions." [CO537/5628 #150]

#### **Statement by the US Department of State**

The following letter dated January 10th, 1950, was sent to the Foreign Office by Arthur R Ringwalt of the American Embassy, London:

"The Department of State has directed the American Consulate General at Hong Kong and this Embassy urgently to deliver to the British authorities concerned the following statement:

*"The Department of State has been officially informed by the Government of the Republic of China that it had sold its interest in the China National Aviation Corporation to General C L Chennault and Mr Whiting Willauer, a partnership formed under the laws of Delaware. Furthermore, the Department of State has been informed by counsel for Pan American Airways that it had disposed of its 20% stock interest in the China National Aviation Corporation to the Government of the Republic of China. On January 3, 1950, the Chinese Embassy in Washington, acting on behalf of its Government, communicated to the Department of State a certification by Premier Yen Hsi-shan of the transfer of the entire assets of the China National Aviation Corporation and the Central Air Transport Corporation to Civil Air Transport, Inc. The Communist element in the Chinese management of the China National Aviation Corporation is the only party known to the Department of State to be questioning in any way the legality of the transfer and hence the title of Civil Air Transport, Inc. to the assets of the China National Aviation Corporation. The Department of State recognizes Premier Yen Hsi-shan as representing the legal Government of*

*China with which the United States maintains full diplomatic relations."*  
[FO371/84782 GA81/12]

#### **Hong Kong, January-February 1950**

##### **Hong Kong, 6th January 1950**

"In Hong Kong, Case No. 5 was instituted: C.A.T. Inc. v. Chennault and Willauer, claiming possession of the assets of C.N.A.C. Case No. 6 the assets of C.A.T.C. After the issue of the writ in Case No.5 the plaintiffs issued on the same day an application to the Court for the appointment of a receiver of the assets of C.N.A.C. whose function it would be to hold these assets in safe custody until the Court had decided to whom they belonged." [CO537/5628 #150]

##### **Hong Kong, 9th January 1950**

"On the 9th January the Court rejected the application for a receiver made on the 6th January in case No. 5 on the grounds that the plaintiff had not in this application sufficiently established its title to the property." [CO537/5628 #150]

##### **Hong Kong, 20th January 1950**

"On 20<sup>th</sup> January the plaintiff in case No. 5, i.e. C.A.T. Inc., filed a further application for the appointment of two receivers supported by further affidavit evidence as to their title." [CO537/5628 #150]

##### **Hong Kong, 21st January 1950**

"Meanwhile, in Hong Kong the defendants in case No. 5 (i.e. Chennault and Willauer) applied for and obtained leave to serve a third party notice on the persons who were defendants in case No. 1 (i.e. the named Communist employees of C.N.A.C.) The defendants in case No. 5 entered an appearance to the third party notice served on them and filed affidavits opposing the application for a receiver. These affidavits forecast the argument which was subsequently to be made that as the aircraft were in the possession and control of the Communist People's Government an order that they should be delivered to a receiver would violate the sovereign immunity of that Government. Corresponding applications for a receiver and for the serving of third party notices were made in case No. 6 which referred to the C.A.T.C. assets. The application for a receiver in cases No. 5 and 6 were considered at long hearings which took place (a) in case No. 5 on 1st-4th February and (b) in case No. 6 on the 8th-9th February. In both cases the Chief Justice reserved judgement which he delivered on the 23rd February." [CO537/5628 #150]

##### **Hong Kong, 25th January 1950**

"A request was received by the Governor of Hong Kong from solicitors acting for the defendants that consent might be given under the Representation of Foreign Powers Ordinance for a certain Colonel Liu to function on behalf of the Chinese People's Government for the purposes only of intervening, maintaining and prosecuting all actions by or against C.N.A.C. In response to an enquiry by the Governor, he was informed that HMG were not insisting on the use of the diplomatic channel for the authorisation of this officer, and that a certificate issued by a consular officer would be considered adequate. Instructions were sent to Peking that His Majesty's Consuls in various Chinese posts should be so informed." [CO537/5628 #150]

##### **Hong Kong, 1st February 1950**

"The Governor of Hong Kong informed HMG that copies of pleadings could not be supplied because of lack of spare copies, but transmitted a summary of the cases at issue, which gave for the first time some detail of what was happening in the Courts. The Governor added that he would notify HMG when a judgement was likely. (Extracts from this summary were furnished two days later to the American Embassy)." [CO537/5628 #150]

##### **Hong Kong, 6th February 1950**

"General Donovan suggested to the Governor of Hong Kong that the United States Government might intervene independently in the case claiming that any aircraft owned by C.N.A.C. were provided as lend-lease equipment. (That aircraft were supplied as lend-lease was earlier mention by Donovan in his Press interview in Hong Kong on 2nd January)." [CO537/5628 #150]

##### **Hong Kong, 13th February 1950**

"The Governor of Hong Kong replied by letter to the United States Consul General's allegations regarding sabotage of the aircraft and other matters. The Governor pointed out that ailerons had been removed to prevent the aircraft flying away; that it would not be possible in any case to fly the aircraft away since the amount of fuel allowed



**Left:** N8412C was a former CATC C-46D as XT-816, seen here with CATI at Kai Tak wearing a new fuselage logo.  
(Ian D Johnson collection)

to the employees by the oil companies was the minimum to allow them periodically to start the engines in the course of routine maintenance. With regard to the visit of officials to the airport the Governor pointed out that he had no objection to the visit, but stated that to allow the visit to be made for the purpose of painting United States markings on the aircraft would prejudice the issue before the courts. The Governor went on emphatically to repudiate accusations of partiality against Americans." [CO537/5628 #150]

#### **Hong Kong, 23rd February 1950**

"On 23rd February the Chief Justice rejected the application for receivers in both cases 5 and 6. In both cases he found that the property was in the possession and control of the Chinese People's Government and that it would be a violation of the immunity of a foreign sovereign Government, to make an order directing that the property in its possession and control should be delivered over to a receiver. He based his finding that the property was in the possession and control of the Chinese People's Government on the fact that the aircraft etc., were in the physical control of employees who declared that they held it on behalf of the Chinese People's Government and accepted orders from high officers of the Chinese People's Government; further, these employees had been supported and paid by the Chinese People's Government from about the time that cases Nos. 1 and 2 began and the assets of the companies in Hong Kong were immobilised under the injunctions that were then made.

"It might be difficult to challenge this finding in the case of C.A.T.C. because C.A.T.C. was not incorporated, and therefore operated as a department of the Chinese Government. The employees of C.A.T.C. would therefore always hold the property on behalf of the Chinese Government whatever that might be. After the 5th-6th January the Chinese Government for the purposes of Hong Kong law was the Chinese People's Government. On the other hand, the finding appears to be more doubtful in the case of C.N.A.C. because C.N.A.C. was a registered company and the employees consequently could only be regarded as holding the property on behalf of the company which employed them. The Chief Justice correctly stated in the judgement that a company has no immunity even if all the shares are Government-owned. It seems therefore more difficult to hold that a foreign government must be regarded as in possession and control of property on British territory when the property is merely in the physical possession of employees of a company who choose to say that they hold it on behalf of a foreign government. This last observation is relevant to the question of appeal which is discussed later. While therefore the main ground of the decision was violation of the immunity of a foreign sovereign government, the Chief Justice proceeded to give other reasons which might have supported the conclusion apart altogether from the question of immunity.

These other reasons were as follows:-

"The Chief Justice examined the contract of the 12th December and stated that he was not satisfied that the plaintiff (C.A.T. Inc.) had acquired the ownership of this property by virtue of this contract. He doubted whether C.N.A.C., the Corporation which had owned the 'planes, had ever adopted the contract and divested itself of its ownership in a manner which would be required according to the memorandum and articles of that Company.

"Immediately after he had delivered his judgement the Chief Justice saw counsel for both sides in his Chambers and informed them that in case it was desired to lodge an appeal he was taking every possible step to facilitate the speedy hearing of such an appeal; in particular he had ordered that the record should be prepared with the utmost despatch, and he was making arrangements so that a full court could sit at any time after an appeal was lodged.

"On the same day that the judgements were delivered in cases 5 and 6, applications were made to the Chief Justice by, and on behalf of, the employees of C.N.A.C. and C.A.T.C. who were the defendants to the injunction granted in cases 1 and 2, requesting the removal of the injunctions covering the aircraft. The solicitors acting for the plaintiffs in cases 1 and 2, who had obtained these injunctions, then withdrew from the legal proceedings. The Attorney General, Hong Kong, has suggested in conversation the following explanation of this unexpected action. In the first place, according to the case of the Nationalist – American side, all interest in these 'planes had been transferred to C.A.T. Inc., the plaintiffs in cases 5 and 6. Further, in the case of C.A.T.C. at any rate, (always a department of the Government of China), it may have been felt after the 5th-6th of January hopeless for these solicitors to contend that they were instructed by the body that now was the Government of China. However, what is quite clear is that this same firm of solicitors was acting for C.A.T. Inc. and therefore knew of the applications to discharge the injunctions. The Foreign Office have been able to find no explanation why they did not appear on behalf of C.A.T. Inc. and oppose the discharge of the injunctions or apply for a fresh interim injunction freezing the aircraft while C.A.T. Inc., was considering whether it would appeal against the decision which the Chief Justice had just given, and in regard to which he had already said that he was conferring every possible facility for the appeal. In the circumstances it would not appear that the Chief Justice had any other course open to him than to discharge the injunctions."  
[CO537/5628 #150]

#### **London, 23rd February 1950**

"HMG were informed by Governor of Hong Kong (telegram 199) of the judgement, and that there now seemed no obstacle to the departure of the aircraft at any time, other than the question of registration.

"On the same day the State Department expressed to His Majesty's Embassy their great apprehension at the effect which the news of the release of the aircraft would have on opinion in the United States. The Foreign Office were asked by the Embassy in Washington for a full statement at the earliest possible moment, in view of American mention of the serious effect on Anglo-American relations." [CO537/5628 #150]

"Officials in Hong Kong came under great pressure from all sides as the courts deliberated on the various claims to the aircraft. The United States, through Consul General Karl L Rankin, demanded that American property be protected. The Communists threatened to seize a British-owned warehouse in Shanghai for every aircraft denied to them. Under the circumstances, the court's decision never was in doubt. Officials of the colony did not wish to offend the new government in Peking and possibly endanger the safety of Hong Kong. On 23 February a local court dismissed CATI's application for the appointment of a receiver, voided all injunctions, and ruled that the aircraft were the rightful property of the People's Republic under the principle of sovereign immunity.

"Reaction in Washington was immediate and sharp. Secretary of State Acheson told a press conference on February 24 that the United States had 'vigorously protested' to authorities in Hong Kong and London. In a speech to the Senate, influential Republican William F Knowland termed the release of the aircraft to Peking "*one of the greatest blows to the non-Communist world that has been delivered in that part of the world.*" The United States, Knowland announced, should make it clear to London that "the British can no longer expect assistance from us to help stop communism in Europe while the British Government, by their recognition of the Communist regime (in China), and by this latest action of turning over 71 planes, actually accelerate the spread of communism in Asia.

"Whitehall remained unmoved by Acheson's complaints and Knowland's bombast. The British government, a spokesman for the Foreign Office noted on February 27, could not and would not interfere in the workings of Hong Kong's courts. Two weeks later, the first shipment of one thousand tons of spare parts left Hong Kong by boat for the mainland. At the same time, reports appeared that two thousand residences near Shanghai's Hungjiao airport had been commandeered for newly arrived Russian military advisers. The Nationalist government demonstrated its concern by sending agents to sabotage the aircraft. Time bombs went off at Kai Tak airport on the morning of 2 April, damaging seven transports.

"American pressure on the British continued unabated. In London, diplomat Arthur R Ringwalt called almost daily at the Foreign Office to express concern. Senator Knowland led the opposition in Congress and threatened to fight against appropriations for British assistance programmes. On March 27 Secretary Acheson asked British Ambassador Sir Oliver Franks to make sure that Governor Grantham was aware "*of the importance of the larger issues involved, including US-UK relations.*" There is even an unconfirmed report that President Truman wrote to Prime Minister Clement Attlee concerning the matter." [Leary PM p.97]

#### **London, 10th February 1950**

"The United States Embassy expressed themselves as extremely concerned about the latest developments. Copies of two more telegrams from the United States Consul General in Hong Kong were given to the Foreign Office, stating that application for receivership had been denied on the grounds that the aircraft had to be maintained.; and secondly, protesting that the Chief Justice seemed about to decide serious questions of title and international law on the evidence on affidavit alone. One telegram stated "Both American and British lawyers representing C.A.T. Inc. feel that this course, if pursued by Chief Justice, is a denial of process of law.

"The United States Embassy had been telephoned from Washington at midnight, and they added that President Truman was personally interested in the matter." [CO #150]

#### **London, 14th February 1950**

"A long Note was received from United States Embassy, which rehearsed the assurance given the Americans on the 3rd January, and went on to say that the action of the executive in Hong Kong favoured the Communists, instancing the fact that representatives of the Communist faction had been permitted to pack spare parts and equipment and prepare the aircraft for rapid departure. Secondly, the note referred to the only evidence of ownership before the Court being affidavits, and stated that the United States Government considered that

in the absence of firm instructions from London to the Governor, requiring him to take executive action, the Communists would remove the aircraft and United States interests would be irretrievably prejudiced. The note further stated that Legal Counsel had suggested that the Attorney General of Hong Kong should ask the Court to issue an injunction restraining the disputants of the property pending such decision, but "the same result could presumably be obtained through executive action." The note concluded by saying that if the aircraft fell into Communist hands, this could not fail to have damaging repercussions to our mutual positions in the Far East and by requesting (as of extreme urgency) that instructions be sent to Hong Kong so that American interests in the case would be "*adequately protected*" and the aircraft not allowed to fall into Communist hands.

"This Note was left with Sir William Strang by the United States Chargé d'Affaires who added verbally that the American parties had not been given an opportunity of putting their case to the Courts as they would wish and if the Communists were able to take advantage of a hiatus in the legal proceedings, the Americans would feel they had not received full justice. With regard to access to the aircraft, the Foreign Office mentioned the danger of a serious breach of the peace. Americans insisted that (vide the tramway strike) the Executive could successfully take a strong line. The Americans were reminded that Hong Kong was not governed from Whitehall, that the Governor was fully aware of HMG's concerns and attitude in the matter and that it was the policy of HMG to leave the Governor, in whom the had the fullest confidence to determine his own administrative actions." [CO537/5628 #150]

#### **London, 15th February 1950**

"With regard to recent complaints at the attitude of the Hong Kong Government, the United States Embassy were informed that it would be more helpful if their representations were made in Hong Kong. The Foreign Office pointed out that it appeared remarkable that the American Consul General, for example, was not in a position to satisfy the State Department on the various questions on sabotage, access to the airfield, Court procedure, etc., on which the State Department had found it necessary to make continuous representations in London. In the second place, the effect of our constant repetition by telegraph to the Governor of these allegations would imply a lack of confidence in his ability to act in accordance with the policy of HMG. The United States Embassy were also verbally reminded that the whole of the present legal tangle was due to the past refusal of Pan-American Airways to use their influence to move C.N.A.C. out of Hong Kong when so advised by the Governor." [CO537/5628 #150]

#### **London, 22nd February 1950**

"A representative of the United States Embassy called at the Foreign Office again complaining that the Governor of Hong Kong appeared frequently to be without clear and immediate guidance on the legal issues, and also that authorities in Hong Kong were "*leaning over backwards*" in their endeavours to please the Communists.

"A further telegram from the Governor of Hong Kong (No. 185) was received, stating that it was likely that the cases would be dismissed, that the injunctions would lapse and that there would soon be no legal obstacle to the removal of the aircraft by the Communists. To this and to Hong Kong telegram No. 193 of the following day the Colonial Office immediately replied that HMG had always assumed that there was the possibility of appeal; that they did not understand why an appeal had not been made; and that if anything went wrong it was essential that HMG should be able to demonstrate that it was the fault of the United States parties to the case." [CO537/5628 #150]

#### **London, 28th February 1950**

"Mr Bevin saw the United States Chargé d'Affaires, and assured him that all legal steps would be taken to prevent the departure of the aircraft until the position was reviewed in consultation with a law officer from Hong Kong; Mr Bevin understood that certain formalities were required as regards registration of the aircraft, and hoped that this would afford an opportunity for applying executive delaying tactics." [CO537/5628 #150]

#### **Hong Kong, 28th February 1950**

"Certificates of registration of the aircraft in Communist China were presented to the Governor by the Communist parties to the dispute." [CO537/5628 #150]

#### **London, 1st March 1950**

"Attorney General Hong Kong arrived in London for discussions mentioned under 28th February above." [CO537/5628 #150]

**Right:** Letter from Col Chen of CATC to Max Oxford the Hong Kong DCA on 22.2.50 concerning the Communist Government's issue of new Certificates of Registration for the former CATC aircraft remaining in China. (via Prof. J Leeker)

### 3rd March 1950

"His Majesty's Government were informed by Governor of Hong Kong that he had now received admissible copies of registration certificates from the Peking Government, and that United States Consul-General had represented to him that to accept any certificates of registration except those issued in the United States would amount to confiscation of the aircraft. The Governor stated that he expected to be asked for permission from the Communists to fly the aircraft on test, and he sought guidance from HMG on the whole position." [CO537/5628 #150]

### Hong Kong, 4th March 1950

"The Governor was informed that it was now proposed to submit the whole case to the Law Officers of the Crown for their opinion. In the meantime he was requested to ensure that none of the aircraft were allowed to take off.

"Since under Article 18 of the Chicago Convention an aircraft cannot be validly registered in more than one State (registration in a contracting state as required by Colonial Air Navigation Order of 1949 which applies to Hong Kong) the Governor was told that he had power to prevent any flight even for the purpose of testing aircraft until the question of which registration was valid has been cleared up. This presumably cannot be done until the ultimate question of title has been decided." [CO537/5628 #150]

### Hong Kong, 10th March 1950

"C.A.T. Inc., lodged appeal in Hong Kong against the judgement given on 23rd February. No fresh injunctions were however applied for." [CO537/5628 #150]

## The Communist argument

"Peking was no less active. Foreign Minister Chou En-lai charged on 4 April that the British had been impeding departure of the aircraft and had failed to protect them adequately. The Hong Kong authorities, Chou said, would be held "fully and directly responsible" for any damage to Chinese property. Later Peking indicated that a favourable settlement of this matter was a prerequisite to establishment of full diplomatic relations." [Leary PM p.98]

On 22nd February 1950, Col. C L Chen, Managing Director of CATC, wrote to Mr Max Oxford, Director of Civil Aviation, Honk Kong, as follows:

*"I have the honour to inform you that I have received instructions from HE Mr Chung Chek Ping, Director of the Civil Aeronautics Administration of the Central People's Government, to inform you that the Certificates of Registration issued to the aircraft of the Central Air Transport Corporation by the erstwhile National Government have now been replaced by Certificates of Registration of the People's Government to the said aircraft.*

*"As formerly, inasmuch as the aircraft will be engaged in flights to Hongkong as occasion demands, the management of the Central Air Transport Corporation will furnish you with photostatic copies of the Certificates of Registration similar to those which are carried on each plane.*

*"You will recall that the Certificates of Registration which are now replaced by the present ones were suspended by the orders of the erstwhile Nationalist Government after the 1st October, 1949, on which date the Central People's Government took office in Peking. I am instructed to inform you that the former Certificates are no longer valid, and that the only valid Certificates of Registration are those which are now herewith being presented to you for your information."* [JFL 23Jan2011, Leeker China2 p.34] See Archive page 2009/111 for the schedule of aircraft attached to this letter.

During March, the Attorney General of Hong Kong, Mr Griffin, was interviewed by a lawyer for the Chinese Communist interests. The following is a summary of his argument against propriety of employing Air Navigation Order to delay departure of aircraft to China:

## CENTRAL AIR TRANSPORT CORPORATION

Kwan Sing Building,  
218 Taiping Road (South),  
Canton, China.  
February 22nd, 1950.

Mr. Max Oxford,  
Director of Civil Aviation  
Status Square,  
Victoria, Hongkong.  
Sir,

I have the honour to inform you that I have received instructions from H.E. Mr. Chung Chek Ping, Director of the Civil Aeronautics Administration of the Central People's Government, to inform you that the Certificates of Registration issued to the aircraft of the Central Air Transport Corporation by the erstwhile National Government have been now replaced by Certificates of Registration of the People's Government to the said aircraft.

As formerly, inasmuch as the aircraft will be engaged in flights to Hongkong as occasion demands, the management of the Central Air Transport Corporation will furnish you with photostatic copies of the Certificates of Registration similar to those which are carried on each plane.

You will recall that the Certificates of Registration which are now replaced by the present ones were suspended by the orders of the erstwhile Nationalist Government after the 1st October, 1949, on which date the Central People's Government took office in Peking. I am instructed to inform you that the former Certificates are no longer valid, and that the only valid Certificates of Registration are those which are now herewith being presented to you for your information.

Yours faithfully,  
(Sgd.) Col. C.L. Chen,  
Managing Director,  
Central Air Transport Corp.  
(Chopped) Department of Civil  
Aviation.  
Certified true copy  
(Sgd.) —  
Hong Kong  
26.11.51.

"(a) America have never yet directly challenged Chinese ownership in the courts. Afraid so to do because will be met by answer ... and by convincing proof of continuing Chinese ownership, and sale to America not valid. For instance in CNAC sale of shares precluded by memorandum and articles of association; also sale must be established as good according to Chinese law. Indirect challenge already defeated in the courts.

"(b) Registration of aircraft a matter between America and the Chinese. No concern of Hong Kong.

"(c) Registration never ceased in China. Head of Nationalist Air Administration came to Hong Kong ... for grounding planes to prevent them going to join the Communists. Notified D.C.A. that "all certificates temporarily suspended not (repeat not) cancelled. No marks of suspension on certificates and no evidence that register in China in fact altered or that even suspension of validity ordered.

"(d) Article No.18 of Convention registration remains in China unless it can be shown that it was changed.

"(e) Consequently, as far as Hong Kong is concerned, the only valid registration at this date is Chinese." [Telegram No.305, 22nd March 1950, TNA FO371/84787 GA81/86]

## Shipments of aircraft stores to China

The use of the Colonial Air Navigation Order prevented the detained aircraft from taking off from Kai Tak but it did not prevent the Communist sympathisers from shipping out aircraft spares to mainland China. When these shipments were reported in the USA, members of Congress put the State Department under additional pressure. From 10th May 1950 the first Order in Council prevented further shipments. (This will be discussed in Part 13B.)

*"Nine hundred cases, believed spare parts, have been loaded from Bailey's Yard on two lighters believed intended for shipment by SS "Empire Dirk" supposed to be clearing for Kobe in two or three days. Destination, however, would probably be changed to China. Ship is owned by Mollers but chartered to Yuen Tung Company, which is known to have extensive dealings with communist China."* [CO537/5628 #127, FO371/84784 GA81/60]

Seventeen spare engines were in the cases which recently left for Communist China. [CO537/5630 #222]

*"Admiral Hardy"* left last night with 4,000 cases. To date about 10,000 tons have been shipped away. [CO537/5630 #227]

*"Empire Dirk"* has returned. [CO537/5630 #232]  
3,800 cases of parts loaded on Norwegian SS *"HosHouw"* (?) for

Tsingtao. (11May1950) [CO537/5630 #366]

Hong Kong officials detained 50 crates of aeroplane parts already aboard a ship ready to sail to Tsingtao, on the Chinese mainland. [CO537/5633 #413]

"We have reason to believe that more shipments may be going out described generally (and correctly) as "machinery". Only control we have is on arms and ammunition, and we have no reason to believe that material shipped out comes in that category." [FO371/84787 GA81/98 HK#321 27Mar50]

Further ship leaving with a cargo of spares on April 5th. [GA81/102]

**Table 1: Civil Air Transport, Inc. fleet list**

**Ex CATC aircraft: registered 19Dec49**

N-reg.	type	c/n	s/n	p/i	cancelled	fate (s/i)
N8300C	CV240-14	100	n/a	XT-600	18Dec52	N6631C
N8301C	CV240-14	126	n/a	XT-602	18Dec52	N4925V
N8302C	CV240-14	127	n/a	XT-604	18Dec52	N6632C
N8303C	CV240-14	129	n/a	XT-606	18Dec52	N6633C
N8304C	CV240-14	130	n/a	XT-608	18Dec52	N100A
N8305C	CV240-14	131	n/a	XT-610	07Oct65	PRC: 401
N8306C	C-46F-1-CU	22417	44-78594	XT-5..	18Dec52	N4872V
N8307C	C-46F-1-CU	22422	44-75899	XT-524	18Dec52	N4875V
N8308C	C-46F-1-CU	22445	44-78622	XT-5..	18Dec52	N4878V
N8309C	C-46F-1-CU	22442	44-78619	XT-5..	18Dec52	N4877V
N8310C	C-46F-1-CU	22419	44-78596	XT-508	18Dec52	N4861V
N8311C	C-46F-1-CU	22453	44-78630	XT-526	18Dec52	N4879V
N8312C	C-46F-1-CU	22435	44-78612	XT-5..	18Dec52	N4876V
N8313C	C-46F-1-CU	22436	44-78613	XT-5..	18Dec52	N4874V
N8314C	C-46F-1-CU	22415	44-78592	XT-5..	18Dec52	N4873V
N8315C	C-46F-1-CU	22455	44-78632	XT-5..	18Dec52	N4870V
N8316C	C-46F-1-CU	22410	44-78587	XT-5..	18Dec52	N4871V
N8317C	C-46F-1-CU	22423	44-78600	XT-5..	18Dec52	N4862V
N8318C	C-46F-1-CU	22418	44-78595	XT-5..	18Dec52	N4869V
N8319C	C-46D-15-CU	33674	44-78278	XT-5..	07Oct65	To PRC?
N8320C	C-46D-15-CU	33641	44-78245	XT-5..	22Dec52	N1383N
N8321C	C-46D-15-CU	33595	44-78199	XT-5..	18Dec52	N2049A
N8322C	C-46D-20-CU	22265	44-78442	XT-5..	18Dec52	N1386N
N8323C	C-46A-60-CK	449	43-47379	XT-522	18Dec52	N2050A
N8324C	C-47A-90-DL	20388	43-15922	XT-5..	12Aug53	N1795B
N8325C	C-47A-25-DK	13186	42-93291	XT-5..	07Oct65	To PRC?
N8326C	C-47A-25-DK	13296	42-93390	XT-5..	12Aug53	N4660V
N8327C	C-47A-90-DL	20346	43-15880	XT-5..	22Jul53	N1796B
N8328C	C-47A-90-DL	20160	43-15694	XT-5..	12Aug53	N1797B
N8329C	C-47B-25-DK	32588	44-76256	XT-5..	22Jul53	N4663V
N8330C	C-47B-15-DK	26704	43-49443	XT-5..	22Jul53	N4661V
N8331C	C-47B-25-DK	32578	44-76246	XT-5..	22Jul53	N1799B
N8332C	C-47B-20-DK	26906	43-49645	XT-5..	12Aug53	N4662V
N8333C	C-47B-1-DL	20891	43-16425	XT-5..	07Oct65	To PRC?
N8334C	C-47B-1-DL	20817	43-16351	XT-5..	22Jul53	N1798B
N8335C	C-47B-5-DK	25888	43-48627	XT-5..	22Jul53	N68780
N8336C	C-53-DO	7313	42-47371	XT-5..	22Jul53	N1794B
N8337C	C-53-DO	4859	41-20089	XT-5..	12Aug53	N1793B
N8338C	DC-3A-269B	2183	n/a	XT-5..	22Jul53	N1791B
N8339C	DC-3A-269B	2184	n/a	XT-5..	22Jul53	N1792B
N8340C	DC-3A-269	2130	n/a	XT-5..	22Jul53	N1789B
N8341C	DC-3A-269B	2185	n/a	XT-5..	22Jul53	N1790B
N8342C	DST-A-207	1954	n/a	XT-5..	12Aug53	N1788B

**Ex CNAC aircraft: registered 19Dec49**

N8343C	C-54B-1-DC	10442	42-72337	XT-10.?	26Feb53	FAC692
N8344C	C-54B-10-DO	18370	43-17170	XT-102	26Feb53	N4270
N8345C	C-54B-1-DC	10538	42-72433	XT-10.?	26Feb53	N4665V
N8346C	C-54B-1-DC	10510	42-72405	XT-105	26Feb53	N4837V
N8347C	C-54D-10-DC	10748	42-72463	XT-10.?	26Feb53	N4890V
N8348C	C-47A-75-DL	19313	42-100850	XT-1..	26Feb53	N4884V
N8349C	C-47A-80-DL	19620	43-15154	XT-1..	07Oct65	To PRC?
N8350C	C-47B-1-DL	20806	43-16340	XT-1..	27Jan53	N?
N8351C	C-47B-25-DK	32847	44-76515	XT-1..	07Oct65	To PRC?
N8352C	C-47A-75-DL	19452	42-100989	XT-1..	26Feb53	N4883V
N8353C	C-47B-25-DK	32817	44-76485	XT-1..	07Oct65	To PRC?
N8354C	C-47B-25-DK	32530	44-76198	XT-133	07Oct65	VR-HEP
N8355C	C-47A-65-DL	19062	42-100599	XT-1..	07Oct65	To PRC?
N8356C	C-47-DL	4573	41-18481	XT-1..	07Oct65	To PRC?
N8357C	C-47-DL	6151	41-38692	XT-1..	26Jan53	N75097
N8358C	C-47A-65-DL	18901	42-100438	XT-1..	07Oct65	To PRC?
N8359C	DC-3-268C	2261	n/a	XT-1..	26Mar53	BU HK
N8360C	DC-3-228B	2135	n/a	XT-1..	26Mar53	BU HK
N8361C	C-53-DO	4927	42-6475	XT-1..	07Oct65	To PRC?
N8362C	C-53-DO	4871	41-20101	XT-1..	27Jan53	N26H
N8363C	C-46A-60-CK	419	43-47348	XT-1..	26Feb53	N1381N
N8364C	C-46A-60-CK	421	43-47350	XT-1..	26Jan53	N1382N
N8365C	C-46A-60-CK	369	43-47298	XT-1..	27Jan53	N2053A

N8366C	C-46A-60-CK	448	43-47377	XT-1..	26Mar53	N2051A
N8367C	C-46A-60-CK	387/364CK				
			43-47316	XT-122	26Feb53	N4894V
N8368C	C-46A-60-CK	429	43-47358	XT-1..	26Jan53	N?
N8369C	C-46F-1-CU	22451	44-78628	XT-132	10May50	XT-850, B-850
						XT-852, B-852
N8370C	C-46F-1-CU	22449	44-78626	XT-134	10May50	
						N2024A
N8371C	C-46A-60-CK	416	43-47345	XT-1..	26Feb53	XT-848, B-848
N8372C	C-46A-60-CK	427	43-47356	XT-138	13Apr50	
						N1379N
N8373C	C-46A-60-CK	425	43-47354	XT-1..	26Jan53	N4863V
N8374C	C-46F-1-CU	22428	44-78605	XT-1..	27Jan53	To PRC?
N8375C	C-46A-60-CK	460	43-47389	XT-1..	07Oct65	
N8376C	C-46A-60-CK	410/438CK				
			43-47339	XT-1..	11Jan50	NTU (see note)
N8377C	C-46A-60-CK	415	43-47344	XT-1..	26Feb53	N90619
N8378C	C-46D-15-CU	33371	44-77975	XT-154	07Oct65	To PRC?
N8379C	C-46D-15-CU	33372	44-77976	XT-156	10May50	XT-854, B-854
						XT-856, B-856
N8380C	C-46D-10-CU	32950	44-77554	XT-158	10May50	
						N4658V
N8381C	C-46D-10-CU	32960	44-77564	XT-160	26Feb53	N1380N
N8382C	C-46D-10-CU	32954	44-77558	XT-162	26Jan53	N1386N
N8383C	C-46A45-CU	30196	42-96534	XT-164	26Jan53	N1377N
N8384C	C-46A-45-CU	30377	42-96715	XT-166	26Feb53	N2028A
N8385C	C-46A-45-CU	30380	42-96718	XT-168	26Feb53	N2023A
N8386C	C-46A-45-CU	30222	42-96560	XT-170	26Feb53	To PRC?
N8387C	C-46A-45-CU	30369	42-96707	XT-172	07Oct65	
N8388C	C-46F-1-CU	22379	44-78556	XT-30	22Mar50	XT-30, B-130
						N4881V
N8389C	C-46F-1-CU	22459	44-78636	XT-34	26Jan53	B-136
N8390C	C-46F-1-CU	22465	44-78642	XT-36	22Mar50	B-138
N8391C	C-46F-1-CU	22500	44-78677	XT-38	22Mar50	N4882V
N8392C	C-46F-1-CU	22508	44-78685	XT-42	27Jan53	N8393C
N8393C	AT-6F	121-42649		XT-4.?	26Feb53	

**C.A.T., Inc. (Ex CAT aircraft): registered 5Jan50**

N8400C	C-46F-1-CU	22502	44-78679	XT-44	22Mar50	XT-44, w/o
N8401C	C-46F-1-CU	22461	44-78638	XT-46	22Mar50	B-146
N8402C	C-46F-1-CU	22510	44-78687	XT-48	22Mar50	B-148
N8403C	C-46F-1-CU	22526	44-78703	XT-50	22Mar50	B-150
N8404C	C-46F-1-CU	22466	44-78643	XT-52	22Mar50	B-902
N8405C	C-46F-1-CU	22370	44-78547	XT-54	22Mar50	B-154
N8406C	C-46D-20-CU	22215	44-78392	XT-802	22Mar50	XT-846, B-846
						XT-868, B-868
N8407C	C-46D-20-CU	22218	44-78395	XT-804	13Apr50	XT-858, B-858
N8408C	C-46D-20-CU	22228	44-78405	XT-806	10May50	XT-870, B-870
N8409C	C-46D-20-CU	22232	44-78409	XT-808	13Apr50	XT-860, B-860
N8410C	C-46D-20-CU	22236	44-78413	XT-810	10May50	w/o 6Dec49
N8411C	C-46D-20-CU	22345	44-78522	XT-812	07Oct65	XT-862, B-862
N8412C	C-46D-20-CU	22351	44-78528	XT-816	10May50	XT-844, B-844
N8413C	C-46D-20-CU	22353	44-78530	XT-818	22Mar50	XT-840, B-840
N8414C	C-46D-20-CU	22359	44-78536	XT-824	22Mar50	XT-864, B-864
N8415C	C-46D-20-CU	22362	44-78539	XT-826	10May50	XT-842, B-842
N8416C	C-46D-20-CU	22363	44-78540	XT-828	22Mar50	XT-866, B-866
N8417C	C-46D-20-CU	22366	44-78543	XT-830	13Apr50	XT-872, B-872
N8418C	C-46D-10-CU	32878/33152	44-77482	XT-832?	13Apr50	XT-874, B-874
N8419C	C-46D-10-CU	33132	44-77736	XT-834?	13Apr50	XT-876, B-876
N8420C	C-46D-10-CU	33153	44-77757	XT-836?	13Apr50	XT-801, B-801
N8421C	C-47B-1-DL	20681	43-16215	XT-801	07Mar50	XT-983, B-983
N8422C	Cessna 195	7296	n/a	XT-884	13Apr50	XT-987, B-987
N8423C	Cessna 195	7313	n/a	XT-889	13Apr50	XT-981, B-981
N8424C	Cessna 195	7297	n/a	XT-886	13Apr50	XT-985, B-985
N8425C	Cessna 195	7314	n/a	XT-888	13Apr50	

[Archive; FAA registry files; MSB 29Jul2004; production lists; SMD 22Mar2005; USCAR 01Jan1964]

#### Notes:

1. Generally the FAA files do not indicate the previous Chinese (XT-) registrations. Bills of Sale are not included for the individual ex-CATC and ex-CNAC aircraft.
2. To be pedantic, the ex-CAT aircraft (N8400C to N8425C) were transferred to C.A.T., Incorporated of 317-325 South State St., Dover, Del., USA on 5th January 1950, not to Civil Air Transport, Inc. The Bill of Sale gives the seller as: "C. L. Chennault and Whiting Willauer doing business as Civil Air Transport."
3. Most of the aircraft in Taiwan in 1950 were allocated new XT-numbers before being re-registered with the B-prefix but same new numbers (shown above), perhaps as late as June 1951.
4. In the FAA file for N8376C there is a letter from Duncan C Lee, Attorney for Civil Air Transport, Inc. (on Corcoran, Youngman & Rowe letterhead) dated 9th January 1950 that says: "We are advised by the Civil Air Transport, Inc. office in Hongkong that the registration under Registration Number 8376-C of Curtiss Aircraft 483-CK was made in error and that no aircraft bearing that Serial Number was ever transferred to the company. Apparently this error was due to a mistake in transmission since I find upon rechecking the original cable that Number 483-CK followed immediately upon a listed Serial Number 438-CK. I assume that the effect of what happened is that nothing will be considered under Number 8376-C and that the registration numbers of the other aircraft in this series remain unaffected. P.S. I am returning herewith Certificate Number 8376-C for cancellation." [MSB 28Aug2004]
5. The aircraft shipped to the USA in 1952 or 1953 and cancelled there at the owners request in 1952 or 1953 were later restored to the USCAR with Bills of Sale showing the previous owner as C.A.T., S.A., of Panama. (See Table 2, to be included in Part 13B.)
6. On 31st August 1953, CAT Inc. informed the CAA of a change of address from 11823 Sherman Way, North Hollywood, California to 7600 Clybourn Avenue, Sun Valley, California.
7. On 30th June 1965 Aviation Parts & Equipment Company of 7600 Clybourn Avenue, Sun Valley, California 875-0560 returned to the FAA 16 envelopes addressed to Civil Air Transport, Inc. These were for the 16 aircraft cancelled on 7th October 1965. These envelopes were addressed to CATI at 317 South State Street, Dover, Delaware and forwarded from there to Mr Thomas G Corcoran in Washington, D.C. "Civil Air Transport, Inc. was dissolved several years ago with this corporation taking over its remaining assets. No aircraft were transferred. Civil Air Transport, Inc., long before dissolution, had disposed of all aircraft formerly registered to it."

#### Analysis of data

Analysis of the data in Table 1 leads to the following conclusions:

1. Aircraft that escaped to Taiwan were cancelled from the USCAR at the owners' request in 1950 and registered in Taiwan with new XT-numbers and later with B-... registration prefix. We will consider these aircraft again in Part 14.
2. Aircraft that were detained at Kai Tak were cancelled from the USCAR at the owners' request in 1952 or 1953. Most of these were subsequently restored to the USCAR (with different N-numbers) on sale from C.A.T., S.A. of Panama but these aircraft were never registered in Panama and were probably all stored somewhere in California. We will describe the onward sale of these aircraft in Part 13B.
3. There was a tidying up of the USCAR in October 1965 and remaining registrations in the N8300C/N8400C sequence were cancelled, including marks that had not been taken up because the aircraft had crashed in China, defected to China, or TBD.
4. There is poor agreement with the MOC lists of CATC and CNAC aircraft to be sold to Chennault and Willauer.

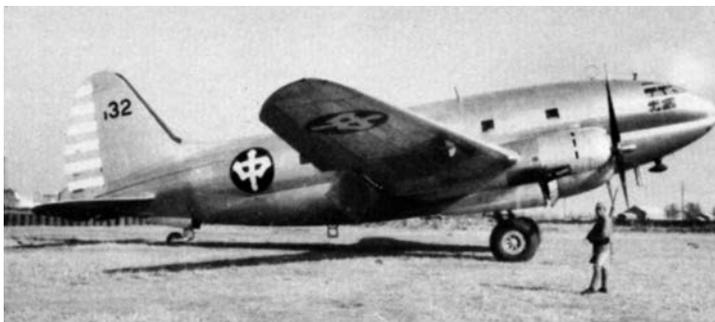
#### Cast list (1950)

Officials in British Government Departments are identified in Civil Service Year Books for years from 1974. In the period from 1943 to 1973 this directory was known as the Imperial Calendar. For 1950 & 1952 it was known as The British Imperial Calendar and Civil Service List. The directories for government officials overseas are: a) The Colonial Office List, and b) The Foreign Office List and Diplomatic and Consular Year Book, e.g. for 1950 & 1952. Copies of these directories are held in the Open Reading Room of the National Archives at Kew. [MSB TNA12 30May2009]



**Above:** This AT-6 clearly marked XT-701 and with CAT titles, standing in front of a CATC C-46, raises an issue in that these marks are known to have been used by the company on a Stinson Sentinel (Archive p2010/169) and little is known of any of the Chinese AT-6 histories. (via Prof. J Leeker)

**Below:** One C-46 that almost certainly did not make it through to CATI was this Nationalist cargo model, apparently fleet number 132, at Peiping in 1946. This would have later become XT-T42 whose fate is unknown. (via JM Collection)



#### Formosa (Taiwan)

Civil Air Transport: General Claire Lee Chennault  
Whiting Willauer

Republic of China:  
Minister of Foreign Affairs: George Yeh

#### Hong Kong

Governor (OAG): Sir Alexander W G H Grantham, KCMG  
Colonial Secretary: J F Nicoll, CMG  
Attorney General: J B Griffin, KC (1950)  
Chief Justice (CJ): Sir Leslie Gibson, Kt, KC  
Director of Civil Aviation (DCA): A J R Moss  
Deputy DCA (DDCA): M N Oxford  
US Consul General: Mr Karl Rankin  
CATI rep: James J Brennan (1953)  
Counsel for CATI: Col Richard P Heppner  
Leading counsel for CATC & CNAC (Communist): Mr Percy Chen  
Counsel for CNAC: Mr Eldon Potter, KC,  
General Manager of CATC (1949): Chen Cheuk-lin  
Managing Director of CNAC (1949): Colonel Liu Ching-yi

#### London

King: King George VI (died 6Feb1952)  
Queen: Queen Elizabeth II (6Feb1952, crowned  
2Jun53 - present)

#### His/Her Majesty's Government (HMG):

Prime Minister: The Rt Hon Clement R Attlee, MP (1946-51)  
Winston Churchill (1951-55)

#### Law Officers (LO)

Attorney General: The Rt Hon Sir Hartley Shawcross, KC, MP  
(-1951)

#### Colonial Office (CO)

Secretary of State for the Colonies: The Rt Hon A Creech Jones, MP  
Minister of State: K G Younger  
Legal Adviser: Sir Kenneth Roberts-Wray  
Deputy Legal Adviser: W L Dale  
Assistant Under Secretary of State: J J Paskin  
Assistant Secretaries: H Beckett, W J Bigg, J B Sidebotham

Commonwealth Relations Office (CRO):  
 Legal Advisers: as for Colonial Office  
**Foreign Office (FO)**  
 Secretary of State for Foreign Affairs:  
 The Rt Hon Ernest Bevin, MP (1946-1951)  
 Sir Anthony Eden (1951-1955)  
 Permanent Under Secretary of State:  
 Sir William Strang, KCB, KCMG, MBE  
 Legal Adviser: Sir Eric Beckett  
 Far Eastern Department (F): ?  
 General Department (G): W Harpham (head of department)  
**US Embassy:**  
 Chargé d'Affaires: Mr Julius C Holmes  
 Diplomat: Mr Arthur R Ringwalt  
 CATI representative: Mr Malcolm Fooshe  
**Peking, China**  
**British Embassy:**  
 Chargé d'Affaires: Mr Hutchinson (1950)  
 Mr Lamb  
**People's Republic of China (PRC)**  
 President:  
 Prime Minister: Chow En-loi  
 Vice-Minister for Foreign Affairs: Chang Han-fu  
**Washington, DC**  
 President of the USA: Franklin D Roosevelt (died 12Apr45)  
 Harry S Truman (elected Vice-President  
 1944, became President 12Apr45; elected  
 4Nov48, inaugurated 20Jan49, 2nd term)  
 Dwight D Eisenhower (elected 6Nov52,  
 inaugurated 20Jan53)  
 State Department:  
 Secretary of State: Dean Acheson  
 Deputy Assistant Secretary: Livingstone T Merchant  
 Far Eastern division: H F Amrine  
 Civil Aeronautics Administration (CAA)  
 Head: Delos W Rentzel  
 British Embassy:  
 Ambassador: Sir Oliver Franks  
 Civil Air Transport, Inc.: James J Brennan (also in Hong Kong)  
 Claire Lee Chennault  
 Thomas G Corcoran  
 Whiting Willauer  
 Donovan Leisure Newton Lumbard & Irvine (law firm acting for CATI)  
 General William J Donovan  
 Colonel Richard P Heppner

During the period of interest of this series of articles, the FAA as we know it has evolved with various names and organisations:  
 Aeronautics Branch, Department of Commerce: 11th August 1929  
 (Regulations effective 31st December 1926)  
 Civil Aeronautics Authority\*: 22nd August 1938  
 Civil Aeronautics Administration (CAA): 1947  
 Federal Aviation Agency: 31st December 1958  
 Federal Aviation Administration (FAA), Department of Transportation:  
 1st April 1967  
 \* The fact that the Civil Aeronautics Administration was initially called the Civil Aeronautics Authority was confusing, as the Civil Aeronautics Authority had two sub-agencies – the Civil Aeronautics Board and the Civil Aeronautics Authority (the one we are interested in); and hence the name change of the latter. [JMD 07May2009] See also FAA website / history.

### Chronology (1949-50)

The following chronology is based in part on a detailed history prepared by officials in the CO and FO in 1950 for the benefit of the British government law officers. [CO537/5628 #150]

**1949**  
 January Main aircraft base of CNAC and CATC moved to Hong Kong consequent on the Communist advance in China. CNAC occupy much valuable accommodation at Kai Tak. [CO537/5628]  
 June RAF at Hong Kong reinforced. CNAC required to remove their base from Hong Kong since they were overcrowding the airfield. [CO537/5628]  
 August 25 CATC co-pilot defects to mainland China with C-47 [AAHS]  
 October 1 Mao Tse-tung proclaims foundation of People's

Republic of China [AAHS]  
 October 27 CATC pilot defects to Communists with C-47 [AAHS]  
 November 9 12 commercial aircraft defect to mainland China (2 of CATC, 10 of CNAC) [AAHS] or 9 CNAC & 2 CATC aircraft [CO537/5628] with both MDs.  
 November 13 Nationalist CAA suspends registration certificates of CATC and CNAC aircraft [AAHS] and air crew licences of all pilots [CO537/5628]  
 November 17 Governor of Hong Kong prevents aircraft from leaving Hong Kong without valid certificates of registration [AAHS]  
 November 24 Litigation began in the Hong Kong courts (Cases 1, 2 & 3). Interim injunctions granted. [CO537/5628]  
 November 25 Plaintiffs obtain counter-injunctions. [CO537/5628]  
 December 1 US State Department inform HM's Embassy, Washington of their concern at the fate of these aircraft. [CO537/5628]  
 December 5 Chennault & Willauer partnership offer to purchase assets of CATC & CNAC from ROC government  
 December 12 Sale of CATC and CNAC to Chennault and Willauer approved by Nationalist government  
 December 19 Chennault and Willauer transfer ownership of 120 aircraft to Civil Air Transport, Inc.  
 December 20 Pan American sold its interest in CNAC to the Chinese government [Leary p.222]  
 December 31 Pan American sells interest in CNAC to Chinese government [Leary p.230]  
**1950**  
 January 5/6 Britain recognises Communist government of China (at midnight)  
 January 13 Sabotage of seven CNAC aircraft at Kai Tak  
 February 23 Hong Kong court awards CATC and CNAC aircraft to Communist government  
 April 2 Nationalist agents sabotage 7 CNAC aircraft at Kai Tak  
 May 10 British government issued an Order-in-Council that instructed Hong Kong Government to retain possession of the disputed aircraft until the question of ownership had been decided 'by full processes of the law' [CQ]  
 May 19 CATI issue a writ in the Supreme Court of Hong Kong against CATC  
 December 1 US district court awards bank assets of CNAC to CATI [TNA CO537/5628 #150, FO371/84786 GA81/72]

### Abbreviations

BoS	Bill of Sale
BU	Broken up
CAA	Civil Aeronautics Administration
CAT	Civil Air Transport
CATC	Central Air Transport Corporation
CATI	Civil Air Transport, Inc.; CAT Incorporated
CIA	Central Intelligence Agency
CJ	Chief Justice
c/n	construction number
CNAC	China National Aviation Corporation
CO	Colonial Office (UK)
FAA	Federal Aviation Administration
FCO	Foreign & Commonwealth Office (UK)
FO	Foreign Office (UK)
FTL	The Flying Tiger Line Inc.
HK	Hong Kong
HMG	His/Her Majesty's Government
MOC	Ministry of Communications
n/a	not applicable
NTU	Not Taken Up
OJ	Original Jurisdiction
OPC	Office of Policy Coordination
OSS	Office of Strategic Services
p/i	previous identity
PRC	People's Republic of China (Communist)
PRO	Public Records Office (now known as TNA)
reg.	registration (e.g. N-number)
ROC	Republic of China (Nationalist)
s/i	subsequent identity
s/n	serial number
TNA	The National Archives (UK)
USCAR	United States Civil Aircraft Register

## Acknowledgements

The author would like to thank the following for their help in the preparation of this article: Clive Lynch, FAA staff, FCO staff, Dr Joe F Leeker, John Davis, Matt Miller, Steve Darke, TNA staff.

## FAA registry files

CATI files are listed here by the N-number used under CATI ownership, not by the latest N-number for each aircraft, although the FAA would identify the file by the latter N-number.

### Ex-CATC aircraft (N8300C – N8342C):

Files received: N8305C – N8317C, N8319C – N8320C, N8322C – N8330C, N8332C – N8335C, N8337C – N8342C

Files destroyed: N8321C

Files missing: N8318C

Other files ordered but not received: N8300C-N8304C, N8331C, N8336C

### Ex-CNAC aircraft (N8343C – N8393C):

Files received: N8343C – N8344C, N8346C – N8355C, N8357C – N8370C, N8372C – N8382C – N8393C

Files destroyed:

Files missing: N8356C, N8371C,

Other files ordered but not received: N8345C

### Ex-CAT aircraft (N8400C – N8425C):

Files received: N8400C – N8422C

Files missing: N8425C

Other files ordered but not received: N8423C – N8424C

Other FAA registry files received: N8394C, N8399C, N9995F

## TNA files

Titles of files are as given in the TNA online catalogue at [www.nationalarchives.gov.uk](http://www.nationalarchives.gov.uk). Note that TNA references, used in the catalogue, are not the same as those given by originating departments.

### Cabinet Office (CAB) papers

TNA ref.	title	years
CAB 21/3270	Chinese aircraft at Hong Kong: legal position	1949-1956

### Colonial Office (CO) files

TNA ref.	title	year
CO 537/5628	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part I) (#107 to 163)	1950
CO 537/5629	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part II) (#164 to 214)	1950
CO 537/5630	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part III) (#215 to 278)	1950
CO 537/5631	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part IV)	1950
CO 537/5632	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part V)	1950
CO 537/5633	Civil Aviation: China: Central Air Transport (CATC) and China National Aviation Corporation (CNAC) dispute (Part VI)	1950
CO 537/5634	Inventory of CATC/CNAC stores	1950
CO 1023/170	Hong Kong: political developments following a Privy Council decision to transfer ownership of Chinese People's Government planes to American Civil Air Transport Incorporated	1952
CO 1030/377	Hong Kong aircraft ownership dispute between CNAC & CATC	1955

### Foreign Office (FO) files

TNA ref.	title	year
FO 371/83302	Claim for Chinese aircraft in Hong Kong by the China National Airways Corporation (Communist Government of China) and the Civil Air Transport Corporation based on Formosa	1950
FO 371/83449	Questionnaire in connection with court action in Hong Kong over property of China National Aviation Company and Central Air Transport Corporation	1950

FO 371/84782 371/84795	Disposal of seventy aircraft of Chinese National to Aviation Corporation and the Central Air Transport Corporation in Hong Kong claimed by the Communist Government of China	1950
FO 371/93126 to 371/93129	Civil aviation in and through Hong Kong; legal dispute over disposal of Chinese aircraft originally belonging to the China National Aviation Corporation (CNAC) and Central Air Transportation Corporation (CATC) in Hong Kong, claimed by the Communist Government of China; American company's claim on the basis of part ownership of CNAC	1951
FO 371/99339 to 371/99341	Decision of Hong Kong Court awarding ownership of wartime aircraft to the American company CAT Inc: claims disputed by the Chinese Government; Chinese press allegations; agreement to American proposal to move some aircraft by US aircraft carrier	1952
FO 371/99718 to 371/99720	Settlement of dispute over legal ownership of Chinese aircraft grounded in Hong Kong (retained until 2007)	1952

Most of the FO files consulted have been from the General Department (code G) covering Civil Aviation (code GA), but some have been from the Far East Department (code F) covering China (code FC). FO distribution lists also mention the American Department but no such files have been found in the TNA catalogue. Most of these FO files are available in paper format but some are on microfilm, e.g. FO371/83302, 83448 & 83449.

Two files (CO537/5631 and FO371/99719) were listed as "Retained by department" but the FCO agreed to release them to TNA in 2009 following the author's application under the Freedom of Information Act. Other files had been released during the course of the author's investigation.

The documents within FO files are arranged in small dossiers, e.g. GA81/1 to GA81/278. The covers of those dossiers that once contained Cabinet papers are stamped with the notice: "Cabinet documents removed and destroyed in accordance with Cabinet Office instruction. The original should be found in the Cabinet Records." A few of the missing Cabinet documents were found in CAB 21/3270 but others have not been traced. Fortunately draft cabinet papers are retained in the FO files.

There is a digitisation project of selected FO371 files taking place at The National Archives for an academic online publisher (Adam Matthew Digital). In due course these records will be available free online in the Reading Rooms at TNA via that publisher's website at [www.amdigital.co.uk/](http://www.amdigital.co.uk/). [TNA 30Jul2009] This project covers the years 1949 to 1980 in three sections: Section I: 1949-1956, available; Section II: 1957-1966, due 2010; Section III: 1967-1980, due 2011.

NB: These files are not otherwise available free online; rather they are available for commercial users at significant cost, e.g. £21,000 per section.

## List of references

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United States Civil Aircraft Register, Federal Aviation Administration, 1 January 1964 [USCAR]

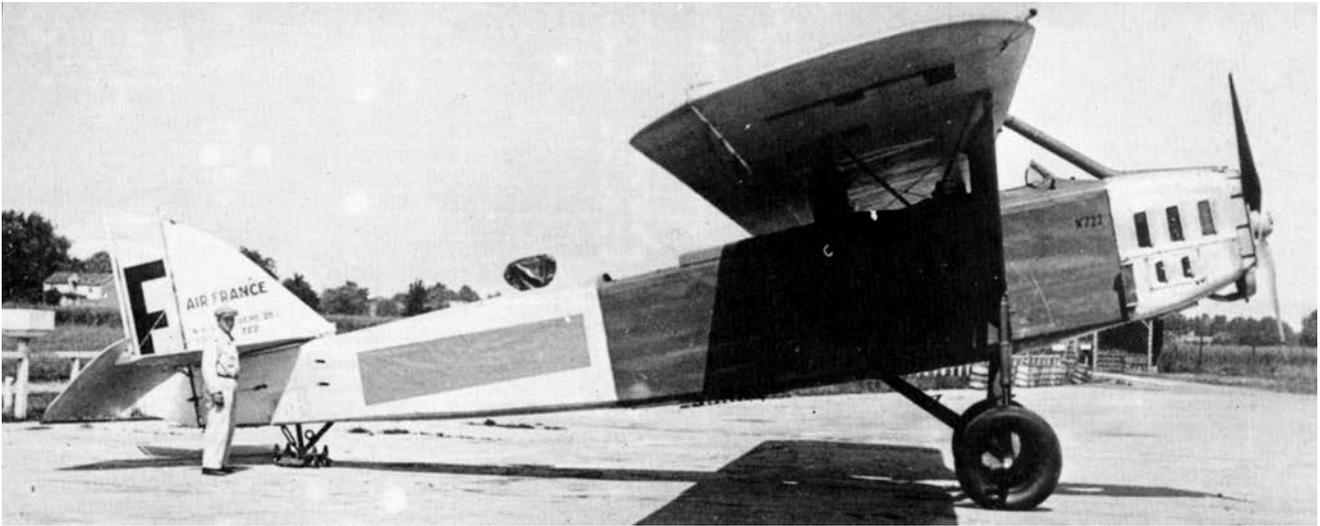
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# F-1922

## The French Civil Aircraft Register from 1922

Part 27

By Bernard Martin, Dave Sparrow and Robert Espérou



As in recent issues we are continuing with the New Registrations in alphabetical order as they no longer correspond to CofR Number order.

### F-Update 1929 (contined)

#### **New Registrations**

2144 **F-AJCY** Morane 147 22  
Cie Française d'Aviation, Boulogne sur Seine (based Angers).  
(24.6.29)

Unkn **F-AJ CZ** Nothing known, possibly an export CofA.

2324 **F-AJDA** Nieuport 641 1  
Societe Nieuport Astra, Issy (based Villacoublay). (12.12.29)

nil **F-AJDB** Short S.8 Calcutta S.751  
UK CofA No.2210, issued 4.9.29 to French Air Ministry.

2222 **F-AJDC** Farman 190 17/7132  
Cie Aérienne Française, Suresnes/Le Bourget. (12.8.29)

2256 **F-AJDD** Farman 190 18/7133  
Cie Aérienne Française, Suresnes/Le Bourget. (10.9.29)

2210 **F-AJDE** Schreck FBA.17.HMT2 62/1253  
Bernard de Precourt, Paris (based Argenteuil); named "Reinita IV".  
(6.8.29)

2118 **F-AJDF** Morane 147 62  
Comte Albert de Mun, Paris (based Velizy-Villacoublay). (29.5.29)

2122 **F-AJDG** Morane AR.35C 2427  
Mlle Honore Millo, Paris (based Villacoublay). (4.6.29)

2162 **F-AJDH** Farman 63 ter Goliath 8/7128  
Cie Aérienne Française, Suresnes/Le Bourget. (1.7.29)

2260 **F-AJDI** Schreck FBA.17.HMT2 57  
Cie Air Union Lignes d'Orient, Paris (based Beirut). (12.9.29)

2261 **F-AJDJ** Schreck FBA.17.HMT2 58  
Cie Air Union Lignes d'Orient, Paris (based Beirut). (12.9.29)

2120 **F-AJDK** Latécoère 26-6 722  
Cie Générale Aéropostale, Paris (based Toulouse). (29.5.29)

2173 **F-AJDL** Morane 130 134  
M Le Vasseur de Precourt, Paris (based Villacoublay). (12.7.29)  
(Believed to be ex M-591 of French Navy)

**Above:** Latécoère 26-6 F-AJDK ex-Aéropostale ready for Air France with the fuselage registration covered but identifiable by the c/n painted just behind the engine cowling. (via JM Collection)

**Below:** Short Calcutta F-AJDB, undergoing pre-delivery trials on the Medway, was an unusual purchase by the Air Ministry which had a policy of acquiring only French-built types. (via JM Collection)



2152 **F-AJDM** Morane 130 53  
M Detroyat, Paris (based Villacoublay). (28.6.29)

2130 **F-AJDN** LeO H.181 1  
Ets Lioré & Olivier, Levallois-Perret (based St Raphael). (12.6.29)

2207 **F-AJDO** Farman 200 2/7138  
Albert Japy, Beaucourt, Belfort (based Toussus-le-Noble). (3.8.29)

2158 **F-AJDP** Farman 190 20  
M Weller, Paris/Le Bourget. (28.6.29)

2133 **F-AJDQ** LeO 198 7  
Cie Aérienne Française, Suresnes (based Argenteuil). (17.6.29)

2151 **F-AJDR** Morane 191 32  
Sté des Aéroplanes Morane-Saulnier, Puteaux (based Villacoublay).  
(28.6.29)

2169 **F-AJDS** Schreck FBA.17.HT4 123/1256  
Cie Aérienne Française, Suresnes (based Argenteuil). (8.7.29)

2137 **F-AJDT** Schreck FBA.17.HT4 124/1257  
Cie Aérienne Française, Suresnes (based Argenteuil). (19.6.29)

2129 **F-AJDU** Potez 32 1547  
Société d'Etudes et d'Entreprises Aériennes en Indo Chine & Extrême-  
Orient, Saigon. (10.6.29)



2134 **F-AJDV** Caudron 157 9/6390  
René Caudron, Issy (based Amberieu). (17.6.29)

2160 **F-AJDX** Potez 25A.2 Postal 1520  
Cie Générale Aéropostale, Paris (based Toulouse; later Buenos Aires). (28.6.29)

2161 **F-AJDY** Potez 25A.2 Postal 1521  
Cie Générale Aéropostale, Paris (based Toulouse; later Buenos Aires). (28.6.29)

2295 **F-AJDZ** Potez 25/55 1522  
Cie Générale Aéropostale, Paris (based Meaulte; later Buenos Aires) (11.10.29)

2157 **F-AJEA** Nieuport 81 815  
Aero Club des Ardennes, Charleville (based Tournes-Belval). (28.6.29)

2153 **F-AJEB** Morane 130 58  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (28.6.29)

2154 **F-AJEC** Morane 130 59  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (28.6.29)

2155 **F-AJED** Morane 130 60  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (28.6.29)

2176 **F-AJEE** Morane 130 61  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (12.7.29)

2175 **F-AJEF** Morane 130 62  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). 12.7.29

2174 **F-AJEG** Morane 130 63  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). 12.7.29

2177 **F-AJEH** Morane 130 64  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). 12.7.29

2178 **F-AJEI** Morane 130 65  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). 12.7.29

2240 **F-AJEJ** Morane 130 66  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (30.8.29).

2241 **F-AJEK** Morane 130 67  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (30.8.29)

2348 **F-AJEL** Morane 191 34  
Sté des Aéroplanes Morane Saulnier, Puteaux (based Villacoublay). (11.2.30)

2297 **F-AJEM** Farman F.170 Jabiru 16/7139  
Cie Générale de Transports Aériens (SGTA), Paris/Le Bourget. (12.10.29)

Unkn **F-AJEN** Farman 190 22/....  
Oskar Kaser, Dübendorf, Switzerland. "Jung Schweizerland". Re-registered CH-245, 8.29.

**Above:** Aéropostale ordered three Potez 25s to operate its mail service between Mendoza in Argentina and Santiago in Chile. **Left** is F-AJDY a model 25A.2 which operated its first trans-Andean service on 15.7.29 flown by Jean Mermoz. **Right** is model 25/55 F-AJDZ in which Henri Guillaumet made a forced landing at 11,500 feet near Laguna Diamante in a violent snowstorm. This aircraft was recovered and returned to service, while F-AJDY was re-registered locally as LV-JFA. (Both via JM Collection)

2242 **F-AJEO** Morane 130 68  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (30.8.29)

2179 **F-AJEP** Morane 130 69  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (12.7.29)

2250 **F-AJEQ** Morane 130 70  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (6.9.29)

2243 **F-AJER** Morane 130 71  
Cie Française d'Aviation, Boulogne sur Seine (based Orly). (30.8.29)

2251 **F-AJES** Morane 130 72  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (6.9.29)

2244 **F-AJET** Morane 130 73  
Cie Française d'Aviation, Boulogne sur Seine (based Orly). (30.8.29)

2258 **F-AJEU** Morane 130 74  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (12.9.29)

2245 **F-AJEV** Morane 130 75  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (31.8.29)

2259 **F-AJEX** Morane 130 76  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (12.9.29)

2265 **F-AJEY** Morane 130 77  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (17.9.29)

2180 **F-AJEZ** Morane 147 23  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (16.7.29).

2156 **F-AJFA** LeO 198 10  
Cie Air Union, Paris (based Marignane). (28.6.29)

3847 **F-AJFB** Farman 193 1/7141  
Société des Avions HMD Farman, Billancourt. (17.7.34)

2170 **F-AJFC** Farman 190 23/7142  
Société des Avions H&M Farman, Billancourt (based Toussus-le-Noble). (9.7.29)

2237 **F-AJFD** Farman 200 3  
Société des Avions H&M Farman, Boulogne (based Toussus-le-Noble). (27.8.29)

2181 **F-AJFE** Morane 147 24  
Cie Française d'Aviation, Boulogne sur Seine (based Angers). (16.7.29)

2223 **F-AJFF** Morane 147 25  
Cie Française d'Aviation, Boulogne sur Seine (based Orly). (14.8.29)

**Right:** The Genet-engined Albert 120, or TE-1, was registered F-AJGV but does not appear to have been allocated a C deN. It is officially shown as c/n 19 although 18 has also been quoted. (via JM Collection)



2224 **F-AJFG** Morane 147 26  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (14.8.29)

2225 **F-AJFH** Morane 147 27  
Cie Française d'Aviation, Boulogne sur Seine (based Orly). (14.8.29)

2226 **F-AJFI** Morane 147 28  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (14.8.29)

2227 **F-AJFJ** Morane 147 29  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (14.8.29)

2228 **F-AJFK** Morane 147 30  
Cie Française d'Aviation, Boulogne sur Seine (based Orly). (14.8.29)

Unkn **F-AJFL** Hanriot Dupont HD-1 21  
M Haegelen (1929 rebuild)

2185 **F-AJFM** Farman 190 24/7144  
Société Générale de Transports Aérienne, Paris/Le Bourget. (31.7.29)

2186 **F-AJFN** Farman 190 25/7145  
Société Générale de Transports Aérienne, Paris/Le Bourget. (31.7.29)

2270 **F-AJFO** Farman 200 4/7146  
Société des Avions H&M Farman, Boulogne sur Seine (based Toussus-le Noble). (21.9.29)

2205 **F-AJFP** Morane 147 31  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (3.8.29)

2232 **F-AJFQ** Morane 147 61  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand). (17.8.29)

2266 **F-AJFR** Morane 130 78  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (17.9.29)

2299 **F-AJFS** Morane 130 79  
Cie Française d'Aviation, Boulogne sur Seine (based Nimes). (14.10.29)

2300 **F-AJFT** Morane 130 80  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand).

2267 **F-AJFU** Morane 130 81  
Cie Française d'Aviation, Boulogne sur Seine (based Clermont-Ferrand).



**Above:** F-AJFZ was the Albert A.61 two-seat open-cockpit tourer fitted with a 95 hp Salmson engine. The remains of this aircraft were discovered in 1999 and restoration continues. (via JM Collection)

**Right:** F-AJGB was the Maurice Delanne Type II of 1929. It was powered by a 70 hp Anzani 6A and wore the name "L'Ibis Bleu". (via JM Collection)





**Left:** Bernard 191 Grand Raid c/n 2 F-AJGP in a cleaned-up publicity photo following its trans-Atlantic flight from Old Orchard in Maine to Northern Spain on June 13/14th 1929. The all-yellow "Oiseau Canari" was flown by Jean Assolant and René Lefèvre with owner Armand Lotti and stowaway Arthur Schreiber on board. It is now in the Musée de l'Air collection at Le Bourget. (via JM Collection)

Unkn	<b>F-AJFV</b>	Albert 120	19	2220	<b>F-AJGN</b>	Farman 190	26/7147
		Société Albert, Paris/Le Bourget	(Also quoted as c/n 18) (10.30)			Cie Air Union, Paris/Le Bourget. (12.8.29)	
Unkn	<b>F-AJFX</b>	Albert 10	01	2221	<b>F-AJGO</b>	Farman 190	27/7148
		Société Albert, Paris/Le Bourget				Cie Air Union, Paris/Le Bourget. (12.8.29)	
2698	<b>F-AJFY</b>	Albert 60	1	2211	<b>F-AJGP</b>	Bernard 191GR	2/2908
		Eduoard Albert, Paris. (18.2.31)				ex "l'Oiseau Canari" (ff 8.28), [N]9422. M Lotti, Paris/Orly. (6.8.29)	
2982	<b>F-AJFZ</b>	Albert A.61	01	2201	<b>F-AJGQ</b>	Potez 36/4	1572
		Société Albert Aéronautique, Drancy [ff 6.9.31]. (1.10.31)				Société des Aéroplanes H Potez, Paris (based Meaulte). (2.8.29)	
2128	<b>F-AJGA</b>	Potez Villa	11	2202	<b>F-AJGR</b>	Potez 36/4	1573
		Arman Lotti, Paris (based Villacoublay). (6.6.29)				Société des Aéroplanes H Potez, Paris (based Meaulte). (2.8.29)	
2147	<b>F-AJGB</b>	Delanne 11	01	2199	<b>F-AJGS</b>	Potez 36/5	1574
		M.Delanne, Chateauroux (Indre). (26.6.29)				Société des Aéroplanes H Potez, Paris (based Meaulte). (1.8.29)	
2172	<b>F-AJGC</b>	Caudron 60	6388	2198	<b>F-AJGT</b>	Potez 36/5	1600
		M Vally, Metz (based Nancy). (11.7.29)				Société des Aéroplanes H Potez, Paris (based Meaulte). (1.8.29)	
2167	<b>F-AJGD</b>	Amiot 110.C1	1	2246	<b>F-AJGU</b>	Caudron 59	1035/6387
		Société d'Emboutissage & de Constructions Mécaniques, Colombes (based Villacoublay). (1.7.29) Destroyed 7.29.				M Caudron, Issy. (31.8.29)	
2163	<b>F-AJGE</b>	Latécoère 26/6	723	2219	<b>F-AJGV</b>	Schreck FBA.17.HT4	126/1259
		Cie Générale Aéropostale, Paris (based Toulouse). (1.7.29)				Cie Aerienne Française, Suresnes (based Argenteuil). (12.8.29)	
2046	<b>F-AJGF</b>	Potez VIII	5	2276	<b>F-AJGX</b>	CAMS 53/1	13
		ex F-AFGF. Mlle Claire Camus, Paris/Orly. (21.3.29) Destroyed 6.29.				Cie Air Union Lignes d'Orient, Paris (based Marignane). (21.9.29)	
2203	<b>F-AJGG</b>	Peyret Mauboussin 10C	01	2286	<b>F-AJGY</b>	CAMS 53/1	14
		Pierre Mauboussin, Paris/Le Bourget. (2.8.29)				Cie Air Union Lignes d'Orient, Paris (based Marignane). (7.10.29)	
2164	<b>F-AJGH</b>	Latécoère 26/6	724	2182	<b>F-AJGZ</b>	Latecoere 26/6	727
		Cie Générale Aéropostale, Paris (based Toulouse). (1.7.29)				Cie Générale Aéropostale, Paris (based Toulouse). (29.7.29)	
2165	<b>F-AJGI</b>	Latécoère 26/6	725	2183	<b>F-AJHA</b>	Latecoere 26/6	728
		Cie Générale Aéropostale, Paris (based Topoulouse). (1.7.29)				Cie Générale Aéropostale, Paris (based Toulouse). (29.7.29)	
2166	<b>F-AJGJ</b>	Latécoère 26/6	726	2131	<b>F-AJHB</b>	Morane AS	2399
		Cie Générale Aéropostale, Paris (based Toulouse). (1.7.29)				ex F-ABHB. M.Detroyat, Paris (based Villacoublay). (14.6.29)	
2252	<b>F-AJGK</b>	Potez 36/3	1/1391	2171	<b>F-AJHC</b>	LeO 198	8
		Société des Aéroplanes H Potez, Paris (based Meaulte). (9.9.29)				Cie Aerienne Française, Suresnes (based Argenteuil). (9.7.29)	
2168	<b>F-AJGL</b>	Caudron 60	6389	Unkn	<b>F-AJHD</b>	Guerchais-Henriot 5	1
		René Caudron, Issy (based Amberieu). (6.7.29)				Carbureteurs Henriot, Paris/Orly. (10.30)	
2513	<b>F-AJGM</b>	Hanriot 321	154	2200	<b>F-AJHE</b>	Potez 36/5	1570
		Henry Munier, Besancon. (19.8.30)				Société pour le Développement de l'Aviation, Paris/Le Bourget. (1.8.29)	



**To be continued . .**

**Left:** The Guerchais-Henriot 5 F-AJHD cabin monoplane was powered by a 95 hp Salmson 7Ac radial. (via JM Collection)

# The Caproni Ca.100

HEAD-ON VIEW No.37



The success of the DH.60Moth which first flew in February 1925, led to a number of licence production versions constructed in other countries, one of which was Italy. The Italian Air Ministry had purchased two Moths in October 1927 and held a contest for a light tourer/trainer commencing in early 1928. The Moths were Cirrus IIs c/ns 468 and 470, later I-RUSP and I-GINO, see photo in *Archive* page 91/77.

In 1928 the first Caproni Ca 100 appeared, clearly of Moth ancestry but with certain design modifications such as the unequal-span wings, altered cowlings and the non-DH profiles of the tailplane and rudder. No clear winner was ever announced but several of the competitors did enter production, including the Ca 100, the Fiat AS1 and Breda 15. No specific Caproni designer has been credited with the Ca 100 but neither was it admitted that it was not an indigenous design – which would have been politically incorrect in those days.

The prototype, serialled MM110, first flew at the end of 1928 at Milan-Taliedo, piloted by Domenico Antonini.

The first examples were powered by 85hp DH Gipsy engines but some are reported to have used the 90hp Cirrus Minor, the 105hp Cirrus Hermes and the 130hp Gipsy Major was also tried. Italian engines were favoured however, particularly for the military production batches. These were the 90hp 4-cyl in-line Alfa Romeo Colombo S-53 and the

**Above:** The Gipsy-engined prototype Ca.100 seen in side-view could easily be mistaken for a DH.60 Moth. (via JM Collection)

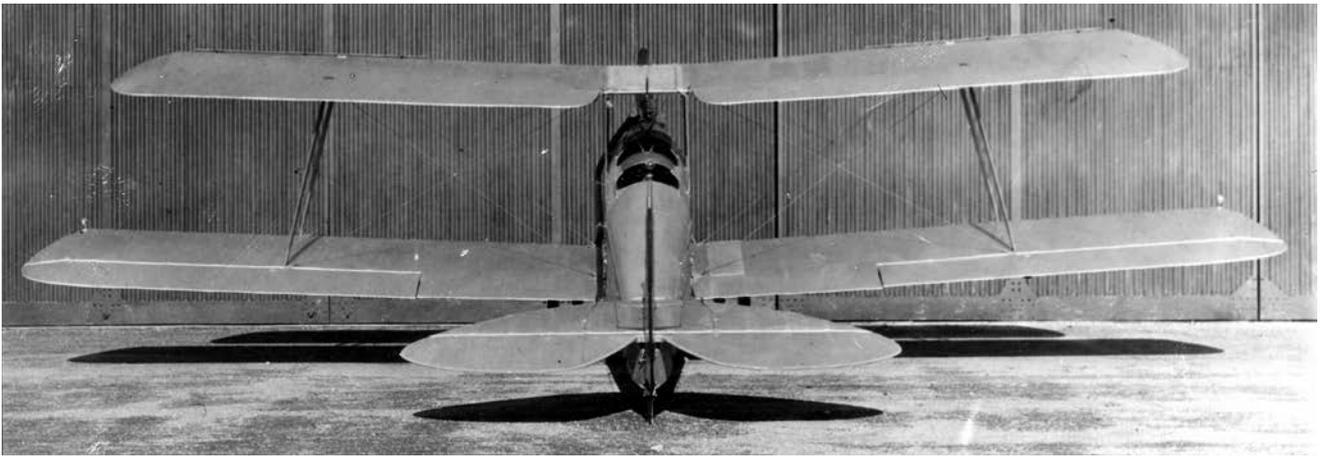
130hp 6-cyl S-63, the 100-115hp 6-cyl Isotta Fraschina Asso-80R, and the 95hp 7-cyl radial Fiat A50 or 140hp A54.

Known as the Caproncino ("Little Caproni"), the wooden Ca 100 not only copied the structure of the Moth, it also shared similar handling characteristics despite the different wing design. A direct comparison between the two may be of interest:

	Caproni Ca 100		DH.60G Gipsy Moth	
Wing span (upper)	27 ft 5 in	8.35 m	30 ft 0 in	9.14 m
Wing span (lower)	32 ft 10 in	10 m	30ft 0 in	9.14 m
Length	23 ft 11 in	7.29 m	23 ft 11 in	7.29 in
Height	9 ft 0 in	2.74 m	8 ft 9.5 in	2.67 m
Wing area	262.5 sq ft	24.38 m <sup>2</sup>	243 sq ft	22.57 m <sup>2</sup>
Empty weight	882 lbs	400 kg	920 lbs	417.3 kg
Loaded weight	1498 lbs	680 kg	1650 lbs	748.4 kg
Maximum speed	102 mph	164 km/hr	102 mph	164 km/hr
Cruising speed	87 mph	140 km/hr	85 mph	136.7 km/hr
Landing speed	40 mph	64 km/hr	40 mph	64 km/hr

**Right:** In classic head-on view the prototype shows the unequal span wings with angled interplane struts and the divided undercarriage. (JM Collection)





**Above:** The rear view of the Ca.100 shows the nose-high attitude creating an effective angle of lift for the wings. Ailerons are on the outer two-thirds of the lower mainplanes only. (Aeroplani Caproni via JM Collection)

**Below:** With wings neatly folded to precisely the width of the elevators, the Ca.100 could be hungared in a 3 metre wide space. (via JM Collection)



**Above:** The divided undercarriage hanging low when relieved of the aircraft's weight is made obvious in this fly-past photo. (RA Cole via JM Collection)

**Right:** Mario de Bernardi with his Hermes-engined Ca.100 aerobatic single-seater which he displayed in several European capitals in 1929. (via JM Collection)



The wings were designed to fold to a maximum width of 3 metres to reduce storage space and on production aircraft Handley Page slots were added to the leading edge of the upper wings. Fuel was carried mainly in the centre-section gravity tank of 89 litres capacity but there was also an auxiliary tank in the fuselage ahead of the front cockpit containing 36 litres which could be manually pumped to the gravity tank. The aerobatic version relied entirely on a 40 litre fuselage tank.

A floatplane version, the Ca 100 Idro, soon followed with the prototype serialled MM228. This version had an empty weight of 1144 lbs (519 kg), loaded 1639 lbs (743 kg).

Performance and publicity helped to keep the Ca 100 in the public eye. In May 1929 Mario de Bernardi took an aerobatic example to displays at Budapest, Belgrade, Bucharest and Sofia. Meanwhile the prototype was shown at the 1st Tourism Aircraft show at Rome-Urbe in June 1929. De Bernardi was then instructed by Air Minister Balbo to create two aerobatic teams, with Arturo Ferrarin leading the other, to display at locations all over Italy. Incidentally, de Bernardi was fortunate to escape by parachute when two Ca 100s collided in mid-air during practice on 28.5.30.

In 1931 a floatplane version set a world altitude record of 17,462 ft (5,324 m) for Category 1 two-seat aircraft of under 680 kg, flown by Antonini and Trevisan. A ski-equipped version flown by Leonardo Bonzi made a landing attempt at over 3,000 metres on a Mont Blanc glacier in the same year.

Three long-distance flights were made in 1933-34 by Prof. V B Brocchieri: Milan to Baghdad and return in spring 1933; Milan – Tunisia – Libya – Egypt – Somalia – Sudan – Rome (18,000 km) from 1.10.33 to 14.11.33; and Rome – Irkutsk – Rome (17,000 km) from 20.7.34 to 10.9.34.



A 130hp Walter NZ 9-cyl radial engine version won the 1934 Giro Aereo di Lombardia flown by Alessandro Guasti and another Ca 100, of Mario Maccanti, won in 1935. The Walter-powered version was capable of carrying four small bombs.

Other variations included MM55914 which was flown with experimental fuselage-mounted air brakes. Photos exist of one Ca 100, I-AAYM, with fully-spatted mainwheels but these do not seem to have been a common accessory.

Civil deliveries began in May 1930, with the first example going to the Aero Centro di Milano, followed by three to SITAR in July-August and four to the Caproni School at Vizzola-Ticino. An early floatplane example I-AAWE was supplied to SITAR at Linate.

Adopted as the primary trainer by the Regia Aeronautica in larger numbers than its competitors combined, the military Ca 100 production totalled some 680 built between 1930 and 1937. In all five different manufacturers built the Ca 100; Caproni (235), Breda (158), Macchi (36), Bergamasche (151) and Compagnia Nazionale Aeronautica (CNA) (100). Published figures differ slightly however and in the list which follows there are 2 prototypes and 675 production examples, while 50 credited to CNA are listed as Bergamasche-built in other sources. A further source quotes 618 built for the Regia Aeronautica.

**Above:** A unique view of the Peruvian Air Force together with a selection of competitors for future contracts, probably in 1932. The Italian Mission provided a Caproni Ca.100 seen on the left with the front cockpit covered over and no propeller on its C-63 engine. Its serial is just too small to read. (via JM Collection)

**Below:** The Italian WW1 ace Carlo 'Francis' Lombardi arrives at an event at Salzburg in a civil Caproni Ca.100, offering a good view of the Colombo S.63 6-cylinder in-line engine installation. (via JM Collection)



**Right:** While a number of engine options can be considered as standard, one that seems to have been applied rarely was the 130 hp DH Gipsy Major 6-cyl inverted seen in this example. (via JM Collection)

**Below:** This head-on view of the Ca.100 Idro probably shows the prototype which appears to have been fitted with a right-hand tractor prop and right-side exhaust, possibly on a Cirrus engine. (via JM Collection)





**Left:** MM 65126, a Macchi-built 1935 Ca.100 with a 6-cyl 130 hp Colombo S-63 engine, served with the floatplane school at Schiranna, Varese. (via JM Collection)

**Below:** Close-up of the Fiat A.50 7-cyl radial engine standard on many of the Regia Aeronautica Ca.100 trainers. (via JM Collection)

Military construction batches:

Serials	Number	Date built	Builder	Engine type
MM.110				Prototype landplane
MM.228				Prototype floatplane
MM.55425-55445	21	4.30 – 7.30	Caproni	Asso 80R
MM.55452-55457	6	8.30 – 10.30	Caproni	Colombo S.53
MM.55478-55497	20	5.31 – 12.31	Caproni	Fiat A.50
MM.55498-55525	28	5.31 – 12.31	Caproni	Asso 80R
MM.55526-55557	32	5.31 – 12.31	Caproni	Fiat A.50
MM.55663-55794	132	11.32 – 6.33	Breda	Fiat A.54
MM.65077-65124	48	7.33 – 9.33	Caproni	Asso 80R
MM.65125-65160	36	3.35 – 6.35	Macchi	Colombo S.63
MM.55870-55919	50	12.33 – 4.34	Caproni	Colombo S.63
MM.55920-55945	26	1.34 – 4.34	Breda	Colombo S.63
MM.55946-55971	26	1.34 – 2.34	Bergamasche	Colombo S.63
MM.55974-55998	25	1.35 – 6.35	Bergamasche	Colombo S.63
MM.56026-56075	50	7.35 – 11.35	C.N.A *	Colombo S.63
MM.56076-56100	25	6.35 – 9.35	Caproni	Fiat A.50
MM.56151-56200	50	12.35 – 3.36	C.N.A.	Colombo S.63
MM.56201-56250	50	11.35 – 3.36	Bergamasche	Colombo S.63
MM.56262-56311	50	2.37 – 6.37	C.N.A.	Fiat A.50

\* or Bergamasche ?

In 1938 the Ca 100 cost price was 72,500 lire but special offers were available for Air Force pilots in order to encourage private ownership and the low-cost training of non-service pilots. In early 1939 the proposed selling price of used Ca 100s under this scheme was 6,000 lire for landplanes and 7,000 lire for floatplanes.

Already in 1938 the Capronino began to be replaced by the Breda 25. When the floatplane version of the Breda also appeared some thirty S.63 powered Ca 100 floatplanes were replaced, twenty of which were converted to landplanes.

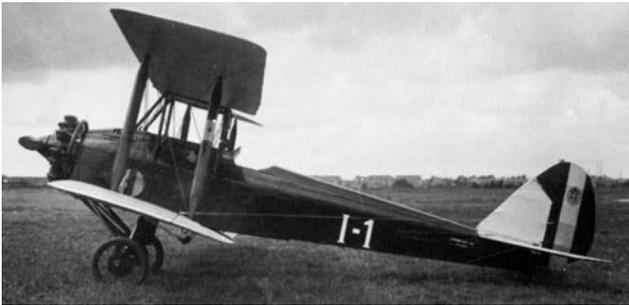


**Left:** Crown Prince Umberto of Savoy (foreground, second from left) inspecting a parade of A.50 engined Caproni Ca.100s on the airfield of Cagliari-Monserrato during an official visit to Sardinia pre-WW2. He was briefly King Umberto II in 1946. What befell the crewman who is not saluting we do not know... (via JM Collection)



**Above:** This Ca.100 Idro I-AAWC, probably Cirrus-engined, was one of those operated by SITAR at Varese or Como in 1930. (JM Collection)

**Below:** Flown as a single-seater, probably as a senior officer's run-about, MM55430 was built with an in-line Asso 80R but here is seen with a Fiat A.54 radial installed. (via JM Collection)



The Reale Unione Nazionale Aeronautica (RUNA) was formed in December 1935 to actively promote civil aviation, particularly in the fields of sport and tourism, which included pilot training and gliding, as a kind of national umbrella organisation. In January 1937 it operated 36 flying schools and in the previous year had trained well over 600 pilots and also set up the first state gliding school at Asiago. Many Ca 100s were allocated to RUNA and were given civil registrations, while others formed part of the reserve schools' fleet. Apart from pilot training they were used as glider tugs and for propaganda and liaison tasks. Figures available for 31.12.39 indicate the disposition of active Ca 100s as follows:

Private and company-owned examples on the civil register: 22 landplanes and 1 floatplane version.

The reserve fleet consisted of 31 of the A.50 versions, 35 with S.63, seven Asso 80R, one A.54 and six S.63 floatplanes . [total 80]

RUNA had 40 with A.50 engines, eight with Asso 80R, one Walter NZ, one S.63 and two with Cirrus Hermes [60 landplanes], together with six S.63, one A.54, one A.53 and one 135 hp Farina T.58 floatplanes [9]; a total of [69].

The Regia Aeronautica still had some 293 Ca 100s (including 14 floatplanes) in May 1940 but by July 1943 the figure had fallen to 241 of which the majority were S.63 powered models.



**Above:** This Fiat A.50 powered Ca.100 is seen in RAF markings at Catania, Sicily on 14.10.43 and was said to have been used as a hack by an SAAF unit. (via JM Collection)

**Left:** Taken over by 112 Squadron during the advance into Sicily, this S.63-powered Ca.100 was MM 56034 originally and presumably also wore I-CATI. (via JM Collection)



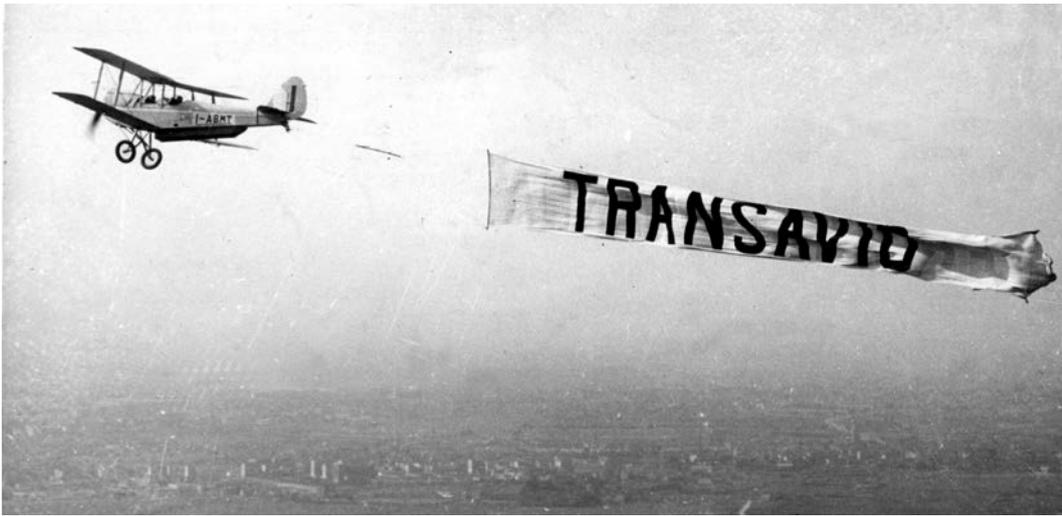
**Above:** Caproni Ca.100 I-ABEL c/n 3112 (Cirrus Hermes) was first registered in 1930 and survived the war, being photographed soon afterwards as a floatplane tied down on lesolo beach. (via JM Collection)

**Below:** I-RAVP / MM 56234 was operated by the Reserve School at Lugo di Romagna before the war. (via JM Collection)



When the Allies entered Sicily five examples were captured at Catania on 5.8.43. Three were impressed by 112 Sqn RAF and are believed to have been given codes GA-1 to GA-3, having originally been I-ABOY, I-CATI and one other. Another was used by 3 Sqn RAAF and this has been quoted as I-GUAS or I-ADEE. One also went to 450 Sqn RAAF and probably featured an OK- code as a result. There is an additional report of one Ca 100 being used by a SAAF Boston unit – either 12 Sqn or 24 Sqn therefore – but whether this was one of the above or a different machine is unknown. These Ca 100s doubtless played an important role in providing some recreational flying for members of the units moving into Italy.





**Left:** I-ABMT acted as a banner tow plane for the Italian cargo and publicity company Transavio, based at Milan-Bresso. It is seen here operating over Milan in 1947 with an under-fuselage container for stowing the banner. (JM Collection)

**Below:** Two pictures show I-ABMT in a poor state at Bresso in 1983 with the Milan Aero Club and still in Transavio titles. It was finally restored in 2000 and is currently airworthy as a landplane. (Ian Callier)



**Above:** I-BIZZ, seen post-war, was one of the 130 hp Walter 9-cyl radial versions of the Ca.100. (via JM Collection)

**Below:** Austrian A.54-powered Ca.100 473/OE-TCC was the former MM 55770, one of a batch of 20 second-hand examples acquired in the mid-1930s. (via JM Collection)



Relatively few Ca 100s saw service outside Italy. In 1935 Caproni concluded an agreement with the Peruvian government for a number of examples and for licence construction of more. A factory opened in 1937 but closed soon afterwards when only twelve examples had been built. At least eight, possibly eleven, appeared on the civil register after service with the Peruvian Air Corps.

Austria acquired twenty ex-Regia Aeronautica Ca 100s for flying training which were operated by the Austrian Aero Club with service numbers 471 – 490 and civil-style 'registrations' OE-TAC to OE-TVC (penultimate letter changing in sequence excluding J and Q). Their former Italian serials reveal that they were built as a mixture of A.50, A.54 and S.63 powered models.

One is known to have been supplied to Portugal in 1933 and two flew with the Nationalists in the Spanish Civil War. Several photographed 'in Albania' were almost certainly there as part of the pre-war Italianisation programme. A single Gipsy-engined Ca 100 was imported into the USA in August 1938 as NC57K with c/n quoted as GC-C1. No further information has been found about Ca 100s built in Bulgaria by subsidiary company Kaproni Bulgarski as the KN-1.

Five original Ca 100s remain.

I-BIZZ c/n 3488 ex MM.56271, a late A.50 model is now in the Royal Saudi AF Museum.

I-DISC c/n 3752 ex MM.56237, an S.63 Idro formerly of Como AC is in Caproni Museum, Trento.

I-GTAB c/n '1', S.63 powered, is displayed as FIR-9 in the Vigna di Valle museum.

I-ABOU c/n 3992 ex MM65156, an S.63 Idro of Como AC is still current but suffered an accident on 11.7.06 when it collided with Cessna 172N floatplane I-FJJS on take-off. Now rebuilt and re-flown 9.10.

I-ABMT c/n unknown, ex MM.55914, an S.63 model after years of storage with Milan AC was restored to flying condition and is current as a landplane.

Two replicas have also been built in recent years for a private collection at Trento, wearing marks I-CAMM and I-CAVI they were noted active in 2007. The latter is also reported as I-MAVI, the marks I-CAVI being current on another aircraft.

## Airliners in Warpaint - Warbirds in Civvies: 3

# Air France Libre - Les Lignes Aériennes Militaires 1941-1945

Michael West

General Charles de Gaulle, having escaped to London, had little support and no French territory for a base when he made his BBC broadcast to rally the 'Free French' on 18th June 1940.

Many of the French personnel who had escaped to England opted for repatriation after the Pétain armistice with Germany but some aircrew volunteered for the RAF whilst others went with de Gaulle. A few French aircraft escaped to England; these are believed to have included two Potez 63, three Dewoitine D520, two Caudron Luciole, three Caudron Simoun, one Caudron Goeland, one Farman F222 and one Potez 540.

After the British shelling of the French fleet at Mers-el-Kebir, to prevent it from falling into German hands, the breaking off of diplomatic relations by Pétain and the failure of Operation Menace at Dakar, Senegal, it was fortunate for the British and Free French that Félix Éboué, the mixed-race Governor of French Equatorial Africa (consisting of Chad, Cameroon, Ubangui-Chari, and Gabon) favoured the Allied cause. The necessary diplomacy was concluded with General Larminat on board the camouflaged BOAC Short S.30 'Clyde' moored on the Congo river at Leopoldville on 19.8.40. De Gaulle then moved to Douala, Cameroon on 2nd October 1940 and the first military action for his forces, including the Force Aérienne France Libre (FAFL) was to secure Gabon where some Vichy elements were resisting.



**Above:** Short S.30 G-AFCX "Clyde" in wartime markings. The Empire boat acted as a conference venue to ensure French Equatorial African states' support for the Allied cause in August 1940. (JM Collection)

**Below:** Blenheim IV "4" wearing the Cross of Lorraine of the Free French at Rayak, Syria in 1941. (Kinnear/3 Sqn Association, RAAF)



**Above:** General de Gaulle arrives at Damascus in 1942 in the Dewoitine D.338 FC-ARI. (M West collection)

The Free French acquired several aircraft with the territory, including two Martin Marylands (nos.109, 110) and three Bloch 120 transports (nos.7,8,10). Equipped with Blenheims and Lysanders the FAFL supported Free French troops against the Axis forces in Southern Libya, the first successful actions being at Koufra and Bir-Hacheim.

In June 1941 a British Empire Force (including Australians, Indians, and some Free French under General Catroux) invaded Vichy French Mandated Syria and Lebanon to protect British oil supplies from Iraq and Iran. After a few weeks of combat the French garrison capitulated and a Free French administration took over. Most of the French garrison (ca. 20,000) opted for repatriation. A minority joined de Gaulle's Free French Forces. Lionel de Marmier from the Free French 'Lorraine' Blenheim squadron was tasked with creating a 'Lignes Aériennes Militaires' (L.A.M.) by De Gaulle from the various transport/bomber types abandoned by Vichy in Syria. An airline with long-range types was essential to link the Free French Levant (Syria, Lebanon) with Equatorial Africa and had the bonus of displaying their Cross of Lorraine symbol en-route. Much of this 'SYRAF' route was upgraded and maintained under contract by Pan American Africa in 1941 to facilitate the flow of equipment from West Africa to Egypt .

The initial L.A.M. fleet included:

DEWOITINE D338

no.4 F-AQBD became FL-AQB 'Belfort'

no.27 F-ARIE became FL-ARI 'Verdun'

FARMAN

222 no.10 (military) FL-ARM 'France'

222.3 no.2 F-BAFM FL-AFM 'Paris'



**Above:** Dewoitine D.338 FL-ARI photographed in Egypt 1940/41.

**Left:** The other D.338 used by the Free French seen after registration change to FC-AQB. (both via JM Collection)



**Left:** The Dewoitine D.338 F-AQBD seen at Algiers in 1943 after reverting to its former civil registration. (ECPAD/ Hannah/ Marson)

**Below:** The same aircraft as FC-AQB showing the name "Belfort" was frequently mis-identified as FC-AOB but the name confirms the identity. (via JM Collection)

**POTEZ**

- 540 no.242 (military/OD-AAF) FL-ASM
- 621 no.13 FL-AYM 'Dunkerque'
- 650 no.2 (military) FL-ATM 'Nantes'

**CANT**

z1007bis FL-AVM 'Bir-Hacheim'  
 Captured from Italians at Enfidaville, Tunisia  
 Reportedly re-engined with Twin Wasps by LAM Chief Engineer Chevade.

And on a 'lighter' note the homebuilt Chevade 'Papillon' S-YRIE and the Younanoff L-IBAN were use for local liaison duties.



Note that the FL- prefix (France Libre) was soon changed to FC- (France Combattant) during 1942. There is film of an early visit to Syria by de Gaulle in D338 FC-ARI. (On a previous visit he had arrived in an RAF Bristol Bombay!) Two Lodestars were later delivered marked F-EFAA and 'FAB'. From 1943 many aircraft were marked with the last three letters only e.g AXM or FAA, while some reverted to their original F-A or F-B registration and the aircraft were sometimes marked 'Air France'. (The Croydon Airport Society has records of many visits in late 1945 of Air France Bloch 220s and Lodestars still carrying the three letter markings and roundels).



**Above:** A further variation of the same aircraft's markings, FL-AQB is seen at Damascus with the Cross of Lorraine below the cockpit.

**Left:** Farman 222.3 FL-AFM was formerly F-BAFM.

**Below:** The LAM also used this captured Cant z1007bis which was named "Bir-Hacheim" and registered FL-AVM. (all: M West collection)



Often the manufacturer's serial number or the former US military serial number was applied externally as the identifier as on de Gaulle's Lodestar 'FRANCE' 2609. Aircraft names (usually French towns or significant battles) were re-used when the Lodestars supplanted the assortment of French types in 1943.

In 1941/42 a Lockheed 12 (c/n 1226), a Beech 18 (c/n266) and a Stinson type together with three Howard DGA 141 Ambulance planes (the latter donated) were shipped to the Free French port of Pointe-Noire from the U.S.

Also in 1941 the Cunliffe-Owen OA-1 Flying Wing G-AFMB was ferried to the Free French by Jim Mollison via Malta, Cairo, Wadi Halfa, Khartoum, El Fasher, El Geneina, and Fort Archambault between the 7th and 28th June 1941. Mollison claimed to have flown direct to Malta across occupied France, other sources suggest his route was via Gibraltar. De Gaulle gave Mollison a jewelled cigarette case in gratitude but is believed not to have flown in the 'Aile Volante' which was mainly used for freight. It ended the war derelict at El Kabrit, Egypt. (See *Archive*, Summer 2008 for full history of this aircraft)

Farman 222 no.19 which had escaped to the UK in 1940 was shipped to Pointe-Noire in 1942

L.A.M. received one Lodestar in 1941, three in 1942 and the remainder in 1943, some of these in exchange for US rights to use Pointe-Noire.

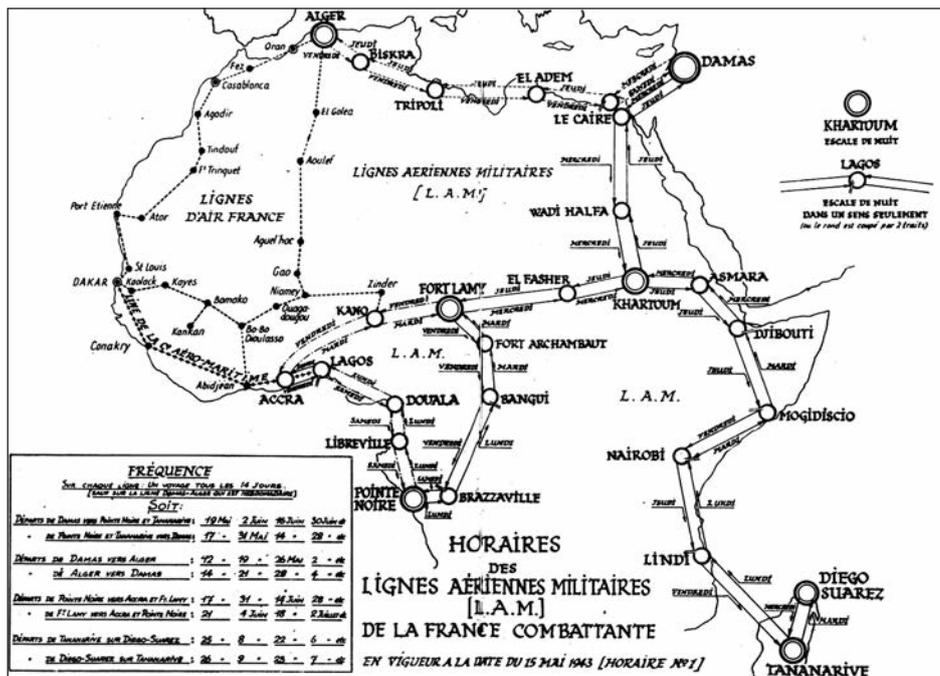
**Lockheeds with L.A.M.**

- Lockheed 10A      c/n 1025      marked 1025  
Ex NC14936, G-AFCS, FAFL?: used by Gen de Gaulle 1941 to visit Chad. Accident 19.11.43
- Lockheed 12A      c/n 1226      marked 18130  
Ex NC18130, NR18130, NC18130, F-ZCAW.  
To G-AHLH, EI-ALV, F-BUIE
- Lockheed Hudson IV      c/n 414-7008      marked FK532/7008  
Ex 42-47088. W/o 15.3.44

Lockheed 18 (Lodestar, C-60):

- c/n 2092      marked FL-AZM, 2092 "Tours"  
Ex 253502, AX757, G-AGCL. To F-BAML 7.45
- 2163      FL-AXM "Koufra"  
Ex 129649, EW995. E/o 30.9.45
- 2238      FC-BAA  
Ex 232192. To F-BAMJ 6.46
- 2239      FC-BAB "Verdun"  
Ex 232193. To F-BAMK 6.45
- 2332 or 2328      FC-BACor BAD \*
- 2006 or 2559      FC-BAEor BAF \*
- 2559 or 2560      FC-BAGor BAH \*
- 2609      FC-BAI, 2609 "France"  
Ex 316449. To F-BGOT 1.54
- 2606?      FC-BAJ  
Ex 316446. To F-BALX 6.45
- 2604      F-EFAA  
Ex 316444. To F-BALZ 4.45
- 2605      F-EFAB  
Ex 316445. To F-BAMA 4.45
- 2006      F-ARTF  
To N9965F, N9955F, OH-VKU

\* Possible tie-ups:  
FC-BAC or BAD ex 255913 or 255913.  
BAC became F-BALU 6.45  
BAD was w/o 30.12.44



**Above:** Route map showing Lignes Aériennes Militaires services in Africa and the Middle East in 1943. The days on which the flights were scheduled are shown between locations. (M West collection)

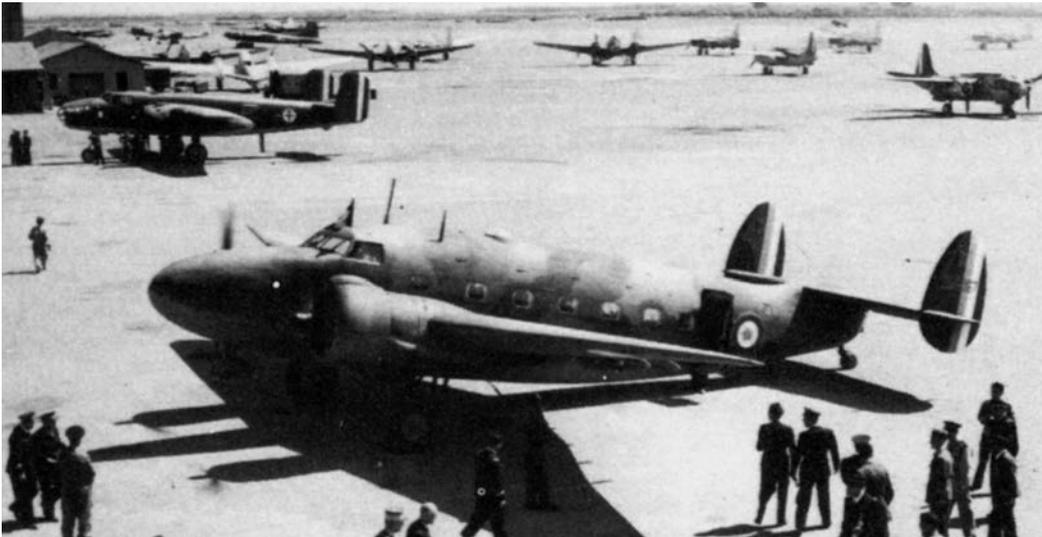
**Below:** "Dunkerque" was Potez 62.1 FL-AYM, seen here with crew at Damascus. (M West collection)



**Above:** The Cunliffe-Owen OA-1 derelict at El Kabrit in Egypt at the end of the war. (D.Rough)

**Below:** Potez 540 "242" ex OD-AAF at Rayak, Syria, is believed to be FL-ASM. (ECPAD/ Hannah/ Marson)





**Above, left:** LAM Hudson FK532 / 7008 which did not survive the war.  
**Above:** Lodestar F-EFAA with another example alongside, about 1943.  
 (Both: ECPAD / Hannah/ Marson)

**Left:** A number of Lodestars survived to become civil post-war. Here Air France's F-BALX was visiting Eastleigh on 5.10.46. (JM Collection)

**Left:** This image of a Lodestar in French military colours in North Africa was captioned as 42-25607 which is clearly in error. From the visible numbers we conclude that it should be 256067 or 25667. Of these 256067 seems most likely, making it FC-BAG or FC-BAH. The serial is known to relate to the aircraft used by General Valin in 1943. Interestingly, the B-25J behind on the left also appears to be a VIP transport, without turrets and wearing the Cross of Lorraine. (ECP Armées via C Cain / JM Collection)

FC-BAE or BAF ex F-ARTF or 256066  
 .BAF named "Patrie", also "Paris"  
 C/n 2006 F-ARTF was originally with Vichy Air France  
 FC-BAG or BAH ex 256066 or 256067  
 C/n 2559 was w/o; 2560 intended F-BGXN, ntu.  
 FC-BAH named "Paris"  
 The correct c/n tie-ups for FC-BAC to BAH are still uncertain.

#### Nov 1942 Operation Torch, Allies in North Africa

The Americans had maintained diplomatic relations with the French government of Marshal Pétain and had a consulate in Vichy right up to Autumn 1942. The American-led invasion of North Africa (Operation Torch) in November 1942 was carefully planned with intelligence gathered from within Vichy France and Diplomat Robert Murphy's agents in Algeria and Morocco. Eisenhower relates (In 'Crusade for Europe') that Murphy was flown by Clipper from Lisbon to Washington then flown back to the UK under a false military identity to brief Eisenhower on the situation in Algiers. Eisenhower also records that de Gaulle was not informed of the planned invasion and the Free French played no part in it. General Giraud was spirited out of Vichy France by American submarine ready to be installed as the Governor of Algeria, the objective being a swift collapse of military resistance and a rapid change of administration. The landings were successful, the fighting bloody but brief. However, Giraud's path to Governor was less straightforward. Admiral Darlan, appointed by the Americans to form an administration, was assassinated and only then did Giraud take over.

Some months later the first L.A.M. aircraft and crew flew into Algiers. Instead of receiving heroes welcomes they were initially cold-shouldered officially and socially by the former Vichy personnel. The LAM organization was eventually retitled RAMF (Réseau Aérien Militaire Français) then RLAF (Réseau des Lignes Aériennes Françaises) integrating LAM with Air France, Air Afrique and Aeromaritime operations. In addition to reconnecting the various pre-war French African territo-

ries, LAM's Lodestars flew to Moscow via Teheran to supply the Normandie-Niemann squadron. LAM also reached India .

Free French troops (of many races) fought in Italy from 1943, and were part of the Invasion of Southern France after D-Day. It was pressure from de Gaulle and Leclerc's military successes which persuaded Eisenhower to liberate Paris early in the campaign, rather than by-passing the city.

LAM's Lionel de Marmier was able to march with De Gaulle in the Liberation parade in Paris in August 1944 and would perhaps have headed the post-war Air France but tragically went missing in a Lodestar, probably FC-BAD, over the Mediterranean on December 30th 1944.

*Tinyurl links to videos and stills on this subject include:*  
 all prefixed <http://tinyurl.com/>

De Gaulle Fort Lamy Mar41 DH86 DIONE	3ao8emx
De Gaulle arrives Damascus in Bristol Bombay	3x44m4c
General Catroux arrives Damascus in Hudson FK532	6xpjwp5
Lignes Aériennes Militaires documentary	2v7c86f
De Gaulle ; 'Moyen Orient' in D338 FC-ARI	3yuaptf
De Gaulle arrives Algiers 30May43? Lodestar 'Paris'	3928xgb
De Gaulle meets Eisenhower near D-Day Lodestar 2609 'France'	3y5q7mh
Friction with de Gaulle LIFE magazine editorial June 1944	5vz55yf

#### Acknowledgements:

Thanks to Peter Marson for scans from Don Hannahs collection , also Douglas Rough, and to Terry Murphy, Peter Lloyd, Willy Henderickx on abix  
 Bibliography...ICARE #102, Les Ailes Françaises 1939-1945 #12, The Lockheed Twins (P Marson), C.A.S Newsletter Autumn2006, biographies of Eisenhower, Mollison.

## COMPLETE CIVIL REGISTERS: 15

# X- UN- YU- YUGOSLAVIA

With thanks to the following for their contributions to this issue:  
John Wegg, Vojislav Jereb and Ognjan Petrovic

**Right:** JAT had two DC-6Bs of their own but in 1968 they also made use of Inex-Adria's YU-AFD, seen here in JAT titles at Toronto 20.8.68.



### The post-war Yugoslavian Civil Aircraft Register (continued)

#### YU-AFA to AFZ series: 4-engined piston aircraft

YU-AFC	Douglas DC-6B Ex PH-TFH, PH-DFH. Adria Aviopromet, purchased 12.8.61. CoR 323. Put on military reserve register as s/n 7453. Company re-named Inex-Adria Aviopromet .68. Last service 15.5.71. Wfu 7.71, sold as (VR-ABJ), ntu, then 9.71 to VR-ABM, 7O-ABM, Alyemda.	43550	8.8.61
YU-AFD	Douglas DC-6B Ex PH-TFI, PH-DFI. Adria Aviopromet, purchased 9.8.61. CoR 324. Put on military reserve register as s/n 7454. Company re-named Inex-Adria Aviopromet .68. Used by JAT with their titles from 14.6.68, returned to IAA later .68. Last service 19.7.71. Wfu .71, sold 9.6.71 as VR-ABN, 7O-ABN, Alyemda.,	43551	12.8.61
YU-AFE	Douglas DC-6B Ex PH-TFK, PH-DFK, HK-535, PH-DFK. Adria Aviopromet, purchased 26.6.62. CoR 328. Company re-named Inex-Adria Aviopromet .68. Wfu 12.6.68, regn cancelled and sold (on paper 14.8.68) as VR-ABJ, 7O-ABJ, TF-ABJ. Broken-up, Reykjavik 1.74. (or 1.75?)	43552	18.4.62
YU-AFF	Douglas DC-6B Ex PH-TFL, PH-DFL. Adria Aviopromet, purchased 26.6.62. CoR 333. Company renamed Inex-Adria Aviopromet .68. Wfu 1971, regn cancelled 3.4.72; stored outside at Ljubljana Airport. Now displayed at Brnik airport, Ljubljana, Slovenia.	43553	26.6.62
YU-AFG	Douglas DC-6A Ex PH-TGB, PH-DFB, N4065K, PH-MAM. Inex-Adria Aviopromet, CoR 858. Purchased 21.5.71, d/d ex-Amsterdam 26.6.71. Last service 6.11.71. Wfu, sold 6.76 as 7O-ABO.	44257	14.5.71

#### YU-AGA to AGZ series: 4-engined jet aircraft.

YU-AGA	Boeing 707-321 Ex N723PA. Leased by JAT 26.4.70. D/d 18.5.70 to GATX/Boothe, lease/purchase by JAT 24.5.70. CoR 788. Severe wing damage at JFK 13.8.72, repaired and in service 24.10.72. Regn cld 10.7.74. Returned to GATX/Boothe 7.74, becoming N723PA 11.74, N711UT, 9Q-CRY, TC-JCF. B/u Ankara 2.84.	17601	24.5.70
YU-AGB	Douglas DC-8-55F Ex N806SW. Leased by Inex-Adria from Seabord & Western, from 20.4.72 to 8.10.72. CoR 878. Regn YU-AGB ntu and cld 21.7.72. Returned to Seabord 8.10.72, N806SW, then TU-TCH, N52958, N811TC.	45883	11.1.72
YU-AGC	Not used. (JAT not using 'C' due to superstition following w/o of -ABC, -ACC 1 & 2, and -ADC)		



**Above:** YU-AFD in Adria Airways titles at Gatwick in the early 1960s. (Eric Wagner)

**Below:** YU-AFF, wearing the later Inex-Adria Airways titles, on the apron at Athens. (Ian Burnett)



**Above** JAT's first Boeing 707, YU-AGA seen at London-Heathrow. (Peter Marson collection)

YU-AGD	Boeing 707-340C Ex AP-AVL. JAT, leased from PIA 14.4.72 to 12.72. CoR 900. Regn cld 17.10.72. Returned to PIA, AP-AWY 4.73, then PakAF 68-19866.	19866	14.4.72
YU-AGE	Boeing 707-340C Ex (AP-AUO), AP-AUN. JAT, leased from PIA 1972-75. CoR 901. Purchased 3.6.75. Regn cld. 31.1.85. Stored Zagreb, then broken up.	19284	31.5.72
YU-AGF	Boeing 707-340C Ex AP-AUP. JAT, leased from PIA 20.6.72 to 12.72. CoR 902. Regn cld 11.12.72. Returned to PIA, AP-AXA. Broken up.	19286	20.6.72



**Above:** YU-AGI in JAT colours of 1974 was a former Northwest Orient aircraft which had a colourful career later. (O M Petrovic)

**Below:** A second ex-Northwest Orient Boeing 707-351C, YU-AGJ at Singapore in the mid-70s shows the English titles on the starboard side. (JAT via O M Petrovic)



**Above:** The attractive lines of the Caravelle well-illustrated in this publicity photo of YU-AHG. (JAT via O M Petrovic)

**Bottom:** Port side view of Caravelle VI-N YU-AHB. (O M Petrovic)

YU-AGG	Boeing 707-340C	19285	31.3.72
	Ex AP-AUO. JAT, leased from PIA, then purchased 5.6.75. CoR 903. Leased to Air Mali 11.79 – 12.79. Wfu 30.4.85 and cancelled. Stored Zagreb, broken up.		
YU-AGH	Boeing 707-321	17594	28.5.73
	Ex N716PA, TC-JAN, N716PA. JAT, leased from Pan Ayer 30.6.73, CoR 957. Regn cld 28.12.73 and returned to N716PA. To N716HH 4.74, stored Stansted .76; broken up 9.77.		
YU-AGI	Boeing 707-351C	19210	9.4.74
	Ex N369US. JAT, purchased 9.4.74. CoR 990. Regn cld 22.1.88. Sold as N152LM 19.2.88, then CX-BPZ, N152LM, HR-ANG, HP-1235CMP, N777FB, EL-AJB.		
YU-AGJ	Boeing 707-351C	19411	17.4.74
	Ex N371US. JAT, purchased 17.4.74. CoR 991. Leased to Nigeria Airways 9.80 to 11.80. Regn cld 19.6.87. Sold		

23.6.87 as N740FW, then N851MA, N740FW, 5X-JET, 3C-JET, 3C-QRO, 9Q-CKR.

**YU-AHA to AHZ series:** 2-engined jet aircraft

YU-AHA	SE.210 Caravelle VI-N	139	11.1.63
	JAT "Dubrovnik". F/f 5.1.63, d/d 11.1.63. CoR 335. Last service 5.1.77, stored Belgrade. Regn cld 1.2.78. Sold to Aerotour as F-BYAL regd 8.2.78. Broken up, Orly 11.80.		
YU-AHB	SE.210 Caravelle VI-N	135	27.2.63
	Ex F-WJAK. JAT "Bled". CoR 336. F/f 24.7.62, d/d 27.2.63. Last service 19.4.76. Wfu 5.76 with TT 24,866, TL 24,350, Regn cld 14.9.78; stored Belgrade. Preserved at National Aviation Museum, Surcin, Belgrade.		
YU-AHC	Not used. Intended for Caravelle c/n 151with CoR 337 but regn cancelled at JAT request (see YU-AGC above).		
YU-AHD	SE.210 Caravelle VI-N	151	31.5.63
	JAT "Opatija". F/f 16.5.63, d/d 31.5.63. CoR 446. (Originally intended to be YU-AHC) Crashed into Mount Maganik 11.9.73 on approach to Titograd in violent storm. 44 fatalities. Regn cld 16.10.73; TT 23,394, TL19,208.		
YU-AHE	SE.210 Caravelle VI-N	194	8.6.65
	Ex F-WJAM. JAT "Budva". F/f 5.7.65, d/d 9.7.65. CoR 550. Last service 1.4.75. Wfu 1.7.75, TT 23,046, TL 19,216, regn cld 19.9.78, stored Belgrade, then broken up 4.84.		
YU-AHF	SE.210 Caravelle VI-N	218	29.5.67
	JAT "Split". F/f 23.5.67, d/d 29.5.67. CoR 612. Last service 31.12.76, stored Belgrade. Regn cld 21.7.78. Sold to Aerotour, d/d 31.8.78, regd F-BVPZ. Wfu and displayed at Musée du Delta, Athis-Mons, near Paris-Orly Airport.		
YU-AHG	SE.210 Caravelle VI-N	233	11.1.68
	JAT "Ohrid". F/f 26.12.67, d/d 11.1.68. CoR 652. Last service 31.12.76, stored Belgrade. Regn cle 20.3.78. Sold to Aerotour 2.78 and regd F-BYCY 31.3.78. Wfu, fuselage displayed at Parc des Jeux, Xertigny-Moyenpay, near Epinal, France.		

**To be continued . . .**



# The FARMAN 190 and its derivatives

Michel Barrière

PART TWO



## Farman F.190 (GR 5 Ba / GR 5 Bc Titan)

### F.190 Production list

The basic version of the Farman F.190 family was the 230 hp Gnome-Rhône 5 Ba Titan powered model. This was the version produced in the greatest numbers because of the support of Gnome-Rhône as shareholder and partner in the large commercial transport companies already committed to using their Titan and Jupiter engines.

From 1928 to December 1930, fifty-two F.190 units of all versions were built, of which thirty-four were equipped with the GR 5 Ba corresponding to the basic version. Eighteen others were used for the development of the first examples of the F.191 to F.199 versions and probably also the F.290. From January 1931 there was differentiation between versions; the appearance of more recent versions of the Series K engines accounts for only five more examples of the F.190 with the GR 5 Ba being produced, increasing the total for this model to thirty-nine examples.

Several commercial F.190s, initially equipped with 230 hp GR 5 Ba Titan engines, later received a 240 hp GR 5 Bc engine without changing their designation. This development seemed to correspond with an upgrading operation, often comprising other improvements such as the change to a reinforced wing, the addition of firewall partitions, or the installation of emergency hatches.

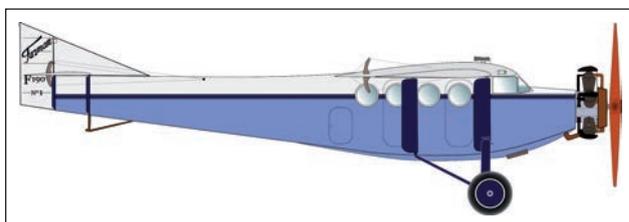
On the creation of the national company Air France, which did not favour single-engined types, only those F.190s fitted with modern radio and direction-finding equipment were taken over. The others were either scrapped or sold on to private operators.

The basic F.190 production list is not known in full. Some information, shown in brackets, is probably correct however, resulting in the following table:

No.	Date (*)	Regn.	c/n	Initial version
1	12 Nov 28	F-AIVP		F.190 n°1
2	05 Apr 29	F-AIXL	7111	F.190 n°2
3	05 Apr 29	F-AIXM	7112	F.190 n°3
4	24 Jan 29	F-AIXQ	7113	F.190 n°4
5	28 Mar 29	F-AIYC	7114	[F.191-1]

*Above:* The unregistered Farman F.190 prototype in flight showing modified wing plan but retaining the short fin and small rudder. (via Harm J Hazewinkel)

*Below:* The prototype in Farman house colours. (M Barrière)



6	15 Mar 29	F-AIYD	7115	F.190 n°6
[7]	?	F-AIYR		F.190 n°7
[8]	17 Dec 30	F-AIYQ	7119	F.192 n° 1
9	Oct 30	F-AIYP		F.190 n°9
10	26 Apr 29	F-AJAA		F.190 n°10
11	21 Mar 29	F-AIYM	7117	F.190 n°11
12	29 Apr 29	F-AIZR		F.190 n°12
13	17 May 29	F-AIZS		F.190 n°13
14	17 May 29	F-AJAI		F.190 n°14
15	27 May 29	F-AJCC		F.190 n°15
16	14 Jun 29	F-AJBS	7131	F.190 n°16
17	12 Aug 29	F-AJDC	7132	F.190 n°17
18	10 Sep 29	F-AJDD	7133	F.190 n°18
[19]	20 Dec 29	F-AJCD	7134	F.192 n° 2
20	28 Jun 29	F-AJDP		F.190 n°20
21	[Jul 29?]	F-AJFB	7141	F.193 n° 1
[22]	Jun 29	F-AJEN		F.190 n°22
23	09 Jul 29	F-AJFC	7142	F.190 n°23
24	31 Jul 29	F-AJFM	7144	F.190 n°24
25	31 Jul 29	F-AJFN	7145	F.190 n°25
26	12/Aug 29	F-AJGN	7147	F.190 n°26
27	12/Aug 29	F-AJGO	7148	F.190 n°27
28	10 Sep 29	F-AJHN		F.190 n°28
[29]	Jan 30	F-AJID	7150	F.194 n° 1
[30]	13 Jun 30	F-AJIE	7151	F.194 n° 2
31	21 Sep 29	F-AJHZ	7152	F.190 n°31
32	21 Sep 29	F-AJIA	7153	F.190 n°32



**Left:** The prototype now wearing registration F-AIVP and with the enlarged fin and rudder fitted. (via Harm J Hazewinkel)

33	03 Nov 29	F-AJJJ	7157	F.190 n°33
34	16 Oct 29	F-AJJG	7158	F.190 n°34
[35]	10 Oct 29	F-AJJB	[7159]	F.192 n° 3
[36]	11 Dec 29	F-AJJK	[7160]	F.197 n° 1
[37]			[7161]	
38	28 Jan 30	F-AJLL	7166	F.190 n°38
[39]	Fev 30	F-AJLU	[7171]	F.192 n° 4
[40]	Mai 30	F-AJNH	7172	F.198 n° 1
[41]	17 Nov 30	F-AJTU	7178	F.192 n° 13
[42]	Jul 30	F-AJRX	[7179]	F.192 n° [7]
43	07/05/30	F-AJMV	7180	F.190 n°43
[44]				?
[45]				?
[46]				?
[47]				?
[48]				?
[49]	18 Sep 30	F-AJRY	7203	[F.190 n°49]
50	Sep 30	F-AJRV	7202	F.190 n°50
51	15 Nov 30	F-AJTS	7211	F.190 n°51
52	06 Dec 30	F-ALAP	7222	F.190 n°52
53	Jan 31	Militaire		F.190 Col n°53
54	06/31?			Export ?
55	29 May 31	F-ALKQ	7299	F.190 n°55
56	30 Dec 32	F-ALIP	7296	F.190 n°56
57	30 Dec 32	F-AMFF	7354	F.190 n°57

Table 3. F.190 Production List

\* Date of Certificat de Navigation, or alternatively date tested, received or delivered.

The list becomes unreliable from the beginning of 1930. In February 1930 it was pointed out in the press that "it will become customary to change the type numbers of aircraft according to the type of engine fitted. Thus the Farman 190 is the number reserved for the Titan motor. The Salmson, Lorraine, Farman and Hispano engines having their own numbers, 191, 192, 193 and 194." ("L'Intransigeant" 2nd February 1930)

If the errors in that brief article show that the system was not perfectly set up, it serves to raise doubts over the identification of some aircraft



Part of a company advertisement for the F.190's long-distance achievements using the early prototype photo with the Farman name drawn on.

in 1930, from no.39, more so because the production list contains important gaps. Thus, although appearing plausible, the identities of F.190s no.39 to 42 may be incorrect. The uncertainty becomes more obvious for c/ns 44 to 48; in this case the theory which we favour with the benefit of further knowledge, is that these represent the order for five F.290s – military models with the Gnome-Rhone 5 K, the upgraded version of the GR 5 Ba actually produced in 1930.

## FARMAN 190

AVION DE GRAND TOURISME ET DE TRANSPORT RAPIDE

**L**E long palmarès élogieux de cet appareil a édifié depuis longtemps la clientèle sur ses possibilités et nous dispense d'insister sur celles-ci, démontrées au cours des nombreux voyages de cet avion à travers le monde.



La conception très simple de cet avion, ses qualités de vol incomparables, sa remarquable endurance l'indiquent tout spécialement pour tout travail aérien à effectuer dans les meilleures conditions :

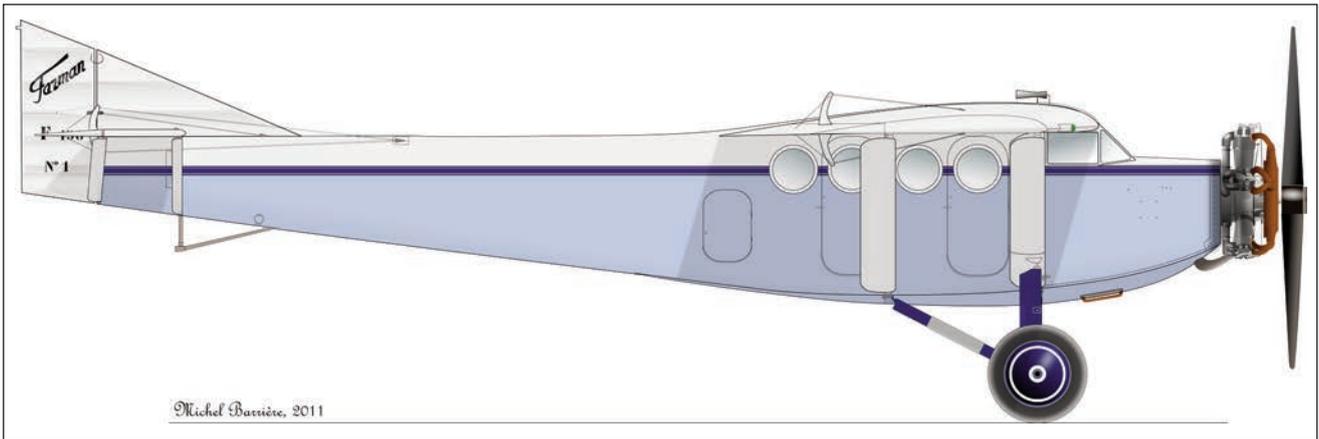
Transport de passagers — Transport postal — Service sanitaire — Relèvements photographiques, etc...

C'est en outre, l'avion de transition entre l'appareil de tourisme et l'appareil commercial.

**Above:** Farman publicity brochure (1932): The photographs used were always those of the prototype. The same images, more or less retouched, were used for publicity postcards for Lignes Farman or for Compagnie Aérienne Française. (M Barrière collection)

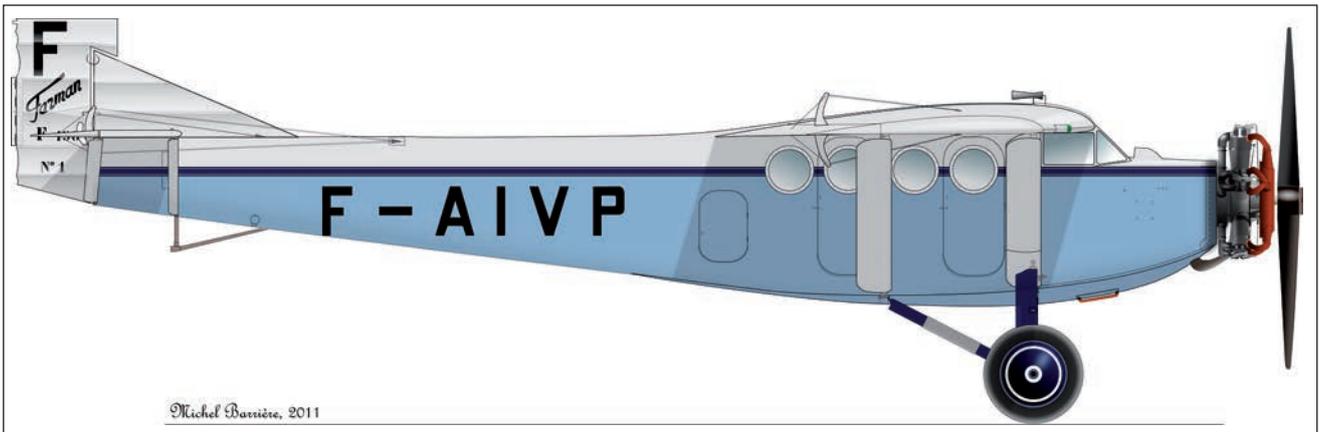
[Brochure translation: The extensive record of achievements of this aircraft has for a long time impressed its customers with its potential and enables us to emphasise these, as demonstrated during the numerous journeys by this aircraft across the world.

The aircraft's very simple design, its incomparable flight qualities and its outstanding endurance, show it to be particularly suitable for all



**Above:** The F.190 prototype in revised form in 9.28. The short rudder and small fin are apparent. (M Barrière)

**Below:** By 11.28 the prototype is seen with extended balanced rudder and now wears registration F-AIVP. (M Barrière)



aerial work to be carried out to the highest standards: Passenger transport – Carriage of mail – Ambulance service – Photographic surveys, etc... It is moreover, the transitional design between touring aircraft and commercial aircraft.]

### Individual F.190 histories:

#### F.190 no.1, c/n xxxx? F-AIVP

Two prototypes should have been quickly launched: a standard F.190 registered F-AIVP and an F.190 long-distance modified version known as the F.191 (?) wearing registration F-AIVQ. Their c/ns do not appear in the register, possible numbers being 7106, 7109 and 7110. These should correspond to the two aircraft above as well as F.180 no.3 F-AIVR. It may be thought likely that these last two, doubtless resulting from a joint application, correspond to c/ns 7109 and 7110.

In June 1928 the prototype Farman F.190 was put on display for the first time at the XIth Salon de l'Aéronautique in Paris. No oil radiator was to be seen fitted on the example exhibited. The aircraft's construction was simple and sturdy; its 14.10m span wing, typical of Farman creations, was perfectly rectangular. The control surfaces were not balanced and the triangular fin was very small. The two wing tanks contained a total of 370 litres of fuel. It was painted in what was to become the standard Farman scheme for the series: a medium blue lower fuselage, a dark blue line with white edging, upper fuselage, struts and wings silver and undercarriage and wheels in dark blue. (The processes for varnishing the fuselage and the wing were not identical. The product used resulted in a 'white/silver' appearance, often described as white when the aircraft was in flight.)

According to Jean Liron, Lucien Coupet carried out the first flight immediately after the Salon; the tests were continued in August and September and in the last week of September Coupet demonstrated the prototype to Technical Services at Villacoublay. By then the wing had adopted its definitive shape with the outer section tapered. On

October 15th Farman replaced the engine of the prototype. Three days later, "Les Ailes" magazine (issue no.380) announced the news that "Lucien Coupet, chief pilot of the Farman company, has completed the certification trials of the model 190". At the request of the S.T.Aé aerodynamic tests were carried out in the Eiffel wind-tunnel. The test programme used showed the fuselage fitted with the new wing but always having the short fin and the unbalanced rudder. The conclusions regarding the stability of the aircraft, released on November 10th, were favourable.

#### CdN / Cdl no.1968 issued 12th November 1928

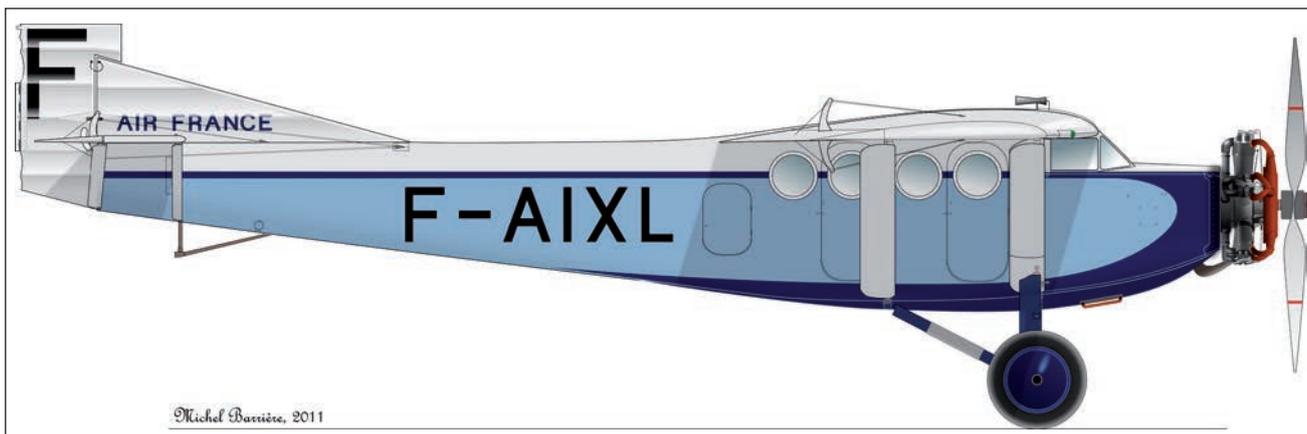
In November the F.190 prototype was flown with a balanced rudder but it still had the short fin. In this form the aircraft received CdN no.1968 and registration F-AIVP on 12th November 1928.

Assigned to S.G.T.A. (Lignes Farman), it was handed over to Julien Risser who carried out the first Paris – Brussels flight on 26th November 1928. On 19th and 20th December the aircraft performed test flights at Villacoublay, possibly to approve the new long fin.

A year later, on 28th October 1929, the prototype F.190 had accumulated 380 hours flying time, from which we may assume that it continued to take part in tests, in particular those of the Messier undercarriage. During the following three years it flew 70 to 80 hours per year. On 8th March 1932, with a total of 613 hrs 49 mins, the Titan 5 Ba no.5009, with which it had been fitted since October 1928, was replaced by Titan 5 Bc no.5063 from F-AJFN. Early in 1933 it suffered an accident. Returned to Billancourt on March 14th, it remained under repair from April 1st to May 10th.

When Air France was created the prototype was not retained by the national company. During the following years it made few flights, around 20 hours per year. Initially it remained in reprieve with Farman, probably used for displays and pleasure flights.

I was registered on 1st December 1935 to Louis Crolais, a 40-year old engineer and member of the Aéro-Club de France who qualified as a



**Above:** F-AIXL, F.190 no.2, in 1934 colour scheme including Air France titles. The dark blue on and below the cowling was a non-standard feature of this aircraft. The fin is now elongated. (M Barrière)

**Left:** F-AIXL in basic SGTA colour scheme prior to that above. (via JM Collection)



pilot in 1918. He took delivery on 16th December but he did not retain it for long and on 14th August 1936 F-AIVP was registered to Abel Pichon, a professional pilot born and living in Niort.

#### **CdN Veritas 1195, 5th March 1937**

Abel Pichon, who took over the post of chief pilot of the Aéro-Club de Quimper, moved to that town. Forbidden from flying by Veritas, the was transported by train and re-assembled in the club hangar. It did not receive a new authorisation to fly until May 1938. The management of the Aéro-Club then decided to buy the aircraft and, on 21st September, F-AIVP was registered to the Aéro-Club de Quimper et de Cornouailles and based at Quimper-Pluguffan. On 31st December Veritas issued a new flying ban on the aircraft specifying its general condition and the need for recovering of the wing and ailerons. This work was never carried out and the aircraft did not fly again.

#### **F.190 no.2, c/n 7111 F-AIXL**

The F.190 no.2 was probably put into production in August or September 1928. The aircraft made its first flight at Toussus-le-Noble in January 1929. Photographic evidence shows it at Toussus-le-Noble in December 1928 or January 1929 with a short fin.

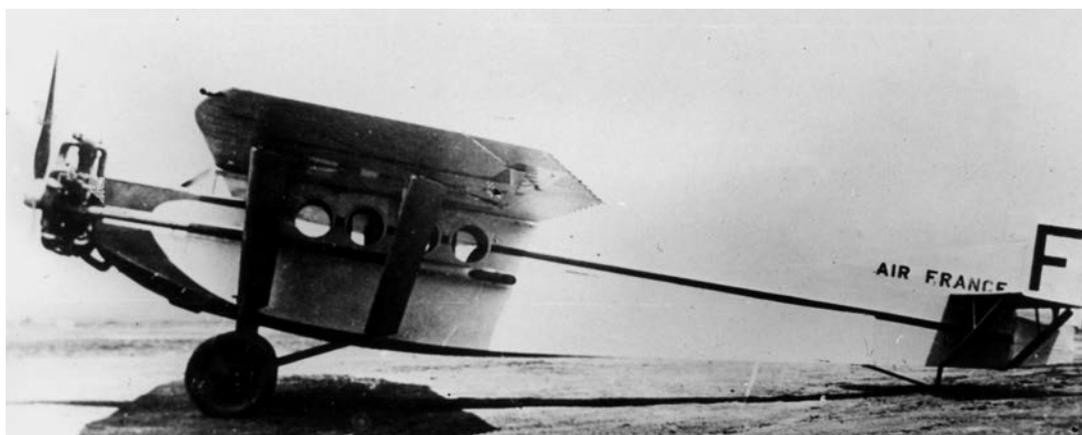
#### **CdN / Cdl no.2060 issued 5th April 1929**

Registered F-AIXL to the S.G.T.A.. On the 6th April 1929 a ceremony was organised at Le Bourget by Air Union to mark the 10th anniversary of the Paris – London service. On that occasion 18 aircraft were on display for the Minister Laurent Eynac; represented amongst them were Farman F.190s no.2 F-AIXL and no.3 F-AIXM. At that time Air Union did not use any Farman F.190 but it did place an order for its first examples (F.190 nos.26 and 27).

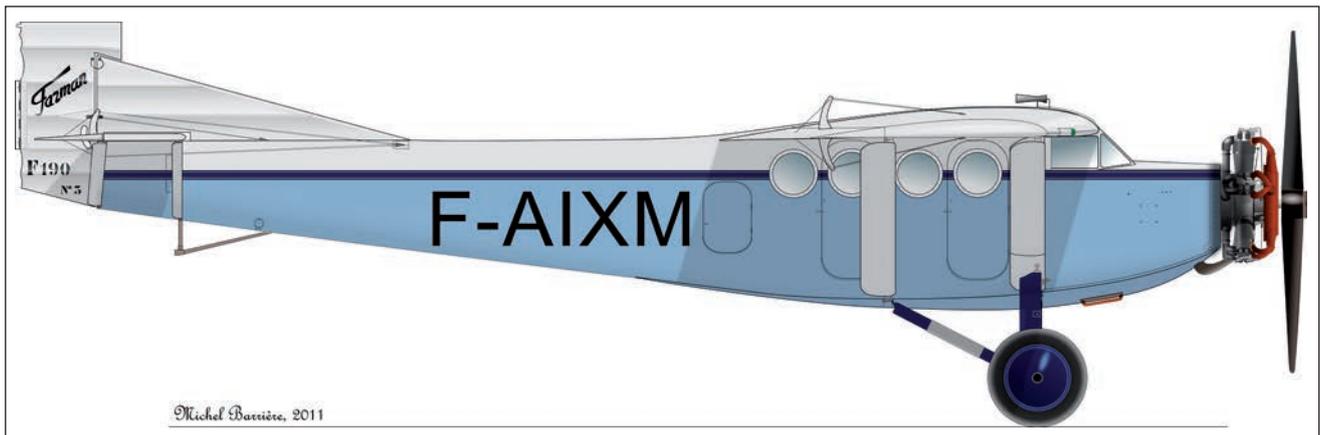
During the following years F.190 no.2 did not fly more than 30 or 40 hours a year; total flying time by August 1930 was 272 hours, 301 hours by August 1931 and 342 hours by November 1932. It had been modified and, specifically, fitted with a radio, lights for night flying and a direction finder, equipment that the S.G.T.A. F.190s used for the mail services on routes such as Paris – Cologne.

#### **CdN no.1216 renewed by Veritas 22nd June 1934**

In August 1933, F.190 no.2, named "L'Actif", was assigned to the Air France continental network and based at Toulouse-Francazals. Between 1935 and 1937 the use made of this Farman within the national company's network is not known. It may be that it was the aircraft used by Gaston Vedel, head of the base at Barcelona, particularly during the Spanish Civil War.



**Left:** The identity of this F.190 seems open to doubt. It may possibly be the unmarked prototype but the painted cowling seems to suggest no.2 F-AIXL, though by the time that went to Air France it would have been wearing its registration for some years. (Harm J Hazewinkel collection)



**Above:** F.190 no.3 was F-AIXM which served with SGTA for four years and is seen here in the standard 'house' colours that it would have worn in 1929. (M Barrière)

Throughout 1939 the aircraft remained on the books of Air France and Veritas recorded a total of 480 flying hours. However, in January 1940 F-AIXL was requisitioned by the Germans according to Air France archives. (Viel)

### F.190 no.3, c/n 7112 F-AIXM

#### CdN / Cdl no.2061 issued 5th April 1929

Registered F-AIXM to S.G.T.A.. Like no.2 it took part in the ceremony organised by Air Union at Le Bourget on 6th April.

According to its inspections the aircraft appears to have been used regularly by the S.G.T.A., carrying out 70 or 80 flying hours per year. Unlike no.2 it did not benefit during its career from any significant modification, which probably explains Air France's lack of interest towards it. In August 1933, F.190 no.3, named "L'Agressif", rejoined Air France but was put in store on 4th October and in May 1935 was withdrawn from use and cancelled from the register.

#### CdN no.1217 renewed by Veritas 8th May 1936, Cdl no.4688 issued on same date

On May 9th F-AIXM was registered to the Compagnie Nantaise de Navigation Aérienne (C.C.N.A.), a company created in 1935 at the instigation of René Marchesseau.

Born in 1897, René Marchesseau was a military pilot (warrant officer) who, in October 1929 with Marcel Goulette and engineer Jean-Michel Bourgeois, successfully achieved the first air link between Paris and Madagascar in F.192 no.3. Having left the army, in 1932 he founded a flying school at Berck-sur-Mer, then went to live at Pouliquen near Nantes. Convinced of the importance of aviation for supplying large towns with fresh produce he decided to get in on the act. (This was a common theme at the time – Jacques Sibour for example transported fresh fruit from Montpellier to the President of the Republic for the same reason).

After the first trials with a Farman F.190 chartered from Air France, he persuaded three industrialists in Nantes and the Aéro-Club de l'Atlantique to set up a company to transport fresh sardines in the summer season from the Loire Atlantique to major French towns such as Paris, Tours, Rennes, Poitiers, Angers, Vichy, etc.

In 1935 the company operated successfully with three ex-Aeropostale Latécoère 25s bought by Air France. In May 1936 a Laté 25 and the F.190 F-AIXM arrived to complete the fleet. However, strikes and a poor fish catch affected the company and despite an attempt to diversify into other types of fresh produce, C.C.N.A. was put into liquidation after a final flight in November 1936.

In January 1938 the aircraft was registered in the name of René Marchesseau who had opened a flying school at La Baule-Thouars. On 17th August an inspection at Thouars reported a total of 519 flying hours. Probably impressed. Subsequent fate unknown.

### F.190 no.4, c/n 71132 F-AIXQ

The order, followed by the start of production of F.190 no.4, probably took place in September or October 1928. It was actually on October 4th that Jean Dagnaux founded the Compagnie Générale d'Aviation "Air Afrique" (C.G.A.A.A.), a subsidiary of Gnome-Rhône. On July 5th 1929 the Compagnie Transafricaine d'Aviation (C.T.A.) was created with a capital of 6,000,000 francs of which Aeropostale owned half. The company found itself awarded a fifteen year concession to operate the routes between France, the Congo and Madagascar.

The purpose of acquiring the Farman F.190 was very soon determined: "The Air Afrique company which has been founded with the aim of establishing a route from Paris to Lake Tchad, the Belgian Congo and Madagascar has decided to carry out a study mission to examine the possibilities of creating this line and arrange the first surveys for setting up the required infrastructure. The choice of aircraft was determined as a small Farman 'limousine' with a 240 hp Gnome-Rhône Titan engine able to carry 4 persons." (Revue Gnome-Rhone, 1929)

The head of mission, was responsible for reconnoitring the Niger – Tchad section (that is Gao to Fort Lamy via Zinder) of the future Belgium – France – Congo – Madagascar air route. This section was the only one which Dagnaux's previous missions had not completed to finalise the route.

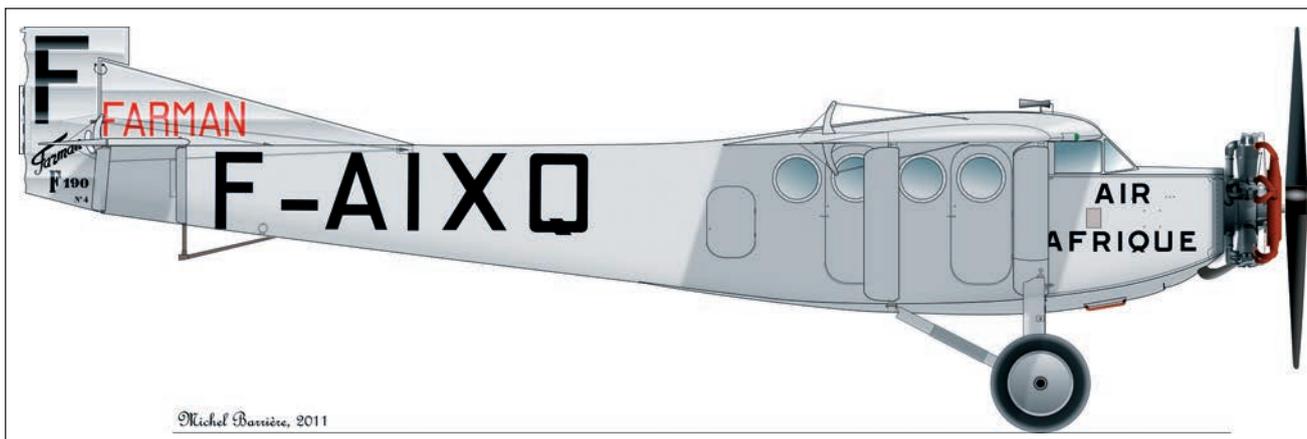
#### CdN / Cdl no.2016 issued 24th January 1929

Registered F-AIXQ to the C.G.A.A.A., F.190 no.4 was named "Air Afrique". It benefitted from several modifications in comparison with its predecessors and in particular had the long fin of future production models; the capacity of the wing tanks was only 355 litres, although the presence of supplementary tanks in the cabin was possible but never acknowledged.

Between January 29th and March 29th, flown by Marcel Lallouette accompanied by Paul-Louis Richard the technical director of C.T.A. and engineer Julien Cordonnier, F-AIXQ carried out the reconnaissance mission from Paris to Fort Lamy and return, covering 15,000 km. It took off from Paris on January 29th at 0945 hrs and the cold spell which dominated Europe that month made necessary an impromptu stop at 1130 hrs at the aerodrome of Parçay-Meslay (Tours) and then made crossing the Pyrenees very tricky. For the rest of the journey the mission continued without problems.

The itinerary was: Toussus (29.1), Tours (29.1), Cazaux, Madrid, Daimiel, Seville, Fez, Oujda, Oran, Colomb-Bechar, Adrar (08.2), Reggan (08.2), Gao, Niamey, Dosso, Tessaoua, Zinder (14-16.2), Maine-Soroa, N'Gouri (16.2), Fort Lamy (17.2), Maigoudouri, Kano (5-8.3), Niamey, Gao, Reggan, Timimoune, El-Goléa, Laghouat, Algiers (12-day stop over), Oran (22.3), Fez, Lisbon (27.3), Burgos (28.3), Poitiers (28.3), Le Bourget (29.3).

Lallouette later used the F.190 no.4 to ensure the welcome at Lisbon of F.190 no.10 and its delivery to SPELA. On May 7th it made its return flight from Lisbon to Paris non-stop in less than ten hours, a flight which pre-supposes the use of a supplementary fuel tank. On May 15th, flying direct from Paris, Lallouette landed at Barcelona-El Prat de Llobregat to exhibit the Farman in the Exposition Universelle de Barcelona which opened on the 17th.



Michel Barrière, 2011



**Above:** Farman F.190 no.4 in 1929 wearing Air Afrique titles for its route-proving flight from Paris to Fort Lamy and back. (M Barrière)

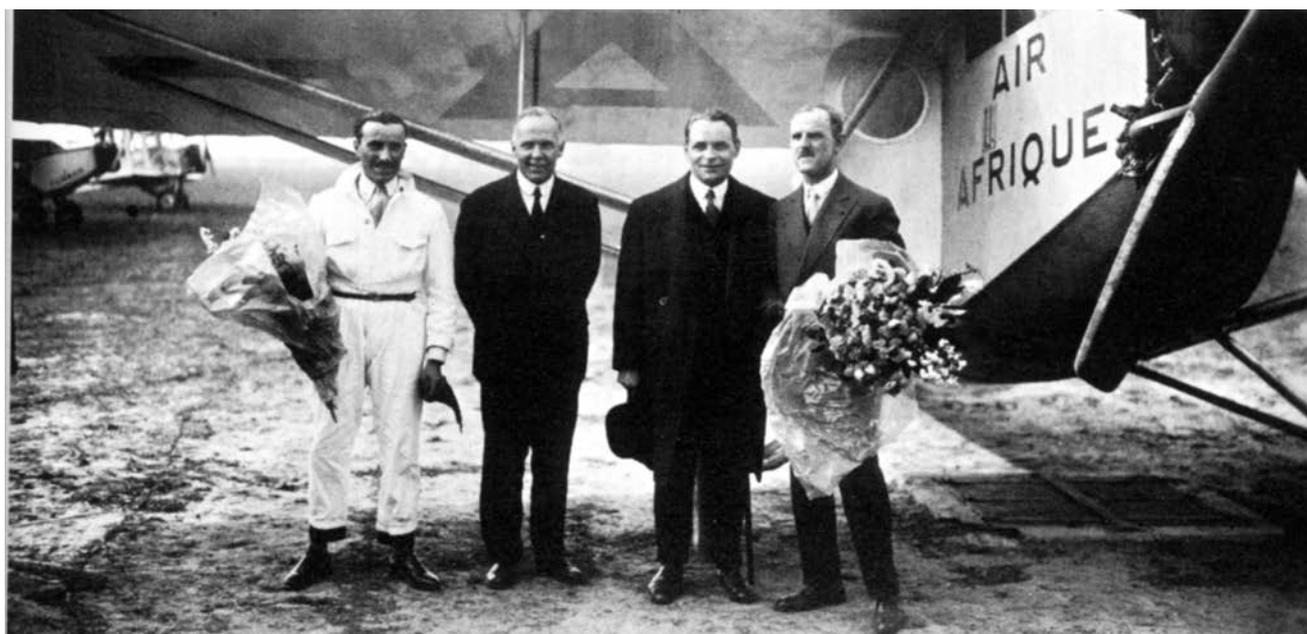
**Left:** F-AIXQ in a line-up with three other F.190s, all powered by the Gnome-Rhône 5 Ba Titan radial engine. (via JM Collection)

**Below:** Following the epic flight in "Air Afrique" F-AIXQ it's flowers all round for (left to right) pilot Marcel Lallouette, Henri Farman, CGAAA founder Jean Dagnaux, and Technical Director Paul-Louis Richard. (via JM Collection)

In August 1929 the aircraft was the subject of an inspection at Le Bourget; then in October at Algiers at 108 flying hours. By November 1930 it had already completed 316 flying hours. As well as the journeys between the home country and North Africa it always seemed to be present at displays and publicity events with Lallouette at the controls. In spite of its successes, the F.190 was considered by its owners to be

too fragile for regular use in tropical climates and so gave way to the Late 25 and 26. Based at Algiers-Maison Blanche it did not fly often (20 hours between November 1930 and September 1933). It disappeared from the registers soon afterwards, probably declared unfit for service when Air France was created.

**To be continued . . .**



£6.50

SUMMER ISSUE  
JUNE 2011

# Air-Britain ARCHIVE

The AIR-BRITAIN Civil Aviation Historical Quarterly



The Curse of '99 : HS.125 5N-AER

Wartime LOT

Farman F.190 series

Barkley-Grow T8P-1

The Deekay Knight

AIR-BRITAIN - Founded 1948



The AIR-BRITAIN Civil Aviation  
Historical Quarterly

No.2 2011

ISSN: 0262-4923

32nd YEAR

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The ARCHIVE website may be visited at  
<<http://www.air-britain.com>> where details  
of the Association, membership and other  
current publications will also be found.

ARCHIVE is published quarterly, in March,  
June, September and December by  
Air-Britain (Historians) Ltd., in association  
with *Air-Britain Aviation World*, *Aeromilitaria*  
and the monthly *Air-Britain News*.

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## COVER PHOTO



Tupolev Tu-134A YU-AHI of Aviogenex, seen  
here taxiing in to its stand on a dull evening  
on 11.5.69 at Manchester-Ringway, is one of  
several featured in the YU- register in this  
issue. (Dave Partington)

**CLOSING DATE for contributions to next  
ARCHIVE: July 22nd 2011**

## Contents:

The Curse of '99 (The story of HS.125 5N-AER)	2011/051
The Barkley-Grow T8P-1 F-1922 Register	2011/061 2011/077

## Head-on View:

The Deekay Knight	2011/081
LOT in Wartime	2011/085
Registers of Yugoslavia	2011/089
The Farman F.190	2011/091



## HEAD-ON VIEW - WHAT IS IT? Number 40

This 75hp two-seater would clearly pass for an ultralight these days but it dates from foreign fields in the mid-1930s. It re-entered production post-war and a British version was also built in some numbers. Full details next time. (via JM Collection)

## In this issue

There is a slightly different look to the contents of this issue. Two articles by well-known high-quality authors have been sitting on the editorial shelf for some time and are now given an airing. The editor has to admit to a convenience factor here as having been involved in the production process of our annual titles and of two new books (see below) it was barely possible to complete a review of the next Chinese article in time for this issue. The CATI story will continue next time however.

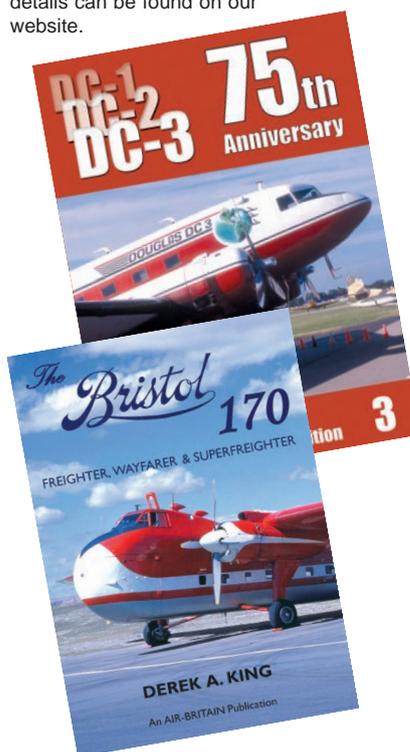
Michael Draper is already known for his definitive work on "*Shadows*", the story of all the aviation-related activity involved in the Biafran war (and still available from Air-Britain Sales Department while stocks last!). He has now compiled a tangled tale of political intrigue, deceit and dubious characters in "*The Curse of '99*" - being the brief but turbulent history of HS.125 5N-AER. Barely believable - but true! The same might be said of another title that Michael is working on for Air-Britain but more of that in due course.

John Wegg was author of *General Dynamics Aircraft and their Predecessors* (Putnam 1990) and is well-known internationally as editor of *Airways* magazine, *North American Airlines Handbook*, author of *Finnair* and other titles. Taking a small part of the General Dynamics history, expanding and updating it, he has produced for us a history of the **Barkley-Grow T8P-1** - the less successful competitor with the Lockheed 12 and Beech 18 for the twin-engined feeder-liner market pre-war. Although only eleven examples were built it was actually a success as a hard-working bush aircraft, particularly in the sub-Arctic of North America but in one case in the Antarctic too. John's background story and detailed individual histories give us the full story.

Continuing our other current series, we have more on the **French** and **Yugoslav** registers the **Farman 190** and the story of the dispersal of the **LOT** airline fleet on the outbreak of war.

Our Head-on View this time features the experimental **Deekay Knight** - another pre-war "might have been".

As mentioned above, there are currently two new Air-Britain hardbacks in production which we expect to be available by the time of the Fly-In at the end of June. There is **Volume 3** of the **DC-3** book - the **70th Anniversary Celebration** edition which includes updates, additions, many new photographs and specially-written articles about aspects of the DC-3's operation and history. Then there is the **Bristol 170**, the full story of the "Biffo" and its operations. As you would expect the technical details are covered, details of the civil and military operators and all the individual histories, fully illustrated in colour and black & white. Full details can be found on our website.



# The Curse of '99

## The story of Hawker Siddeley 125 5N-AER

Michael I Draper

Michael Draper, author of "Shadows – The Nigeria-Biafra Air War & Airlift", relates the curious story of Hawker Siddeley 125 5N-AER. With new information on the circumstances surrounding the operation of this Biafran jet, he now takes the story beyond the Biafran War and unravels the complex account of attempts to retrieve the jet out of its six year sojourn on São Tomé island.



Arriving at Port Harcourt under cover of darkness aboard a Biafran gun-running DC-7CF, Pierre Alain was whisked through the airport terminal, avoiding the usual customs and immigration, and driven out to a small clearing on the edge of the airfield. Just two hours later he was ready to carry out the role for which he was being highly-paid.

As a "snatch-back" specialist Pierre Alain was considered one of the best, a sound reason for the breakaway Biafran leader, Colonel Ojukwu to appoint the French pilot to get the leader's Hawker Siddeley 125, 5N-AER, out of the war zone to the relative safety of São Tomé Island. But, for Alain, this was not one of his usual jobs; he wasn't being asked to snatch an aircraft from an owner who had fallen behind in payments, nor was he rescuing an impounded aircraft out of an unfriendly situation. What made this job different was that not only had 5N-AER suffered serious damage in an air-raid, but that it had been crudely patched-up in such a way that he was being paid to fly the jet 350 miles to São Tomé knowing it had ineffective hydraulics, leaking fuel tanks and an undercarriage welded in the down position.

Ojukwu's 125 was the 99th example off the Chester production line (c/n 25099) and a Series 1B/522 variant. It had originally made its first flight at Hawarden on September 19th, 1966, in Swiss markings (HB-VAU), having been sold to Hawker Siddeley's European agent, the Geneva-based Transair Suisse SA. By October 10th the 125 had completed twelve trouble-free flights as part of its pre-acceptance flight test programme. Just two weeks later, on October 26th it was officially handed over to Transair. But HB-VAU was never delivered to Switzerland; instead Transair made an immediate sale to Nigeria's Eastern Region Government to whom it was re-registered, on December 13th 1966, as 5N-AER.

**Right:** The Government of Eastern Nigeria purchased HB-VAU and it was re-registered to them as 5N-AER on 13.12.66. On the forward fuselage cheat-line is the Regional crest which contained the rising sun insignia. It was this image that became the symbol of independent Biafra. 5N-AER is seen here in storage at Luton in 1967. (Michael I Draper Archive)



**Above:** Hawker Siddeley 125 HB-VAU c/n 25099 in a classic air-to-air shot prior to sale as 5N-AER. This particular aircraft was about to lead a most extraordinary life and became the subject of a much-talked about "ju-ju" curse. Or did it? (via JM Collection)

Several minor internal modifications were carried out at the manufacturer's Chester plant as requested by its new owner, as were some alterations to the external colour trim. One addition was the application of a 'Rising Sun' crest on the fuselage side, an image that later became so identifiable with the image of starving children of Biafra. Then, late on December 29th 'AER, with 45 hours already on the clock, was ferried from Chester to Hatfield via a brief 15-minute stopover at Luton, by two British pilots, 'Sandy' Burns and Trevor Copleston. The flight to Hatfield was simply for overnight positioning before starting its delivery flight to Enugu, the regional capital of Eastern Nigeria the next morning.

Both Burns and Copleston were fully-rated commercial pilots and 'in between' jobs with major airlines. Both had signed up with Gregory Air Taxis Ltd for short-term work and the delivery of a 125 to West Africa was a useful and lucrative short-time assignment. As 'Sandy' Burns later commented, "It was a quick job which, with a good tail-wind, would produce a handsome cheque and allow us to be home in time to see the New Year in....."

At 10:20 on December 30th Burns and Copleston flew 5N-AER out of Hatfield for the first leg of the journey, a three-hour flight to Lisbon. After a brief stop to refuel, 'AER departed Lisbon at 15:00 and two hours, twenty minutes later touched-down at Las Palmas. Again, refuelling and clearance was brief and after just one hour the 125 was back in the



**Left:** "Peace, Unity, Freedom" reads the legend on the Eastern Government crest. Perhaps prophetically the links in the chain are broken which, with hindsight, signified the breakdown in relations between the Nigerian Regions. When Eastern Nigeria declared itself to be the independent state of Biafra, the civil war which followed was bloody to the extreme. Curiously the presidential jet played a part in the war - before, during, and long after the fighting had stopped. (Peter Obe)

air, this time for the third stage of the day, south to Dakar, Senegal where it landed at 20:55 for a night stopover. As expected, the aircraft had behaved perfectly throughout the day and at 09:40, the following morning, 'AER' departed on schedule. The Dakar to Robertsfield (Liberia) stage took just over two hours as did the next leg to Accra, Ghana. The crew only needed an hour to prepare for the final leg to the East Nigerian regional capital, Enugu but Ghanaian officials told the two pilots that their instructions had apparently been changed. It seemed that because Enugu did not have full customs facilities they were now being directed to land instead at the Nigerian capital, Lagos where they were to clear customs and await further instructions before plying on to Enugu. The tone adopted by the Ghanaians was discussed in such a casual 'matter-of-fact' manner that neither crew member had any reason to challenge the instruction. So, at 16:40 the Eastern Region Governor's new executive jet was dutifully landed at Lagos but its arrival had not been as the crew had expected. As the aircraft was taxied onto the main ramp area it was immediately surrounded by half-a-dozen Nigerian Army Land Rovers, each occupied by fully-armed soldiers. Even worse, Burns and Coppleston were arrested as they stepped down out of the aircraft. This was not exactly how they imagined they would be spending New Year's Eve.

Nigeria, at this period, was a nation in turmoil and clearly tearing itself apart. In the six years since gaining independence from Britain in 1960, the country had endured coup and counter-coup, riots in the capital, tribal atrocities in the North as well as a Presidential assassination. Such a chaotic state of affairs had festered out of the utter contempt and mistrust that had developed between the Catholic Yorubas in the West, Muslim Hausas in the North and the Christian Ibos in the East - with much of the tribal angst directed against the Eastern region. By the end of 1966 the country had degenerated into a seething hot-pot of tribal hatred and into it flew the Eastern Region's brand-new Hawker Siddeley 125 executive jet. What followed, whichever way one cares to look at it, was one of the strangest events in the lead-up to the Nigerian Civil War. Ministers close to Colonel Ojukwu, the (then) Governor of the Eastern Region urged him not to take delivery of his 125.

It was around this time that the 'black magic' story broke. It was claimed, by the East, that during the enforced stopover at Lagos not only had Nigerian authorities hired a local witchdoctor but that a 'ju-ju' ceremony had been openly carried out on 5N-AER in full public view, or perhaps more succinctly in view of Easterners working at Lagos airport. The incident was described later as "the most ridiculous and embarrassing act of intimidation against the East". But however ridiculous the act was and how many times it was discounted, the story never went away. Ridiculous? Of course it was. Or was it?

If the authorities in Nigeria's capital city had planned a 'hijack' of Ojukwu's 125 then their timing could not have been worse. The political situation in Nigeria almost defied gravity, so much so that in a deter-

mined effort to avoid any further deterioration of inter-Regional relations, a 'make-or-break' meeting of Nigeria's Supreme Military Council had been arranged for January 4th and 5th at Aburi, Ghana. The Nigerian leaders had already arranged for a chartered Nigeria Airways F-27 Friendship to convey them to Ghana but whether or not Ojukwu was planning to use his new jet to travel to Aburi is unknown. Had he done so, it most certainly would have been seen as menacing act of defiance. (**Note 1**) However, within days of the Aburi talks ending, and as a gesture of goodwill, a delegation of Western Nigeria Obasa and Chiefs (as well as a delegation of top Federal civil servants) travelled to Enugu (the regional capital of Eastern Nigeria) to find out exactly what the East wanted in order to cooperate for unity and peace in the country. It seems that the circumstances surrounding the detention of 5N-AER was not one of the items discussed.

In their defence, Transair Suisse's executives tried hard to assure the Eastern Government that nobody had been near the jet since its so-called 'hijack' to Lagos. Even the authorities in Lagos denied having 'hijacked' the aircraft, claiming instead that their suspicions had only been aroused because the aircraft landed at Lagos 'without any prior warning'. The instructions passed to the ferry crew that led to the change of schedule and to land at Lagos instead of Enugu, were dismissed as merely a 'misunderstanding by ATC officers at Accra'. Nonetheless the Eastern Governor defiantly refused to take delivery just in case the aircraft had been 'bugged' during its enforced stay in the West and before the entire issue got completely out of hand 'Sandy' Burns and Coppleston were allowed to leave their hotel and fly the aircraft back to the UK. 5N-AER departed Lagos at 10:20 on January 11th 1967 and by way of Robertsfield, Dakar, an overnight stopover at Las Palmas, and Lisbon, landed back at Luton in the late afternoon of January 12th. Burns and Coppleston were paid off and the aircraft began a lengthy sojourn on the ground at Luton. (**Note 2**)

Towards the end of April 1967 Mike Keegan, proprietor of Keegan Aviation, spoke publicly about the 125. He was, he claimed, interested only in selling the aircraft but he did also refer to the black magic spell allegedly placed on the aircraft by a Nigerian witchdoctor. His admission that he was unsure if the story was true or not, merely served to underline the curious circumstances that surrounded 5N-AER. But quite why Keegan became involved has never been made clear. Had the Eastern Nigerian Government asked Keegan to sell the aircraft? There are few doubts that Keegan enjoyed a close relationship with Eastern Nigeria's Colonel Ojukwu but other reports suggest that it was McAlpine Aviation who were looking after the jet and that it was simply being held by them at Luton 'pending further developments'.

It was no secret within Nigeria that the country was heading towards a final showdown. The East had been acquiring large shipments of arms by irregular and illegal means into Port Harcourt since January 1967. Nigeria Airways had suspended all flights to the East and a blockade of shipping was put into force by Lagos. Then, on May 30th 1967 the Military Governor of Eastern Nigeria announced secession, declaring that, with immediate effect, the Eastern Region had become the independent nation of Biafra. Overnight, the 125 had become the Republic of Biafra's new Presidential jet. Not that anyone would have noticed straightaway; having been grounded at Luton for over four months, it remained there for several more weeks until quietly slipping out during the early morning of 24th June.

For nearly a month the Biafran 125 was flown around Europe, almost on a daily schedule. 'Sandy' Burns, who had, just six months earlier, made the truncated delivery flight to Lagos had been re-hired by Gregory Air Taxis and instructed to "do whatever they want to do and go wherever they want to go". Burns received his daily instructions from the so-called Biafra Historical Association in Paris - a strange covert office which acted as a quasi-Biafran European embassy. He never felt the need to question his new masters and for most of the time kept the flight deck door closed. Rarely were there more than two or three passengers aboard at any one time and more often than not it appeared to

Burns that he was merely ferrying newly-appointed Biafran Ministers to the 'night-clubs and hot spots' of southern Europe.

Curiously, during this period, the 125 never ventured further south than Casablanca. If it was the governmental mount of Biafran emissaries travelling abroad then it was certainly not overly apparent. Indeed most Biafran Government Ministers plying between Biafra and Europe preferred to make use of Learjets chartered from Executive Aviation in Geneva.

On July 18th 1967 'Sandy' Burns flew 5N-AER from Le Bourget to Luton for routine servicing. That flight marked the end of any British crew involvement. When, a month later, it departed Luton it did so with a two-man French crew, commanded – according to the Luton Tower Log – by a Captain Cessou. The nature of the flights also changed as the 125 was now operating almost wholly in Africa and plying a shuttle between Luanda, Angola (where the Biafrans had amassed a large stockpile of arms) and the Biafran offshore base on São Tomé Island. Not until early October, when it staged into Port Harcourt, did the jet actually fly into Biafra.

André Cessou was one of a small band of foreign nationals hired to fly for the Biafran Government. Most were French and, after the fall of Enugu in early October 1967, all had re-grouped at Port Harcourt. It was from there that occasional bombing raids against Federal targets were flown by a B-26, a pair of B-25s and on some occasions a former Bristow Helicopters Riley Dove.

Few would disagree that Biafra's attempted night bombing of Lagos in early November 1967 was a rather foolhardy mission. The Biafran Air Force had pressed into military service a former Nigeria Airways F-27 Friendship (5N-AAV) which Eastern Region soldiers had hijacked just prior to secession. Since then it had been repainted by the Biafrans with an overall camouflage pattern and converted internally to carry and dispense locally-made bombs. Crewed by at least two French mercenary pilots, including, it is said, Jacques Languillaume (normally the captain of Biafra's own 'Grey Ghost' L-1049G Super Constellation, '5N-07G'), the F-27 took off under darkness from Port Harcourt with a heavy bomb load – at least one report claiming the aircraft to have had up to 100 bombs on board, therefore suggesting the aircraft had been overloaded "by a country mile". Also on board the F-27, and possibly in command, was André Cessou, the regular Biafran 125 captain, as well as others who appear to have gone along for the ride. But one pilot did not climb aboard; he was a Portuguese flier, Gil Pinto de Sousa. De Sousa stayed behind to prepare for the post-raid party.

In fact the F-27 failed to return. In circumstances that to this day have been widely debated and largely unproven it fell out of the night sky over Lagos. Whatever caused the aircraft to crash – the Nigerians claimed to have shot it down - the accident wiped out most of Biafra's mercenary air force personnel, including the 125's regular stewardess, Simone Claveau, the attractive (and apparently heavily pregnant) Algerian girlfriend of André Cessou who was also aboard. **(Note 3)**

Although a number of Biafrans had been trained to fly while in Nigerian Air Force service, the loss of the F-27 and crew was a serious setback. The only ones to gain from the crash were the two principal suppliers of Biafran arms flights, Hank Warton and Jack Malloch. Warton was contracted to provide a new crew to operate Biafra's 'Grey Ghost' Super Constellation whilst one of Malloch's pilots, 'Bunny' Warren, was appointed as Cessou's replacement as the pilot of Biafra's 125.

Warren had joined Malloch's Air Trans Africa in August 1967 as a First Officer on the company's DC-4 before transferring to the L-1049G. Both aircraft were involved in ferrying arms into Biafra and Warren had made several gun-running flights aboard the Super Connie. He also had some 125 type experience, having previously flown an example for Mines Air Services Ltd in Zambia. Warren's first briefing as pilot of Biafra's 125 was to fly it out of Port Harcourt to the safety of São Tomé. This he did on October 14th and twelve

days later he signed a formal and lucrative contract with the Biafran Government.

Retaliatory air raids by Federal Nigerian Air Force jets had started in August 1967 when Nigeria received a pair of former Sudanese Air Force Jet Provosts T.52s and the first batch of L-29 Delfins. With no locally-trained pilots capable of flying fast jets, Nigeria had recruited mercenary pilots of British, Egyptian and South African origin. **(Note 4)**

In the meantime Warren had flown the 125 back into Port Harcourt on October 29th where it remained hangared for several days to allow Biafran Air Force mechanics give it a very rudimentary service. Then, early on November 4th, he was tasked to fly out to São Tomé for refuelling before plying on to Luanda and then on to Salisbury, Rhodesia. The 125 remained at Salisbury for a week before routing back through Luanda to Port Harcourt. A second flight down to Luanda was made on 13th November; this time direct. After an overnight stay Warren flew the aircraft back to Port Harcourt where, and to avoid exposure to any marauding Federal Nigerian jets, it was immediately pushed into the hangar.

As it turned out, putting the 125 into its hangar on that occasion was probably its undoing. Just before dusk the Nigerian Air Force attacked Port Harcourt. A low sweep by a pair of L-29s caused the usual panic on the ground; one of the L-29s fired a chance volley of rockets against the hangar. One rocket passed through the hangar wall and exploded inside, just behind the 125.....

With daylight the next morning 'Bunny' Warren set about assessing the state of the 125. The main damage was around the rear equipment bay door - the 'hell-hole' - whilst shrapnel had severed an electrical wiring loom and caused several skin tears along the underside of the port wing and along the port upper rear fuselage. Ironically the attacker probably never realised the extent of the damage caused by the raid. However, in Warren's opinion, the damage was repairable albeit beyond the ability of local mechanics. There was, on the other hand, a threat of further damage should the Nigerian Air Force return. As a precaution, therefore, Warren had the damaged 125 towed out of the hangar and secreted away into a specially-prepared clearing in one corner of the airfield where it was carefully camouflaged with palm leaves.

In an attempt to persuade the manufacturer to send a team of engineers to Port Harcourt with the necessary spare parts to repair the jet on site Warren made a visit to Hatfield in mid-December 1967. But



**Above:** The rear compartment - the "hell-hole" - of 5N-AER showing major damage. The proximity of palms is evidence that the 125 was pushed into a clearing on the edge of the airfield where repairs were to be carried out. (Michael I Draper Archive)



Hawker-Siddeley declined any assistance, reasoning that the UK Board of Trade had not only turned down approval to export a free-issue modification kit for this particular aircraft but had also refused to allow the shipment of several Mandatory Safety Modifications. In the cold light of day, there was never any likelihood that Hawker Siddeley would become directly involved with Ojuwku's 125; something that Warren always suspected. Given the view of the British Government that Biafra was a "breakaway rebel state", there was little more that Warren could do. He reported back to the Biafrans and was duly paid off for his effort.

Shortly afterwards the Biafrans approached the Swiss company, Transair SA, who did agree to help but insisted that the aircraft had, firstly, to be got out of Biafra. That task was offered to an experienced freelance Frenchman, living in Switzerland. He was Pierre Alain, a pilot well-known for retrieving aircraft from 'difficult situations' and 5N-AER was certainly in one of those 'situations'. Alain, however, rarely worked alone and almost always on such missions, never considered going ahead without his French mechanic partner - whose identity he has always refused to disclose. The two men worked well as a team and although their fee was high the Biafrans had little alternative but to allow them unrestricted access to the stricken jet. Immediately terms had been agreed, Alain dispatched his mechanic to Biafra to assess the situation and to organize whatever was needed to restore the jet to flyable condition.

It took the French mechanic just two weeks to patch up 5N-AER at which point he put a call through to his Swiss-based partner. Pierre Alain immediately took a commercial flight to Lisbon on February 14th 1968, boarded one of the Biafran arms flights - in fact, the former British DC-7CF G-ATOB - and arrived at Port Harcourt around 03:00 on the following morning. By-passing Customs and Immigration, Alain was whisked out to the 125's jungle clearing. Under moonlight the repairs looked good, some holes having been covered by flattened Nestlé tins, pop-riveted over the damaged fuselage skin. Alain's mechanic explained that whilst the badly-damaged hydraulics had been sufficiently repaired for a brief flight, the system was still faulty with the aircraft's flaps and air brakes rendered inoperable. So was the undercarriage but to overcome that problem the undercarriage jack piston had been patched up by welding a sleeve to the legs. 5N-AER had, in effect, the distinction of being the only Hawker Siddeley 125 to have a 'fixed undercarriage'! One other problem was explained to Alain, that being the fact that fuel continued to leak from beneath the wings. As the leak was fairly substantial Alain insisted that the tanks be filled to the limit despite the flight to São Tomé being well within the jet's range.



**Above:** Shrapnel damage to the fuselage underside affected the aircraft's hydraulic systems.

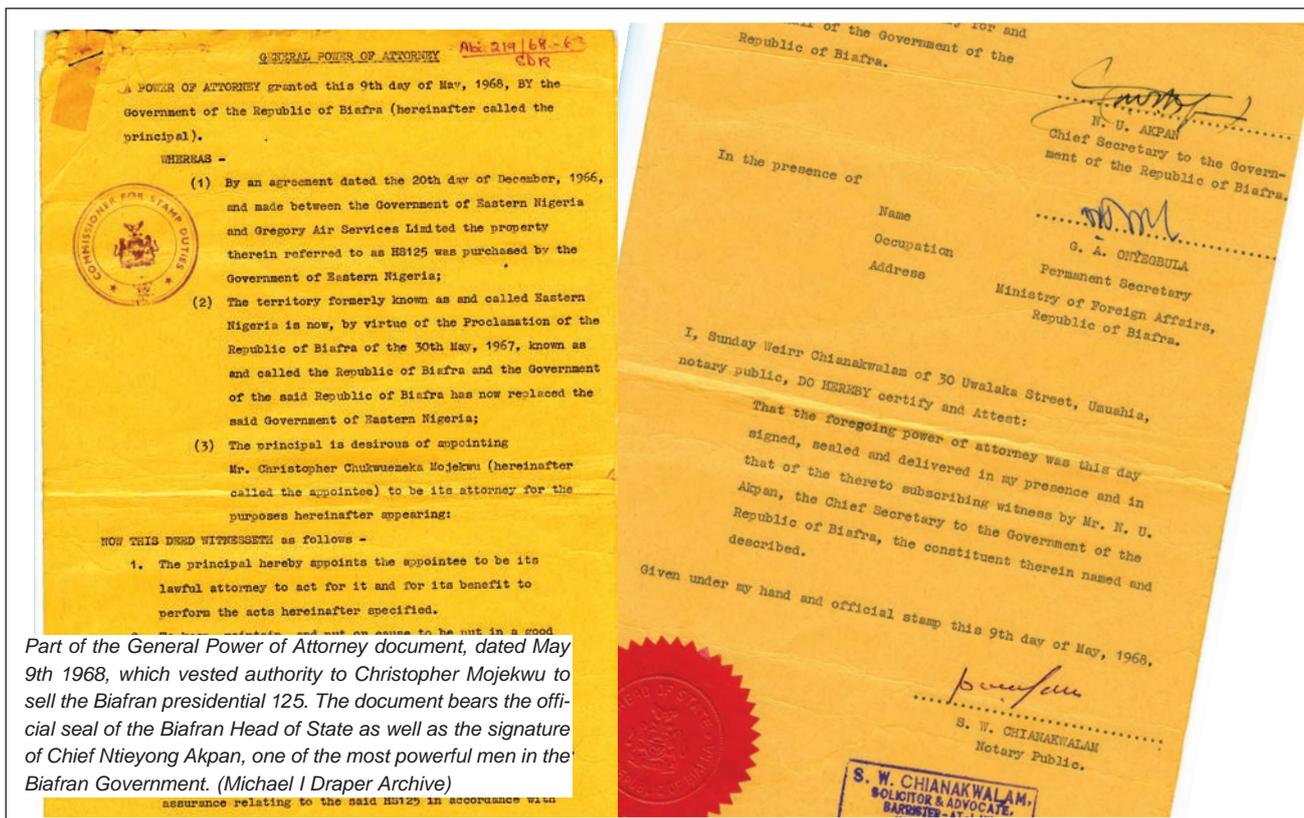
**Left:** A flattened "Nestlé" tin pop-riveted over a hole beneath the port wing. Such was the standard of temporary repairs undertaken in a war zone! (Both: Michael I Draper Archive)

Pierre Alain had only spent two hours on the ground when he announced that he would test-fire the engines. He insisted that only he and his mechanic were to remain on board for the start-up. "No passengers" - that was the deal and the Biafrans simply had to accept the Frenchman's terms. Because the aircraft's brakes were not working, Alain taxied the jet out of its clearing and ran up the engines. Satisfied that the important systems were functioning, he then taxied, at some speed, towards the runway and without making any attempt to contact Air Traffic Control, immediately turned, lined up and applied full power. As the aircraft climbed out of Port Harcourt the dawn sun was already rising in the east.

Alain set a direct course for São Tomé. As the jet levelled out at 10,000 feet, his mechanic monitored the aircraft's systems and ensured that they were functioning as best they could. Thankfully, the weather that morning was good and visibility was excellent. Alain's only concern was the aircraft's excessive rate of fuel flow. From the rear fuselage windows fuel could be seen streaming from beneath the wings in the turbulent air-flow caused by the 'fixed' undercarriage. The flight to São Tomé island took just over an hour. Alain decided to make a straight in landing which he described as "an intentionally long approach, fairly fast, but a very smooth touch-down - a routine arrival". As soon as the aircraft came to a stop the engines were shut-down and it was towed into the corner of the airport's only hangar. Pierre Alain and his Swiss mechanic remained on the island for a day before hitching a lift aboard one of the Biafran arms aircraft returning empty to Lisbon. For them it was 'job done'.

Since the aircraft was now clear of the war zone the Biafrans made another attempt to have the manufacturer carry out permanent repairs. On this occasion, and to by-pass the complex UK Board of Trade ruling, the Biafrans made their approach through Hawker Siddeley's Swiss agent, Transair. As the aircraft now out of the war zone, Hawker Siddeley did agree to inspect and assess the damage to 5N-AER and dispatched a company assessor, T P Stevens, to São Tomé. He was accompanied by Alan Broom of Rolls-Royce and Jacques Stricker of Transair. Their objective, they claimed, was simply to assess the possibility of an 'on-site' repair but made it clear that they would not necessarily undertake the work required. In fact, no work was carried out as a result of the visit.

In spite of being patched-up before its flight out of Biafra, 5N-AER was found to be in a worse state than originally imagined. The aircraft's log-book recorded a total of 238.25 flying-hours and, although a Check I had been made back in July 1967, and the Biafrans had carried out some very basic maintenance, a Check II inspection was clearly long overdue on calendar limitations alone. One positive factor was that although the jet was in a very poor condition its three-month outdoor stay on the edge of Port Harcourt airfield had been during the dry season and so there was no sign of corrosion.



Part of the General Power of Attorney document, dated May 9th 1968, which vested authority to Christopher Mojekwu to sell the Biafran presidential 125. The document bears the official seal of the Biafran Head of State as well as the signature of Chief Ntiyong Akpan, one of the most powerful men in the Biafran Government. (Michael I Draper Archive)

By April 1968 the situation inside Biafra was desperate. The breakaway state was fundamentally bankrupt, the supply of arms and ammunition had become erratic and civilian deaths from diseases associated with starvation had reached epidemic proportions. The need to repair the 125 was now overtaken by economic reasoning and in an attempt to raise money for arms Biafra's leader, Colonel Ojukwu, decided to sell his 125 'as is'. Biafra's most influential emissary, Christopher Mojekwu, was given Power of Attorney (on May 9th 1968) as a first step to finding a buyer. The aircraft's true value had of course been considerably weakened by the extensive damage, the crudely-applied skin repairs and an almost total lack of any maintenance. Finding a ready buyer would not be easy and Mojekwu was well aware of the fact. That led him to negotiate an extraordinary deal with Biafra's contracted gun-runner, Hank Warton.

Warton was fast falling from grace since one of his Super Constellations (L-1049D '5T-TAC') had been blown up in mysterious circumstances at Bissau. On board the aircraft at the time were the wings of two Fouga Magisters destined for the Biafran Air Force. Warton was also being accused of 'wasting' a cargo of ammunition when another of his aircraft suffered an in-flight multiple engine failure (between Bissau and Uli) and, in order to maintain level flight, the crew jettisoned the cargo into the sea – as well as, allegedly, the two Biafran guards who tried to intervene – before making an emergency landing back at Bissau. Nevertheless, Warton was owed around \$600,000 by the Biafran government. (Note 5)

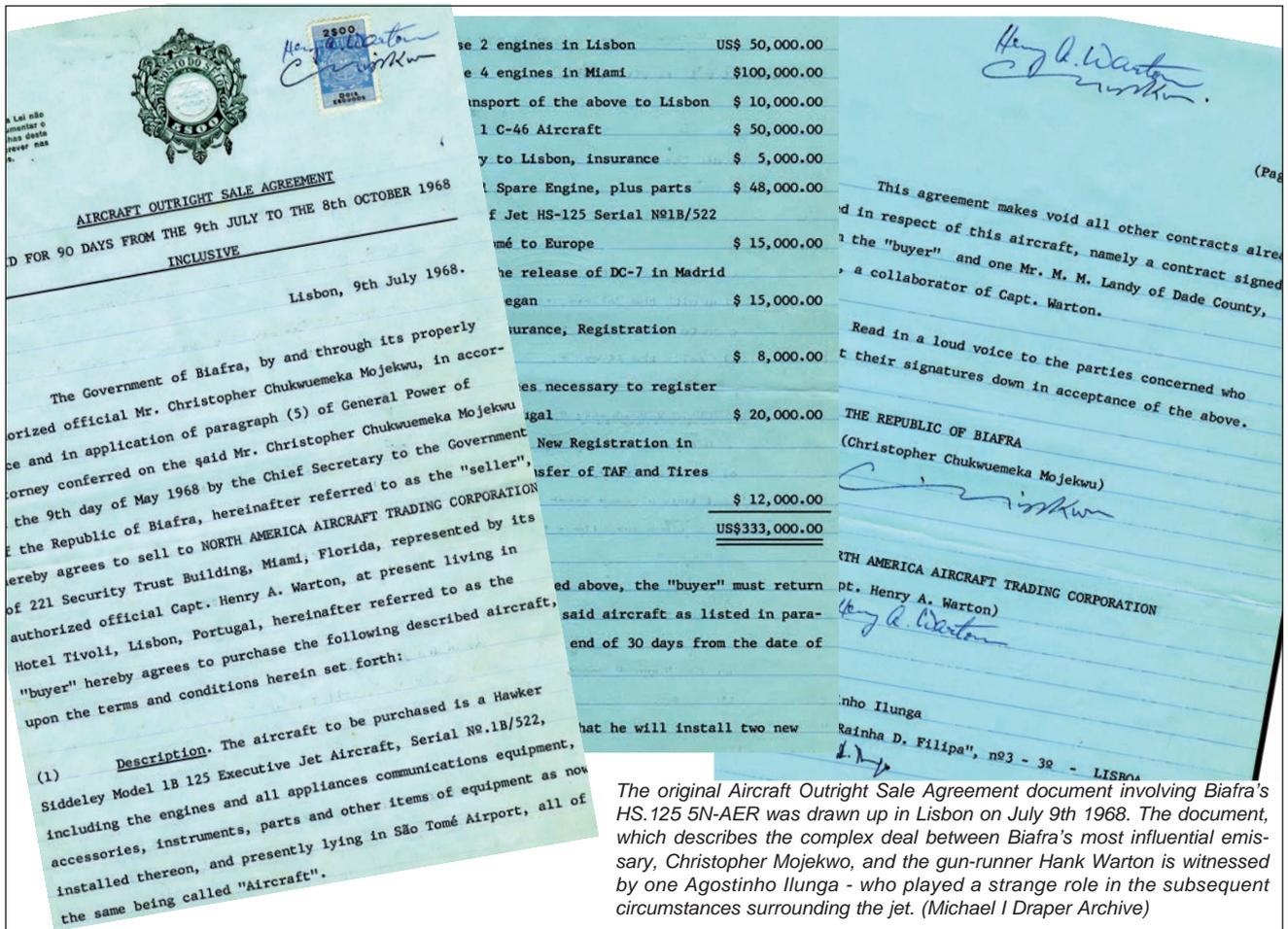
The 'deal' between Mojekwu and Warton was complex. As it stood, Mojekwu placed the 125's value at \$750,000 – more than his Government's outstanding debt to Warton. That allowed Mojekwu to add a few conditions. He wanted Warton to provide two replacement

engines for Biafra's 'Grey Ghost' Super Constellation ('5N07G'). He also wanted Warton to arrange for the release of the cargo of tyres aboard one of the gun-runner's aircraft (L-1049G '5T-TAF') impounded at Luqa, Malta. Warton knew that that would be virtually impossible to arrange and instead suggested that Mojekwu consider another impounded aircraft, the Biafran Government's DC-7CF (G-ATOB) which was being held by the Madrid airport authority because the British marks had been cancelled and technically, it had landed there unregistered. Mojekwu agreed but told Warton that he would have to pay Mike Keegan \$15,000 of residue debt as part of Biafra's lease-purchase agreement. Warton accepted the condition but at the same time demanded \$100,000 paid up front for expenses in repairing and ferrying the 125 to Europe. Mojekwu agreed to the counter condition and also to another - that Warton be given the 125's log-books as proof of his ownership (but also to allay Warton's fears that the Biafrans might back down.)

Hank Warton knew that some of the conditions would be difficult to meet. Nevertheless, he instructed his partner, Bertram Peterson, to set up a new company in Bermuda (registered as ARCO Bermuda Ltd) and had the Madrid DC-7CF legally registered as VR-BCT. With financial help from another of his Miami-based business partners, Marshall M Landy and, despite a counter-claim of ownership by gun-runner Lucien Pickett, Warton succeeded in convincing a Spanish court that he was now the legal owner of the DC-7CF. At the same time Warton managed to acquire a C-46 Commando (N10623) by persuading the International Red Cross to sign a contract for Biafran relief flights but, again displaying his usual canniness with such deals, he insisted that the Red Cross paid money in advance. That money enabled Warton to buy the C-46 outright.

**Right:** Hank Warton's L1049D '5T-TAC' (the former LV-ILW) was completely destroyed in an "unexplained" explosion at Bissau in June 1968. Part of the aircraft's cargo had been two sets of Fouga Magister wings, thus robbing the Biafrans of re-establishing an offensive air element against the Nigerian Air Force. Warton denied any involvement in what many, including the Biafrans, were convinced was a deliberate act of sabotage. (Henry A Warton/MID Archive)





The original Aircraft Outright Sale Agreement document involving Biafra's HS.125 5N-AER was drawn up in Lisbon on July 9th 1968. The document, which describes the complex deal between Biafra's most influential emissary, Christopher Mojekwo, and the gun-runner Hank Warton is witnessed by one Agostinho Ilunga - who played a strange role in the subsequent circumstances surrounding the jet. (Michael I Draper Archive)



**Left:** DC-7CF G-ATOB was always known as "The Old Bitch" and was acquired by the Biafrans under a lease-purchase agreement. Impounded at Madrid because of registration irregularities, it became part of a complex legal case, the outcome of which benefited Hank Warton as the recognised new owner. (Michael I Draper Archive)



**Below:** The 125 in the hangar at São Tomé in October 1968. In the centre are two former Austrian Air Force Fouga Magister fuselages, acquired by the Biafrans, the wings of which were lost in the Bissau sabotage incident. The locally-based Dragon Rapide CR-SAE is also just visible on the left. (Jakob Ringler)

In reality, Warton's finances were in a mess. The war was not progressing in Biafra's favour and Warton was well aware that he was now probably supporting what, in financial terms alone, was likely to be a lost cause. As outlined earlier, the Biafrans owed him money, including normal operating costs for fuel, landing fees and minor servicing bills. Warton also already owed money to Marshall Landy who had supplied Warton with the L-1049D Super Constellation (that was blown up at Bissau) and spare engines yet it was Landy who offered to bail Warton out by suggesting that he took the 125 in exchange for outstanding debts and then repay Warton the any cash difference. It was a generous offer and not the first time that Landy had helped Warton in such a manner.

Apart from Marshall Landy, a number of other organisations and individuals had bank-rolled Hank Warton, none less so than the Swiss banker, Seligman-Schürch & Co. The bank had extended credit facilities to Warton and continued to do so when Warton showed the bank documents relating to the 125. That, in itself, helped to keep the bank off Warton's back for a while longer. But Warton was about to learn some disheartening news. The two Biafrans, Mojekwu and Onubogu, quietly confided to him that, despite having signed contracts and affidavits specifically relating to the 125, they had, it seemed, "sort of promised the 125 to the Governor of São Tomé for his continued assistance to the Biafran cause." They also admitted that both were becoming "a little worried over the Governor's reaction" if the Governor learnt

that a deal had been done with Warton behind his back. For Warton, the 125 was beginning to look like a lost cause.

In helping Warton to sort out his financial mess, Marshall Landy had gone as far as establishing a Letter of Credit at Biafra's banker but not long afterwards Landy's Miami attorney advised against progressing the deal until he was sure that the 125's Nigerian registration had been officially cancelled and that it had been legally registered elsewhere. This was, in any case, one of the clauses contained in the original deal between Mojekwu and Warton. Landy called Warton and relayed his lawyer's advice. It was at that time that Warton unwittingly became the subject of an elaborate con.

Much of Biafra's trade was co-ordinated from a modern green villa at 16 Avenida da Torre de Belém, in Lisbon's smart residential district. One of the representatives at this Biafran Mission, Dr Agostinho 'Augusto' Ilunga, had agreed to investigate the question of transferring the 125 onto the Portuguese register. Ilunga, who was not a Biafran national but a Mozambique exile living in Lisbon, claimed that it was possible to transfer the 125 to the Portuguese register but that before the Portuguese authorities would agree all Importation duties and Registration fees had to be paid "up front, in cash". The process, Ilunga calculated, would take "about a week" to complete. Warton turned to his Swiss banker and persuaded them to advance money to allow Ilunga to process the Portuguese registration, only now the price had risen to \$25,000 because of the 'urgency factor'. The bank agreed to the increase and money was handed over to Ilunga but neither he, nor the money, was ever seen again. Not unsurprisingly, no application for re-registering the 125 had ever been lodged!

In the meantime Hank Warton continued to supply arms flights to Biafra albeit on a much reduced frequency. The Biafrans, desperately short of ammunition as they faced an increasingly well-armed Federal Division along the south and south-west fronts, were virtually helpless. Biafra's Colonel Ojukwu became increasingly incensed at Warton's inability to supply arms in the required quantities. The final showdown between Warton and the Biafrans took place in the bar of São Tomé's principal hotel, the Pousada Geronimo, on the evening of August 15th 1968. The bar was unusually busy when Warton threatened to pull his gun-running operation unless he was paid but the Biafran stance was stoic. They claimed that Warton had become unreliable and loudly reminded him that his monopoly of Biafra's only remaining airstrip at Uli had, just a few days beforehand, been broken by the Swede, Carl Gustav von Rosen, when he had landed a DC-7B there in broad daylight. In any case, the Biafrans were about to start receiving military support from other, and more reliable, sources.

By early September 1968 Hank Warton's financial plight was critical. Despite having a case full of legal documents and certificates (and the aircraft's log-books), all showing that Warton owned the 125, the Governor of São Tomé refused to release it. Warton accused the Governor of breaching international law and that the decision not to allow him access to the 125 was outside his jurisdiction. Despite the threat, the Governor refused to relent. It was a bitter blow and this, together with the Ilunga affair, began to worry Warton's Swiss banker who now threatened to stop his credit, leaving Warton with no alternative but to cable Biafra's leader, on September 10th 1968 with a threat to ending any further ammunition flights. Surprisingly, the response did not come from Biafra's leader; it came instead from the Governor of São Tomé who simply instructed Warton to take his aircraft, two L-1049G Super Constellations and a C-46 Commando, off his island. But he was still not allowed to remove the 125. Threatened with arrest if he stayed, Warton left the island, but Warton's departure was not the end of the matter.

Biafra's 125 was about to take centre-stage once again. The Swiss bank from which Warton had secured a mortgage on the jet, increased pressure for the loan to be repaid and urged Warton to sell the jet to the Swiss dealer, Transair. The bank's situation was a difficult one as whilst technically they were the owner of the aircraft, they had allowed Hank Warton to keep the log-books and all other documents relating to it. Indeed the aircraft had been registered, in September 1968, as **N2246** to Warton's company, North American Aircraft Trading Corporation. Warton reacted to his banker's pressure by making renewed contact with the Biafran Government on 30th January 1969 and with an extraordinary offer. He asked Colonel Ojukwu to release the 125 to Transair (claiming, albeit falsely, that they were now the owner) and in return offered the Biafrans his three DC-7Cs (now legally registered in Bermuda as VR-BCW, VR-BCX and VR-BCZ) to operate the Prague to



**Above:** In July 1968 Warton acquired a former SAM C-46 in order to carry out relief shuttles between Fernando Póo and Uli, Biafra on behalf of the International Red Cross. Needless to say, the aircraft was later used on Biafran arms flights out of São Tomé. It is seen here as N10623 at Madrid after Warton had flown in to claim ownership of the Biafrans' DC-7CF, all part of the complex deal to obtain the HS.125. (Michael I Draper Archive)

Lisbon arms run and his two L-1049G Super Constellations (5T-TAH & 5T-TAK) for the onward run to Biafra. He also offered to lease his DC-7CF (VR-BCT) and C-46 Commando (N10623) to the Biafrans on a six-month contract with options for renewal on a monthly basis. The Biafran leadership, still smarting from losing key towns of Aba and Owerri due to lack of ammunition, failed to respond.

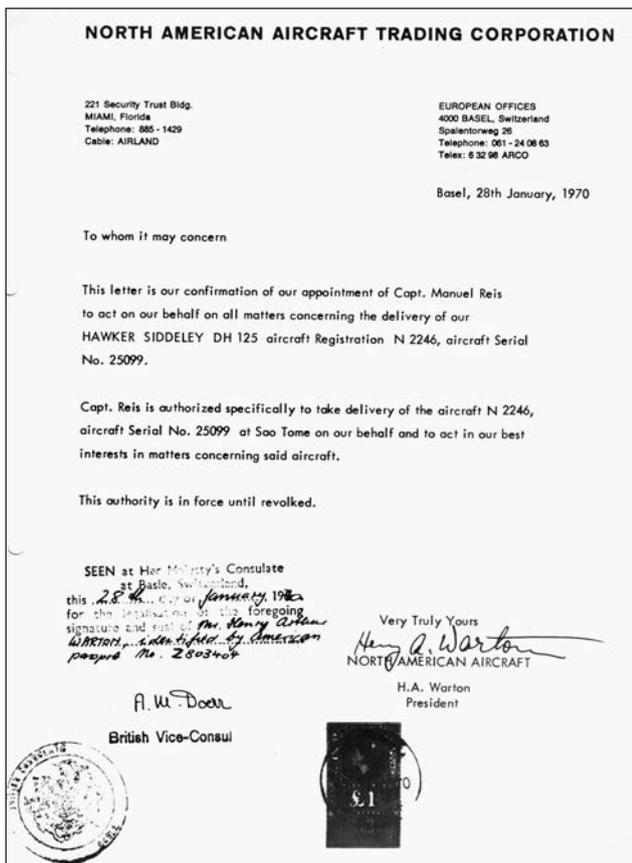
1969 proved a difficult year for Hank Warton. Not only was his health deteriorating - he suffered a heart attack in Switzerland, necessitating the fitting of a heart pacemaker - but his 125 remained firmly grounded on São Tomé. Towards the end of the year Warton made another, and final, attempt to get it released. Knowing that the Biafrans were disappointed that two former RAF Meteor jets (G-ASLW and G-AXNE) had failed to reach Biafra, he was also aware that sitting next to his 125 in São Tomé's hangar were two Fouga Magister fuselages. Warton therefore made the Biafrans a new offer at the beginning of December 1969.

Warton managed to locate two sets of replacement wings in West Germany and agreed a deal with Biafran agents in Wiesbaden whereby he would fly the wings (as well as with several mechanics) to Lisbon. At Lisbon he would offer the Biafrans space for 11 tons of arms and then to fly direct to São Tomé. His offer was attractive; he would fly the Biafran arms to São Tomé at no cost - thus saving the Biafrans \$30,000. He was also prepared to have his mechanics assemble and arm the Fouga Magisters, again, at no cost. All Warton wanted was for the Biafrans to persuade São Tomé's Governor to allow the same mechanics to repair the 125 and make it ready for flight. He also wanted Colonel Ojukwu to send, via diplomatic channels, a letter to the island's Governor with instructions to release and permit the departure of the 125 after the Magisters had been fully-assembled.

Confident of success, Warton had the Magister wings flown to Lisbon aboard his DC-7CF freighter but then insisted that they be held at Lisbon until the São Tomé Governor released the 125. He also issued an open letter confirming that a Portuguese pilot, Captain Manuel Reis - a regular pilot on the Biafran arms run - had been authorised to fly the 125 out of São Tomé. By appointing a Portuguese pilot, Warton hoped that this might help persuade the Governor to allow the jet to be flown out by a 'fellow countryman'. But it was all to no avail. Biafran forces capitulated in January 1970 and Biafra's leader had fled to exile in the Ivory Coast.

With the collapse of Biafra, the whole sorry saga appeared doomed, not made any better when banker Seligman-Schürch contacted Warton at his Basle office on 7th April 1970 with news that unpaid interest on his borrowing, which had been extended for purchasing the 125, had exceeded \$40,000. The bank was tightening its squeeze on Warton's activities.

In the circumstances Warton had no alternative but to put aside any plans he had for the 125 and instead concentrate his effort towards securing increased freight work for his company, ARCO (Bermuda) Ltd. But he struggled to make ARCO pay and in March 1971 the company's activities ceased and ARCO was inevitably forced into bankruptcy. Warton's Swiss banker impounded two of his DC-7Cs (VR-BCW/N9498



**Left:** Despite the aircraft's suspect serviceable state, Portuguese mercenary pilot Manuel Reis flew the Biafran DC-7CF G-ATOB on many arms flights into Biafra until it was impounded at Madrid. After the Biafran war, and in the hope that São Tomé's Governor might look more kindly towards allowing a fellow countryman to fly the former Biafran jet out of his island, Hank Warton in January 1970 contracted Manuel Reis to take command of the 125. (Michael I Draper Archive)

CAA was taken aback by Hauck's claim and immediately contacted the US Embassy to seek verification. The Embassy immediately contacted the US State Department with a request to contact the FAA in Oklahoma. The response by the FAA was unexpected. Under the terms of the International Treaty of Aviation Organisations, it was necessary to have evidence that the former Nigerian marks had been cancelled before the aircraft could be legally registered in the US. It appeared that no such evidence had been presented and so the FAA retracted the temporary Certificate of Registration

Unaware of the FAA's retraction, yet content that the administrative wheels were moving satisfactorily, Hauck flew back to the US. When he did learn of the FAA's retraction and the reasons given for doing so, Hauck immediately decided to travel to Nigeria. In Lagos, he was told that the Nigerian marks had, in fact, been officially cancelled but that the documents relating to the cancellation (and, for that matter, all Nigerian-registered aircraft) were held by the British Air Registration Board in London. Frustrated, but undeterred, despite feeling that he was being given the runaround, Hauck took a flight to London where he managed to obtain confirmation that the marks had indeed been cancelled back in 1970. Copies of the relevant document were given to Hauck which, after flying back to the US, he personally handed over to the FAA at Oklahoma City. The paper chase, it seems, had finally ended. Or had it?

With the issue of a permanent US Certificate of Registration, Ronald Hauck flew back to Lisbon to resume his quest to get the aircraft released. His first call was to the US Embassy where he successfully persuaded the Ambassador to write to the Direcção Geral da Aeronáutica Civil (CAA). There is little doubt that the Ambassador was sympathetic as he also agreed to contact, on Hauck's behalf, the Ministério dos Negócios Estrangeiros (Portuguese Minister of Overseas and the Foreign Department) to confirm that the aircraft was now legally registered to Ronald Hauck. But Hauck wasn't holding his breath, he half-expected the Portuguese to come up with another administrative barrier - which they did. The Portuguese CAA agreed to release the 125 on condition that it had a Certificate of Airworthiness issued by the American FAA.

The aircraft was, of course, nowhere near airworthy but Hauck knew that he only had to travel to Frankfurt where, from the FAA's Regional Office there, he could obtain a temporary C of A for the purpose of a single ferry flight from São Tomé to Lisbon. Within a couple of days he was in possession of the Certificate of Airworthiness and flew back to Lisbon. At that point the Portuguese Aviation Authority finally gave indication that they had no further interest in the aircraft and were happy to advise the Ministério do Ultramar (Overseas Minister) of the fact.

When Hauck checked with the Overseas Ministry he learnt that they too indicated no interest in the aircraft - provided, that is, that the Ministério dos Negócios Estrangeiros cleared the aircraft's release. But just as Hauck believed that he had finally cracked the painful process of getting the jet released, so the official wheels of authority again began to seize up. It now appeared that despite several positive meetings with the Portuguese Ministry of Foreign Affairs, when he put pressure on the Ministry (through the US Embassy) for a final release Hauck was told that some doubts had arisen as to the precise validity of the 125's chain of title.

What sparked this reaction was the discovery of a six-year old document found in the Portuguese Government archives. It had been issued by the former (albeit now defunct) State of Biafra and contained an instruction that the Portuguese authorities should not release the 125 to North American Trading Corporation because its principal, Hank Warton, had failed to fulfill his contracted commitments to the Biafran government. It smelt of dirty tricks but, apart from anything else, offered up firm evidence that the Portuguese had after all collaborated with the Biafrans in causing Warton's downfall. Nevertheless, the Portuguese freely admitted that the both the document and the aircraft itself were

& VR-BCX/N9499) at Basle just hours after he chose to flee back to the US. However, Warton was, it seemed, one step ahead of his banker when it was discovered that both aircraft had been stripped of all useful instruments. The bank accused Warton of larceny but was unable to have him arrested. Warton, of course, denied removing any instruments from the aircraft and eventually the bank was forced to write-off some very large debts.

Barely a year passed before Hank Warton decided to resume his effort in solving the Hawker Siddeley 125 dilemma. Under a lease-purchase deal, he offered the jet to an un-named American company, which had an operation in Africa related with oil interests. For about a year the company vacillated as to how they would proceed with getting the jet out of São Tomé. In the end nothing came of it and in early 1973 Warton decided not to pursue the matter and the option was cancelled.

A more attractive initiative emerged in August 1973 when Ronald L. Hauck, principal of the Fort Lauderdale-based International Airmotive Corporation entered the scene. Hauck had, it appeared, acquired ownership of the 125 from Warton's North American Aircraft Trading Corporation and with all the necessary documentation, began the lengthy process of opening the doors to São Tomé. But the process of retrieving the damaged 125 was to prove even more frustrating as Hauck grappled with numerous administrative obstacles.

Hauck's first action was to contact the Federal Aviation Agency legal counsel's office in Oklahoma City in order to obtain registration of the 125. The FAA obliged by issuing a temporary Certificate of Registration (as **N121AC**) on August 24th, the marks being valid for just 90 days. Hauck next travelled to Oklahoma to personally obtain the documentation, have it notarized and placed under the seal of the FAA in Washington. To further authenticate his ownership, Hauck had the documents acknowledged by the US State Department and legalised by the Portuguese Consulate in New York. It was almost as though he anticipated obstacles in the future.

Armed with what he now believed was more than ample evidence that he was the outright legal owner of the former Biafran 125, Ronald Hauck set about retrieving the aircraft. He flew to Lisbon and presented the documents to the Direcção Geral da Aeronáutica Civil (Portugal's Civil Aviation Authority). Not unsurprisingly, the Portuguese

something of an embarrassment to them and suggested to Hauck that if he could demonstrate that Warton had in fact consummated the full terms of the Biafran contract then the situation would become much more straightforward.

By now Ronald Hauck was convinced that the entire episode was a sinister plot to deny anybody from moving the 125. But why? Why would the Portuguese authorities seem to be working so hard at keeping a battle-scarred unserviceable jet on a remote colonial island? It also made Hauck wonder if there was indeed a curse on this particular aircraft as others had suggested in the past.

In spite of his suspicions, Hauck chose to pursue his claim of ownership. He knew that the Biafran leadership had given Power of Attorney to its most senior European agent, Christopher Mojekwu but the Nigerian Civil War had been over for three years. Mojekwu was known to have fled to the USA at the end of the war and so, back in the US, Hauck sought assistance from the US Immigrations Department to track Mojekwu down. It took a while but eventually the former Biafran envoy was found living quietly in Forest Park, Illinois.

When Ronald Hauck travelled to Illinois to see Mojekwu he took Hank Warton along with him. The meeting was friendly; there was no reason for it to be otherwise. In any case Mojekwu made it clear that he was neither concerned whether Hank Warton had fully honoured his contracts to supply arms etc to Biafra or not. On the other hand Mojekwu did freely admit that he had been given Power of Attorney back in 1968 and was aware that the Biafrans had owed almost half-a-million dollars. Furthermore he recalled signing-over the 125 to Warton in lieu of money owed. As a final gesture, the former Biafran Minister agreed to a release which was notarized and which Hauck took to be certified by the County and then to Springfield where the State Seal of Illinois was placed on it. He even took the document to Washington where it was authenticated by the US State Department and as a final safeguard had it legalized by the Portuguese Counsel in New York City.

In the meantime Dr Eduardo Abreu, Hauck's legal counsel in Lisbon, had continued to work on the case and was in regular contact with Portugal's Prime Minister with regard to the 125. Abreu was asked to provide a legal opinion by a US Attorney as to the legal ownership of the aircraft. The wheels of justice were still, it seems, slowly grinding away. Nevertheless Hauck hired a Miami Attorney to research the case, to agree on the ownership issue, and then to communicate his findings to Lisbon.

By now, the Spring of 1974, Hauck was convinced that the cards were heavily stacked against him. Nevertheless, he flew to Washington to badger the US State Department for help. He also sought clearance from the Pentagon to use the USAF base on Ascension Island as an intermediary stop between São Tomé and Fort Lauderdale, having decided against ferrying the 125 back to Europe. Then, in a final attempt to increase diplomatic pressure on the Portuguese, he even conferred with several US Senators and Congressmen. Hauck returned to Lisbon where he again met with the US Ambassador who, in turn, sent a note to the Portuguese government requesting 'a determination of position' and a more positive response to an earlier request to have 5N-AER (N121AC) released to Hauck. There is no evidence available that suggests the Portuguese ever responded.

In mid-July 1974 word reached Hauck that a representative from Hawker Siddeley had recently visited São Tomé, specifically to inspect the jet. Hauck wondered what had driven the manufacturer to show interest in an aeroplane that had not flown for six years and decided to visit the island to investigate. On August 5th he took a commercial flight from New York to Libreville, Gabon and on the following day chartered a light aircraft and flew out to São Tomé. But, despite demonstrating that he was the owner, officials at the airport refused Hauck access to the 125 until he had permission to do so from the island's Governor. As it turned out the Governor was quite content to allow Hauck to view the aircraft. However, the Governor's next statement was totally unexpected. He quietly explained that it was not, in fact, within his power to release the aircraft. That decision, he emphasized, could only come from Lisbon.

When Hauck arrived at the airport to see the 125 he learnt from hangar mechanics that the 'manufacturer's representative' had, in fact, been a team of two British technicians who, just a month beforehand, had carried out a full inspection of the jet. He was also told that the two men had been there at the behest of the Nigerian government who, it was

**CABINET OFFICE**

DIVISION

LAGOS

P.M.B. No. \_\_\_\_\_  
Telegrams \_\_\_\_\_  
Telephone 52076 \_\_\_\_\_

Ref. No. 784/S.2/Vol.IV/678  
Date 15th March, 1974.



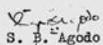
Dear Mr. Miller,

Recovery of HS 125 from Sao Tome

I refer to the discussion you had with the undersigned this morning and confirm that Hawker Siddeley Aviation Ltd. is hereby authorised to service and deliver to the Federal Military Government in Lagos, the HS 125 aircraft bearing registration number 5N AER which has been lying in the island of Sao Tome for some years.

2. I also confirm that pursuant to this assignment, acceptable bills should be submitted to this Office.

Yours faithfully,

  
S. B. Agodo,  
for Secretary to the Federal  
Military Government.

Mr. R. C. Miller,  
22, Kofo Abayomi Street,  
Victoria Island,  
Lagos.

*Above: The authority to restore and deliver 5N-AER was given by the highest office in Lagos in March 1974. It supports the argument that the Nigerian Government wanted the jet back in Nigeria at almost any cost. The widely-recognised American owner of the aircraft was powerless to act. (Michael I Draper Archive)*

said, were preparing to move the aircraft to Nigeria. Understandably, Hauck's frustration now turned to anger.

Working on behalf of the Nigerian Government, the two Hawker Siddeley technicians had been instructed to undertake a complete survey of the damage together with the estimated cost of repairs to enable the aircraft to fly again as well as establishing the cost and means of removing it from São Tomé.

The technicians, Harold Bunday and Harold Peall, had arrived on São Tomé island (via Lisbon and Luanda) on June 4th 1974. They began their work the next morning when they stripped off numerous patches on the wings and fuselage. Externally, apart from small holes and dents, the 125 looked better than one would have expected of an aircraft that had been stored for six years. Inside, however, was a different picture. Every possible vent and hole had been put to good use by tropical insects. There were nests and debris everywhere, especially in the rear fuselage and cowlings. The radome housed a colony of spiders and when the covers in the left-hand wheel fairing were removed a nest of mice were surprised in the rib shroud area. The whole of the aircraft was closely surveyed and the two technicians calculated that 68 man-weeks of work were needed to get the aircraft into flyable condition.

There was, however, a rather sinister twist to the technician's role. Although working on behalf of the Nigerians, before leaving Hatfield the two men had been quietly instructed to disable the 125 to ensure it would never fly again – but to do it in such a way that remained undetected. (Twenty years later, one of these technicians told the author that there is a way to achieve this that only a technician would know about. It involved drilling a series of holes into the main spar and then pouring nitric acid into the holes! Nobody, apart from the technicians involved, would of course ever confirm or deny that this actually happened. But it did!)

After learning of the Nigerian involvement, Ron Hauck returned to Libreville and arranged for a flight to Lagos in an attempt to see the Director of Nigerian Civil Aviation. Hauck did manage to meet with the Director but he claimed to have no knowledge of the circumstances surrounding the São Tomé 125. Unconvinced, Hauck appointed a local Attorney in Lagos to represent his interest in the former Biafran aircraft. It was a precaution that would eventually explain the true circumstances surrounding the jet.

In the meantime Hauck flew from Lagos to London and on to Hatfield for a meeting with Hawker-Siddeley Aviation. It was there that Hauck

got confirmation that the two technicians who had flown down to São Tomé to work on the 125 were indeed Hawker-Siddeley employees but when Hauck pressed the company for more details he was simply told that the job was for and on behalf of the Nigerian Government. So why had Hauck been told by the Director of the Nigerian Civil Aviation that they had no involvement in the São Tomé 125 when Hawker Siddeley was telling him two days later that they did?

Nobody at Hatfield would elaborate on the work carried out at São Tomé; nor would they offer any hint of where the jet might be moving to, if indeed it was being moved. All that was asked of them, they claimed, was to conduct a survey of damage and the cost of repair. They gave little regard to the fact that Hauck had a brief-case full of documents that showed him to be the owner of the 125.

The meeting at Hatfield left Hauck utterly dejected; as he left Hatfield to fly back to the US there seemed little point in continuing to stake his claim of ownership. After all, it would not be long before the ever-increasing expenditure on air fares and hotels would meet the diminishing hull value of the aircraft. Considering the cost of repairs and restoration there would be little room for any financial recuperation. But there were still too many unanswered questions. Why, for example, did the São Tomé Governor not have the authority to release the 125? Did the Nigerian DCA genuinely have no knowledge of what was going on? Why did the Portuguese authorities in Lisbon, who were clearly being guided by the Portuguese government, drag their feet for so long? Indeed, was there a conspiracy working against him. Did they suspect him of being an associate of Hank Warton? And what about the 'ju-ju' curse placed upon the aircraft back in 1966 – could that have been a factor that prevented him from getting his hands on what he, and many others, genuinely believed was his aircraft?

Whatever Ronald Hauck did believe was simply immaterial; his legal man in Lagos managed to come up with most of the answers. It now became very clear that, for some considerable time, diplomatic forces had been working behind the scene against Hauck because the real key to the entire episode rested on the fate of a Portuguese mercenary pilot languishing in a Lagos prison for the past four years.

Gil Pinto de Sousa, the pilot who had stayed behind to organise a party after the ill-fated Biafran F-27 bombing raid, was one of a number of Portuguese nationals hired by the Biafrans to ferry and operate a small force of former French Air Force T-6G Texans from Portugal to Biafra. The first batch had, by late-September 1969, been overhauled by SEAMA at Cascais and repainted in a three-tone green camouflage scheme in preparation for ferrying to Biafra.

Ferrying the T-6Gs to Biafra was not without incident. One of the mercenaries decided to quit the operation after reaching Bissau; then two aircraft experienced technical snags shortly after take-off from Bissau and were forced to turn back. The fourth, flown by de Sousa, did successfully reach Abidjan. Eventually, the other three aircraft were flown to Abidjan by which time the military situation inside Biafra was beginning to seriously deteriorate. Nevertheless, and despite a second pilot quitting the T-6G operation (although he was replaced), three of the aircraft set out from Abidjan to Biafra during the night of October 30/31st 1969. In order to avoid attention from Nigerian radar, the three pilots each took different routes. Two managed to land safely at Biafra's Uli strip but Gil Pinto de Sousa, flying the third T-6G, was unable to locate Uli after his aircraft's Automatic Direction Finder failed. De Sousa's attempt to have several May-Day calls responded to by the Biafrans also failed. Eventually the aircraft ran out of fuel and de Sousa was forced to land in the bush, approximately 125 miles south of Keffi, in the Benue Plateau – and on the wrong side of the Nigeria-Biafra border.

Shortly after daybreak de Sousa was picked up by the Nigerian militia and taken to Lagos for questioning. He was a prized captive but just over two months later Biafran forces collapsed and the Civil War was over. No charges were ever brought against the Portuguese mercenary pilot and he never faced a Nigerian court. Instead he was held without trial in a Lagos jail for the next four years.

1974 marked a year of change in Portugal. On 25 April, the Portuguese government was overthrown in a military uprising which saw the end of a 50-year fascist dictatorship. Portuguese exiles began to return home whilst in Lisbon the new Government turned its attention towards Gil Pinto de Sousa's predicament in Lagos. The Portuguese wanted his release and began to negotiate with the Nigerians. The Portuguese also wanted Nigeria's help in trying to bring an end to the civil war in



**Left:** Gil Pinto de Sousa was hired by the Biafrans to ferry one of several T-6G Texans from Cascais (Portugal) to Biafra. Due to faulty instruments he was unable to locate Uli at night and forced-landed in Nigeria. Arrested the following morning, de Sousa became the political pawn at the centre of the Biafran Hawker Siddeley 125 saga. (via Gil Pinto de Sousa)

Angola. What eventually emerged was a diplomatic compromise. The Nigerians were prepared to release de Sousa but they also wanted the former Biafran 125 on São Tomé island. The Portuguese therefore agreed to arrange the release of the jet to Lagos. And, despite the pile of documents, despite the official seals of support, the affidavits and legal opinions, there was simply nothing that Ronald Hauck could do about it. His 125 had become a vital pawn in a complex game of political chess. Perhaps the Witchdoctor's 'ju-ju' curse had played into Nigeria's favour all along. (**Note 6**)

**Postscript.** Whilst researching this story, the author has never been able to unearth any document (Bill of Sale or Receipt etc) that offered up proof that Hauck actually owned the 125. Indeed, Warton had retained the aircraft's log-books throughout the entire period, leaving one to wonder if Ronald Hauck was simply acting as Hank Warton's "leg man". We will probably never know.

**Note 1** In the event the Eastern Governor was collected, and returned, by a Ghanaian Air Force aircraft.

**Note 2** Ironically, although the Lagos incident was not strictly a 'hijack', Trevor Copleston was later involved in a genuine hijack on 30th June 1967 whilst flying former Congo leader Moïse Tshombé to Ibiza, Spain. The 125 was forced to divert to Algiers where Tshombé was arrested as part of an apparent bid to extradite him to his native Congo. Tshombé was imprisoned briefly before placed under long-term house arrest. He never did leave Algiers and later died of a stroke on 29 June 1969. Copleston, together with his co-pilot David Taylor, were released and returned to the UK.

**Note 3** The most favoured explanation for the F-27 crash was that moving bombs around in the aircraft had altered the centre of gravity to such an extent that the aircraft became uncontrollable and eventually stalled. Other pilots have recounted that the C of G proved highly critical when the F-27 was operated in a freight role.

There is also some uncertainty over the actual date of the raid – admittedly not helped by the author's own book, 'Shadows'. The *New Nigerian* newspaper (dated Monday, 9th October 1967) features the story and pictures of the crash which is reported as having taken place "in the early hours of Saturday", ie night of 6/7th October. In his book, 'The Last Flight', August Okpe states that the raid was originally scheduled for 1 October but delayed until 4th October 1967. Interestingly Okpe makes no mention of Jacques Languillaume, suggesting instead that the flight was flown by Capt André Cessou and Capt Rene Leclerc and that, in total, 12 people were aboard the aircraft. Equally interesting is that there is, within French Police files, an admission that one of the bodies depicted in a series of photographs taken immediately after the crash was positively identified as Languillaume.

**Note 4** The Egyptians, who had been specifically hired to fly MiG-17Fs were almost totally ineffective and achieved poor, if any, results. On the other hand, the Biafrans had come to fear the L-29s which regularly attacked Enugu and Port Harcourt airfields although on most occasions that damage was caused it was speedily repaired by Biafran conscripts.

**Note 5** In a letter (dated 12th August 1968) from Harold Onubogu (Biafra's Head of Flight Operations) to Hank Warton, the debt was admitted to be \$601,886.

**Note 6** Gil Pinto de Sousa was freed on 25th September 1974 and was immediately offered an all-paid-for stay at Lagos' Ikoyi Hotel, as a guest of the Nigerian Government. He was even given pocket money and a free air ticket to Lisbon which he took advantage of on 5th October, 1974. In the meantime arrangements were set to air-freight Ojukwu's former 125 to Kaduna by NAF C-130 Hercules. After a period of storage it was conveyed to the Nigerian College of Aviation Technology at Zaria. Even as late as 1997, it was being described, erroneously, as the aircraft in which Ojukwu escaped to exile at the end of the country's Civil War. The aircraft, still marked as 5N-AER, still has over 30 'shrapnel holes' clearly visible, some of which do seem to be fresher than one would expect!

# The Barkley-Grow T8P-1

JOHN WEGG



## BARKLEY-GROW AIRCRAFT CORPORATION

Archibald S Barkley helped build some of the Wright brothers early gliders, then worked briefly with the Wright and Curtiss companies before joining the US Army and serving overseas during the Great War. On his return, he worked for several manufacturers in the Detroit, Michigan, area, including Verville, Stout, and Ford. During this period, Barkley conceived a new type of wing structure consisting of two series of V-shaped stringers or spars running lengthwise along the top and bottom of the wing, joined to form an X shape, and thus dispensing with ribs or bulkheads.

To prove his patented geodesic rib-less wing construction method (US Patent No 2,122,709, dated 1938), the Barkley & Warwick Aircraft Corporation (7490 Melville St, Detroit, Michigan) built a twin-boom, two-tandem-seat monoplane in 1931 called the BW-1 (NX11300), powered by a 165hp Continental A-70. Although the BW-1 crashed on a test flight, the wing survived intact vindicating Barkley's theory.

In 1936, Barkley joined forces with aviator Harold B Grow and formed the Barkley-Grow Aircraft Corporation at City Airport, Detroit, in the Schlee-Brock hangar, with mostly former Stinson employees. Grow - who served as president of the corporation - was a graduate of the Naval Academy and served as a lieutenant commander in France during the war. He went to Perú in 1924 as part of the US Naval Mission, and was subsequently appointed inspector general in 1928, overseeing all aviation in that country and establishing the Peruvian aviation corps. With the revolution of 1930, Grow was forced to return to the USA, and founded an aviation broker concern, Grow, Joy & Co, in Detroit.

Chief engineer of the new aircraft company was W F De Groat, with Dwight C Maier as project engineer. Together with Barkley, vice president in charge of engineering, they designed an eight-seat twin-engine transport with a fixed undercarriage, the T8P-1. First flown in 1937, the sound design attracted considerable attention but few orders, because of competition from the Beech 18 and Lockheed Electra series, both of which featured retractable undercarriages. Only 11 aircraft were built. Seven of these were sold to the Canadian Car & Foundry Co, which had negotiated worldwide sales rights outside the USA (the T8P-1 was not eligible for export to Australia and Great Britain).

***Above:** Surviving today in the Aero Space Museum of Calgary, Alberta, Barkley-Grow c/n 8 CF-BQM is seen here wearing Belvedere cigarette advertising and race number 30 in which form it took part in the Great Burlington Centennial Seaplane Race, Burlington, Ontario in September 1973 (via JM Collection)*

Barkley-Grow planned to offer a bomber-trainer version (designated BT-2) to South American air forces (particularly Perú)—Barkley claimed that his wing was practically invulnerable to machine-gun fire—but the company was sold before any detailed design work took place.

Archibald Barkley appears to have left the company in 1938. Grow apparently left the following year (subsequently he saw active service in the Navy for five years, and renewed his ties with Perú after the war). Facing financial difficulties, in 1939 Barkley-Grow Aircraft Corp sold a controlling interest to the General American Transportation Corporation (GATC) of Chicago (formerly the General American Tank Car Company, today known as GATX); GATC advanced Barkley-Grow \$314,000.

(In autumn 1939, Victor Emanuel, president of both holding company Aviation & Transportation Corp (ATCO) and subsidiary Aviation Corporation (AVCO), secured 320,000 shares of ATCO owned by a syndicate headed by British bankers J Henry Schroder & Co. Emanuel placed these shares with 'friendly interests': Lehman Brothers, and GATC, which had chosen aviation in which to invest profits gained from building and leasing railroad rolling stock.)

In exchange for 42,000 shares of AVCO stock (a 7.2% interest), the following year AVCO, for its wholly owned subsidiary the Aviation Manufacturing Corp (AMCO), acquired all the physical assets and trade name of Barkley-Grow Aircraft Corp from GATC; effective 30th April 1940, AMCO took over Barkley-Grow, which became a division (alongside Stinson and Lycoming).

The Barkley-Grow Aircraft Division (as well as Stinson) was acquired by Vultee Aircraft in September 1940, with the official transfer taking place on 25th October. During the war, the Detroit factory was used for sub-assembly work.

### Notes:

Donald Hartwig was executive engineer in November 1938.  
R R Stoetzer was vice president in 1938.



**Left:** Bushplane! This unidentified T8P-1 is captured taking off from an Imperial Oil seismic camp in the wilds of Northern Canada. A 3,000 ft strip was bulldozed out of the forest to supply a lonely exploration group, 150 miles from civilisation, at Zama Lake, Alberta.  
(via Howard Levy and JM Collection)

### BARKLEY-GROW T8P-1

Barkley and Grow joined forces in Detroit in 1936 to produce a light twin-engined transport designed around the patented Barkley multi-spar metal wing.

Their effort was in response to a Bureau of Commerce request, issued on 15th August 1935, for a 'feeder liner' for use by small airlines, as well as a transport for the bureau's inspectors. Performance requirements specified a maximum speed of at least 175mph (280kph), a landing speed no higher than 65mph (105kph), a takeoff distance of 1,500ft (450m) over a 50ft (15m) obstacle, and the ability to maintain 3,200ft (975m) on one engine. Accommodation for six passengers and two crew was desired, along with de-icing on wing leading edges, adjustable pitch propellers, and a double radio installation. To be considered for evaluation, the aircraft would have to fly by 30 June 1936 (the end of the federal fiscal year).

Designated T8P-1 (Transport, 8-place, first model), Barkley-Grow's design closely resembled the twin-tail Beech 18 and Lockheed 12 Electra Junior, which were also aimed to meet the bureau's requirement. All three used the 400/450hp Pratt & Whitney Wasp Jr SB engine. The T8P-1 prototype (NX18388) was rolled out in April 1937 and first flown on 18th June by Frank Cordova. It thus was eliminated from consideration by the Bureau of Commerce (as was the Beech 18, flown on 20th January 1937; Lockheed's Model 12 won acceptance by flying on 27th June 1936, and displaying the best performance.)

The T8P-1 was of all-metal, semi-monocoque construction with the cellular-spar, stressed skin-covered wing (NACA 23012 airfoil) built in three sections with trailing edge flaps. A fixed landing gear with streamlined fairings was fitted, claimed to ease the pilot's workload and save expense and weight, and although a retractable system was offered as an option none of the 11 aircraft built had this feature.

Powerplants were encased in NACA cowlings and drove Hamilton-Standard fixed-pitch, two-blade propellers. The cabin entry door was on the right-hand side and accommodation was for seven passengers with a single pilot, reduced to six with two crew. Baggage compartments were in the nose and aft of the passenger cabin, which was furnished to airline specifications, including a lavatory.

Most of the subsequent testing was done by racing pilot Lee Gehlbach; Walter J Carr was also a test pilot for Barkley-Grow. Approved Type Certificate (ATC) 662 was awarded on 30th October 1937, and the prototype was then taken on a nationwide sales tour. Priced at \$37,500 [equivalent to \$550,000 today], the aircraft created considerable enthusiasm but few orders as it outperformed the lower-priced Beech 18 only with regard to short-field performance.

The prototype was lighter than production aircraft, which adopted a larger tail fin design and revised rudder shape tested on the first example. Production airframes differed from each other in details; for example, landing lights were installed in the nose, wings, or not at all, and all the engine cowlings had minor differences.

Although the first production aircraft was reported sold to the General Aviation Corporation of Denmark (which was negotiating for licensing rights in that country), it was delivered to Capt Alex Papană. This well-known Romanian pilot originally intended to make a nonstop flight from New York to Bucharest. Because of delays, his plan changed to a multi-stop crossing via the South Atlantic. After his attempt failed with a takeoff accident, the aircraft—with extra fuselage tanks to bring capacity to 1,150USg (4,350l)—was repaired and sold to Perú. Flown by brothers Capt Victor and Cdr Humberto Gallino, it left Floyd Bennett Field, New York, on 29th October 1940 for a 4,100mi (6,500km) nonstop flight to Lima. After 25 hours, a fuel leak forced the brothers down on Puna Island, Ecuador, 650mi (1,050km) short of their destination; nevertheless, the 3,200mi (5,350km) covered set a record for a nonstop flight between the Americas.

Another (msn 7/NC18470) saw service with Richard E Byrd on his third Antarctic expedition in 1939-40. On its return to the USA, the aircraft was found to be extensively corroded by saltwater and not flown again.

Canadian Car and Foundry Co, Montréal, Québec, acquired the worldwide sales rights outside the USA and imported seven aircraft (including the prototype) into Canada. The Department of National Defence was interested in a twin-engine type and budgeted \$50,000 per aircraft. Eager to secure a government contract, Can-Car reduced its asking price from \$56,954 to \$53,477, and offered to build the T8P-1 under license at Fort William, Ontario. However, only one (msn 5) was sold to the Royal Canadian Air Force, which preferred the Beech 18. This example was subsequently acquired by Maritime Central Airways and lost in Greenland in 1943.

Three were operated by Yukon Southern Air Transport of Edmonton, Alberta, under a lease-purchase deal that the airline's president, George W (Grant) McConachie, is reputed to have sealed for one dollar down on each aircraft. This transaction is related by Ronald Keith in his biography of McConachie, *Bush Pilot With a Briefcase*, in colourful fashion to match the style of his subject. Furthermore, it was claimed that although \$3,000 per month was set aside to pay for the aircraft, CCF never pressed for payment. Surviving financial records indicate that \$44,000 was paid by 1940, and that the agreement was discharged in May 1942 as wholly paid—by which time YSAT had been absorbed into Canadian Pacific Air Lines, incorporated on 31st January 1942 when United Air Services was renamed.

All T8P-1s were grounded briefly after one YSAT (msn 6/CF-BMW) experienced a flap overrun the drive screw in flight. Barkley-Grow devised a positive mechanical stop and a limit switch in the electrical system to solve the issue.

Of the other three, Prairie Airways acquired one and the remainder went to Mackenzie Air Service; both these companies were also amalgamated into CPAL.

The T8P-1 had been certificated for use on EDO 65-9225A floats, with an auxiliary fin centrally mounted on the tailplane, but not on skis (although the manufacturer claimed this was so). However, the struc-

ture of the third airframe complied with Canadian ski gear requirements, and those of number four and subsequent also incorporated the necessary modifications. Thus, CCF, in conjunction with Barkley-Grow, designed ski fittings that were tested by McConachie. YSAT initially received permission for ski operations for only a 30-day period, and solely for the transport of cargo and mail, and it was two years before a permanent modification was approved.

In June 1942, CF-BTX (msn 11) was chartered for an exploratory trip to the Yukon on behalf of the CANOL (Canadian Oil) Project, established to supply oil from Norman Wells (the northern-most oilfield in North America) via a refinery at Whitehorse to support construction of the ALCAN (Alaska-Canadian) Highway. Piloted by James (Bud) Potter, the T8P-1 made the first flight from Norman Wells to Whitehorse via Sheldon Lake on 12th June 1942.

Another CPAL aircraft was involved in a massive month-long search and rescue for the five crew and 15 passengers of a USAAF Air Transport Command Consolidated C-87 Liberator Express that had landed on a frozen lake, west of Nitchequon, Québec, on 5th February 1943 after running out of fuel on a flight from Bluie West 8 (Sondrestrom AB), Greenland, to Goose Bay, Labrador. Capt Forester, with engineer Pete Midlege, flew out seven of the passengers to Sept-Îles on 25th February after a 1,250ft (380m)-long runway had been created at the site, which became known as 'Lac O'Connor', after Capt O J O'Connor who was in command of the C-87. The harrowing tale was told by one of the searchers, Ernest K Gann, in his book *Island in the Sky* (that was made into a motion picture, starring John Wayne).

In Canada, the T8P-1 proved itself a capable and popular bushplane free of major flaws. The unique wing structure was very light and stiff, and posed no problems in service although it was difficult to repair if damaged. Cabin noise level was exceptionally low, and short-field performance was particularly noteworthy. Single-engine performance was lacking, however, and it was unable to maintain height on one engine without serious overheating when fully loaded. Hinge fittings on the elevator and rudders were prone to corrosion and failure and Mackenzie Air Service designed new ones of aluminum alloy instead of Dowmetal that were manufactured by Can-Car.

The first aircraft in Canada (msn 3, CF-BLV) flew for 18 years and suffered an astonishing eight engine failures, four on each side, fortunately without mishap, although it was finally damaged beyond repair in a takeoff accident.

Under ATC 662, all but the first and second aircraft were eligible to carry ten people (including crew). In Canada, the Department of Transport eventually allowed operators to carry up to ten passengers, accommodated by removal of the lavatory, if the fuel load was suitably reduced and seatbelts provided.

There were few modifications in service. The fitting of Aerotorque windshield wipers required a revised windshield to be fitted, and Can-Car manufactured new main axles from a different type of steel. Considerable testing of msn 1 was required to fit it with trim tabs, which were standard from the second airframe.

Canadian Pacific replaced the T8P-1 with Douglas DC-3s in 1949 and its four survivors were passed to other bush operators. One (msn 8, CF-BQM) was in service until 1970. Salvaged after an accident, it remained active until the mid-Seventies with private owners in Québec—including participation in a seaplane race—and has since been preserved at Calgary, Alberta. In addition, the fuselage of the prototype has been saved (also in Alberta), and a third example restored for display in Edmonton. At Whitehorse Airport, the type is also remembered by Barkley-Grow Crescent.

#### **Technical description** [from manufacturer's brochure]

Cantilever wing construction is used, the structure being multi-spar of special Barkley development, with a center section, outer panels, and detachable tips. The wing consists essentially of a multiplicity of full-length 24S-T span-wise webs of suitably formed and lightened thin sheet to which the top and bottom coverings of Alclad 24S-T sheet are attached. There are no ribs or bulkheads.

The center section, integral with the fuselage, contains three spars that extend outboard to join with the outer panels; the space between the



**Above:** Floatplane! The size of the EDO 65 floats is readily apparent in this view of CF-BQM back on its wheels and awaiting restoration at Calgary. The auxiliary central fin can just be seen. (via JM Collection)

**Below:** Skiplane! CF-BLV, c/n 3, was operated by Associated Airways Ltd fitted with a wheel/ski landing gear, an option that had taken some time to achieve approval. (via JM Collection)



spars is occupied by fuel tanks. The outer panels, which detach outboard of the engine nacelles, are extremely stiff under load and free of flutter.

Flaps are split and slotted, operated electrically. They extend from the inboard edge of the ailerons to a point where the wing fillets join the fuselage. The flaps operate so that slot action is used for the take-off (10 and 15 degrees), and slotted and split action for landing (45 degrees). Frieze-type ailerons are fitted.

Engine nacelles are of semi-monocoque construction aft of the leading edge of the wing, covered with Alclad 24S-T, with a stainless steel firewall. Forward of the wing are chrome-molybdenum engine bearers.

The Alclad 24S-T stressed skin of the fuselage has no fore and aft reinforcing members excepting a length of approximately 10ft in the region of maximum bending loads, where corrugated sheet is laid next to the skin and to which it is riveted. Construction is of the semi-monocoque type with 24S-T bulb and I section frames and bulb section stringers of the same material, the frames being cut out to allow the stringers to pass interrupted.

Arrangement of the cabin in the standard series provides for six passengers seated in three chairs, with adjustable footrests and backs, on each side separated by an aisle, with two pilots forward. The cabin is 160in long, 56in wide, and 60in high. Seat pitch is 34in. Each seat is upholstered in high-grade shipcord, mounted in rubber bushings, and has a hat clip, reading light, and ashtray. Optional arrangement provides for seven passengers in which case there is another seat aft at the starboard side of the cabin, and one pilot. Sound insulation is achieved by a combination installation of Seapak, felt and plastic materials. The toilet area has a folding partition. Cabin temperature is controlled by the pilot, with outlets placed at the front and rear of the cabin. The aft baggage compartment is accessed by a door on the left side. The cabin may also be fitted with executive furnishings and provision made for ambulance equipment and stretcher racks.

The pilot area was spacious, and afforded excellent visibility; side windows open rearwards and the windshield is designed to deflect the elements when open. The type and placement of all glass and Perspex was designed to reduce glare during night flying.

Tail group also is full cantilever, of multi-spar construction similar to the wing. For higher aerodynamic efficiency, dual fins and rudders are provided. The stabilizer can be easily removed when necessary. Fixed surfaces are covered with Alclad 24S-T; movable ones with a thinner Alclad. A large trim tab is fitted to the elevator, and the left rudder has an adjustable tab.



**Above:** Manufacturer's photo of the prototype T8P-1 (Transport, 8-place, first model) N18388. (via JM Collection)

Standard landing gear is the fixed type equipped with Goodyear low pressure tires, multi-disc hydraulic brakes, and Aerol shock absorbers with 7in travel. Metal streamlined fairings are provided on the wheels and over the single leg of each unit. Tail wheel is full swiveling through 360-degrees and is provided with a Goodyear tire on a Warner wheel.

Power is supplied by two Pratt & Whitney Wasp Junior SB engines. Hamilton Standard controllable pitch propellers are standard equipment and tankage is provided for 120USg of fuel, or 160USg maximum with optional additional tanks in the nacelles, as well as 10USg of oil. The fuel tanks are of welded aluminum and suspended from the main spars in felt-padded straps. A large metal bulkhead separates them from the passenger compartment. Two men can remove the tanks in a matter of minutes. Forward of the firewall, the nacelle tanks are suspended in felt-padded straps. Oil coolers with pilot-controlled shutters are fitted to each engine.

Standard equipment includes a 65amp Exide battery, Fafnir control bearings, Grimes navigation lights, Adams & Westlake landing lights, Kidde fire extinguisher and the following instruments: Kollsman pitot tube, altimeter, suction gauge, airspeed indicator, vertical speed indicator, compass, manifold pressure gauges, oil pressure gauges, fuel pressure gauges; Pioneer turn and bank indicator; Weston thermocouple, ammeter, electric tachometers, cabin temperature, carburetor, oil temperature gauges; Moto-Meter air temperature gauge, fuel gauge, ice warning indicator, and flap position indicator; Sperry directional gyro, gyro-horizon; Cambridge fuel-air ratio indicator; Pioneer Waltham clock.

Specifications and performance figures (cruising performances at 75% power)\*

Span 50ft 8.75in; length 35ft 8in; height 9ft 7.5in; wing area 354sq ft

Power loading	9.9 lb/hp
Wing loading	22.5 lb/sq ft
Empty weight	5,365 lb
Useful load	2,585 lb
Payload	1,620 lb
Gross weight	7,950 lb
Maximum speed (sea level)	213 mph
Maximum speed (5,000ft)	225 mph
Cruising speed (sea level)	193 mph
Cruising speed (5,000ft)	204 mph
Landing speed	64.6 mph*
Rate of climb	1,420 fpm
Service ceiling	24,000 ft
Cruising range (9,600ft)	470-630 mls
Take-off length (50ft obstacle)	805 ft
Landing (over 50ft obstacle)	983 ft

\* Canadian DoT pilots reported an approach speed of 100mph and touchdown at 70mph.

**ATC 662 (TCDS)**

Two Pratt & Whitney Wasp Jr SB (R-985) nine-cylinder air-cooled radial engines

Fuel: 80 minimum octane, 97 minimum octane for take-off

Placard limits:

Maximum, except take-off:

- Sea level 34.5in Hg, 2200rpm (400hp)
- Straight line to 5,000ft 53.5in Hg, 2200rpm (400hp)
- Take-off (1 minute): 36.5in Hg, 2300rpm (450hp)

Placard speeds:

Landplane

- level flight or climb: 209mph (TAS)
- glide or dive: 270mph (TAS)
- flaps extended: 117mph (TAS)

Seaplane

- level flight or climb: 193mph (TAS)
- glide or dive: 248mph (TAS)
- flaps extended: 117mph (TAS)

[Associated Airways pilot Roy Staniland, who flew four aircraft, recalled 150-160mph was the comfortable cruising speed; AVCO pilot Harold R Miller also quotes 160mph cruising speed.]

Fuel capacity: 156USg (two tanks in each wing)

Oil capacity: 16USg (two tanks, 8 gallons each)

N° passengers: 8 (2-2-2-2)

Baggage: 430lb (nose compartment 250lb, aft of cabin compartment 180lb, includes anchor and line 30lb and ladders 23lb when carried)

Standard weight\*

- Landplane: 8,750lb
- Seaplane: 9,200lb

(\* msn 1 eligible as landplane only at 8,250lb standard weight with the following: split flap under fuselage, certain castings of aluminum alloy instead of magnesium alloy, adjustable trim tabs on both rudders; msn 2 eligible as landplane only at 8,250lb standard weight.)

Equipment

Class I:

(a) Landplane

- Two engine ring cowls
- Two exhaust collector rings (including carburetor heaters)
- Two oil radiators
- Two electric starters (Eclipse E-160)
- Generator (Eclipse D) 15v 25amp
- Battery (Exide or Electric 6-XT-13-1)
- 30x13-6 wheels (Goodyear 6HBR) with 6-ply heavy duty tires (27.5lb air pressure)
- 13.25in streamline tail wheel and 6-ply heavy duty tire (40lb air pressure)
- Shock struts (Aerol SP-325 BG)
- Tail wheel shock strut (Warner Aero BG Drawing 110. B-1200)
- Cabin heaters
- Flap control motor (Elec Spec HCA-2 0.65 hp)
- Wheel fairings
- Two propellers: Hamilton Standard hubs 2030, blades 6167A-6 to 6167A-8 or 6106A-12 to 6101A-14  
Diameter 9ft 1/8in maximum, 8ft 9-3/4in minimum

(b) Seaplane

- Two engine ring cowls
- Two exhaust collector rings (including carburetor heaters)
- Two oil radiators
- Two starters (Eclipse E-160)
- Generator (Eclipse D) 25amp
- Battery (Exide or Electric 6-XT-13-1)
- Cabin heaters

Flap control motor (Elec Spec HCA-2 0.65 hp)  
 Two propellers: Hamilton Standard hubs 2030, blades  
 6167A-6 to 6167A-8 or 6106A-12 to 6101A-14  
 diameter 9ft 1/8in maximum, 8ft 9-3/4in minimum  
 EDO 65-9225A float installation (including water rudders,  
 struts and fairings)  
 Seaplane fittings  
 Auxiliary fin

**Class II:**

Constant speed propeller controls installation  
 Exhaust analyzer (Cambridge)  
 Vacuum pumps (2) (Pesco Type B-A-I)  
 Radio, variable. Structure has been substantiated as  
 follows: (a) In nose compartment  
 (b) On floor under pilot's chair  
 (c) On floor under co-pilot's chair  
 (d) On fuselage roof  
 (e) On instrument panel (controls)  
 (f) Twin antenna  
 (g) Single antenna  
 (h) Bonding  
 Miscellaneous instruments  
 Two flares and brackets (3 min)  
 Two landing lights (A & W, type A-7) and passing light  
 Pressure fire extinguisher (Richlux CO2)  
 Toilet equipment  
 Radio shielding  
 30USg nacelle fuel tank (1 or 2)  
 Two oil radiators  
 Battery (Exide 6FHR-13)  
 Three place divan  
 Rear partition and doors  
 Closet (clothing)  
 Food compartment

**Class III:**

Shock struts  
 Pilots compartment hatch

**PRODUCTION**

Barkley-Grow Aircraft Corp, 13210 French Road, Detroit, Michigan  
 (msn 1-msn 9)

Aviation Manufacturing Corporation, Barkley-Grow Aircraft Division,  
 13210 French Road, Detroit, Michigan (msn 10-msn 11)

T8P-1 Production under ATC 662

Note: Serial n° 1 and up manufactured before 25Oct40 eligible.  
 Approval expired that date due to sale to Vultee (later Consolidated-  
 Vultee).

**Identity/msn quick reference**

<b>Canada</b>	
CF-BKR	allocated, but unused
CF-BLV	3
CF-BMG	4
CF-BMV	5
CF-BMW	6
CF-BQM	8
CF-BTX	11
CF-BVB	allocated, but unused
CF-BVE	1
RCAF 758	5

<b>Colombia</b>	
C-113	9

<b>USA</b>	
N18388	1
N18469	5
N18470	7
N2093	2
N2428	10
N26400	8
N26496	11

<b>Perú</b>	
OB-GGK	2
CAP 2S-1-1	2

<b>Romania</b>	
YR-AHA	2

**INDIVIDUAL AIRCRAFT HISTORIES**

***Manufacturer's serial number 1***

Manufactured 27Apr37 MGTOW 8,250lb  
 Wasp Jr SB msn 510 & 536 (?indistinct in record); later 540 & 554 and  
 540 & 1123

**NX18388** [marked as **X18388**]  
 First flight 18Jun37

**NC18388**  
 License application A-62817

Demonstrated in Canada from at least late Jun38 until mid-Aug38, pilot  
 Victor John (Shorty) Hatton



**Above:** Prototype T8P-1 as X18388 outside the company's Detroit factory hangar in 1938. (via JM Collection)



**Left:** This left-side view of the prototype, now registered NC18388, shows the door of the aft luggage compartment in the rear fuselage. The Barkley-Grow company logo is on the fin.  
(John Wegg collection)

**Below:** NC18388 standing in snow at City Airport, Detroit, during winter 1937-38.  
(John Wegg collection)

Sold by Vultee Corp to Canadian Car & Foundry Co, Montréal, Québec Export Certificate E-7554 issued 13Sep41 (Wasp Jr SB msn 540 & 1123)

#### CF-BVE

Registration allotted 12Aug41 to Canadian Car & Foundry Co  
Application for registration 18Aug41, Canadian Car & Foundry Co  
Authority to ferry Detroit–Montréal 07Sep41  
Temporary certificate 29Sep41 to Canadian Car & Foundry Co

Sold (BofS) 14Oct41 to Prairie Airways, Moose Jaw, Saskatchewan  
Temporary certificate 14Oct41 to Prairie Airways, monthly until 12Jan42

(CF-BVE was never issued a CofA and never registered to Prairie Airways, essentially because as the prototype it was not covered by the Canadian type certificate and a lot of work was needed to bring it up to production standard; at the same time the DoT was heavily involved in war work and gave this aircraft low priority. Initially it was licensed for one pilot and five passengers, subsequently revised to six passengers but with reduced fuel load.)

Inspected 21Feb42, CofA renewed until 12May43 (TT 943:45)  
Temporary certificate 21Feb42 to United Air Services  
Temporary certificate 20Mar42 to Prairie Airways, monthly until 03Sep42  
Temporary certificate 02Nov42 to Canadian Pacific Air Lines, monthly until 06Jun44  
CofR N° 3061 02Nov42, Canadian Pacific Air Lines, Montréal (based at Edmonton, Alberta)  
CofA N° 642 issued 02Nov42 until 03Jul45  
Inspected 04Jul44, CofA renewed until 03Jul45 (TT 2,894:50)  
Sold Feb45 to Frank Ambrose, Whitestone, Long Island, New York  
Registration cancelled 01Feb45

#### NC18388

**N18388**  
Restored 09Apr54 or 09Apr57 to Frank Ambrose, Whitestone, Long Island, New York  
In long term storage  
FAA 337, 15Apr64, Dayton Aircraft Sales, Vandalia, Ohio  
Export Certificate E-39593 issued 20Apr64 (R-985-SB msn 55617161 & 42-175451) to Northland Airlines, Winnipeg, Manitoba, as N18388/CF-BVE  
Deregistered 27May64

#### CF-BVE

Registration allotted 20Apr64 to Northland Airlines, Winnipeg, Manitoba  
Authority to ferry Springfield, Ohio–Winnipeg 20Apr64  
Abandoned engine-less at Netley, Manitoba, after one wing used to repair msn 8/CF-BQM  
'Hope to re-register' Sep68  
Scrapped for parts by Aug70; fuselage acquired by collector Harry Whereatt of Assiniboia, Saskatchewan (along with the damaged wing from msn 8, CF-BQM and spare parts from msn 6, CF-BMW) and restored  
Acquired by The Reynolds Alberta Museum, Wetaskiwin; stored [2007, Jul08]



#### Manufacturer's serial number 2

(T8P-1 Special)  
ATC662 (Modified) (8 PLCM) MGTOW 8,250lb  
Manufactured Mar38  
Wasp Jr SB msn 863 & 864

#### NX2093 [probably marked as X2093]

License application A-73067 (by BGAC) 25Feb38  
Approved 01Mar38; to expire 12Aug38  
Experimental license for test flights before a 5,000mi (8,000km) nonstop flight. As ATC 662, but seats removed, plus trim and sound-proofing. Oil and fuel tanks installed in their place, in preparation for flight from New York to Bucharest. (Seats to be re-installed in Romania.)

#### YR-AHA

Name: *Trăiască Regele* (*Long Live the King*, the national anthem of the Kingdom of Romania, saluting Carol II)

Sold to Capt Alex [Alexandru] Papană, c/o Roumanian [sic] Legation, Washington, DC, 12May38

Airplane built expressly for Papană, a member of the Royal Romanian Air Force [Forțele Aeriene Regale ale României] and attached to the Romanian Legation. The cost of the airplane (estimated between \$50,000 and \$70,000) was raised by public subscription in Romania. Papană originally proposed to fly nonstop from New York to Bucharest (5,000mi/8,000km), or if winds were unfavorable make a landing in Paris or Berlin.

At the request of the Romanian Legation, the US State Dept issued a permit to Papană 08Jun38, for 30 days. This was to cover the operation of the airplane from Chicago or Detroit, to New York and vicinity airports and to New Orleans and Miami under Romanian registration YR-AHA.

(Papană did not inform the Romanian Civil Authority about the new aircraft, but used the registration markings given the previous year for his tri-motor Bellanca 28-92, msn 903. This proved to have higher fuel consumption than envisaged, and the required 5,000mi range could not be met. Thus Papană returned the aircraft to the manufacturer, and it was passed to Frank Cordova.)

A test flight from Floyd Bennett Field, Brooklyn, New York, where Papană and the T8P-1 arrived on 25Jun38, was scheduled to New Orleans, Louisiana, and Miami, Florida, on 26Jun38.

Incident: 04Jul38, at about 1830: Papană, over Washington, DC, buzzed the White House at c400ft and narrowly missed hitting the War, State and Navy Department buildings. President Franklin D Roosevelt



**Above:** YR-AHA, c/n 2, made unofficial use of the marks previously allotted to the owner's Bellanca 28-92. Alex Papană intended to make a direct New York - Bucharest flight but revised this to a South Atlantic routing and finally abandoned the whole idea after a take-off accident at Miami. As YR-AHA the aircraft never left the USA but it was rebuilt by Barkley-Grow and sold to Peru. (Robert F Pauley via Stephen J Hudek & John Wegg)  
**Below:** The same aircraft, now registered OB-GGK, was then subject of an attempt by the Gallino brothers to fly direct from New York to Lima. It fared a little better and at least reached Puna Island off Ecuador, having been prevented from getting all the way to Lima by a fuel leak. In both of these photographs the cabin windows are blocked out because of the extra internal fuel tankage being carried. (via Stephen J Hudek/John Wegg)



instigated a phone call the next morning from the White House Usher Frank Krim to Dennis Mulligan of the CAA. The president noted one of his executive orders, prohibiting low flying over a restricted zone of the nation's capital, including the White House. In FDR's eyes, Papană was obviously "putting on a show," and the president wanted some action to be taken to prevent further or future re-occurrences.

Tested by BGAC and flown Detroit-Floyd Bennett Field by Papană 18Jul38, arriving 1945ft.

Accident: 19Jul38, Norwalk, Connecticut: Papană took off from Floyd Bennett Field for an engine check by Pratt & Whitney in Hartford. While en route, permission for his trans-Atlantic flight—scheduled for 21Jul—was given by the secretary of state, although the Romanian Delegation announced a delay until the following week because of the death of Queen Marie. Papană encountered poor weather and landed at New Haven. He decided to continue to Hartford but the weather worsened and Papană located Norwalk; he overran the 2,000ft-long strip on landing and struck a stone wall at the northern end. Damage to propellers, engines, and landing gear.

The delay because of repairs moved the departure date into a bad weather period over the North Atlantic and Papană revised his route to fly from New York to Bucharest via Miami, Natal (or Pernambuco), Brazil, Dakar, Sénégal, and Tunis.

Papană, with co-pilot Max Constant of Hollywood, California (a French-born writer, director, and stunt man), completed the first leg of his proposed flight, leaving New York at 0901 on 15Oct38 and arriving at Miami in 7hr.

Accident: 18Oct38, Miami (All-American Airport), Florida: on takeoff for Recife, Brazil (another source says Curaçao) the aircraft ground-looped and undercarriage collapsed; Papană and Constant were unhurt. (Papană, whose wife had died in Bucharest the previous month

during the birth of their daughter, and who had been ordered to report for duty, abandoned the attempt and returned to Romania by ship.)

Sold 03Apr39 to Miranda Bros, Inc, 6 East 45th St, New York (at sheriff's sale in Miami)

Sold 28Apr39 to BGAC

#### **N2093**

Identity mark assignment issued to BGAC for use in ferrying aircraft to Detroit; to expire 30May39

Aircraft repaired at factory

#### **OB-GGK**

Name: "CRUZ DE CHALPON" [sic] (after a cross named La Cruz de Chalpón, also the name of a mountain near Motupe, the birthplace of the Gallino brothers; the nose also carried the letters A.S.A. for *Arriba siempre arriba* [higher, always higher], slogan of the Peruvian air force)

Sold (BoF) 09Sep39 to Government of Perú, Lima

Letter dated 16Oct39 states aircraft sold to Commander [Commodore] Humberto Gallino, Peruvian Navy, representing the Peruvian air force [Cuerpo Aeronáutico del Perú]; price \$27,500.00

(The Gallino brothers had bought the airplane, probably through the Miranda Bros, and had it rebuilt by BGAC; they had financed the venture themselves.)

Permit issued by Dept of State to make nonstop flight from New York to Lima by Humberto Gallino Domenack (chief of military aviation) and brother Capt Victor Gallino Domenack (Peruvian Army, head of civil aeronautics)

Attempt was delayed by lack of suitable wind direction at Floyd Bennett Field, and early in October, when conditions were favorable, the tail

wheel bent with the weight of the fuel load. Departed from Floyd Bennett Field 29Oct39 at 1344lt and landed on Puna Island [Isla Puná], Gulf of Guayaquil [Golfo de Guayaquil], Ecuador, the following day because of a fuel leak which saw 220USg lost; after receiving supplies of fuel, flew to Guayaquil, thence to Lima 01Nov39.

**2S-1-1**

Cuerpo Aeronáutico del Perú, 2nd Staff Sqdn [Escuadrón]  
 Accident (date unknown), BA Las Palmas, Santiago de Surco, Barranco, Lima: right undercarriage collapsed on landing  
 Destroyed Sep45, Tingo María, Leoncio Prado, Huánuco: damaged beyond repair by fire caused by electrical short circuit



**Above:** Msn 3 CF-BLV was operated from 1939 to 1942 by Yukon Southern Air Transport in whose titles it is seen here. With two other T8P-1s it frequently serviced mining settlements with supplies and carried gold back. (via JM Collection)

**Manufacturer's serial number 3**

ATC 662 (10 PLCM)  
 Manufactured 24Nov38 (22Sep38 quoted in Canadian records)  
 Wasp Jr SB (450hp) msn 944 & 945

Test flown 23Feb39 (total time 21hr)  
 Sold 24Feb39 (BofS) to Canadian Car & Foundry Co, Montréal, Québec, for \$45,500.00  
 Application for CofA for Export dated 24Feb39  
 Export Certificate E-4786 issued 03Mar39

**CF-BLV**

Registration allotted 12Sep38 to Canadian Car & Foundry Co  
 Registration application 28Sep38 by Canadian Car & Foundry Co  
 Lease purchase Jan39 to Yukon Southern Air Transport, Edmonton, Alberta: CF-BLV & CF-BMG; C\$105,000  
 Arrived at Winnipeg, Manitoba, 04Mar39 from the US; left for Edmonton 06Mar39  
 Temporary certificate 06Mar39 to Canadian Car & Foundry Co, c/o United Air Transport  
 Temporary certificate 04Apr39 to Yukon Southern Air Transport, and monthly until 08Aug39  
 CofR N° 2486 04Apr39 to Canadian Car and Foundry Co (based at Edmonton)  
 CofA N° 339 04Apr39, valid until 04Apr40  
 Yukon Southern Air Transport name: *YUKON QUEEN* [sic]  
 Accident 17Apr40, Charlie Lake, Fort St John, British Columbia: While taxiing out for takeoff the aircraft pulled to the left and it went through the ice; pilot William F Sheldon-Luck, co-pilot Don Patry. Retrieved and flown from a rough field for repair.

Inspected 23Jul40, CofA renewed until 22Jul41 (TT 641:40)  
 Inspected 25Jul41, CofA renewed until 23Jul42 (TT 1,288:05)  
 transferred Mar42 to Prairie Airways, Moose Jaw, Saskatchewan;  
 Sold 26May42 to Prairie Airways  
 Temporary certificate 24Jul42 to Prairie Airways  
 Inspected 06Aug42, CofA renewed until 06Aug43 (TT 2,264:52)  
 Sold Jul43 to Canadian Pacific Air Lines;  
 Inspected 23Dec43, CofA renewed until 22Dec44 (TT 2,745:15)  
 CofR N° 3038 23Dec43, Canadian Pacific Air Lines, Montréal (based at Edmonton); Fleet N° 212  
 CofA N° 621 issued 23Dec43 valid until 23Dec44  
 Inspected 26Feb45, CofA renewed until 27Feb46 (TT 3,763:36)  
 Inspected 28Dec45, CofA renewed until 27Dec46 (TT 4,758:58)  
 Inspected 22May47, CofA renewed until 21May48 (TT 5,510:34)  
 Inspected 23Jun48, CofA renewed until 22Jun49 (TT 5,530:50)  
 Inspected 21Jun49, CofA renewed until 20Jun50 (TT 5,535:35)  
 Sold 28Nov49 (BofS) to Associated Airways, Edmonton (CF-BLV, CF-BQM, CF-BMW, \$25,000);  
 Sold 25Nov49 (BofS) to Peets (OK Construction & Supply Co); CofR N° 8435 29Nov49 to Herbert Robert Peets, Edmonton  
 Inspected 28Jun50, CofA renewed until 28Jun51 (TT 5,563:45)  
 Inspected 20Jul51, CofA renewed until 19Jul52 (TT 5,585:50)  
 Sold (BofS) 19Nov51 to Associated Airways, Edmonton; CofR N° 10615 27Nov51;  
 Inspected 12Aug52, CofA renewed until 19Jul53 (TT 5,885:55)  
 Inspected 18Jul53, CofA renewed until 19Jul 54 (TT 6,368:10)  
 Inspected 15Jul54, CofA renewed until 19Jul55



**Above:** CF-BLV was operated by Associated Airways in the early 1950s, here carrying supplies into the northland for further distribution by dog sled. Note the wheel/ski undercarriage used during the winter months. (via JM Collection)



**Above:** The last of several operators of CF-BMG msn 4 was Canadian Pacific Airlines of Regina between 1943 and 1947 when, after conversion to floatplane, it sank at a mooring in British Columbia. (Stephen J Hudek via John Wegg)

Accident 25Apr55, Edmonton Airport: At 1005 the right main undercarriage failed while taxiing for takeoff; pilot C Clinton  
 Inspected 16Jul55, CofA renewed until 19Jul56  
 Sold 1955 to Pacific Western Airlines, Edmonton, Alberta  
 Inspected 07Sep56, CofA renewed until 7Sep57 (TT 7,199:00)  
 Inspected 13Aug57, CofA renewed until 07Sep58 (TT 7,589:50)  
 Inspected 30Sep58, CofA renewed until 30Sep 59 (TT 8,001:55)  
 Inspected 11Sep59, CofA renewed until 30Sep6060 (TT 8,192:40)  
 Accident 12Jan60, Peace River, Alberta at 56:14N 117:26W: After takeoff the left wing dropped; pilot Norman W Skogmo was unable to correct and throttled back and landed; the aircraft was destroyed [Report 862]  
 Registration cancelled 13Sep60  
 Fuselage retrieved in 1982 by Aero Space Museum Association, Calgary, Alberta; restored c2000 using some parts from msn 11/CF-BTX, name: *YUKON QUEEN* [sic]  
 Long-term loan to Alberta Aviation Museum, Edmonton-City Centre Airport (Blatchford Field); displayed [Jul08]

**Manufacturer's serial number 4**

ATC 662  
 Manufactured 1938  
 Wasp Jr SB msn 1041 & 1042

Sold to Canadian Car & Foundry Co, Montréal, Québec  
 Export Certificate E-4862 issued 14Mar39

**CF-BMG**

Registration allotted 01Dec38 to Canadian Car & Foundry Co  
 Lease purchase Jan39, Canadian Car & Foundry Co to Yukon Southern Air Transport, Edmonton, Alberta; CF-BLV & CF-BMG; C\$105,000; mortgages dated 03Jan39 & 21Apr39 [CF-BMW \$64,370.94?]  
 Arrived Winnipeg, Manitoba, 04Apr39, left for Edmonton  
 Temporary certificate 05Apr39 to Canadian Car & Foundry Co, c/o United Air Transport  
 Temporary certificate 05May39 to Yukon Southern Air Transport, and monthly until 09Aug39  
 CofR N° 2484 05Apr39 to Canadian Car and Foundry Co (based at Edmonton)  
 CofA N° 338 issued 05Apr39, valid until 05Apr40  
 Yukon Southern Air Transport name: *YUKON KING* [sic]  
 Inspected 06Jul40, CofA renewed until 05Jul41 (TT 750:05)  
 Accident 10Apr41, Watson Lake, Yukon: On landing the aircraft broke through the ice; left wheel pant collapsed, dug into the slush and the aircraft went over on its nose, bending propellers and damaging nose hatch and landing lights; pilot William F Sheldon-Luck and 3 passen-

gers uninjured; retrieved and repaired at Edmonton  
 Inspected 14Aug41: CofA renewed until 13Aug42 (TT 1,553:05)  
 Operated by Prairie Airways, Moose Jaw, Saskatchewan, mid-Jan42 through Feb42  
 Delivered to Québec Airways, Montréal, end of Feb42  
 Accident 21May42, Ancienne Lorette, Québec: Engineer decided to move the aircraft to the maintenance hangar; as he rounded the hangar, he failed to control the aircraft with the foot brakes and gave a burst of opposite engine; however, a wing tip struck the hangar, swinging the aircraft directly into the hangar doors; damage to wings, nose, and props  
 Sold 26May42 to Québec Airways;  
 Temporary certificate 03Feb43 to Québec Airways, and monthly until 02Aug43  
 Inspected 05May43, CofA renewed until 04May44  
 CofR N° 3024 05May43 to Canadian Pacific Air Lines, Montréal based at Regina, Saskatchewan); Fleet N° 211  
 CofA N° 607 issued 05May43, valid until 05May44  
 Inspected 04Jul44, CofA renewed until 03Jul45 (TT 3,958:30)  
 Inspected 27Jul45, CofA renewed until 28Jul46 (TT 5,119:18)  
 Inspected 26Apr46, CofA renewed until 27Apr47 (TT 5,689:57) converted to floatplane 1946  
 Accident 01Feb47, Port Alberni, British Columbia: When moored at the RCAF buoy the anchor cable became fouled at low tide; during the night, as the tide rose, the cable pulled the nose of the floats under the water and the aircraft went over on its back; salvaged and sent to Vancouver but considered beyond economical repair  
 Registration cancelled 18Aug47

**Manufacturer's serial number 5**

ATC 662 (10 PLCM)  
 Manufactured 20Apr39  
 Wasp Jr SB msn 1070 & 1071

**18469**  
 First flown as such

**NC18469**  
 License application A-84337  
 Demonstrations in Canada, Sep39

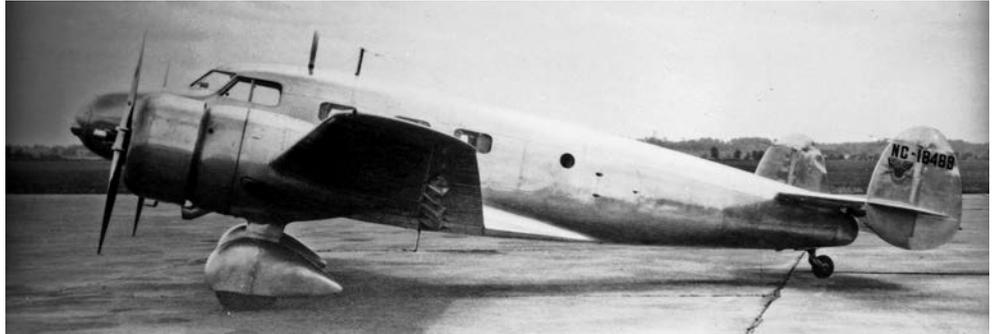
Sold to Canadian Car & Foundry Co, Montréal, Québec  
 Export Certificate E-5464 issued 12Sep39 as NC18469/CF-BMV

**CF-BMV**  
 Application for registration 01May39, Canadian Car & Foundry Co  
 Temporary certificate 14Sep39 to Canadian Car & Foundry Co



**Above and Right:** Two early views of msn 5 when still registered as NC18469. The DF loop above the cockpit and the twin landing lights in the nose are features of this airframe. (John Wegg collection)

**Below:** After sale to Canada msn 5 became serial 758 with the Royal Canadian Air Force and served for two years with No.12 Communications Flight. (via JM Collection)



CofR N° 2549 14Sep39, Canadian Car & Foundry Co (based at Edmonton, Alberta)

CofA N° 385 issued 14Sep39, valid until 14Sep40

#### 758

Sold to Royal Canadian Air Force  
Taken on strength 09Sep39, N° 1 Training Command;  
allocated 26Oct39 to N° 12 Communications Flight, Rockcliffe, Ontario;  
first recorded flight by N° 12 Comm Flt 04Nov39 as 758 (most of the first few flights are recorded as CF-BMV); officially became 758 on 13Nov39; used regularly for both local flights and as a VIP transport; for example, flew high ranking officers to Calgary and Lethbridge, Alberta, 7-15Nov39, 10:20 flight time; flew Governor General Lord Tweedsmuir from Ottawa, Québec, to Camp Borden, Ontario, 24Nov39  
Accident 30May40: undercarriage damaged during landing; out of service for ten months while parts were obtained from the factory;  
N° 12 Communications Flight was upgraded to N° 12 Communications Squadron, 30Aug40

Tested 05Feb41 after repairs to undercarriage  
Allocated 23Jun41 to Test & Development Flight, Rockcliffe; however, N° 12 operated its last flight (to Montréal and back) on 26Jun41 (for a total of more than 200 flights); 758 had also been used by T&D on 12Dec39 and 12Apr40 for 'practice flights'; on 04Jul41, S/L Briggs flew first of series of tests on RDF equipment for NRC, and 23/24/25Sep41 calibration tests for NRC  
Struck off strength 20Oct41 as sold to Maritime Central Airways for \$50,000

#### CF-BMV

Inspected 24Oct41, CofA renewed until 24Oct42 (TT 488:45)  
CofR N° 2891 30Oct41 to Maritime Central Airways, Charlottetown,

Prince Edward Island;

US Army approached MCA 12Dec42 to rent the Barkley-Grow on skis to attempt the rescue of the crew of Boeing B-17F Flying Fortress 42-5088 'PN9E', which had crashed in Greenland on 09Nov42 searching for a missing Douglas C-53 Skytrain; proposed to provide Army Beech C-45 40-181 (365); temporary certificate issued Dec42, valid until 14Jan44 to operate C-45 0181 in order to maintain the mail service  
Accident 23Dec42, near Angmagssalik, Greenland: On 22Dec42, flown by James (Jimmy) Wade with Navigator Capt G Moe (USAAF), took off from BW-1 (Bluie West One, Narsarsuaq, Greenland) for BE-2 (Bluie East 2, Angmagssalik), a weather and communications station on the east coast of Greenland. After encountering strong headwinds and fog, a forced landing was made on pack ice at 65.59N/36.13W, and the aircraft sank. Wade and Moe trekked for four days until they met a group of Eskimo hunters who took them to their village until the weather cleared. On 02Jan43 the two men were escorted to BE-2, but weather prevented their return to Canada for four months.  
Registration cancelled 01Apr43

#### Manufacturer's serial number 6

ATC 662 (10 PLCM)  
Manufactured 15Jun39  
Wasp Jr SB msn 1120 & 1121

Sold 10Aug39 (BofS) to Canadian Car & Foundry Co, Montréal, Québec, for \$45,500.00 (total time 27hr)  
Application for CofA for Export dated 10Aug39  
Export Certificate E-5359 issued 10Aug39

#### CF-BMW

Application for registration 01May39, Canadian Car & Foundry Co  
CofR N° 2519 18Aug39, Canadian Car & Foundry Co (based at Edmonton, Alberta)  
CofA N° 366 issued 18Aug39 until 18Aug40  
Lease purchase Canadian Car & Foundry Co to Yukon Southern Air Transport, Edmonton, Alberta; mortgages dated 21Apr39 [CF-BMW \$64,370.94]  
Yukon Southern Air Transport name: *YUKON PRINCE* [sic]  
Chartered Jan40 to Canadian Airways for use on the Mackenzie River; back with YSAT by Apr40  
Temporary certificate 22Aug40, Yukon Southern Air Transport  
Inspected 01Sep40 (TT 951:10)  
Inspected 01Nov40, CofA renewed until 31Oct41



**Above:** CF-BMW msn 6 wearing extra-large registration letters at the time it was operated by Yukon Southern. (via JM Collection)

Inspected 29Nov40 (TT 1,108:05)  
 Inspected 29Nov41, CofA renewed until 29Nov42 (TT 2,033:10)  
 Inspected 25Nov42, CofA renewed until 24Nov43 (TT 3,070:00)  
 Sold 26May42 to Yukon Southern Air Transport  
 CofR N° 2985 08Jan43, Canadian Pacific Air Lines, Montréal (based at Edmonton); Fleet N° 213  
 CofA N° 574 issued 18Jan43 until 24Nov43  
 temporarily with Prairie Airways, Moose Jaw, Saskatchewan, May43  
 Inspected 21Jun44, CofA renewed until 21Jun45 (TT 4,137:05)  
 Inspected 25Apr45, CofA renewed until 24Apr46 (TT 4,736:25)  
 Inspected 25Apr46, CofA renewed until 24Apr47 (TT 5,719:46)  
 Inspected 07May47, CofA renewed until 06May48 (TT 6,001:50)  
 Inspected 28May48, CofA renewed until 27May49 (TT 6,041:14)  
 Inspected 30May49, CofA renewed until 30May50 (TT 6,430:34)  
 Sold (BofS) 28Nov49 to Associated Airways, Edmonton (CF-BLV, CF-BQM, CF-BMW, \$25,000)  
 CofR N° 8446 08Dec49, Associated Airways, Edmonton  
 Inspected 19May50, CofA renewed until 21May51 (TT 7,009:40)  
 Inspected 14Jun51, CofA renewed until 16Jun52 (TT 7,478:50)  
 Inspected 17Apr52, CofA renewed until 17Apr53 (TT 7,892:20)  
 Inspected 09Jun53, CofA renewed until 09Jun54 (TT 8,481:05)  
 Accident 24Dec53, Edmonton, Alberta: Wind damage (also to CF-BMQ, CF-EQQ)

Accident 18Jun54: CofA renewed until 18Jun55  
 Inspected 13Jun55, CofA renewed until 18Jun56  
 Inspected, CofA renewed until 17May57  
 Inspected 18Feb57, CofA renewed until 14Feb58 (TT 9,780:22)  
 CofR N° 8446, Pacific Western Airlines (Alberta), Edmonton [name change], Fleet N° 920  
 Inspected 11Jul60, CofA renewed until 10Jul61 (TT 10,281:49)  
 Inspected 11Jun61, CofA renewed until 10Jul62 (TT 10,605:45)  
 CofR N° 26089 05Apr62, Pacific Western Airlines, Vancouver, British Columbia  
 Inspected 27Jun62, CofA renewed until 10Jul63 (TT 10,956:5)  
 Inspected 12Jun63, CofA renewed until 10Jul64 (TT 11,057:9)  
 Authority to ferry Edmonton–Netley, Manitoba, 20Jan64  
 CofR N° 31380 24Jan64, Northland Airlines, Winnipeg, Manitoba  
 CofR 15Feb64 amended to Commercial  
 Inspected 23Nov64, CofA renewed until 20Nov65 (TT 11,598:15)  
 Accident 12Mar65, Big Stone Lake, near Netley, Manitoba, 53:43N 95:35W, at 1430: During the landing the flaps were lowered but the aircraft rolled to the left and struck ice in a left wing low nose down attitude. Pilot Howard Hawley. Badly worn threads on the left flap screw jack trunnion failed causing unsymmetrical flaps [Report 2490].  
 Registration cancelled 04Jan66

Some parts recovered by collector Harry Whereatt of Assiniboia, Saskatchewan, and presumed subsequently incorporated into restoration of msn 1/CF-BVE



**Bottom:** Post-war in the colours of Associated Airways, CF-BMW served oil prospecting camps in northern Alberta. Making use of the lakes in the summer involved using some fairly primitive landing stages. (via JM Collection)



**Left:** CF-BMW seen being serviced at Vancouver, BC in early 1946, wearing Canadian Pacific Air Lines titles. At the time it was used to link coastal settlements on northern Vancouver Island. (via JM Collection)

**Below:** In Pacific Western titles with a triple cheat-line and clear registration, CF-BMW is docked, most probably back at Vancouver in the early 1960s. (Leo J Kohn via JW)

**Manufacturer's serial number 7**

ATC662 (10 PLCM)  
 Manufactured 25Jul39  
 Wasp Jr SB msn 1122 & 1277

**NC18470**

Name: *Explorer*

License application A-89362 (by BGAC) 01Oct39; approved 01Oct39 (to expire 01Jan40)  
 Sold 17Oct39 (original BofS) to Rear Admiral Richard E Byrd, Boston,

Sold 17Oct39 (BofS) to Walter J Kohler, Kohler, Wisconsin, for \$39,000.00

For use by the Department of the Interior's US Antarctic Service Expedition, led by Byrd (his third Antarctic expedition) at the appointment of President Roosevelt.

JCB/RSA notes from the original file says: 'Since Byrd was a Naval Officer on active duty, he was not allowed to own an airplane which was leased to the United States Government'. However, Byrd was on leave from the USN at the time and was not called to active duty until March 1940, in the Office of the Chief of Naval Operations. Nevertheless, as the designated Commanding Officer of the USAS, he was in government service. Accordingly, a new BofS and letter of explanation dated 18Dec39 put on file. Kohler would lease aircraft to the USAS. Application from Kohler for license dated 16Jan40. Kohler died 21Apr40 and airplane sold by his estate.

(The Kohler family, together with George F Getz and Justin W Dart of Chicago, supplied the Barkley-Grow to Byrd.)

Aircraft flown in the Antarctic on Federal skis; the EDO floats were on loan from Yukon Southern Air Transport.

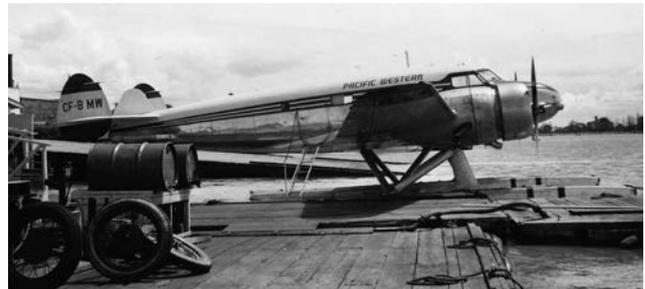
Carried aboard the barkentine *USS Bear* (AG-29), formerly Byrd's *Bear of Oakland*. The *Bear* left Boston on 22Nov39, calling at Norfolk 25Nov39 to take aboard the Barkley-Grow. After refueling in the Canal Zone, on 06Dec39 the *Bear* sailed for the Bay of Whales, which it reached on 14Jan40. *Bear*, under the command of Byrd, subsequently worked its way eastward from the Ross Sea along the edge of the pack ice.

On 14Jan40, the Barkley-Grow was hoisted off the *Bear*, then moored in the Bay of Whales and, after a flight over the sea, made a forced landing on the ice. Several hours later it was safely hoisted back aboard;

19Jan40, *Bear* steams eastward to begin flight operations in the vicinity of Biscoe Bay; the Barkley-Grow (with Byrd as navigator) reconnoiters Sulzberger Bay to determine leads in the ice to permit *Bear's* movement further to the east;

21Jan40, *Bear* follows leads in the ice spotted on the 19<sup>th</sup>; the Barkley-Grow flies over the northern limits of the Edsel Ford Mountains;

22Jan40, first exploratory flight; followed by a second 23Jan40. Bad weather prevented air operations until 26Jan40 when two more flights were made. The *Bear* returned to the Bay of Whales 30Jan40;



**Above:** CF-BMW in a different Pacific Western scheme with a single cheat line and minute registration. The fairings on the undercarriage legs above the spats are missing. (Peter M Bowers collection via JW)

27Feb40, a 3hr exploratory flight was made as the *Bear* sailed along the coastline; documentation places the ship (and flight) at 70°10' S, 94°49' W, just off Thurston Island and the Eights Coast;

A suitable site for East Base was not discovered until a reconnaissance flight by Byrd, Richard B Black (rear admiral, US Navy), pilot Ashley C Snow Jr (US Navy) and co-pilot/radioman Earle B Perce (US Navy) on 08Mar40. An island on the north side of Neny Bay, just north of Alexander Island and Marguerite Bay, became the home of East Base. This island was subsequently named Stonington Island;

The *Bear* sailed for Boston on 21Mar40, via Punta Arenas, Chile.

Sold 03Jul40 to Rear Admiral Richard E Byrd

Application for NC license from Byrd dated 17Jul40 stated that the airplane was new when taken to Antarctic and now had c41hr total time; currently disassembled at the Philadelphia Navy Yard, Pennsylvania. Byrd sold the engines, and in 1941 the aircraft was at the University of California, Berkeley, for the use of students.

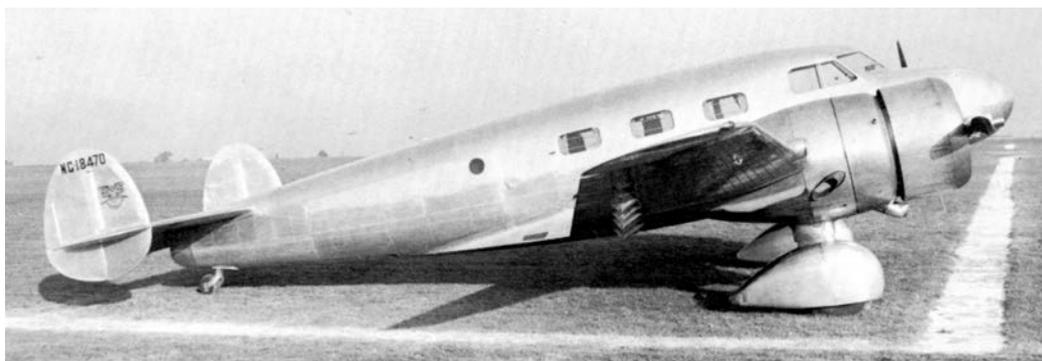
Report dated 12Jan42 by Marvin D Martin of UCB states that the airplane had been stored outdoors for a year, had no engines or instruments, but otherwise intact. The aluminum alloy structure and parts (wing attachments and steel fittings) were badly corroded.

As of 02Jul42, the USAAC, investigating its possible use, found the airplane not in airworthy condition for repair.

Cancelled in files 22Aug40

Presumed scrapped

**Right:** Initially in land-plane configuration, msn 7 NC18470 was purchased for the use of Rear Admiral Richard E Byrd on his third Antarctic expedition in 1940. (via JM Collection)



**Below:** NC18470 as a floatplane in US Antarctic Service titles and USAAC star is hoisted onto USS Bear for the expedition. (Robert F Pauley via Stephen J Hudek & John Wegg)



(Aviation historian William T Larkins, who later worked at UCB, says attempts to trace the airplane in the 1950s were unsuccessful; indeed, no-one at UCB recalled it being there.)

**Manufacturer's serial number 8**

New ATC pending (662) (10 PLCM, provision for use as seaplane)  
 Manufactured Mar40  
 Wasp Jr SB msn 1299 & 1389

**NX26400**

License application A-95649 17Apr40; approved 18Apr40, to expire 15May40  
 Test flown 21Apr40  
 Sold (BofS) 23Apr40 to Canadian Car & Foundry Co, Montréal, Québec, for \$37,500.00  
 Application for CofA for Export dated 14May40  
 Export Certificate E-6140 issued 16May40, BGAC to Mackenzie Air Services (sic) as NX26400

**CF-BQM**

Consignee: Mackenzie Air Service, Edmonton, Alberta, May40  
 CofR N° 2699 26Aug40, Mackenzie Air Service, Winnipeg, Manitoba  
 CofA N° 469 issued 26Aug40

CofR 1942, Canadian Pacific Air Lines, Montréal, Québec [name change]; Fleet N° 214  
 Sold (BofS) 28Nov49 to Associated Airways, Edmonton (CF-BLV, CF-BQM, CF-BMW, \$25,000)  
 CofA renewed until 19Mar51  
 CofR N° 8604 20Mar50, Associated Airways, Edmonton  
 CofA renewed until 03Apr52  
 CofA renewed until 03Apr53



**Above:** NC18470 appears to be alongside a vessel, possibly being prepared for flight and with the engine covers still in place. The USAAC star is also visible here, on top of the port wing. (via JM Collection)



**Left:** Northland Airlines of Winnipeg operated msn 8 as CF-BQM between 1964 and 1969. (Mike Ody collection via John Wegg)

**Below:** In 1971 CF-BQM was sold to a private owner and later attracted cigarette brand advertising, however its CofA expired in 1976 and apart from its delivery flight to Calgary for restoration it has not flown since. (Stephen J Hudeck collection via John Wegg)



CofA renewed until 16Apr54  
 Authority to ferry 20Jan55  
 CofA renewed until 21Apr55  
 CofA renewed until 21Apr56  
 CofA renewed until 05Jul57  
 CofA renewed until 05Jul58  
 CofR 1957, Pacific Western Airlines (Alberta), Edmonton [name change]  
 CofA renewed until 01May59  
 CofR N° 18697 17Jun58, F R Baker, West Vancouver, British Columbia  
 CofA renewed until 22Jun60  
 CofR N° 18957 23Sep59, Sioux Narrows Airways, Sioux Narrows, Ontario  
 CofA renewed until 22Jun61  
 CofR N° 23910 23Nov60, Parsons Airways Northern, Flin Flon, Manitoba  
 CofA renewed until 22Jun62  
 CofA renewed until 22Jun63  
 CofR N° 31203 25Jun63, Northland Wild Rice, Winnipeg, Manitoba

CofR N° 31356 12Feb64, Northland Airlines, Winnipeg  
 Accident (date unknown): Aircraft fell off jacks and repaired using one wing from msn 1/CF-BVE  
 CofR 26Aug69, Midwest Airlines, Winnipeg  
 CofA renewed until 26May71  
 Accident late 1970, Norway House, Manitoba: Sank at moorings; salvaged and sent to Montréal for repair  
 sold 1971 to Dr J April, Lachine, Québec  
 Inspected 01Sep72, CofA renewed until 02Sep73 (TT 15,823:45); based at Beloiel, Québec  
 CofR 20Sep72, J April, Lachine; J Belanger, Repentigny; based at Beloiel  
 Inspected 25Aug73, CofA renewed until 02Sep74 (TT 15,833:15); based at Beloiel  
 'Belvedere' titles for advertising a cigarette brand in sponsorship for participation in the Great Burlington Centennial Seaplane Race, held at Burlington, Ontario, 15Sep73, and organized by Floyd Carson as part of the town's centenary celebrations; the course was nearly 2,000mi with turning points at Kenora and Ottawa.

Inspected 05Aug74, CofA renewed until 02Sep75 (TT 15,873:30)  
CofR 21Aug74, Larivière Air Service (leased from J April, J Belanger), Schefferville, Québec  
CofR 18Oct74, J April, Lachine; J Belanger, Repentigny; based at Beloiel  
CofA renewed until 27Jan76  
Sold (BofS) 22Oct78 to Norman Roy Staniland, Calgary, Alberta (intent to restore to flying condition for displays: Staniland was a pilot with Associated Airways and a member of the Aero Space Museum Association of Calgary)  
Authority to ferry Montréal–Calgary 07Jun79; flown to Calgary in 17hr by Staniland, J Dick, and Art Bell (former chief pilot of Associated Airways)  
Registration cancelled 27May82  
Transferred to Aero Space Museum Association, Calgary; restored and displayed without outer wings [2005; 2006; Jul08]; outer wings reinstalled 2009

#### **Manufacturer's serial number 9**

ATC 662 (10 PLCM, seaplane)  
Manufactured Apr40  
Wasp Jr SC msn 1388 & 1390

Sold (BofS) 23Apr40 to Tropical Oil Company, Pittsburgh, Pennsylvania, for \$60,000.00 [Tropical was a subsidiary of International Petroleum Co, which was a subsidiary of Standard Oil (New Jersey), or Esso]  
Test flown 08May40  
Application for CofA for Export dated 08May40  
Export Certificate E-6155 issued 09May40

#### **C-113**

Consignee: Tropical Oil Company, Cartagena, Colombia  
This aircraft did not last long as it seems that at the beginning of 1942 Colombia started a new registration sequence, and the C-100 series was allocated to AVIANCA. Other aircraft all appear to have been re-registered with numbers lower than C-99 at that time, and there has been no indication that C-113 was re-registered.  
Reportedly scrapped.

#### **Manufacturer's serial number 10**

ATC 662 (8 PLCM)  
Manufactured Sep40  
Wasp Jr SB msn 1408 & 1409

#### **NC2428**

License application A-3693 c13Aug40  
Approved 20Sep40 for one year  
Sold (BofS) 19Sep40 to Aviation & Transportation Corp (ATCO), New York, for \$60,000.00 'to transport company personnel'  
Sold 09May41 to Aviation Corporation (AVCO), New York  
Based Roosevelt Field, Garden City, New York, to fly executives of AVCO, Lycoming, Pratt & Whitney, Republic Steel Corp, New York Shipbuilding, and Glidden Paint within USA, Canada, and México; pilot Harold R Miller;  
Accident 23Jun41, Pittsburgh, Pennsylvania: No pilot onboard; unoccupied airplane rolled down a slight incline and hit a gas pump, damaging trailing edge of right stabilizer; repaired at Pittsburgh shops of Pennsylvania-Central Airlines.  
Note: Pilot John F Loesing wrote to CAA 12Mar42 for permission to make flight to Veracruz, México, for the purpose of examining a mine; permission was granted 14Mar42.  
Accident 05Aug43, Cambridge, Ohio: Pilot Frank P Lawrence Jr; 'damage to everything but the wingtips'.  
Sold 12May44 by Lycoming Division of AVCO to Ellis Air Transport Corporation, Ketchikan, Alaska, for \$2,500; Lycoming had salvaged the engines, propellers, instruments, accessories, etc, and sold only hull, wings, and wing tips to Ellis, which had intent to rebuild;  
Letter 25Mar47 from Ellis Airlines stating that the aircraft had been stripped of all usable parts and the remainder junked.  
Cancelled in files 02Apr47  
(CAB/FAA record card gives the final cancellation date of the marks NC2428 as 08Mar48; but that was part of the 1948 postwar clean up of the register.)

#### **Manufacturer's serial number 11**

ATC 662 (10 PLCM)  
Manufactured 01Nov40  
Wasp Jr SB msn 1457 & 1458

#### **NC26496**

Test flown 06Feb41  
Sold (BofS) 14Feb41 to Vultee Aircraft Corp, Vultee Field, Downey, California  
Sold 12Mar41 to Canadian Car & Foundry Co, Montréal, Québec  
Application for CofA for Export 13Mar41  
Export Certificate E-6958 issued 13Mar41

Note: letter from inspector to CAA 15May41 states that Identity Mark Assignment of License N° 26496 was never completed due to the difficulty of determining the existence of the manufacturing company, which had been sold and consolidated. Registration was withheld and in the meantime the aircraft was sold to Canadian Car & Foundry Co.

The CAB/FAA card shows the registration as NC26496, despite the inspector's comments, plus the notation 'This registration was cancelled and can be reallocated'. [This is quite unusual as normally there would just be a stamp saying registration or license - and the former may have NC or C in front of the number. Obviously, CAB HQ in DC did not know how to handle this aircraft's registration.]

(Canadian authority to ferry Montréal–Edmonton, Alberta, issued 01Mar41 quoting NC26496)

#### **CF-BTX**

Temporary certificate 07Apr41 to Mackenzie Air Service, and monthly until 06Jun41  
CofR No 2814 07Apr41, Mackenzie Air Service, Edmonton  
CofA 510 issued 07Apr41 valid until 07Apr42  
Accident 01Dec41, Grande Prairie, Alberta: Pilot James K (Bud) Potter was testing the aircraft in a three-point landing. At the end of the landing roll the aircraft ran into ditch which was invisible, having been filled in with drifted snow. The left wheel was torn off.  
Temporary certificate 07Apr42 to Mackenzie Air Service, c/o Canadian Pacific Air Lines  
Inspected 13May42, CofA renewed until 12May43 (TT 830:40)  
Chartered for reconnaissance of Yukon in support of CANOL Project; departed Edmonton 06Jun42, arrived Fort McMurray, pilots James K (Bud) Potter and Grant McConachie with William C Bednar (petroleum engineer), Arthur Massey (Matt) Berry (pilot, in charge of airfield construction), Guy H Blanchet (veteran explorer), Everett Seabury (Bechtel-Price-Callahan construction manager); Norman Wells–Sheldon Lake–Whitehorse 12Jun42, first direct flight between Norman Wells and Whitehorse, pilot Potter with aircraft mechanic Jack Rennie, Bednar, Blanchet, Seabury, Richard Finnie (photographer).  
Inspected 06May43, CofA renewed until 06May44 (TT 1,884:50)  
Temporary certificate 02Dec43 to Canadian Pacific Air Lines (TT 2,347:35)  
CofR N° 3035 02Dec43, Canadian Pacific Air Lines, Montréal (based at Edmonton); Fleet N° 215  
CofA N° 618 issued 02Dec43 until 06May44  
Inspected 08May44, CofA renewed until 05May45 (TT 2,725:35)  
Accident 27Nov44, 4mi west of Westham Island, British Columbia, at 1125: After a forced landing in the Gulf of Georgia after a cylinder flew off an engine, en route Victoria–Vancouver, the aircraft was damaged while taxiing through the breakwater off Steveston. The fast running tide carried the aircraft against a pile; pilot T Laurie.  
Inspected 30Jul45, CofA renewed until 29Jul46 (TT 3,830:40)  
Failed single-engine test Aug45 and restricted to carriage of cargo and mail, mostly between Regina and Saskatoon, Saskatchewan  
Accident 19Oct45, Porcupine [now Kakwa] Lake, British Columbia: Port engine failed to deliver full power on takeoff; force-landed in muskeg 3mi southeast of the lake; pilot W Cormack [Report 116]  
Registration cancelled 28Dec45  
Retrieved in 1989 by Coulson Forest Products, Port Alberni, British Columbia, and brought to Aero Space Museum Association, Calgary, Alberta, in hopes of restoration. Remains found to be well beyond salvation and some parts scavenged to complete the restoration of msn 3, CF-BLV. Engines and fuselage scrapped, but two panels from the forward fuselage with the Canadian Pacific logo are in the possession of the museum.

#### Notes by Terry Judge:

(1) Registration **CF-BKR** was allocated Jun38 to Canadian Car & Foundry for a T8P-1, but the assigned airframe is unknown. When **CF-BLV** was allotted three months later for msn 3, CCF was given the opportunity of using either of these two registrations; **BLV** was chosen and **BKR** cancelled Dec38.

(2) **CF-BVB** was allocated 04Jun41 to Canadian Car & Foundry for a T8P-1 (no identity quoted); unused and registration cancelled

(3) The story of the three Barkley-Grows operated by **Yukon Southern Air Transport** is a bit murky; CF-BLV (3), CF-BMG (4) and CF-BMW (6) were never registered to YSAT, but remained registered to CCF. Ronald Keith in his book *Bush Pilot with a Briefcase* has a fanciful re-enactment of Grant McConachie's negotiations with CCF in which he obtained three Barkley-Grows for \$1 each. Unfortunately, the original lease-purchase agreements are not on file, but there is a 10Jan40 re-financing agreement (although the bottom couple of lines of each page were curled up when the microfilm was made). This document contains enough 'Whereas's' that a reasonable picture emerges. First off, there is no information either way to confirm the \$1 down story, but I, for one, am willing to accept it as possible. What is stated is that there were two separate sales, one for CF-BLV and CF-BMG for a total of \$105,000, and a second for CF-BMW for \$64,370.94. The lease-purchase agreement between the two companies, with Montréal Trust Co acting for the "bond holders", said that ownership was to remain with CCF until the aircraft were paid for. By 10 Jan 40, \$44,042.42 had been paid on account, split unevenly between the three aircraft. With the new agreement the Montréal Trust Co withdrew and CCF took over the chattel mortgage. The terms were for \$3,100 per month plus 5% per month interest on the outstanding amount, and the agreement was discharged as of 26 May 42 as wholly paid – by which time YSAT had been absorbed by Canadian Pacific Air Lines.

1940.01.10 Agreement ; YSAT, CCF and Montréal Trust Co, Edmonton, AB. Whereas ;

1. Sold CF-BLV & BMG for \$105,000
2. Right of possession to remain with CCF until payment in full.
3. Delivered without a conditional sale agreement having been executed
4. Subsequently sold CF-BMW for \$64,370.94
5. As per 2 (for CF-BMW)
6. As per 3 (for CF-BMW)
7. Montréal Trust Co is the trustee for the bondholders of YSAT, and may have acquired security upon the three aircraft under the terms of a deed of trust and mortgage made by ??? the Trustee, dated 3.1.39 and 21.4.39 and ???
8. All parties agree that the matters at issue between them should be adjusted.

The parties agree as follow;

1. Amount paid by YSAT on account of purchase price of said aircraft, \$44,042.42 to be applied as follows; CF-BLV - \$25,000.00 ; CF-BMG - \$8,200.00 ; CF-BMW - \$10,842.42
2. The balance of \$125,328.52 to be paid as follows, \$3,100 plus 5% interest monthly starting 1.1.40
3. YSAT to execute a chattel mortgage in favour of CCF for the \$125,328.52. YSAT will at all times keep and maintain at its own expense the aircraft etc
4. YSAT will insure and keep insured etc
5. The Trustee covenants and agrees that it will and it does hereby postpone to the rights of the Creditor under the chattel mortgage referred to in Para 3 hereof, all of its rights with respect to the said aeroplanes, parts, fittings and equipment under the deed of trust and mortgage dated 3 January 1939, and the supplementary trust deed and mortgage dated 21 April 1939, above referred to, and agrees that the rights of the Creditor under the said chattel mortgage shall have priority to its rights against the said aeroplanes, parts, fittings and equipment under the said trust deed.

(4) **Pacific Western Airways:** A Jan60 report by Dunn & Bradstreet on PWA (Alberta) Ltd quotes the following: Associated Airways, name changed 05Apr56 to PWA (1956); PWA (1956), name changed 01Aug56 to PWA (Alberta).

In another document, PWA explained that in April 1956 it had made an application to have certain leases held in the name of Associated Airways amended to PWA (1956). However, the Air Transport Board disapproved of that name, forcing the company to change its name again. After this was done, the ATB approved, in October 1956, and retroactive to 01Aug56, the transfer of Associated Airways licenses to PWA (Alberta).

So, what was happening? I don't know for sure, but here is my theory: First of all, it is important to remember that PWA was incorporated in BC, and that Associated Airways was incorporated in Alberta. Whenever a company needed to reorganize it would often take a new name in the format 'Original Name (Year) Ltd'. As PWA had never been registered in Alberta, I assume that the Corporations Branch of that province saw no conflict with the PWA (1956) name. The ATB, on the other hand, being a federal agency, and having authority Canada-wide, obviously did see it as conflicting with the current PWA name, and so prevailed to have PWA (1956) changed.

#### Operator notes:

##### Associated Airways

Edmonton–Wabasca–Pelican Portage (Athabaska River) mail run c1951 (CF-BLV)

##### Canadian Pacific

Vancouver–Fort St John–Edmonton–Whitehorse regular schedule

##### Yukon Southern Air Transport

Edmonton–Peace River–Grande Prairie–Whitehorse (1,100mi); T8P-1 took over late in autumn 1939, reducing time from 7hr 30min to 5hr. Branching off northward line are link routes with services from Dawson Creek and Fort St John to Prince George on the western side of the Rockies and southward to Vancouver.

Also from Prince George a short triangular route is covered over the Port St James gold-mining country. From Fort Nelson in the northeast corner of British Columbia a short service connects with Fort Liard just north of latitude 60°, and from Fort Nelson there follows a long hop northwest to Whitehorse.

From the gold mines of Yukon the company's machines are now carrying about three and a quarter hundredweights of gold dust and bullion each week. Besides gold and mails, there are frequent and growing consignments of supplies for lonely trappers, materials like canned meats, fruits, coffee, sugar, flour, and medicines, while pelts are picked up from remote settlements located on lakes in the frozen north. At Fort Nelson a log cabin has just been completed for the radio operator, and of the three Barkley-Grow machines recently acquired by Yukon Southern, two fitted with wheels are used between Edmonton and Fort St John, and the third fitted with floats is used to continue the 1,100mi northward trip from Fort St John to Whitehorse.

**Acknowledgements:** Richard Sanders Allen, John C Barbery, John Davis, Terry Judge.

**Credits:** AB-IX contributors (Barbu Nicolescu), John Ellis, Harold R Miller.

**Thanks:** Stan Solomon

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*Editor's note:* No photographs were found to illustrate msns 9,10,11 but we would be happy to publish examples if readers have any available.

# F-1922

## The French Civil Aircraft Register from 1922

Part 28

By Bernard Martin, Dave Sparrow and Robert Espérou



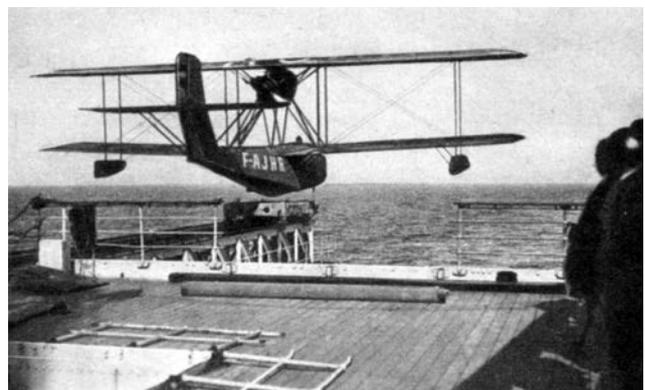
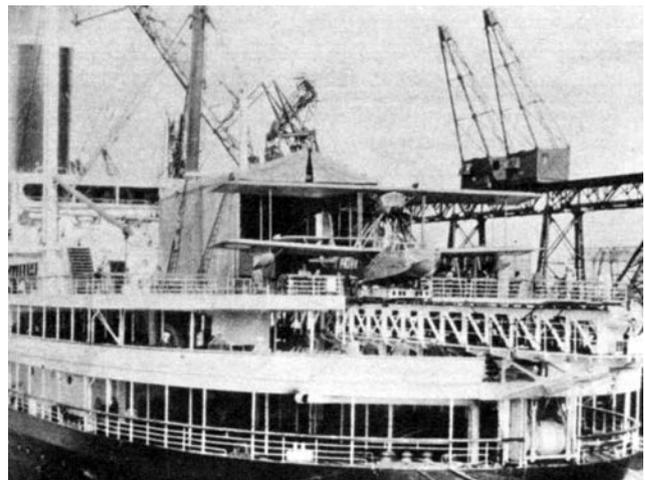
As in recent issues we are continuing with the New Registrations in alphabetical order as they no longer correspond to CoFR Number order.

### F-Update 1929 (contined)

#### **New Registrations**

2208	<b>F-AJHF</b>	Caudron 192	1/6423
René Caudron, Issy. (3.8.29)			
2209	<b>F-AJHG</b>	Caudron 193	1/6424
René Caudron, Issy. (3.8.29)			
2214	<b>F-AJHH</b>	Blériot-Spad 92	12/4429
SA Blériot Aéronautique, Suresnes (based Buc). (9.8.29)			
2215	<b>F-AJHI</b>	Blériot-Spad 92	13/4430
SA Blériot Aéronautique, Suresnes (based Buc). (9.8.29)			
2216	<b>F-AJHJ</b>	Blériot-Spad 92	14/4431
SA Blériot Aéronautique, Suresnes (based Buc). (9.8.29)			
2217	<b>F-AJHK</b>	Blériot-Spad 92	15/4432
SA Blériot Aéronautique, Suresnes (based Buc). (9.8.29)			
2218	<b>F-AJHL</b>	Blériot-Spad 92	16/4433
SA Blériot Aéronautique, Suresnes (based Buc). (9.8.29)			
2204	<b>F-AJHM</b>	CAMS 37/10	16
Ex French Navy. Ministère de l'Air; loan to Société Transatlantique Aérienne, Paris (based Le Havre/aboard <i>Ile-de-France</i> ). (2.8.29)			
2257	<b>F-AJHN</b>	Farman 190	28
Société Générale de Transports Aériens, Paris/Le Bourget. (10.9.29)			
2710	<b>F-AJHO</b>	Morane 133	7
Sté Aér. Morane Saulnier, Puteaux (based Velizy). (4.3.31)			
2711	<b>F-AJHP</b>	Morane 133	12
Sté Aér. Morane Saulnier, Puteaux (based Velizy). (4.3.31)			
Unkn	<b>F-AJHQ</b>	Nothing known.	
2212	<b>F-AJHR</b>	CAMS 37/10	46
Ex French Navy. Ministère de l'Air; loan to Société Transatlantique Aérienne, Paris (based Le Havre/aboard <i>Ile-de-France</i> ). (6.8.29)			
2229	<b>F-AJHS</b>	Latécoère 28/1	902
Cie Générale Aéropostale, Paris (based Toulouse). (14.8.29)			
2238	<b>F-AJHT</b>	Potez 32	1478
Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (28.8.29)			

**Above:** The sole Caudron 192 (95hp Salmson 7Ac) F-AJHF wearing competition number E7 for the 1929 FAI Challenge for touring aircraft which began in Paris and consisted of technical trials and an international rally. (via JM Collection)



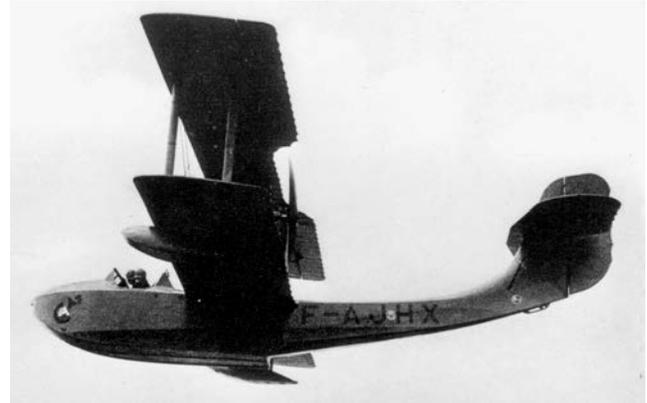
**Above:** Chantiers Aéro-Maritimes de la Seine (CAMS) built two of their models 37s with strengthened hulls and increased fuel tankage for trials on the North Atlantic mail service. They were to be launched by catapult some 750 km from New York, reducing mail delivery time by a day. Here F-AJHR can be seen in the upper photograph in port on the catapult fitted on the rear deck of the "*Ile-de-France*". The lower image captures the moment of launch. (via JM Collection)



**Left:** Latécoère 28/1 prototype F-AJHS (500hp Hispano-Suiza 12Hbr twelve-cylinder water-cooled vee) eight passenger airliner. Used in some numbers by Air France and South American airlines, it was also available in military and floatplane configurations.

**Below:** A Schreck FBA.17-HT4 two-seat flying boat F-AJHX. (Both: JM Collection)

- 2264 **F-AJHU** Potez 34 01  
Société des Aéroplanes H.Potez, Paris (based Meaulte). (14.9.29)
- 2236 **F-AJHV** Gourdou-Leseurre 32 5  
M Gourdou et Leseurre, Parc St Maur (based Villacoublay). (24.8.29)
- 2275 **F-AJHX** Schreck FBA.17-HT4 127/1260  
Cie Aérienne Française, Suresnes (based Argenteuil; later Le Pecq). (21.9.29)
- 2274 **F-AJHY** Schreck FBA.17-HT4 (128/1261) 21.9 29  
Cie Aérienne Française, Suresnes (based Argenteuil; later Le Pecq).
- 2272 **F-AJHZ** Farman 190 31/7152  
Société des Avions H&M Farman, Boulogne s/Seine (based Toussus-le-Noble). (21.9.29)
- 2273 **F-AJIA** Farman 190 32/7153  
Société des Avions H&M Farman, Boulogne s/Seine (based Toussus-le-Noble). (21.9.29)  
[Later quoted as c/n 31/7152 incorrectly in BV supplement]
- 2248 **F-AJIB** Caudron 117 1/6425  
René Caudron, Issy. (2.9.29)
- 2249 **F-AJIC** Caudron 59 6421  
René Caudron, Issy (based Rochefort-s/Mer). (5.9.29)
- Unkn **F-AJID** Farman 194 1/7150  
Société Avions H&M Farman, Boulogne s/Seine. (1.30)
- 2415 **F-AJIE** Farman 194 2/7151  
Société Fluviale et Maritime des Transports de Pétrole, Paris. (13.6.30)
- 2271 **F-AJIF** Farman 200 5/7154  
Société Avions H&M Farman, Boulogne s/Seine (based Toussus-le-Noble). (21.9.29)
- 2637 **F-AJIG** Farman 303 1/7155  
Cie Air Orient, Paris; named "Le Vaillant". (1.12.30)
- 2253 **F-AJIH** Schreck FBA.17-HT4 129/1262  
Cie Aérienne Française, Suresnes (based Argenteuil; later Saigon). (10.9.29)



2254 **F-AJII** Schreck FBA.17-HT4 130/1263  
Cie Aérienne Française, Suresnes (based Argenteuil; later Saigon). (10.9.29)

2247 **F-AJIJ** Latécoère 26/6-2 721  
Cie Générale Aéropostale, Paris (based Toulouse). (31.8.29)

Unkn **F-AJIK** Blériot 195/2 1  
Presumably to SA Blériot Aéronautique, Suresnes.

2530 **F-AJIL** Farman Sport 6899  
M Lecroq, Le Havre. (27.8.30) (T/U quotes ex F-ESAM – third use?)

2285 **F-AJIM** Bourgeois-Senemaud AT10 3  
M Lotti, Paris/Orly. (3.10.29)



**Above:** Gourdou-Leseurre GL-32 F-AJHV was an early model probably retained for testing. No photo has been found, but this unidentified example of the fighter shows the parasol design and Gnome-Rhône Jupiter radial.

**Left:** Potez 34 F-AJHU was used for closed circuit record attempts in 1928 but its 600hp Hispano-Suiza failed each time. (Both: JM Collection)





Farmans large and small. **Above:** F.200 F-AJIF was handed over to the Service Technique Aéronautique in 1930 and is seen here under armed guard at a campsite. **Below:** The Farman F.303 was an eight-passenger monoplane with three 230hp Gnome-Rhône Titan engines and a wooden fuselage, not really competitive with the metal fuselage and single engine of the Laté 28. F-AJIG was operated in the Middle East by Air Orient. (Both via JM Collection)



Unkn	<b>F-AJIN</b>	Nothing known.	
2269	<b>F-AJIO</b>	Latécoère 28/1	903 Cie Générale Aéropostale, Paris (based Toulouse; later Rio de Janeiro). (20.9.29)
2263	<b>F-AJIP</b>	Latécoère 28/1	905 Cie Générale Aéropostale, Paris (based Toulouse). (13.9.29)
2255	<b>F-AJIQ</b>	Latécoère 28/1	906 Cie Générale Aéropostale, Paris (based Toulouse). (10.9.29)
2301	<b>F-AJIR</b>	CAMS 53/1	19 Cie Air Union, Paris (based Marignane); named "Dauphine". (16.10.29)
2311	<b>F-AJIS</b>	CAMS 53/1	20 Cie Air Union, Paris (based Marignane); named "Roussillon". (15.11.29)
2317	<b>F-AJIT</b>	CAMS 53/1	21 Cie Air Union, Paris (based Marignane); named "Béarn". (4.12.29)
2335	<b>F-AJIU</b>	CAMS 53/1	22 Cie Air Union, Paris (based Marignane); named "Poitou". (31.12.29)
Unkn	<b>F-AJIV</b>	Shreck FBA.210-HMT6	1 This aircraft is said to have re-used the marks F-AHCJ, formerly FBA.17-HMT2 c/n 22. No further details.
2262	<b>F-AJIX</b>	Latécoère 28/1	904 Cie Générale Aéropostale, Paris (based Toulouse). (12.9.29)
2292	<b>F-AJIY</b>	Morane AR.35C	2437 M Lecrivain, Les Loges en Josas, S&O (based Villacoublay). (10.10.29) Regd 11.29 to Aéro Club des Landes, Mont de Marsan.
2268	<b>F-AJIZ</b>	Potez 36/3	1577 Société des Aéroplanes H Potez, Paris (based Meaulte). (20.9.29)

**Right:** Latécoère 28/1 F-AJLL passed from CGA to Air France where it was named "Mistral". In this view, taken at Marseilles-Marignane, the twin exhausts can be seen to be carried up and over the leading edge of the wing. (via JM Collection)



**Above:** F-AJIS, a CAMS 53-1 of Air Union seen departing from Ajaccio, Corsica, for Tunis. This model carried four passengers and a crew of two and was powered by a pair of back-to-back 500 hp Hispano-Suiza 12 Lbxr engines. (via JM Collection)

2281	<b>F-AJJA</b>	LeO 198	9 SEAIO (Société Air Asie), Paris (based Saigon). (27.9.29)
2291	<b>F-AJJB</b>	Farman 192	3 Marcel Goulette, Soissons (based Toussus-le-Noble). (10.10.29)
2279	<b>F-AJJC</b>	Bourgeois-Senemaud AT10	2 Avions Bourgeois, Levallois (based Orly). (24.9.29)
2283	<b>F-AJJD</b>	Potez 32	1712 SEAIO (Société Air Asie), Paris (based Saigon). (3.10.29)
2284	<b>F-AJJE</b>	Potez 32	1713 SEAIO (Société Air Asie), Saigon. (3.10.29)
2288	<b>F-AJJF</b>	Latécoère 28/1	907 Cie Générale Aéropostale, Paris (based Toulouse). (8.10.29)
2303	<b>F-AJJG</b>	Farman 190	34/7158 M Bailly, Nancy (based Toussus-le-Noble). (16.10.29)
2296	<b>F-AJXH</b>	Caudron 109	17/6426 Société Lorraine des Anciens Etabl. Dietrich & Cie, Luneville, Argenteuil (based Strasbourg). (12.10.29)
2340	<b>F-AJJI</b>	Farman F.170 Jabiru	17/7162 Société Générale de Transports Aériens (SGTA), Paris/Le Bourget. (13.1.30)
2305	<b>F-AJJJ</b>	Farman 190	33/7157 M Bomaiven, Paris/Le Bourget. (3.11.29)
2323	<b>F-AJJK</b>	Farman 197	1 Société Lorraine des Anciens Etabl. de Dietrich & Cie, Argenteuil (based Le Bourget). (11.12.29) [C/n probably 1/7160]
2289	<b>F-AJL</b>	Latécoère 28/1	909 Cie Générale Aéropostale, Paris (based Toulouse). (8.10.29)



**Left:** This Potez 29/8 F-AJKN of Aéropostale was fitted with a Renault 12Jb engine rather than the Lorraine-Dietrich of the 29/2, the Gnome-Rhône Jupiter of the 29/4 or the Salmson of the 29/11. (via JM Collection)

**Below:** F-AJKO was a Latham 47P of Aéropostale. Note the tiny cabin windows in the hull. (via JM Collection)

2290	<b>F-AJJM</b>	Latécoère 28/1	908	Cie Générale Aéropostale, Paris (based Toulouse). (8.10.29)
2293	<b>F-AJNN</b>	Latécoère 26/6	729	Cie Générale Aéropostale, Paris (based Toulouse). (10.10.29)
2294	<b>F-AJJO</b>	Latécoère 26/6	730	Cie Générale Aéropostale, Paris (based Toulouse). (10.10.29)
2298	<b>F-AJJP</b>	Latécoère 25/5	715	Cie Générale Aéropostale, Paris (based Toulouse). (14.10.29)
2316	<b>F-AJQJ</b>	CAMS 53/1	16	Cie Générale Aéropostale, Paris (based Marignane). (30.11.29)
2346	<b>F-AJRR</b>	Breguet 284T	3	Cie Air Union Lignes d'Orient, Paris (based Marignane); named "Auvergne". (1.2.30)
2371	<b>F-AJJS</b>	Potez 36/10	1/1390	M.Pegulu de Revin (Rovin?), Paris. (26.4.30)
2304	<b>F-AJJT</b>	Potez 36/3	1581	M.Grawitz, Marseille. (30.10.29)
Unkn	<b>F-AJJU</b>	Nothing known.		
2310	<b>F-AJVV</b>	DH.60G Moth	1047	Ex G-AALN. Comte Costa de Beauregard, Paris/Orly. (14.11.29)
2306	<b>F-AJXX</b>	Latécoère 26/6	731	Cie Générale Aéropostale, Paris (based Toulouse). (3.11.29)
2307	<b>F-AJYY</b>	Latécoère 26/6	732	Cie Générale Aéropostale, Paris (based Toulouse). (3.11.29)
2308	<b>F-AJZZ</b>	Latécoère 26/6	733	Cie Générale Aéropostale, Paris (based Toulouse). (3.11.29)
2309	<b>F-AJKA</b>	Latécoère 26/6	734	Cie Générale Aéropostale, Paris (based Toulouse). (3.11.29)
2338	<b>F-AJKB</b>	CAMS 53	17	Cie Générale Aéropostale, Paris (based Marignane). (3.1.30)
2350	<b>F-AJKC</b>	Farman 200	6/7163	Société des Avions H, M & D Farman, Billancourt (based Toussus-le-Noble). (17.2.30)
2343	<b>F-AJKD</b>	Farman 200	7/7164	Société des Avions H, M & D Farman, Billancourt. (based Toussus-le-Noble). (28.1.30)



2312	<b>F-AJKE</b>	Hanriot 431	1	Société des Avions Hanriot, Villacoublay. (16.11.29)
2339	<b>F-AJKF</b>	CAMS 53	18	Cie Générale Aéropostale, Paris (based Marignane). (7.1.30)
2351	<b>F-AJKG</b>	Farman F.170 bis Jabiru	18/7165	Société Générale de Transports Aériens, Paris/Le Bourget. (17.2.30)
2314	<b>F-AJKH</b>	Latécoère 26/6/2	735	Cie Générale Aéropostale, Paris (based Toulouse). (18.11.29)
2313	<b>F-AJKI</b>	Latécoère 26/6/2	736	Cie Générale Aéropostale, Paris. (based Toulouse). (18.11.29)
2318	<b>F-AJKJ</b>	Schreck FBA.17-HT4	131/1264	Cie Aérienne Française, Suresnes (based Argenteuil). (5.12.29)
2319	<b>F-AJKK</b>	Schreck FBA.17-HT4	132/1265	Cie Aérienne Française, Suresnes (based Argenteuil). (5.12.29)
2344	<b>F-AJKL</b>	Nieuport 641	3	Société Nieuport Astra, Issy (based Villacoublay). (31.1.30)
2331	<b>F-AJKM</b>	DH.60G Moth	1175	Ex G-AALY. Edouard Bret, Cannes (based Villacoublay/Marignane). (20.12.29)
2326	<b>F-AJKN</b>	Potez 29/8	1569	Cie Générale Aéropostale, Paris (based Toulouse). (16.12.29)
2393	<b>F-AJKO</b>	Latham 47P	2	Cie Générale Aéropostale, Paris (based Marignane). (19.5.30)
Unkn	<b>F-AJKP</b>	Levasseur PL 8	02	Cie Générale Aéropostale, Paris (based Dakar). (10.30)

**To be continued . .**



**Left:** The famous "l'Oiseau Blanc" of Nungesser & Coli was the first Levasseur LP 8. They took off from Paris on 8th May 1927 in an attempt to fly non-stop to New York but disappeared en route, probably in a storm. Their aircraft was powered by a 450 hp Lorraine-Dietrich engine and is seen here with Nungesser's trademark coffin and skull & crossbones motif on the side. Less well known is a second PL 8 which is listed above as F-AJKP and was powered by a 500hp Hispano-Suiza HS12. Presumably intended as a mailplane, one source lists it as destroyed on 20.12.29. (via JM Collection)

# The Deekay Knight

HEAD-ON VIEW No.38



The subject of this Head-on View was an experimental aircraft which coincidentally suffered from the success of its manufacturers.

In October 1936, following the death in a flying accident of Lionel Anderson the founder of Anderson Aerocars Ltd, that company was renamed the Deekay Aircraft Corporation Ltd. Anderson's former partner J McEwen King became Managing Director of the new company which remained based at Broxbourne, Herts. The other directors were designer S C Hart-Still and Major E L Gower. The aim of the Deekay company was to develop an aircraft which could provide experience in the use of new plastic materials.

The result was the Deekay Knight which, it should be clarified immediately, was not itself a plastic aircraft. It was a side-by-side 2-seat cabin low-wing monoplane, powered by a 90hp 4-cyl Blackburn Cirrus Minor. S C Hart-Still had intended to produce a radical new wing design as a proof of concept in wood which could be developed later in plastics.

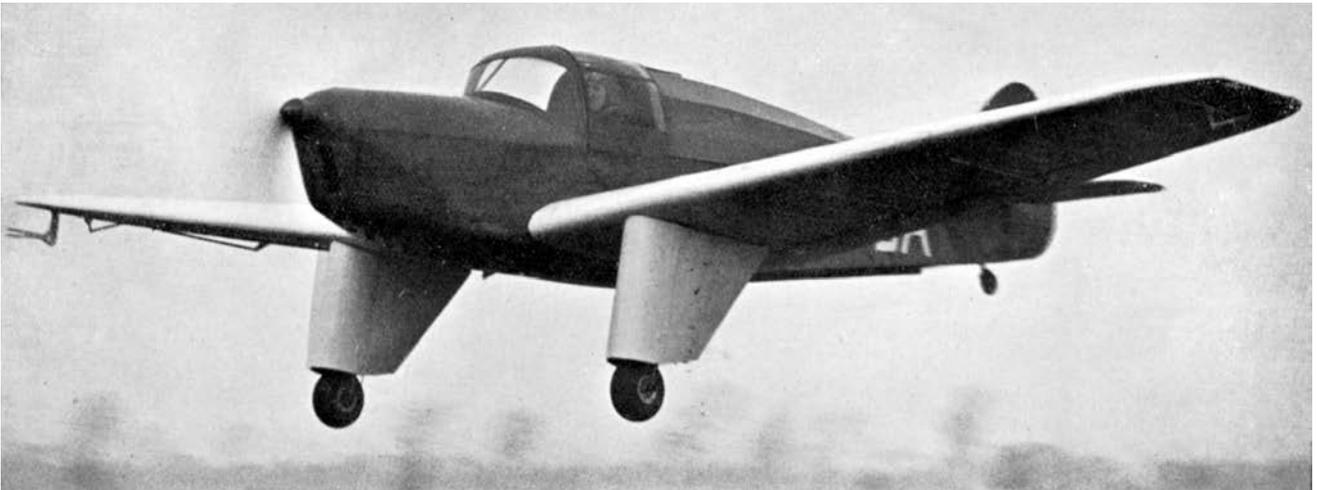
**Above:** head-on View of the Deekay Knight at Broxbourne in August 1937. (Aeroplane via JM Collection)

The aircraft had a spruce fuselage frame, ply-covered except for the upper decking which was fabric-covered. The tail unit was a ply-covered wooden frame with fabric-covered elevators and rudder. A twenty gallon fuel tank was located in the fuselage behind the cabin seats with a baggage compartment above it. In many ways it was a conventional monoplane intended merely as a flying test bed for the wing design.

The wing abandoned the standard spar and rib construction in order to produce a strong but thin aerofoil section. Instead it consisted of four full-span spars with plywood 'diaphragms' between and narrow fillets

**Below:** The Proctor-like appearance from this angle also shows off the knight's helmet and plume painted on the rudder. (via JM Collection)





**Above:** In a demonstration fly-past the Knight clearly shows the pitot near the starboard wingtip and the external under-wing levers operating the ailerons.

**Left:** As the sequence continues, the mainwheels, relieved of compression, seem small in comparison with the size of their fairings when extended.  
(Both: Flight via JM Collection)



replacing ribs. The 0.8 mm plywood skin was screwed to the spars and reinforced by the addition of external stringers on both the upper and lower surfaces. A further innovation was the hinged leading edge which could be opened upwards to allow inspection of control cables running along the front spar. This feature would have been necessary in a future moulded wing which would lack the usual access panels. The ailerons were also ply covered but the split flaps inboard were of metal beneath a ply-covered trailing edge.

The fixed tailwheel undercarriage was notable for its fully-faired deep chord trousered main legs. The 8ft (2.4 m) track mainwheels used compression springs and oil dampers for suspension and had Bendix wheels fitted with Palmer brakes.

The fully-enclosed cabin featured a two-piece sliding canopy allowing independent access to either side of the cockpit from the wings. The side-by-side seating was fitted with dual controls and minimal instrumentation.



**Above:** The undercarriage fairings extend from just below the leading edge almost as far as the flaps. The four stub exhausts of the Cirrus Minor are now noticeable.  
(Flight via JM Collection)

**Right:** In this position the stringers on the upper surface of the wings are clearly visible, as is the fabric-covered turtle decking of the upper fuselage. Guides above the cockpit show where the two-piece canopy slides backwards.  
(Aeroplane via JM Collection)



**Right:** This view, with designer Hart-Still posed in the background, shows the high nose of the Knight when on the ground. The external underwing stringers can be seen along with the aileron controls, pitot mast and wingtip handhold cutout for ease of ground handling.

(Flight via JM Collection)



**Below, right:** In side view the Knight appeared slightly hunchbacked with perhaps a proportionately small fin and rudder. (via JM Collection)

**Dimensions and performance:**

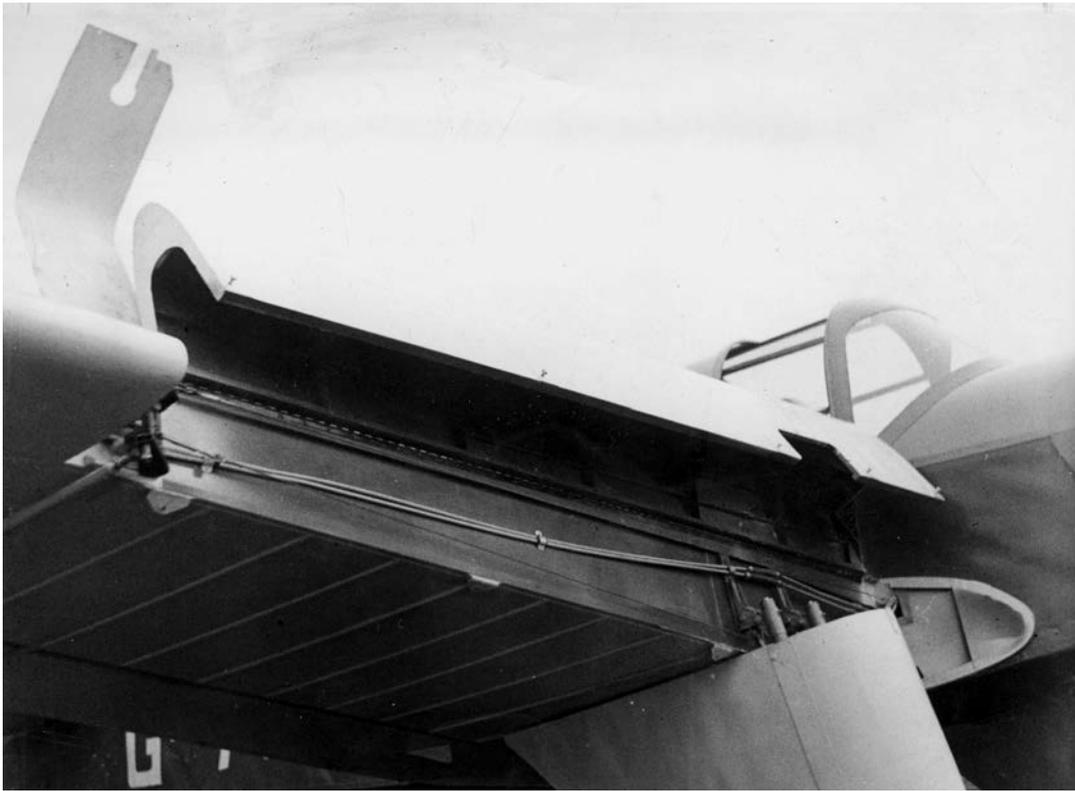
Span	31ft 6in	9.6m
Length	22ft 10in	6.9m
Height	6ft 7in	1.98m
Wing area	140 sq ft	13 sq m
Empty Weight	850 lbs	386 kg
AUW	1450 lbs	658 kg
Max speed	125 mph	200 km/h
Cruise speed	105 mph	168 km/h
Stall speed (with flaps)	39 mph	62.4 km/h
Initial climb	800 ft/min	244 m/min
Ceiling	17,500 ft	5,338 m
Range	500 miles	800 km



**Right:** The cockpit of the Knight was quite basic - but it was an experimental machine. From left to right the instruments were: oil pressure gauge, oil temperature, rpm, airspeed indication, and altimeter; above was a bubble level and below in the centre were the ignition switches and throttle knob. Dual controls were fitted. The two-piece sliding canopy is clearly seen. (via JM Collection)

**Right:** The principals of the Deekay company pose with the aircraft. On the left is the managing director James McEwan King, centre is the designer S C Hart-Still and in the cockpit is the test pilot E W "Jock" Bonar. Bonar was soon to become manager of the Luton Flying Club and had previously flown with British Empire Air Day Displays, one of several such companies operated by McEwan King. (Aeroplane via JM Collection)





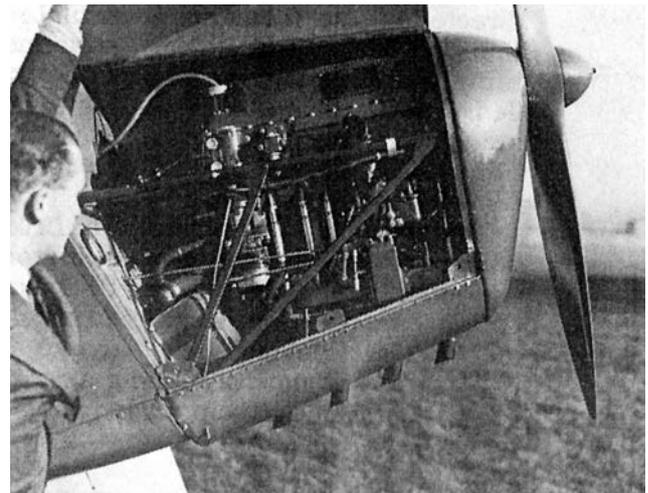
**Left:** The leading edge of the starboard wing shown in the raised position, note the securing strap top left. The method of wing construction made it necessary to route control cables along the front spar and the leading edge could be folded back to facilitate inspection and maintenance. (Aeroplane via JM Collection)

**Below:** Cowling raised, the installation of the Cirrus Minor engine can be seen to be standard and easily accessible. (via JM Collection)

An example of the wooden wing was tested at Farnborough in 1937 and proved to be very light in weight but of great strength. Following these tests the prototype Knight could be built and flight tests begun. It had originally been intended to fit an engine of US design, the Aeromarine AR.7 100hp radial but this did not enter production and so the Cirrus Minor was selected instead.

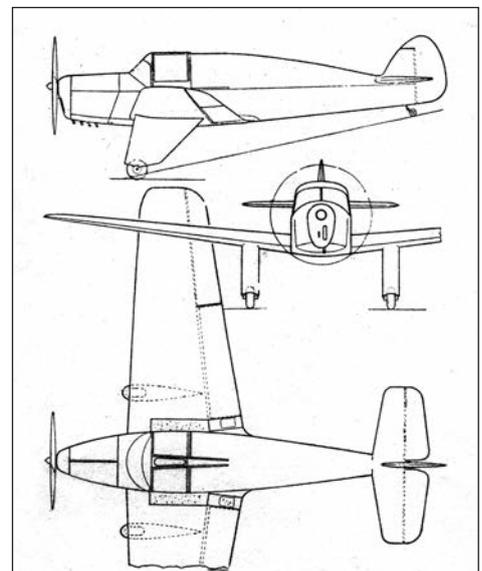
The prototype was registered G-AFBA on 3rd August 1937 and made its first flight in November that year at Broxbourne in the hands of test pilot E W "Jock" Bonar. The c/n was 237/1, but the significance of the prefix is unknown. Testing appears to have been successful and certainly proved the concept of the low weight – low stress wing. The intention had been to gradually replace structures or components with plastics following testing and approval. However the Deekay company became increasingly involved in other forms of plastics development at a time when the focus of the aviation industry was rapidly changing as war approached. A rumoured batch of six production Knights never materialised. The rapid growth of the new plastics industry and Deekay's investment in it led to the company changing its name to Aeroplastics Ltd in 1939 – which was in turn subsumed eventually by Fairey.

The Knight had fulfilled its primary purpose but there was no further development and it was set aside to be scrapped during the war.



**Left:** Banked approach by the Deekay Knight, the trousered undercarriage again dominating the aircraft's silhouette. (via JM Collection)

**Right:** This contemporary three-view drawing of the Knight clearly shows the main features referred to in the text and photos (via JM Collection)



# Airliners in Warpaint - Warbirds in Civvies: 4

## The Tragedy of LOT Polish Airlines

Michael West

Author's note: This article incorporates much material supplied by Bartosz Klimczak who has a book forthcoming on LOT Polish Airlines.

The Poland defined by the Treaty of Versailles of 1919 extended to the East further than the present post-1945 Poland, it then included the University City of Lwow (now Lwiw, Ukraine) and a land border to the southeast with Romania.

Polskie Linie Lotnicze LOT was formed in 1929 replacing the airlines Aerolot and Aero and initially using their Junkers F13 and Fokker F.VIIa equipment which was replaced by Plage & Laskiewicz-built Fokker F.VIIb trimotors and Junkers 52s in the early thirties. By 1936 LOT had started buying state of the art American airliners; ten Lockheed 10 Electras, three Douglas DC-2s (the two purchased new uniquely had Bristol Pegasus engines) then ten Lockheed 14 Super Electras from 1938. One of the latter, SP-LMK, piloted by Makowski, toured South America then crossed the South Atlantic on its delivery flight from California in 1938 (the first transatlantic airliner delivery by air).

The Polish aircraft industry produced some passenger types, the single-engined PWS-24 being the most useful to LOT. The RWD 13 trainer/taxi went into production but only prototypes of the pretty RWD 11 twin and the less attractive and overweight PZL 44 Wicher were built, the latter, influenced by the DC-2 and Electra, did however make proving flights for LOT.

By 1939 LOT's routes radiated from Warsaw to Helsinki via (Wilno), Kaunas, Riga and Tallinn; to Berlin via Poznan; to Katowice; across the Baltic to Copenhagen via Gdynia/Gdansk; to Rome via Budapest, and Venice; to Belgrade via Krakow and Budapest; and LOT's most exotic routes, to Athens via Lwow, Cernauti, Bucharest, Sofia and Thessaloniki; and to Beirut, Lebanon via Athens and Lydda, Palestine. LOT did not fly to London but in April 1939 British Airways Ltd started serving Warsaw via Berlin with their new Cyclone-powered Lockheed 14s (LOT's were P&W Hornet powered).

A number of accounts of the fate of LOT's fleet in the invasion of 1st September 1939 have been published, one by Peter W Ross in *Air Pictorial*, October 1959, one in the Finnish Aviation Historical Magazine 'Suomen Ilmailuhistoriallinen Lehti' 2/1998 ('S.I.L.') and one in the Polish magazine 'Militaria'.

When Germany invaded Poland, it seems that the three Lockheed 14s described by Peter W Ross as 'LOT's western fleet' immediately evacuated to Copenhagen. It seems likely that they are the three in the photo taken at Copenhagen-Kastrup by student pilot Frode Overgaard in early September 1939 although the photo is not precisely dated. 'S.I.L.' records that SP-BPM and SP-LMK arrived, unscheduled, at Helsinki-Malmi on 4th September from where for about a fortnight, to the discomfort of the Finns, they operated a number of unscheduled flights over the Baltic to Latvia, Estonia and Stockholm. The Finns demanded that the Poles refrain from any military activity (there were rumours that their crews had been submarine-spotting and reports of



**Above:** Initial LOT fleet included this Junkers F13 on skis (top) and from Aerolot this F13 P-PALO seen at Mokotowskie airfield, Warsaw.

**Below:** Local design PWS-24 SP-AJK with F13 SP-AAE behind. (All from NAC - the Polish Digital Archives)



**Above:** LOT Fokker F.VIIb SP-ABC on skis wearing route card "Warsaw to Bucharest". (NAC - the Polish Digital Archives)

**Below:** RWD built a smart twin, the RWD-11 which did not enter production. Prototype SP-ASX is seen here. (NAC)



**Above:** The RWD-13 was used for air-taxi work, SP-BNY illustrated.

**Right:** Another prototype twin, the PZL-44 Wicher took part in trials for LOT but proved overweight. (Both: NAC - Polish Digital Archives)



**Left:** LOT Lockheed 10 Electra SP-AYC taking passengers on board outside the Warsaw-Okecie terminal building. ("S.I.L.")

**Below:** Douglas DC-2 SP-ASL arriving at Lydda, Palestine on the service from Warsaw, probably in 1938. (US Library of Congress / Matson collection)

fist-fights between the stressed Polish crews on the tarmac) and during this period, probably at the insistence of the Finns or the Swedes, at least SP-BPM and SP-LMK were painted with red and white Polish nationality bands on the wings and fuselage.

When the Russians invaded Poland's eastern frontier on 17th September the LOT crews in Finland realized that evacuation to Britain was their only choice and by 22nd September the Finns had agreed to their departure. The photos previously published in the Polish 'Militaria' magazine show SP-BPM and SP-LMK at Sola, Stavanger from where, it seems, they crossed the North Sea to Scotland to join the Imperial/British Airways war effort. It is unclear whether SP-BNF flew via Stavanger or via Copenhagen to Britain, but Finnish sources record that it did visit their country. The Lockheed 14s were pressed into service supporting the B.E.F in France. SP-BPM never received a British registration, it is unclear if it ever got camouflaged and it was abandoned in the Fall of France, presumably destroyed. SP-LMK was registered G-AGAV in April 1940 and SP-BNF became G-AGBG in June.

Peter W Ross describes how the majority of the LOT fleet began to shelter in neighbouring Romania from 1st September, at first by terminating scheduled flights there, then by evacuation from Poland. Sixteen aircraft in total had got out when the Russians invaded Poland on 17th September. One Lockheed 14 (SP-BPN) was left in Tallinn, Estonia, a DC-2 (SP-ASK) in



**Above:** Douglas DC-2 SP-ASK prior to departure on the first service from Warsaw-Okecie to Lydda, Palestine in 1937 - an event clearly of much public interest. In the background are a pair of LOT Fokker F.VII/3m, SP-AOT and SP-AOC. (M West collection)



**Left:** Lockheed 14H Super Electra SP-LMK (ex SP-BNK) was in May 1938 the first aircraft to be flown across the Atlantic on a delivery flight to Europe, crossing from Natal, Brazil to Dakar, Senegal with Waclaw Makowski, director of LOT, first pilot Zbigniew Wysiekierski and three crew. (Klimczak/Kalina)

**Right:** The three Lockheed 14 Super Electras of LOT which were evacuated to Copenhagen are seen here at Kastrup airport in "early September" 1939. These are assumed to be SP-BNF, -BPM and -LMK. In the background is Fokker F.VIIa OY-DED of Danish airline DDL. (The late Frode Overgaard via Mick Overton/PaaSporet (Copenhagen))



Riga, Latvia and a few, mainly older aircraft, were abandoned in Poland.

The Romanians were unobliging about allowing the Poles to depart. Imperial Airways (I.A.L.) contracted by telegram to purchase most of the LOT fleet and the Lockheeds and the DC-2 were allocated British registrations G-AFZZ to G-AGAJ in November 1939 according to the the G-INFO cards viewable online. Whilst Viscount Forbes (the Earl of Granard) was the British Air Attaché in Bucharest various plans were proposed by the British and Poles for extracting the LOT fleet from Romania such as a notional sale to a company in neutral Turkey, their use in Turkish earthquake relief or the establishment of an air service from Lydda to Bucharest via Athens and Istanbul using the three LOT L-14s which had escaped via Scandinavia, the LOT fleet in Romania to be absorbed as the service continued. A somewhat puzzling variant of the latter plan was proposed in February 1940 where I.A.L would purchase for £65,600 four L-14s (including YR-LIS) already owned by the Romanian operator LARES in exchange for the rights to operate the Lydda-Bucharest service. The Romanians countering by proposing to buy part of the LOT fleet for themselves. The LOT Lockheeds were skin-greased and hangedared, the five L-10s at Calarasi and the four L-14s at Balciu. The DC-2 was kept in the Air France hangar at Baneasa Airport, Bucharest and by March 1940 reportedly had been partially decamouflaged under Forbes' supervision, The Ju52 was tied down outside at Baneasa. Peter W Ross records that Forbes had the DC-2 fully painted with its British registration G-AGAD and that the only other LOT aircraft likely to have been marked with a British registration was the Ju 52.

The Romanians became more and more arrogant about their unauthorized use of the LOT aircraft despite diplomatic protests (on one such flight they stalled and destroyed L-14 SP-BPK approaching Baneasa Airport). Forbes' final proposal to prise the LOT fleet from the Romanians was to have them supplied with badly needed training aircraft in a deal (they had previously bought Blenheims from Britain in October 1939). Finally the British Air Ministry lost interest and the LOT fleet was abandoned in Romania. Peter W Ross incorrectly suggests that the Germans seized the aircraft when they marched into Romania. In fact they were put into service with the Romanian Government and LARES. The DC-2 was registered YR-GAD and photographed in Marseilles ca.1941 possibly in connection with a diplomatic tour of the Axis-friendly Mediterranean countries by the Fascist dictator Ion Antonescu.

Post-war the two ex-LOT L-14s YR-BNH (ex SP-BNH) and YR-BPL (ex SP-BPL) which survived the war in Romania are recorded at Croydon in 1945/46 in the logbook of Frank Turk (c/o the Croydon Airport Society) with TARS the post war Romanian airline, re-uniting them with SP-LMK which was by then on the dump at Croydon as G-AGAV (condemned by BOAC for corrosion in 1944).

G-AGBG ('BG, 'Bashful Gertie', Scourge of the Skagerrak, from its time with BOAC flying Aberdeen-Sweden) after a nominal transfer back to the Poles in 1946 was sold to British Aviation Services, Southampton A/S, Universal F/S and North Sea Air Transport Ltd then to Sweden and eventually to Airtaco AB as SE-BTN, crashing on 14th July 1951 at Bromma.

Post-war Poland was totally under Russian domination, losing pre-war territory to the east and having its boundaries shifted westwards. LOT was re-equipped with Soviet Li-2s, then later Ilyushin 12s and 14s. However, in 1957 LOT was surprisingly allowed to purchase a small fleet of secondhand Convair 240s (possibly the 'Khrushchev Spring' phenomenon), but otherwise was Soviet-equipped for four decades.



**Above:** LOT's SP-BPM at Stavanger-Sola showing the red/white nationality bands painted on the wingtips and vertical tailplane. (Klimczak/Kalina)

**Below:** Super Electras SP-BPM and SP-LMK taxiing at Stavanger-Sola in late September 1939. (Oddvar Simonsen via Nils Mathisrud)



**Above:** Junkers Ju 52/3m SP-AXK of LOT at Okecie airport, Warsaw together with Lockheed 14 G-AFKE of British Airways on the occasion of the first London (Heston) to Warsaw service on April 17th 1939. The Ju 52 was intended to become Imperial's G-AGAE after evacuation from Poland. (NAC - the Polish Digital Archives)

**Below:** Lockheed 14 G-AGBG, the former SP-BNF, survived the war and is seen here in North Sea Air Transport titles at the Heathrow public enclosure ca.1949. (Peter Berry)





**Above, left:** This Lockheed 14, YR-LIS, was not a former LOT aircraft but it was involved in the proposal for Imperial Airways to buy four of the Super Electras from LARES including the three LOT escapees. (M West collection)

**Above, right:** Douglas DC-2 SP-ASL was the intended G-AGAD but it was eventually taken over by the Romanian Government and became YR-GAD being seen as such at Marseilles-Marignane ca.1941. (aerofossile2012/flickr)

**Below:** Lockheed 10 SP-BGE was intended as G-AGAI in the Imperial purchase but became YR-BGE in military colours. (M West collection)



**Sources:**

Sprawozdanie Departamentu Lotnictwa Cywilnego Ministerstwa Komunikacji i Polskich Linii Lotniczych „LOT” Sp. z o.o. /wrzesień-październik 1939/

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Special thanks to Bartosz Klimczak, Tim Kalina, Soenke Schulz, Nils Mathisrud ( Wings of Peace Yahoo Group). Vic Smith, Hendrik van der Veen, Steve Darke Peter Berry ( Air-Britain abix Yahoo Group). Peter Marson ,Peter Skinner (Croydon Airport Society), SMS88/KeyForum and Paa Sporet Copenhagen)

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National Archives file AVIA2/2288 and AVIA 2/2625 deal with the refugee LOT fleet in Roumania (40s period spelling in UK)

**EVACUATION OF THE LOT FLEET SEPTEMBER 1939 (Tabulated by Bartosz Klimczak)**

Date of evacuation	Type	Regn	c/n	Pilot (surname first)	Route of evacuation or place of abandonment	Subsequent id. or fate
<b>Aircraft evacuated to Romania</b>						
1 Sept	L 10A Electra	SP-BGF	1086	Suryń Leon	Timetable planned flight from Warsaw to Bucharest	G-AGAH*
1 Sept	L 14H Super Electra	SP-BNH	1423	Karpiński Tadeusz	After flight Bucharest – Athens – Bucharest	G-AGAC*
2 Sept	L 14H Super Electra	SP-BPK	1492	Mitż Jerzy	Obory-Ogrodzieniec near Grójec (airfield) – Bucharest	G-AGAA*
4 Sept	L 14H Super Electra	SP-BNE	1420	Burzyński Kazimierz	Obory-Ogrodzieniec near Grójec (airfield) – Cernauti	G-AGAB*
6 Sept	L 14H Super Electra	SP-BPL	1493	Jonikas Mieczysław	Budapest – Bucharest	G-AFZZ*
6 Sept	Douglas DC-2	SP-ASL	1378	Pecho Feliks	Lwów (?) – Bucharest	G-AGAD**
12 Sept	L 10A Electra	SP-BGE	1085	Aleksandrowicz Antoni	Żabczyce near Pińsk (airfield) – Bucharest	G-AGAI*
12 Sept	L 10A Electra	SP-AYC	1047	Ostrowski Jan	Żabczyce near Pińsk (airfield) – Bucharest	G-AGAG*
12 Sept	L 10A Electra	SP-BGG	1087	Tokarczyk Ludwik	Żabczyce near Pińsk (airfield) – Bucharest	G-AGAF*
12 Sept	L 10A Electra	SP-BGH	1088	Stawiec Antoni	Żabczyce near Pińsk (airfield) – Bucharest	G-AGAJ*
12 Sept	Junkers Ju-52	SP-AKX	5588	Płonczyński Stanisław	Żabczyce near Pińsk (airfield) – Bucharest	G-AGAE*
13 Sept	Fokker F-VIIb/3m (Plage & Laśkiewicz)	SP-AOG	0007	Suszczyński Kazimierz	Żabczyce near Pińsk (airfield) – Bucharest	
13 Sept	Fokker F-VIIb/3m (Plage & Laśkiewicz)	SP-AMH	0001	Sym Antoni	Żabczyce near Pińsk (airfield) – Bucharest	
13 Sept	RWD-13	SP-BNU	0283	Krzyżanowski Jan	Żabczyce near Pińsk (airfield) – Bucharest	
Sept	PWS-24bis	SP-AMS	0590	Poniatowski Jerzy	Lwów (?) – Bucharest	
Sept	Fokker F-VIIb/3m (Plage & Laśkiewicz)	SP-AMI	0002	Zakrzewski Leopold	Lwów (?) – Bucharest	
*ntu **not delivered						
<b>Aircraft evacuated to Great Britain</b>						
4 Sept	L 14H Super Electra	SP-BNF	1421	Długaszewski Klemens	Helsinki-Stockholm-Stavanger-Perth	G-AGBG
4 Sept	L 14H Super Electra	SP-BPM	1494	Wysiekierski Zbigniew	Helsinki-Stockholm-Stavanger-Perth	
4 Sept	L 14H Super Electra	SP-LMK	1425	Satel Leonard	Helsinki-Copenhagen-Perth	G-AGAV
<b>Aircraft interned in Baltic countries</b>						
<i>(Date of internment)</i>						
4 Sept	L 14H Super Electra	SP-BPN	1495	Bocheński Kazimierz	Obory-Ogrodzieniec near Grójec (airfield) – Tallinn (Estonia)	
5 Sept	Douglas DC-2	SP-ASK	1377	Barciszewski Zygmunt	Obory-Ogrodzieniec near Grójec (airfield) – Riga (Latvia)	
<b>Aircraft abandoned in Poland</b>						
<i>(Date of abandonment)</i>						
1 Sept	Fokker F-VIIb/3m (Plage & Laśkiewicz)	SP-AOC	0004		in workshop Warsaw Okęcie Airport during modification, without engines	
1 Sept	Fokker F-VIIa	SP-AAP	5091		in workshop Warsaw Okęcie Airport during modification, without engines	
1 Sept	PZL-44 “Wicher”	SP-BPJ	prototype	Klisz Włodzimierz	Lwów Skniów Airport. Technical failure	
8 Sept	PWS-24bis	SP-AMP	0588	Smogór Maksymilian	Adamków near Brześć. Bombarded	
16 Sept	L 10A Electra	SP-BGK	1100	Pustówka Karol	near Horodenka. Damaged during forced landing	
17 Sept	L 10A Electra	SP-BGJ	1089	Krzywicki Stanisław	Wiszenka near Lwów. Abandoned because lack of aircrew	

## COMPLETE CIVIL REGISTERS: 15

# X- UN- YU- YUGOSLAVIA

With thanks to the following for their contributions to this issue:  
John Wegg, Vojislav Jereb and Ognjan Petrovic

**Right:** The Generalexport company began operating charter flights from European cities to Yugoslavia in 1969 using the name Avioigenex and a small fleet of Tupolev Tu-134s. YU-AHH "Beograd" was at Manchester-Ringway 13.6.70. (DP)



### The post-war Yugoslavian Civil Aircraft Register (continued)

#### YU-AHA to AHZ series: 2-engined jet aircraft - continued

YU-AHH	Tupolev Tu-134A Avioigenex "Beograd". D/d 27.1.69. CoR 701. Regn cld 4.71, returned to manufacturer and to Aeroflot as CCCP 65672. Instructional airframe 9.82.	9350701	18.7.68
YU-AHI	Tupolev Tu-134A Avioigenex "Zagreb". D/d 27.3.69. CoR 702. Regn cld 4.71, returned to manufacturer 5.71 and to Aeroflot as CCCP65673. Broken up.	9350705	18.7.68
YU-AHJ	McDonnell Douglas DC-9-32 Ex (I-DIZE). Interexport OOUR Inex-Adria Aviopromet (IAA) "Ljubljana", d/d 25.4.69 as the company's first jet aircraft. CoR 740. Leased to Egyptair 6.72 - .73. Company renamed Adria Airways .86, regd to them 16.1.87. Leased to ZAS Airline of Egypt 9.88. - 15.5.89. Regn cld and re-regd SL-ABF 16.12.91, then S5-ABF .93. To. RP-C1538 11.98. Broken up by 5.07.	47239	14.3.69
YU-AHK	SE.210 Caravelle VI-N Ex F-WLGC, f/f 25.5.69. JAT, leased from Sud Avn from 7.6.69 to 7.11.70. CoR 745. Regn cld 12.11.70. To F-WLGC. Leased again to JAT from 25.6.72 to 11.73, wfu 5.73 and regn cld 2.11.73 then to VT-ECI, F-BRGU, wfu 11.87 and broken up .94.	237	9.5.69
YU-AHL	McDonnell Douglas DC-9-32 JAT. D/d 8.5.70. CoR 767. Regn cld 15.9.88, to N926NW 1.10.88.	47425	12.11.69
YU-AHM	McDonnell Douglas DC-9-32 JAT. D/d 13.5.70, later named "Tivat". CoR 768. Regn cld 19.12.85, to N927RC. Wfu and stored Marana by 9.05, TT 78,859.	47469	12.11.69
YU-AHN	McDonnell Douglas DC-9-32 JAT. D/d 15.5.70. CoR 769. Regn cld 7.12.85, wfu. JAT Airways. Still stored Belgrade 2003, broken up by 9.04. TT 46,571.	47470	12.11.69
YU-AHO	McDonnell Douglas DC-9-32 JAT. D/d 8.6.70. CoR 770. Leased to Air Djibouti 10.86. Regn cld and sold 1.10.87 to Northwest, later N925US.	47472	12.11.69
YU-AHP	McDonnell Douglas DC-9-32 JAT. D/d 18.6.70. CoR 771. Regn cld 5.11.85, to N926RC, YV286T.	47473	12.11.69
YU-AHR	McDonnell Douglas DC-9-32 Inex-Adria Aviopromet "Beograd". D/d 27.4.70. CoR 776. Leased to Egyptair 10.71-.72. Crashed on approach to Khormaksar, Aden 19.3.72 operating	47503	4.12.69



**Above:** YU-AHI "Zagreb" in the first Avioigenex colour scheme. The early Tu-134s used the transparent nose cone, chin radar and short strakes on the fuselage top. (Avioigenex via O Petrovic)

**Below:** DC-9 YU-AHM, wearing the later JAT scheme with the blue cheat line moved halfway down the windows. (JAT via O Petrovic)



**Above:** DC-9-32 YU-AHR wearing full Inex-Adria Aviopromet titles, was written off while leased to Misrair. (Peter Marson collection)

	Misrair service Cairo – Jeddah – Aden. 9 crew and 21 passengers killed. Regn cld 11.1.73. TT 3465.		
YU-AHS	Tupolev Tu-134A (mod) Avioigenex "Skopje". D/d 30.4.70. CoR 780. Returned to Avioexport, Moscow and manufacturers 6.9.71. Regn cld 17.7.71, to CCCP-65963, then RA-65963. Used as fire-trainer 1982-94.	0350921	25.12.69
YU-AHT	McDonnell Douglas DC-9-32 JAT. D/d 2.2.71. CoR 810. Crashed 26.1.72 in Krussne Hory mountains at Ceska Kamenice (near Decin), Czechoslovakia en route Stockholm-Copenhagen-Zagreb-Belgrade. Bomb exploded in flight, placed by Croatian nationalists in Sweden, killing 5 crew and 22 passengers, 1 flight attendant survived. Regn cld 21.12.72. TT 2092.	47482	1.71



**Above:** DC-9-32 YU-AHO in JAT colours of 1986 had already completed 16 year's service with the airline. (O M Petrovic)

**Below:** Another DC-9-32 YU-AHT which flew with JAT for only a year before being destroyed by sabotage. Airline titles on the starboard side were in English. (Peter Marson collection)

YU-AHU	McDonnell Douglas DC-9-32	47532	11.5.72	JAT. D/d 7.5.71. CoR 811. Wfu and stored Belgrade 2002. Nominally to JAT Airways 8.03. Broken up (?). Regn cld 27.3.07. TT 44,743.
YU-AHV	McDonnell Douglas DC-9-32	47460	18.5.72	JAT. D/d 14.5.71. CoR 812. Wfu and stored Belgrade by 9.01. Broken up. Regn cld 27.3.07. TT 44,528.
YU-AHW	McDonnell Douglas DC-9-33CF	47530	12.10.70	Inex-Adria Aviopromet. D/d 22.4.71. CofA 823. Leased to Egyptair .72. Returned and named "Sarajevo" .72. Company renamed Adria Airways .86. Leased to ZAS Egypt 9.88. Damaged by JRV jets during attack on Brnik airport 28.6.91. Regn cld at company's request 26.12.91. Re-regd SL-ABG 26.12.91, then S5-ABG .93. Sold to Avioimepx 31.3.95 as Z3-ARA. Wfu and stored, Naples by 6.03. TT 55,330.
YU-AHX	Tupolev Tu-134A (mod)	1351203	2.12.70	Generalexport 2.12.70. To Aviogenex 19.3.71 and d/d 24.3.71. Aviogenex "Beograd". CoR 824. Regn cld 24.12.90, to OB-1489. Wfu Lima by 5.94.
YU-AHY	Tupolev Tu-134A (mod)	1351204	2.12.70	Generalexport 2.12.70. To Aviogenex 9.4.71 and d/d 15.4.71. Aviogenex "Zagreb". CoR 825. Leased to

Nesu Air as TC-ALV and regn cld 17.3.88; restored as YU-AHY 11.89 with CoR 825/2. Regn cld 28.12.90, to manufacturer as 93926, then RA-93926 and cld 6.03.

YU-AHZ  
Tupolev Tu-134A (mod) 1351205 2.12.70  
Generalexport 2.12.70. To Aviogenex and d/d 22.4.71. Aviogenex "Skopje". CoR 826. Crashed on landing at Rijeka Airport, Krk 23.5.71 when main spar failed due to hard landing, aircraft overturned and caught fire. 78 killed, 5 survived. Regn cld 18.6.71.

**YU-AIA to AIZ series: 4-engine turbo-prop aircraft**

YU-AIA  
Ilyushin Il-18D 187009805 5.67  
Yugoslav Air Force as 7501 military register 30.4.67, then regd to Federal Government probably 5.67. CoR 602. Serial changed to 73201 in 5.70. Returned to



**Above:** The later model Tu-134s used by Aviogenex had a solid nose, no chin radar, and an elongated fairing on the elevators. YU-AHY was at Manchester on 7.6.82. (H John Black)



**Left:** Inex-Adria DC-9-33CF YU-AHW in standard company livery at Ljubljana against a dramatic mountain background. (IAA via O Petrovic)

Antonov An-12B YU-AIC at Batajnica aerodrome during the mid-1970s. The nose of YU-AID is in the foreground. (MV via O Petrovic)



	Yugoslav Air Force and last used in 1975. Sold and became CCCP75919 in 1977.	YU-AID	Antonov An-12BP	02348010	15.4.72
YU-AIB	Ilyushin Il-18D 187009903 20.5.67 Yugoslav Air Force as 7502 military register 30.4.67, arrived Zemun 20.5.67, then regd to Federal Government, used by JAT. CoR 624. Serial changed to 73202 in 5.70. returned to Yugoslav Air Force and last used in 1974. Regn cld 21.1.77, transferred to USSR. Sold 3.78 as 3X-GAX to Air Guinee, w/o 3.9.78 on approach to Conakry Airport, 15 killed.		Ex JRV 73312 of Yugoslav Air Force (27.4.72). Regd to JAT 15.4.72 and used by "Air Yugoslavia" charter division from .74. CoR 870. Crashed on approach to Yerevan, Armenia, 11.12.88, killing all aboard. Regn cld 13.2.89.		
		YU-AIE	DHC-7-102 Dash 7	90	12.2.84
YU-AIC	Antonov An-12BP		Ex C-GFRP(2). Inex-Adria Aviopromet, arrived Ljubljana 3.2.84. CofA 1446. Adria Airways .86. Damaged by JRV jets during attack on Brnik airport 28.6.91. Dep. Ljubljana 5.8.91 for repairs in Canada. Regn cld 26.12.91; regd SL-ACA 26.12.91, S5-ACA .93, dep 17.6.98 on return to manufacturer as C-GELW. To SX-BNA 3.99, now RP-C2955.		
	02348007 19.11.73 Ex JRV 73311 of Yugoslav Air Force (27.4.72). Leased and regd to JAT "Air Yugoslavia" charter division 19.11.73. CoR 869. Regn cld 18.3.91 and leased abroad; to SiGi Air Cargo 5.91 as LZ-SGA, then Air Sofia 16.3.92, re-regd LZ-SFA .92, then Z3-AFA.	YU-AIF	DHC-7-102 Dash 7	92	12.2.84
			Ex C-GFCF(5). Inex-Adria Aviopromet, arrived Ljubljana		



**Above:** DHC-7-102 Dash 7 YU-AIE in Adria Airways titles is seen at Portoroz aerodrome in late October 1987. (O M Petrovic)



**Above:** DC-9-32 YU-AJF was originally ordered by Pan Adria Airways of Zagreb and is seen here prior to delivery in 1972. (MDD)

**Right, upper:** YU-AJF seen in its original red Pan Adria livery at Manchester on 20.7.74, several months after it had been taken over by Inex-Adria. (H John Black)

**Right, lower:** When photographed at Manchester on 16.7.82 YU-AJF was definitely wearing Inex-Adria titles. (H John Black)

**Below:** YU-AJD joined the Aviogenex Tu-134 fleet in 1971 and was the third example to carry the name "Skopje". Another regular Manchester visitor, it is shown here on 30.5.75. (D Partington)



3.2.84. CofA 1447. Adria Airways .86. Damaged by JRV jets during attack on Brnik airport 28.6.91. Dep. Ljubljana 5.8.91 for repairs in Canada. Regn cld 26.12.91; regd SL-ACB 26.12.91, S5-ACB .93, dep 11.6.98 on return to manufacturer as C-GELY; to RP-C2915.

YU-AJF McDonnell Douglas DC-9-32 47570 23.5.72  
Ex N1343U. Pan Adria, d/d 24.5.72. CoR 918. Taken over by Inex Adria Aviopromet 18.12.73. Adria Airways .86. Leased to British Midland Airways as G-BMWD 13.10.86 to 13.4.88, restored. Leased again to G-BMWD 11.88 to 4.90, restored to Adria Airways. To SL-ABH and regn cld 26.12.91, S5-ABH .93. To RP-C1573 12.98.

**YU-AJA to AJZ series: 2-engine jet aircraft**

YU-AJA Tupolev Tu-134A (mod) 1351206 2.12.70  
Delivered to Generalexport Company, Belgrade 21.4.71 for Aviogenex "Titograd". CoR 827. Leased to Nesu Air as TC-ALU .88, restored. Cld 28.12.90, to Russian Govt as CCCP-93929.

YU-AJG SE.210-308 Caravelle III 191 8.6.72  
Ex PH-TRN, OY-KRG, F-WJAQ. JAT, leased from SNIAS 1.7.72. CoR 920. Damaged landing at Belgrade 21.11.72 and wfu. Regn cld 26.1.73 with TT 16,055 and TL 12,098 Used as cabin crew trainer. Later broken up.

YU-AJB McDonnell Douglas DC-9-31 47392 10.5.71  
Ex N393PA. Interexport, Belgrade for use by Inex-Adria Aviopromet, d/d 15.5.71. CoR 852. Leased to Egyptair, early .72. Regn cld 9.10.84, (on request of IAA 1.7.85) sold 29.6.85 as N928AX.

YU-AJH McDonnell Douglas DC-9-32 47562 26.2.73  
Ex N1345U. JAT, d/d 9.2.73. CoR 929. Wfu between 5.92 and 9.94. Leased to Tuninter 5.97; to Bellview 12.98; to Sosoliso 1.03. Regn cld 12.6.03.

YU-AJC Not used. (See page 2011/041)

YU-AJI McDonnell Douglas DC-9-32 47563 7.3.73  
Ex N1346U. JAT, d/d 28.2.73. CoR 930. Leased to Air Djibouti from 2.87 to 30.4.88. Wfu between 5.92 and 9.94. Damaged at Tunis Airport 13.1.98 while on lease to Tuninter. Leased to Bellview 2.99; to Sosoliso 2.01. Regd to JAT Airways 3.03. Broken up at Belgrade 10.06 and regn cld 27.3.07.

YU-AJD Tupolev Tu-134A-3 (mod) 2351508 20.9.71  
Ex CCCP93927. Aviogenex "Skopje". D/d 4.72. CoR 868. Regn cld 24.12.90, to Russia as CCCP-93927, then RA-93927.

YU-AJE SE.210-308 Caravelle III 209 31.5.72  
Ex F-BRUJ, LN-KLN, F-WJAN. Inex-Adria Aviopromet, leased 9.5.72 to 28.11.72. CoR 915. (TT in IAA use 1,675, TL 751) Returned to Sud Avn 4.12.72 then leased as F-BUFM to Tunis Air 3.73, to Rwanda as 9XR-CH 3.74, and to Zaire as 9Q-CVO in 1991, later 9Q-CWK.

YU-AJJ McDonnell Douglas DC-9-32 47567 27.3.73  
Ex N1347U. JAT, d/d 19.3.73. CoR 931. Wfu between 5.92 and 9.94. Leased to Macedonian Airlines 2.97, 14.9.98; JAT Airways 7.01 as YU-AJJ. Regn cld 27.3.07; to N1347U.

**To be continued . . . .**

# The FARMAN 190 and its derivatives

Michel Barrière

PART THREE



## Individual F.190 histories (continued):

### F.190 no.5, c/n 7114 F-AIYC

#### CdN no.2051 issued 28.3.29

Registered to Compagnie Générale Aéropostale. Cancelled from the register 11.29 without leaving any visible trace. Neither the reason for the purchase of such an aircraft by Aéropostale nor its brief career are easily explained.

One possible solution to this puzzle which occurs to us involves comparing the Farman production list, which is very complete for this period, with the histories of aircraft whose existence is actually known. One such aircraft does not appear in the list, the F.191-1 exported to Portugal whose date of leaving the factory is known to be February 1929, thus immediately following the F.190 s/n 4. Also known is its date of delivery to Lisbon on 16.3.29 after final adjustments by Brito Pais. Taking into account a new photographic information provided by a Portuguese source, partly showing the French registration F-AIYC under the wing, we have little doubt in assuming that F.190 no.5 and Portuguese F.191-1 are one and the same aircraft.

### F.190 no.6, c/n 7115 F-AIYD

On October 3rd 1928 studies began for a postal service between Bordeaux and Geneva by Compagnie Aérienne Française on behalf of the Société pour le Développement de l'Aviation Commerciale française (SODAC). This company was created by the railway networks, a shipping company and various chambers of commerce. The objective was to set up a fast postal service, partly by night, for letters, parcels and air freight. It was anticipated that the service would be operated by low powered trimotors then being studied and developed by Couzinet. While waiting for them to appear the service was operated between Geneva and Montluçon by CAF with a Farman 190 and Nieuport 390s, the rest of the journey being carried out by train.

#### CdN / Cdl no.2042 issued 15.3.29

Registered to S.G.T.A. as F-AIYD. It seems that this was the first aircraft to carry the complete company livery with the name "Farman" on

***Above:** Danger, photographer at work! Perhaps he will notice that the lady's face is in the shadow of the strut? The occasion being celebrated is the inauguration of the Geneva - Lyons - Bordeaux route with several sacks of mail about to be loaded into F.190 F-AIYD at Geneva-Cointrin aerodrome. (via JM Collection)*

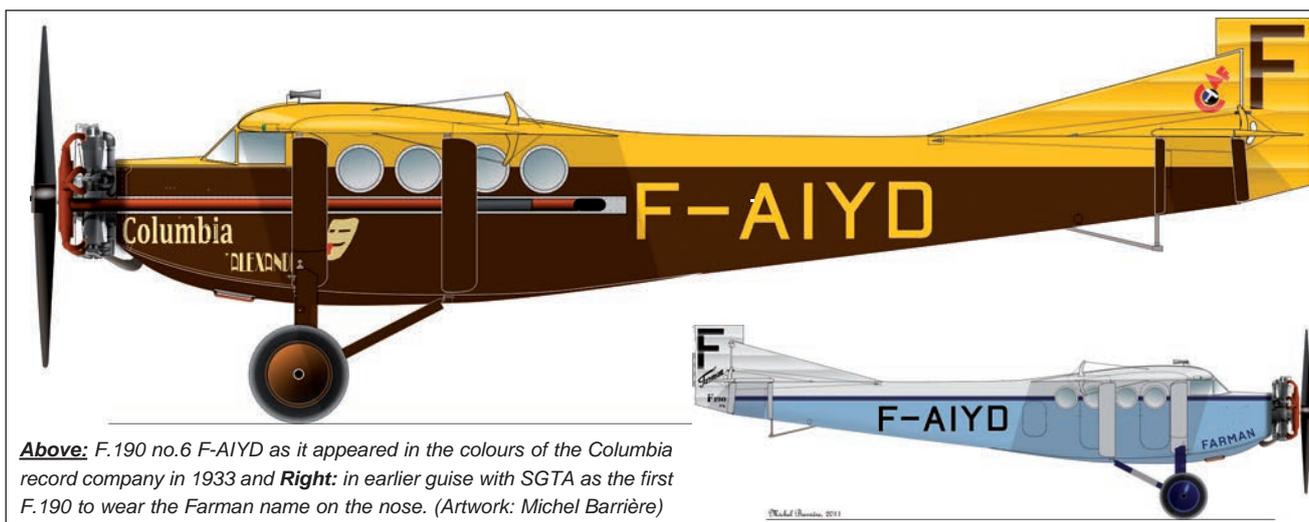
the cowling. F.190 no.6 was hired to CAF and based at Lyons, its regular pilot was Bouthier. [Bouthier left CAF in 1930 for STAR which opened its Paris – Geneva route in summer 1930. He was killed in 1931 near Grenoble when flying one of that company's Nieuport 641s en route Cannes – Paris.]

On April 26th 1929 he was in position at Geneva/Cointrin with the intention of operating a test flight from Geneva to Montluçon and return. On April 30th he was back again at Cointrin in preparation for the official inauguration. This took place on May 4th during the first Salon Aéronautique at Geneva in the presence of M de Marcilly, the French ambassador, and representatives of various companies already represented at Cointrin aerodrome.

In August the aircraft passed inspection at Lyons with 119 hours flying time. In October it was constantly allocated to SODAC and its Titan engine had already recorded 250 hours of operation (*"Revue Gnome-Rhône"*). In December press reports indicated that the beacons on the Geneva – Lyons – Clermont-Ferrand – Bordeaux route had been installed. Flight tests were carried out on the route by pilots Bouthier, based at Lyons, and Obrecht, based at Bordeaux. All predicted that the route was perfectly ready for the inauguration in 1930. Nevertheless, the project was said to have been abandoned shortly afterwards.

At the beginning of 1930, F-AIYD seems to have returned once for use by SGTA: Lallouette flew the minister Laurent Eynac to a rally at Le Havre. Registered in October to CAF and based at Le Bourget, it was then repainted in CAF livery: chocolate and buttercup yellow.

In July 1933 it was hired by the "Columbia" record company to carry the "Alexander" jazz band to accompany the Tour de France for touring aircraft. On September 2nd it passed its annual inspection recording 436 flying hours. There is no information about the remainder of its career; the aircraft was cancelled from the register before 1939.



**Above:** F.190 no.6 F-AIYD as it appeared in the colours of the Columbia record company in 1933 and **Right:** in earlier guise with SGTA as the first F.190 to wear the Farman name on the nose. (Artwork: Michel Barrière)

**NOTE:** The registers are notably vague about the following examples. While the order of the F.190 nos.7 to 13 in the production list is unconfirmed, they must fall within the c/n range 7117 to 7123.

### F.190 no.7, c/n 7119 F-AIYQ

**CdN no.1246 issued by Veritas in March 1929.**

The c/n of F.190 F-AIYQ is positively identified as 7119. Its F.190 series number may be no.7, the F.190 no.8 being identified later as used by the STAe at Villacoublay. Its CdI was not issued until 17th December 1930, as F.192 no.1.



**Above:** C/n 7119 F-AIYQ with a 9-cyl Salmson 9Ab engine, as such it would be a Farman F.192. (via JM Collection)

### F.190 no.8? c/n 7118? F-AIYR

**CdN no.1245 issued by Veritas in March 1929.**

The c/n of this aircraft is unconfirmed (7118?). It is possible that it was used for comparative test with F.192 no.1 and F.194 no.1 held at Villacoublay in the second half of 1929 (*"Revue Hispano-Suiza"*, November 1929). It had been flown after 1933 at the Service Technique as a test bench for automatic take-off equipment invented by a French company (SECA). Later fate unknown.

### F.190 no.9, c/n 7120? F-AIYP



**Above:** The F.190 no.9 F-AIYP airborne at the Fêtes de Vincennes, 1929. (Collection Michel Barrière)

**CdN no.1247 issued by Veritas in March 1929.**

Took part in the exhibitions at Vincennes in May 1929 (Photographed in static park in *"L'Intransigeant"* of 23.5.29). On another photograph showing the aircraft in flight on that occasion the s/n is unfortunately not legible. Jean Liron states that it was no.9. The c/n remains unknown (possibly no.7120?). Later fate unknown.

### F.190 no.10, c/n 7121? F-AJAA, C-PAAD, CS-AAD

Sociedade Portuguesa de Linhas Aereas (SPELA) was owned 50-50 by the Aéropostale and Gnome-Rhône companies to investigate air routes to Portugal and in its colonies. It was founded in Lisbon on 23rd March 1929 and on its creation acquired a Farman F.190 with a Gnome-Rhône Titan engine.

**CdN / CdI 2079 issued 26.4.29.**

Registered F-AJAA in the name of Paul-Louis Weiller, as CEO of the Gnome-Rhône company (although the Veritas inspection of April 1929 nevertheless quotes SGTA as the proprietor). Its c/n could possibly be 7121. The care exercised in its exterior finish, clearly visible in photographs, gave the impression that its internal fittings were also luxurious, as were those of other P-L Weiller aircraft: leather seats, carefully chosen curtains and carpets and the last word in on-board equipment.

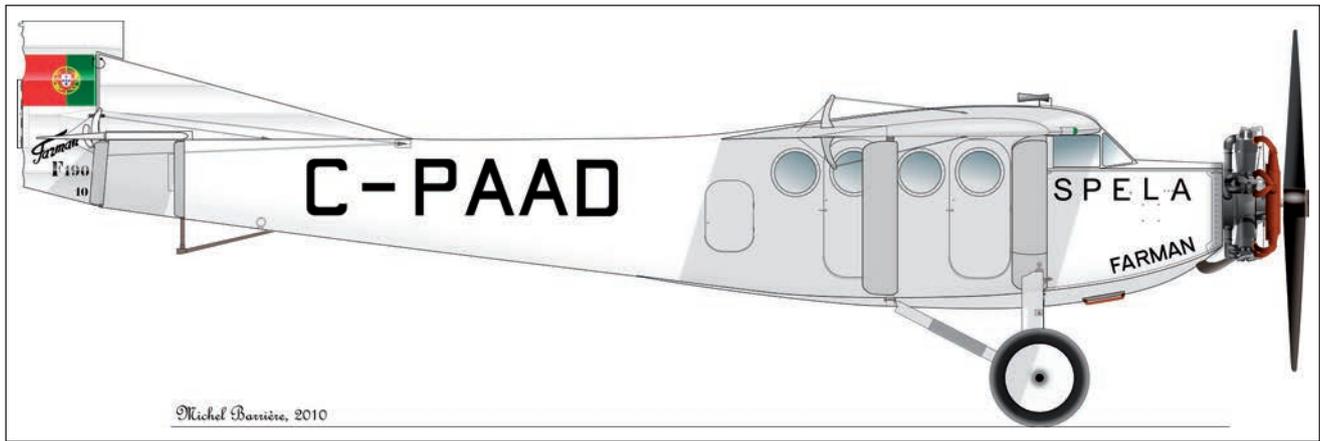
The allocation of a French registration is banned by regulations for an aircraft which is also registered in a foreign country. In fact, although registered in France continuously from April 1929 to 1934, this aircraft was at the same time claimed to be on the Portuguese register from March 1929. It seems likely that the aircraft, the property of Gnome-Rhône, was used by SPELA in return for fee payments. Probably the correct position had not yet been established due to the immaturity of the Portuguese register in which C-PAAD was only the fourth entry.

Inspected by Veritas at the Billancourt factory, the Farman was without doubt put into a container, sent to Lisbon and assembled there. On May 3rd, piloted by Lallouette who had arrived with the F.190 no.4 F-AIXQ, it flew over Lisbon carrying local journalists in particular (*"Diario de Lisboa"* 4.5.29). The next day it was officially handed over to Capt Pais de Ramos, the chief pilot of SPELA, who was known for having led a long-distance Lisbon – Mozambique flight. On 9th May Farman F.190 no.10 was registered C-PAAD in Lisbon (Rob Muelder).

During the following days C-PAAD made demonstration and sight-seeing flights for numerous personalities. On May 13th it was chartered by a farmer, Vicente Santo, for a trip to his property at Almeirim. On Sunday 19th May the first pleasure flights for the public were organised from a landing ground at Amadora; these were later continued at week-ends when weather permitted.

**The subsequent history of this aircraft is recorded in unusual detail:**

On 30th May the Farman was leased by Carlos Bleck, Tomas Pinto Bastos and José Saldanha for a flight to Seville where the International Exhibition was being held. Taking off from Alverca at 1030 hours for Seville/Tablada, it returned there on 1st June.



**Above and Right:** F.190 no.10, C-PAAD of SPELA with 5-cyl Gnome-Rhône Titan engine. (Artwork: Michel Barriere. Photo: Collection Fernando Martins , via Michel Barriere)



On 10th June the Farman began making commercial tourism flights from Lisbon, Sintra, Cascais and Estoril. Then, on 16th, it was flown in the morning to Santarem in company with five military Avros. There followed various flights from Almeirim, Alpiarça, Vale de Figueira and Santarem before it returned to Lisbon; in great demand it returned to Almeirim on the following Sunday, 23rd June.

Then, on 25th June C-PAAD was sent to the north of the country to evaluate landing grounds; it was flown by Pais de Ramos with a civilian second pilot, Manuel Vasques. This was the start of a period during which it alternated between commercial flights, reconnaissance flights for the establishment of Portuguese air routes, and transport flights for the company management. On July 9th it flew to Aviz, chartered by a local landowner, Mario de Castro, and carried out numerous pleasure flights there. On the 12th it was flown to Madrid carrying the directors of SPELA: Messrs Dingemans (Gnome-Rhône), Pelagaud (Aéropostale) and João Judice de Vasconcelos (SPELA).

On 21st July it again carried out flights between Lisbon and the Costa do Sol. Then, on 2nd August, it flew from Alverca to Mirandela where it inaugurated the town's airfield, returning on the 5th. On the 23rd August, with a crew of Paul Ramos, Manuel Vasques and flight engineer Graça, it left for Alijó in northern Portugal. On board were Dr Armando Amaral, President of the Commission of Winegrowers of the Douro, and Major Lelo Portela, military advisor in Paris. It returned to Lisbon on 27th after overflying Porto, Figueira da Foz, Nazaré and Caldas. On 1st September it was chartered by the newspaper "O Seculo" to carry copies to Porto. Leaving Alverca at 0705, it landed at Porto at 0840; this was the first time that a Lisbon morning newspaper was delivered to Porto before 0900.

Pais de Ramos returned to Lisbon on 1st November 1929 from Paris where he had been to supply information to Bailly and Reginensi for their journey to Madagascar via Mozambique. Ramos had taken advantage of his stay in Paris to attend a blind flying course at Farmans. Finally, on the 19th of the same month, the Farman landed at Amadora, in Beja province, where it carried out 14 flights for a total of 52 passengers. This was the last report of its commercial flying in 1929.

On 11th March 1930 the management of F.190 No.10 in Portugal was recorded as transferred to the Companhia Portuguesa de Aviação (CPA). In the French register it was transferred to SGTA in October. We have only a little information available about its activities that year which, like those which followed, seemed to be taken up with pleasure flights and tourism whenever time permitted.

In July 1930 Pais de Ramos made a trip to Algiers, accompanied by an engineer, returning to Alverca on 4th August. As in 1929, the aircraft had been flown most frequently by Pais de Ramos, but it seems that from then on he became available less often due to the operational duties which he had taken on at the Alverca base and the aircraft was now chiefly flown by Manuel Vasques.

At the end of February 1931, Manuel Vasques returned to Lisbon after having spent some time as an airline pilot with Aéropostale. It was not until June 23rd that the press announced the return of tourism flights at Lisbon, Estoril, Cascais and Sintra.

On 26th August a revolutionary movement attempted a coup d'etat in Lisbon. On that date at 6pm, Farman CS-AAD flown by Vasques accompanied by Sgt Carvalho, landed in Spain between Salteras and Valencina, near Seville, while attempting to reach Tablada airfield. The two men confessed to having taken part in the uprising at the Alverca base. The Farman, loaded with eight 50kg bombs, which were dropped by the mechanic from the cabin, the floor of which had been cut open, had bombed the presidential palace at Belem. The crew landed afterwards at Amadora airfield to assess the result, then for fear of arrest, they had taken off for Spain. Forced to land in the countryside by fuel shortage, the aircraft was detained by the Guardia Civil while the crew sought to obtain permission from the local authorities to refill the tanks in order to reach Tablada. The aircraft was interned there and was joined by a military Breguet 14 which had also escaped from Portugal and which had landed at Huelva. The two aircraft were returned to Portugal in mid-September, the Farman being taken care of by Pais de Ramos. Portugal unsuccessfully requested the extradition from Spain of the rebel aviators. [Manuel Vasques found a job as an instructor at the civil flying school at Getafe. In October 1932, during a lesson with a pupil, he entered a spin while avoiding telephone wires and crashed. Seriously injured, he had his right leg amputated. In December the same year the decree of amnesty which was published by the Portuguese government explicitly excluded him from its benefits.]

On 29th March 1932 the press announced the resumption of tourist flights by the Farman on two circuits, on one hand Alverca – Lisbon – Costa do Sol – Amadora – Alverca, and on the other Alverca – Sintra – Cascais – Estoril – Costa da Caparica – Barriero – Alverca. [Editor's note: the circuits described are chiefly around the Tagus estuary region to the west and south of Lisbon.] Pleasure flights had become the exceptions. Bad weather stopped the flights in April but they began again on 8th May. This was the last season of flights by CPA, whose relationship with the Portuguese authorities gradually deteriorated.

From August 1933, during the time that Air France was being established, it discretely negotiated the end of SPELA's monopoly agreement. All work on the studies of routes was then suspended. On 22nd June 1934 Air France created the "Sociedade Aero-Portuguesa Lda" which completed the liquidation of CPA. The Farman, of little value to Air France, was given up and was registered as CS-AAD to Abel Pessoa, an experienced private pilot, holder of a transport licence and



of a night-flying qualification obtained in Great Britain. [It was not until December 1934 that the Farman was actually recorded as exported from the French register as F-AJAA !] Although relatively discrete, Abel Pessoa was an advocate of the return to national ownership of Portuguese air lines and he applied himself consistently towards achieving this aim.

On 1st August 1934, the Farman, chartered by the "*Diario de Lisboa*" dropped over Porto copies of a special edition concerning the colonial exhibition in the town. On 4th November there took place at Amadora airfield a display and aerobatic championship organised by Air Propagande, the "*Petit Parisien*" and the "*Diario de Lisboa*" in memory of Placido de Abreu who died at Vincennes during the international aerobatic contest on June 10th. A similar display took place in Porto on 11th November at the Senhora da Hora airfield.

It was during that week of displays that CS-AAD, named "*Aguia Branca*" ("*White Eagle*"), began commercial operations under the title of a company named SAPFT – "Serviços Aéros Portugueses de Fotogrammetria e Transporte". This company's activities were extended: to carry out aerial photography, aerial publicity, tourism flights and pleasure flying. In fact its operations expanded in the aerial publicity sector and as an air taxi service on the Lisbon – Porto route, while the professional aerial photography work was mainly carried out by the army.

In spite of regular maintenance the aircraft began to become degraded, starting was sometimes difficult and the advertising carried for Castrol and Opel on the occasion of the first Portuguese motor salon in May served to hide the worsening condition of the paintwork. It seems to have been active regularly: a weekly Lisbon – Porto link, pleasure flights on Sundays when the weather permitted, freight or air-taxi services on request.

During the two months of May and June 1935 it was chartered by the "*Diario de Lisboa*" as follows. On 13th May it carried out a flight over Fatima with a reporter from the newspaper during the pilgrimage, dropping flowers over the shrine. At the beginning of June, during the Lisbon festival week, Abel Pessoa accompanied by Alberto Barata of "*Diario de Lisboa*" flew over Portugal and Andalucia dropping thousands of copies of a special issue of the newspaper in a big publicity campaign, using local aerodromes as far away as Seville/Tablada.

On 13th October at 0930 "*Aguia Branca*", which had taken off earlier that morning from Alverca, manoeuvred above Fatima at 1,000 metre with four passengers, dropping thousands of copies of the magazine "*Aero*". It returned later to Alverca after having flown over Obidos, Sintra and Costa do Sol.

On 27th November the press announced a publicity campaign for the Christmas and New Year festivities: the "*Aguia Branca*" on this occasion dropped thousands of leaflets together with mystery envelopes and coupons offering gifts or discounts on various products or services. The operation, known as "Raid Adão" from the name of the shirt-maker who was one of the principle patrons, was planned for the 24th at Lisbon and 31st at Coimbra and Porto. Due to bad weather the flight of the 24th finally took place on the 30th. The leaflets dropped over various strategic locations announced in advance: squares, roads, restaurants, etc, resulted in a great success.

**Above:** F.190 no.10 as CS-AAD wearing Opel and Castrol advertising at the Portuguese motor exhibition in May 1935. (Artwork: Michel Barrière)

During the first months of 1936, Farman CS-AAD continued to operate its flights more or less regularly on the Lisbon – Porto and Lisbon – Figuera da Foz routes. At the end of spring, Abel Pessoa reviewed the nature of his company, the name of which was changed to Aero-Commercial Lda. He announced for May 13th a flight over Fatima during the great annual pilgrimage: as well as passengers, the aircraft carried a special edition of "*Aero*" which gave the pilgrims the latest news. At the same time during the religious ceremonies it towed a banner for Aero-Commercial in order to publicise its creation. Pleasure flights were proposed for every Sunday.

On 17th July 1936 the Spanish Civil War began. The Farman was quickly chartered by members of the Spanish community of Estoril, a major supporter of the nationalist cause. Abel Pessoa carried out at least two flights over the Seville region, one of them with the Marquis de Quintanar. The increase in insurance premiums in this civil war situation became a major concern for the company's finances however. Abel Pessoa therefore decided to suspend activities and instead to plan for a future with higher performance aircraft. In early August he disposed of the Farman to the Spanish community. The aircraft, registered officially in the name of a Portuguese sympathiser Palha Branco, was presented to Commandant Doval who led a Nationalist column advancing towards Madrid and at that time held up by fighting in the Sierra de Guadarrama. [There were confusing reports that the aircraft was renamed "*Aguia Durval*".]

The Farman was based at first at Burgos/Gamonal. Capt José Larrauri Mercadillo had carried out a propaganda tour in it in Aragón for the Nationalists in order to collect funds for the purchase of Heinkel 51 fighters and made a liaison flight to Seville for General Franco. The aircraft, which carried its Portuguese registration CS-AAD on the wings and the Portuguese flag on the fin, had come under fire from Nationalist machine gunners confused by the tricolour appearance of the rudder. Its paintwork was therefore changed to Nationalist colours but it always continued to carry the Portuguese registration.

Based later at Avila, according to a Portuguese source it seems to have come to a "bad ending", having been borrowed by a deserting or renegade pilot. It did not seem however to have left the Nationalist zone and was destroyed in unexplained circumstances: photos showed it in company with a Nationalist Fokker F-AJUB [F.VIIa c/n 5226], both badly damaged at an unknown location. [Editor's note: Howson, "*Aircraft of the Spanish Civil War*" (Putnam), confuses CS-AAD with F.199 no. 6 F-AMOI bought in June 1937 by the same Abel Pessoa, christened "*Aguia Branca 2*" and registered CS-AAV, saying that it returned to Portugal and crashed into the sea off Praia de Santa Cruz, 8th August 1937, killing five on board. No fate is quoted by Howson for the Fokker. However if the photographic evidence exists for the fate of CS-AAD it would appear to be conclusive.]

It was not until 12th February 1946 that Farman F.190 No.10 CS-AAD was cancelled from the Portuguese register.

*To be continued . . .*

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AUTUMN ISSUE  
SEPTEMBER 2011

# Air-Britain ARCHIVE

The AIR-BRITAIN Civil Aviation Historical Quarterly



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Farman F.190 series

DH.83 Fox Moth

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AIR-BRITAIN - Founded 1948



The AIR-BRITAIN Civil Aviation  
Historical Quarterly

No.3 2011

ISSN: 0262-4923

32nd YEAR

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ARCHIVE is published quarterly, in March,  
June, September and December by  
Air-Britain (Historians) Ltd., in association  
with *Air-Britain Aviation World*, *Aeromilitaria*  
and the monthly *Air-Britain News*.

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## COVER PHOTO



KLM DC-3 PH-ASR "Roek" in wartime orange  
at Schiphol was to be captured by the  
Luftwaffe in May 1940. (Colour restoration  
image by Dutch Dakota Association)

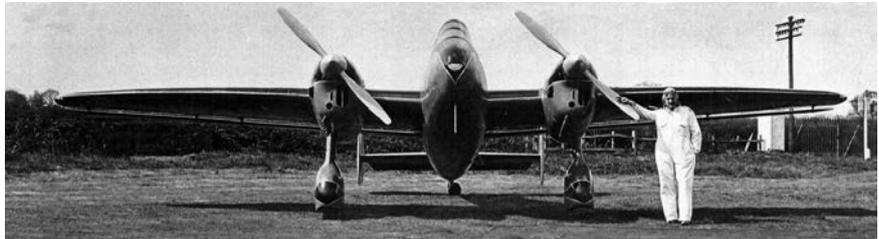
**CLOSING DATE for contributions to next  
ARCHIVE:** October 15th 2011

## Contents:

Registers of Yugoslavia	2011/099
The Whole Truth:	
The DH.83 Fox Moth	2011/103
F-1922 Register	2011/121

## Head-on View:

The Praga E-114 Air Baby	2011/125
KLM in Wartime	2011/133
The Moscow Mule	2011/138
The Farman F.190	2011/139



## HEAD-ON VIEW - WHAT IS IT? Number 41

This interesting-looking twin was one of a family of two which actually went under three different names - four if you are pedantic. These designs between them spanned the war years and performed a variety of roles. Full details next time. (via JM Collection)

## In this issue

Although it was intended to return to the **China** series in this issue, we have delayed the restart for a number of 'operational reasons'. This means that the planned sections will restart in the next issue (which will also feature some Feedback) while much of the background information will be placed in the ab-ix files system for those who wish to access it. We are at the same time considering ways in which we can make this available to non users of ab-ix or indeed of computers. Readers will no doubt appreciate that this will take a little time to sort out but meanwhile we can confirm that we are committed to covering this important research in Archive. We thank Martin Best for his patience and assistance and look forward to his future accounts of post-1949 developments in China.

Three current series proceed in this issue in the usual way, the **Farman 190** histories, the **Yugoslav** Register and the pre-war **French** register. Not much to add about these except to thank all the respective contributors for their efforts. The Head-on-View subject this time covers the **Praga E-114 Air Baby** and its various developments. We have deliberately played down the Hillson Praga aspects as the history of that company and its production is well documented elsewhere.

Michael West adds another subject to his series on airliners in wartime with a look at the effects on the fleet of **KLM** and its subsidiaries. Michael also provided the short item about the first western private aircraft to visit post-war Russia - the "**Moscow Mule**" of Bill Lear. Maybe time for someone to write up Hughie Green's incursions into East European air-space?

Our main item in this issue is the Whole Truth series on the **DH.83 Fox Moth** from the vaults of Malcolm Fillmore's research. So popular was this aircraft that it is perhaps surprising that only 98 were originally built with 2 more in Australia and 54 in Canada. Even so we have found illustrations of African and Asian registered examples hard to come by and would welcome further contributions to add to our coverage in the next issue.

## Editor(s) Wanted !

It is now some 32 years since the Editor was persuaded that there was potential for a civil aviation quarterly alongside the existing "*Aeromilitaria*" and so planning began for the first issue to appear in 1980. Since that first 28-page "*Archive*" the magazine has obviously grown in size and scope although the basic principle of providing researched material remains unchanged.

This Editor now considers that after 128 issues the time has come to hand over to new blood, or at least to initially spread the load somewhat. With other roles within Air-Britain publishing and various personal issues over the last 18 months, re-management has become essential. Without repeating the detail in the separate notice and the item in *Aviation World* this month, we would be pleased to discuss any offers of help on a basis of job-sharing or gradual take-over of any or all of the editorial tasks.

So don't be shy, read the job description and see if you can find a role which appeals to your interests or abilities. Technical expertise is not essential but a broad interest in civil aviation would be a help! This is not a case of being thrown in the deep end without a life-jacket - opportunity will be given to wade in gradually if preferred. Neither do you have to commit to 32 years - this Editor didn't .....

Now please join the queue, e-mail or phone the Editor for more details and discussion of how you can help to keep *Archive* going in the future - there are precious few civil historical items being covered in national circulation magazines these days. We are unique!

## COMPLETE CIVIL REGISTERS: 15

# X- UN- YU- YUGOSLAVIA

With thanks to the following for their contributions to this issue:  
John Wegg, Vojislav Jereb and Ognjan Petrovic

**Right:** MDD DC-9-32 YU-AJK in the 1970-80s JAT colour scheme with Serbo-Croat titles on the port side and special "Official Carrier of Universiade '87 Zagreb Yugoslavia" sponsorship inscription at London-Heathrow on 13.9.87. (John Black)



### The post-war Yugoslavian Civil Aircraft Register (continued)

#### YU-AJA to AJZ series: 2-engine jet aircraft - continued

YU-AJK McDonnell Douglas DC-9-32 47568 12.4.73  
Regn reserved 8.9.72; JAT, d/d 6.4.73. CoR 932. Wfu between 5.92 and 9.94. To Macedonian Airlines 26.6.98 as Z3-ARD; returned to JAT as YU-AJK 19.5.00; to Bellview Airlines (Nigeria) 1.01 and to Cameroon Airlines 1.04. JAT Airways 4.05; to Eastern Skyjets, Dubai 29.4.05; returned JAT Airways 4.06. Regn cld 27.3.07.

YU-AJL McDonnell Douglas DC-9-32 47571 22.5.73  
Regn reserved 8.9.72; JAT, d/d 21.5.73. CoR 933. Wfu between 5.92 and 9.94. Leased to Tuninter 4.96; returned to JAT 10.96. Lsd to Macedonian as Z3-AAB 4.99; JAT 6.01. To Cameroon Airlines 1.04; JAT Airways 3.04. Broken up at Belgrade 10.06. Regn cld 27.3.07.

YU-AJM McDonnell Douglas DC-9-32 47582 31.7.73  
Regn reserved 8.9.72; JAT, d/d 7.73. CoR 934. Wfu between 5.92 and 9.94. Leased to Tuninter .98. Leased to Bellview Airlines/Abuja Shuttle, Nigeria 3.00. JAT 10.00; wfu at Belgrade .05 used as ground trainer; regn cld 27.3.07.

YU-AJN Douglas DC-9-32 47579 19.5.73  
Interexport, Belgrade, for use by Inex-Adria Aviopromet, Ljubljana d/d 10.5.73. CoR 939. Leased to JAT 22.4.74. Dbr in forced landing in fog 3 km short of approach to Belgrade-Surcin 23.11.74 while in JAT service. No fatalities.

YU-AJO Douglas DC-9-32 47457 27.2.73  
Ex D-ADIU. Interexport, Belgrade, for use by Inex-Adria Aviopromet, CoR 944. d/d 13.3.73 to Ljubljana for conversion, in service 4.73. W/o Sadlek, Czechoslovakia 30.10.75 on approach to Prague.

YU-AJP Douglas DC-9-33F 47408 9.4.75  
Ex (N916U), N936F. Interexport, Belgrade, for use by Inex-Adria Aviopromet, CoR 1042. d/d 30.5.75. Leased to Evergreen International .77 and .79. Cld 12.7.82 to IPEC Aviation and regd VH-IPF 24.8.82; to N942F 9.2.99. Wfu.

YU-AJR Douglas DC-9-32 47649 19.1.76  
Ex N54638 (as DC-9-31). Interexport, Belgrade, for use by Inex-Adria Aviopromet. CoR 1073. d/d 5.3.76. Written off Vrbovec near Zagreb on 10.9.76 in mid air collision with British Airways Trident 3B G-AWZT; 113 fatalities on the DC-9.

YU-AJS Tupolev Tu-134A-3 48370 22.1.76  
Generalexport, Belgrade for use by Aviogenex division, Ljubljana. CoR 1077. Written-off, Libreville, Gabon 2.4.77 and regn cld 11.4.77.

YU-AJT Douglas DC-9-51 47697 14.4.76  
Ex N8709Q. Interexport, Belgrade, for use by Inex-Adria Aviopromet, Ljubljana. CoR 1080. D/d to Ljubljana 12.5.76. Lsd to SAS 6.10.84 to 26.4.85. Renamed Adria Airways .86. Sold to UAS Invest Inc, Geneva 14.4.89. Regn cld 25.10.89; to N54UA, United Aviation Services; I-FLYZ Eurofly.



**Above:** DC-9-32 YU-AJK wearing the 1992 colour scheme of JAT featuring English titles on both sides. (O M Petrovic)



**Left:** JAT's first Boeing 727 was YU-888, seen here in a 1977 publicity photo. (JAT via O M Petrovic)

**Below:** Another JAT Boeing 727, YU-889, seen on touch-down in the late 1980s. (JAT via O M Petrovic)

YU-AJU	Douglas DC-9-51	47754	24.5.77	Interexport, Belgrade, for use by Inex-Adria Aviopromet, Ljubljana and named "Maribor". CoR 1093. D/d 24.5.77. Lsd to SAS, 26.9.83 to 28.5.84; Inex-Adria, again lsd to SAS 15.10.84 to 31.5.85. Renamed Adria Airways .86. Sold to UAS Invest Inc, Geneva 14.4.89 Regn cld 27.10.89; to N56UA, United Aviation Services; I-FLYY 10.89 Eurofly.
YU-AJV	Tupolev Tu-134A-3	60035	30.5.77	Modified Tu-134A. Generalexport, Belgrade for use by Aviogenex division, named "Mostar". CoR 1095. Regn cld 7.11.84, delivered to Russia 7.12.84 and ferried to Harkov, to CCCP-65563, RA-65563.
YU-AJW	Tupolev Tu-134A-3	60321	29.3.78	Modified Tu-134A. Generalexport, Belgrade for use by Aviogenex division, named "Pristina". CoR 1112. Regn cld 13.11.84, delivered to Russia 8.12.84, to CCCP-65550, RA-65550.
YU-AJX	Douglas DC-9-32	47172	24.4.80	Ex N3331L. Owned by MDD/Ozark Airlines. Leased by Inex-Adria Aviopromet from 21.4.80 and cld 21.10.80. CoR 1285. Returned to N3331L, then YU-AJY(2), N26175, N926L.
YU-AJY(1)	Douglas DC-9-32	47173	28.3.80	Ex N3332L. Owned by MDD/Ozark Airlines. Regn requested but lease ntu and regn not used. CoR 1286. Remained as N3332L and later to N931L.
YU-AJY(2)	Douglas DC-9-32	47172	3.4.81	Ex N3331L, YU-AJX, N3331L. Inex-Adria Aviopromet, Ljubljana, leased from Ozark 30.3.81. CoR 1333 now issued. Lease ended 15.10.81. Returned to Ozark as N3331L, 19.10.81; to N26175, 11.81; N926L, 3.82.
YU-AJZ	Douglas DC-9-81	48046	12.6.81	Inex-Adria Aviopromet, h/o 10.6.81. CoR 1343. Adria Airways .86. Leased to Austral Lineas Aéreas 20.12.86 to 4.87. Adria Airways 20.4.87. Lsd Austral again 14.12.88; Adria Airways 1.5.89. YU- regn cancelled to SL-ABE 26.12.91, S5-ABE 4.4.93 still Adria Airways; leased Macedonian 9.94 to 11.94; leased to Centennial



Airlines 11.4.95 to 18.4.95, then to Avioimpex 18.4.95. Leased as N801VV, Valujet 8.12.95; and to Macedonian as Z3-ARB 30.6.97. To MDD as N764BC, 12.02. Wfu. (Note: Was purchased with PW JT8D-209 engines, later modified to JT8D-217.)

#### **YU-888 to AKZ series: 3-engined jet aircraft (except YU-888)**

YU-888	Boeing 727-2H9	20930	7.12.73	JAT. F/f 31.5.74, d/d 7.6.74. CoR 974. Regn cld 6.5.87 and wet-leased to Talia Airways as TC-AKD .5.87. Crashed 27.2.88 into mountain near Girne Arap, east of Kyrenia, Cyprus due to navigation error. Was on positioning flight Istanbul - Ercan, all 15 crew killed.
YU-889	Boeing 727-2H9	20931	7.12.73	JAT. F/f 29.5.74, d/d 12.6.74. CoR 975. Leased to Air Commerce Sarajevo 11.91; JAT 31.5.92. Wfu 5.92 to 9.94. JAT again. Wfu .02, regn cld 27.3.07 and dismantled at Belgrade..
YU-890	Not used.			
YU-891	Boeing 727-2L8	21040	26.6.75	Jugoslav Govt. F/f 18.6.75, d/d 26.6.75 to JRV as 14302, then JRV 74302, 3.78; used by Federal Government. CoR 1017. Occasionally leased by JAT. Sold to Aviogenex "Zagreb" as YU-891, 19.2.83. Cld 7.10.86 and leased to Sterling as OY-SBJ 13.10.86 to 4.87. Returned to Aviogenex as YU-891 CoR 1017/2 15.4.87. As YU-891 leased to Avianca 12.87 to 4.88 and to Egyptair 11.88 to 4.89. Wfu 5.92 to 9.94. Leased to Air Gabon 9.96 to 11.97 and again 4.97 to 10.97. Leased to



**Left:** Formerly used by the JRV, Boeing 727 YU-891 went into service with Aviogenex in the mid-1980s. Note the colour scheme in comparison with that of YU-888 opposite. (Aviogenex via O M Petrovic)



Air Afrique 1.4.98 to 7.98, then leased Chanchangi Airlines 8.98 to 7.02 and Lone Star Airways 4.1.03 to 6.03. Retained Lone Star colour scheme after lease and operated again by Aviogenex. Sold by Aviogenex to Pennant Aviation, Memphis, 9.06. This was the last 727 to carry passengers in Europe.

YU-AKE Boeing 727-2H9 21037 20.12.74 JAT. F/f 10.12.74, d/d 20.12.74. CoR 1028. Leased to Air Commerce Sarajevo 11.91. Genius Air 4.92; wfu 1.6.92. JAT 31.8.92 but wfu 5.92 to 9.94. Regn cld 27.3.07, and dismantled at Belgrade.

YU-AKF Boeing 727-2H9 21038 28.3.75 JAT. F/f 14.3.75, d/d 28.3.75. CoR 1029. Leased to Genius Air 3.92; JAT 31.5.92. Wfu 5.92 to 9.94, stored .03; regn cld 27.3.07.

YU-AGK Boeing 727-2H9 21039 28.3.75 JAT. F/f 19.3.75, d/d 28.3.75. CoR 1030. Leased to British Air Ferries 4.92, returned JAT 31.5.92. Wfu 5.92 to 9.95, stored Belgrade from 9.00. Regn cld 27.3.07 and dismantled.

YU-AKH Boeing 727-2L8 21080 4.2.83 Jugoslav Govt. F/f 14.7.75, d/d 31.7.75. as JRV 14301, then JRV 74301, 3.78. Used by Federal Government as presidential transport. Sold to Aviogenex "Beograd" as YU-AKH, 4.2.83. CoR 1051. Regn cld 29.1.87 and leased to Sterling as OY-SBP 3.2.87 to 24.3.87 when re-regd YU-AKH to Aviogenex. Leased to North African Aviation 11.87; Aviogenex .88 and to Egyptair 11.88 to 1.5.89 and again 11.89 to .90. Wfu 5.92 to 9.94. Leased to Air Gabon 10.96 to 4.97, then to Chanchangi Airlines 11.98 to .01. Aviogenex 7.02 and leased to Efata Papua Airlines 3.04. Returned and wfu 4.04, Belgrade. Sold to Pennant Aviation, Memphis 9.06.

**Above:** The second ex-JRV Boeing 727 with Aviogenex was previously the presidential aircraft. YU-AKH. Seen on 29.6.91 at Ringway it has a different style of livery to YU-AKD. (John Black)

YU-AKI Boeing 727-2H9 22393 15.12.80 JAT. F/f 23.10.80, d/d 15.12.80. CoR 1278. Leased to British Air Ferries 4.92; JAT 31.5.92. Wfu 5.92 to 9.94. Cld 27.3.96 but re-regd to JAT 8.4.96. Leased to Sosoliso Airlines 11.00 to 4.01; JAT; order for Alizes Afrique ntu; leased to West African Airlines, Benin 4.03 to 6.04 and returned to JAT Airways 6.04. Wfu .06 at Belgrade.

YU-AKJ Boeing 727-2H9 22394 15.12.80 Ex N8281V. JAT. F/f 17.11.80, d/d 15.12.80. CoR 1279. Wfu 5.92 to 9.94. Regn cld 27.3.96, stored and dismantled at Belgrade.

YU-AKK Boeing 727-2H9 22665 30.12.81 Ex N1780B. JAT. F/f 2.11.81, d/d 3.3.82. CoR 1304. Leased to Air Afrique 30.5.83; JAT 6.86. Leased to Skyjet 7.91 to 9.91; JAT 4.11.91; cld 1.6.92 leased to Tunisair as TS-JEA 4.92, restored 11.92 but wfu and stored Tunis, 11.92. Restored to JAT 4.6.96 as YU-AKK. Leased to ADC Airlines 2.98; JAT 7.00; lsd Sosoliso Airlines 12.00; JAT 5.01; UM Air 5.02; West African Airlines 4.03 to 6.04 then returned to JAT Airways. Wfu .05 and parted out 11.06 at Belgrade. Regn cld 27.3.07.

YU-AKL Boeing 727-2H9 22666 30.12.81 JAT. F/f 8.12.81, d/d 12.3.82. CoR 1332. Leased to Air Afrique 5.84; JAT 5.87; leased Air Malta 6.91; JAT 31.10.91. Regn cld 1.6.92 but leased to Tunisair as TS-JEB 5.92, restored 11.92 but wfu and stored Tunis, 11.92. Restored to JAT 25.5.96 as YU-AKL. Leased to Royal Nepal Airlines 8.97; JAT 11.97; Savannah Airlines 1.01, returned to JAT 7.02 and stored 8.02. Regn cld 27.3.07.



**Above:** YU-AKI Boeing 727 of JAT on the ramp at Ringway 8.5.81. Note the use of the under-fuselage entry steps at the rear. (John Black)



**Above:** Boeing 727 YU-AKJ taxiing in at Heathrow on 6.9.90 was the only JAT example not to be leased to other operators. (John Black)

YU-AKM	Boeing 727-243	22702	9.5.85	Ex I-DIRT. Aviogenex "Pula", purchased 9.5.85, d/d 14.5.85. CoR 1477. Leased to Aerolineas Argentinas 19.12.86; Aviogenex 3.87; Egypt Air 11.88; leased to Avianca as HK-3618X 12.88 to 2.89; Aviogenex 11.3.89. Leased to Egypt Air again 11.89; Aviogenex .90. Wfu 5.92 to 9.94 and stored, Nis. Leased to Royal Nepal Airlines 2.98; Aviogenex 14.12.99. Further leases to Chanchangi Airlines 4.01 and to Cameroon Airlines 7.12.02; Aviogenex 6.03; leased to Efata Papua Airlines as PK-EPV 6.03; returned to Aviogenex 4.04. YU- regn cancelled 20.2.04. Sold to Pennant Aviation, 9.06.	YU-AKR	Boeing 727-277 Adv	20549	1.4.90	Ex VH-RMV, (N275BN), N275WC. Aviogenex, leased 17.3.90 to 15.11.90. CoR ? Returned to N275WC.
YU-AKN	BAC 1-11 Srs 525FT	266	26.4.85	Ex YR-BCN. Inex-Adria Aviopromet, CoR 1478. Leased from Tarom, summer 26.4.85 to 31.10.85. Regn cld 25.10.85 and returned to YR-BCN but leased again later as YU-ANM 1986 (qv). (Note: This was the only 2-engined aircraft in this block)	YU-AKS	Yakovlev Yak-40	9120717	18.6.92	Ex Yugoslav AF 71502. Used by JAT from 26.12.92 to 10.11.93. CoR 1659. Returned to Yugoslav AF; to Skystar Express but unused and stored.
YU-AKO	Boeing 727-276 Adv	20951	3.4.90	Ex VH-TBL, TF-FLK. Aviogenex, leased 3.4.90 to 31.3.91. CoR ? Following return re-regd TF-AIA 20.5.91, Atlantic Island Air, then later N908PG.	YU-AKT	Yakovlev Yak-40	9222020	27.7.92	Ex Yugoslav AF 71503. To SUKL (Savezna Uprava za Kontrolu Letenja – Federal Administration for Air Traffic Control). CoR 1662. To Serbian AF as 71503 from .06.
YU-AKP	Yakovlev Yak-40	9120817	26.12.92	Ex Yugoslav AF 71501. Used by JAT 26.12.92 to 10.11.93. CoR 1660. Returned to Yugoslav AF service, grounded .95. Sold to Skystar Express, Serbia, probably .06 but unused and stored.	YU-AKU	Yakovlev Yak-40	9131523	.92	Ex Yugoslav AF 71504. Used by owner; regn cld but aircraft used with interim licence by Air Force. Grounded 10.04 as 71504.
					YU-AKV	Yakovlev Yak-40	9630849	27.7.92	Ex Yugoslav AF 71505. To SUKL. CoR 1663. Later to SMATSA still as calibration aircraft. Reported in Bosnian AF c/s 6.97.
					YU-AKW	Yakovlev Yak-40	9731255	.92	Ex Yugoslav AF 71506. Used by owner until .95. Sold to Skystar Express as YU-AKW in new blue livery. To Ukraine in late 2010 as UR-AKW.
					YU-AKX, -AKY, -AKZ	Registrations not used.			

**To be continued . . .**



**Above:** Yakovlev Yak-40 YU-AKT / 71503 used as a calibration aircraft by SUKL in the early nineties. (MV via O.Petrovic)

## The Whole Truth

# The DH.83 Fox Moth

Malcolm Fillmore

Part 1

**Above:** The prototype Fox Moth G-ABUO posed in this early publicity shot. Only the prototype had the wide chord interplane struts clearly seen in side-view.

(via JM Collection)



The DH.83 Fox Moth was designed by A E Hagg as a rugged and economical 4-passenger short-haul airliner, air taxi and joy-riding aircraft to meet the growing demand of the early 1930s. Using many standard Tiger Moth parts including the wings, tail, undercarriage and engine mounts attached to a new wood and ply fuselage and readily-available Gipsy III and Gipsy Major engines the aircraft was relatively cheap to produce. Of the 98 built pre-war a large proportion saw service overseas, in fact the Fox Moth served in all seven continents at one time or another! In addition 2 were built in Australia, with 54 built post-war in Canada and 7 copies were produced in Japan as the Gasuden KR-1 Chidori-go. Whether on wheels, skis or floats the Fox Moth proved itself to be civil and military workhorse to the extent that almost eighty years on airworthy examples can still be encountered today.

As may be expected, the individual histories which follow are compiled by Air-Britain's Moth specialist Malcolm Fillmore.

### Individual aircraft histories:

4000 Prototype, first flown without marks at Stag Lane 29.1.32. Regd **G-ABUO** [CofR 3639] 19.3.32 to The De Havilland Aircraft Co Ltd, Stag Lane. CofA 3459 issued 20.5.32. Operated by DH Chief Designer A E Hagg. To DH Canada, Toronto & cleared Customs 26.5.32. Operated on test by Canadian Airways Ltd using both floats and skis. Regn cld 1.33 as sold abroad. Regd **CF-API** [CofR 1290]

9.5.33 to De Havilland Aircraft of Canada Ltd, Toronto. Regd [CofR 1359] 27.11.33 to General Airways Ltd, Toronto [based Rouyn PQ]. Badly damaged when sank after float hit channel marker taxiing after landing in the Riviere Harricana at Amos, PQ 31.7.36; salvaged and repaired .36 by DH. Regd [CofR 1877] 14.1.37 to Ginger Coote Airways Ltd, Vancouver. Damaged in forced landing between Cheyenne, Wyoming & Salt Lake City, Utah 21.1.37; salvaged to Vancouver for repairs & reflown 7.37. Reported as sold 6.38 to Fleet Aircraft of Canada Ltd, Fort Erie, Ontario but unconfirmed & unlikely. Sold 16.11.38 & regd [CofR 2373/A284] 25.1.39 to FW Baillie t/a Baillie-Maxwell Fishing Co, Oakville, Ontario [based Nakina, Ont]. Regd [CofR 2750] 3.12.40 to Leavens Bros Air Services, Toronto. Regd [CofR 5951] 17.7.47 to Leavens (Northern) Ltd, Larder Lake. Badly damaged when overturned by gales Barker Airport, Toronto 14.1.50. Rebuilt 5.50 by Leavens as **CF-EVK** using spare fuselage c/n FM.54 (qv).

4001 Regd **G-ABUP** [CofR 3640] 3.32 to The De Havilland Aircraft Co Ltd, for use of Alan S Butler, Stag Lane. Regd [CofR 3787] 6.6.32 to Aviation Tours Ltd, Skipton (based Hanworth) and operated by British Hospital Air Pageants wef 4.33. CofA 3494 issued 17.6.32. Crashed on landing

**Right:** The Fox Moth made use of standard Tiger Moth wings although unlike the Tiger's they were designed to fold, reducing the storage width of the aircraft to 9ft 6in (2.9 m).

(via JM Collection)





**Left:** Entry to the Fox Moth for passengers was over the low wing and accommodation consisted of a forward-facing bench seat for two and a rearward-facing bucket seat for one which was often replaced by another two-seat bench. The cabin occupants could be observed by the pilot by means of a large peephole on top of the instrument panel!  
(via JM Collection)



**Above:** After arriving in Canada in 1932, c/n 4000 retained its British registration during trials. Here it still has the open pilot's cockpit during tests on Fairchild floats.  
(via JM Collection)

**Left:** Later, with an enclosed cockpit, the Fox Moth is seen on skis in below zero temperatures. The chief pilot of DH Canada, Mr Capreol, is on the right but his engineer is under the cover operating an engine heater!  
(via JM Collection)

**Right:** The prototype was registered in Canada as CF-API in 1933 and is captured here suspended from a jib midway between dockside and water, probably at Toronto. It appears to be wearing the name "Gwen" on the cowling, although the image is not sharp enough to be certain. It also has a second foothold below, and slightly forward of, the cockpit opening. (via JM Collection)



**Below:** The second Fox Moth, c/n 4001, was G-ABUP and was operated briefly by Alan Cobham's British Hospital Air Pageants before being written off in August 1933. (via JM Collection)



**Above:** Black and gold G-ABUT c/n 4002 was fitted with an enclosed cockpit, a Gipsy IIIA engine and had the fuel tank removed from the centre-section to the cabin to beat the handicappers and win the 1932 King's Cup at 124.25 mph flown by W L Hope.

**Below:** G-ABUT at Brooklands having just won the King's Cup on 9th July 1932. (both: Aeroplane via JM Collection)

Ashby, nr Scunthorpe 24.8.33 when pilot's seat fouled elevator control. Regn cld .34 [or 2Q.38] as pfwf. (Note: the engine was later used in TK.1 G-ACTK).

4002 Regd **G-ABUT** [CofR 3649] 3.32 to (DH Chief Designer) Arthur E Hagg, Stag Lane and used as demonstrator by De Havillands. CofA 3516 issued 28.6.32. Fitted with Gipsy IIIA (later renamed Gipsy Major) and winner of King's Cup Air Race 8/9.7.32; entered by Hagg and flown by W L Hope at 124.25 mph. Regd [CofR 3957] 15.9.32 to Surrey Flying Services Ltd, Croydon. Operated by 24 Squadron Hendon 14.9.39. Regn cld 4.4.40 as sold. Impressed as **X9304** 10.5.40; retained by 24 Squadron. To SDF Christchurch 16.7.40. To Lundy & Atlantic Coast Airlines Ltd, Barnstaple 3.9.40 for communications use. Soc for spares 12.11.41 by DH Witney.

4003 Allocated to DH South Africa as **ZS-ADE** but ntu. To Iona National Airways, Ireland with CofA 3515 issued 15.7.32. Regd **EI-AAP** 20.7.32 to Iona National Airways Ltd, Kildonan. Regd 2.12.33 to Lady Cathleen Nelson t/a Everson Flying Services, Kildonan. Regd [CofR 33] 22.3.35 to Dublin Air Ferries Ltd, Kildonan. To UK 31.8.38 and regn cld 18.9.38. Regd **G-AFKI** [CofR 8767] 27.9.38 to Hugh G Aitchison, Bexhill, [based Croydon, later Shoreham). CofA renewed 2.11.38. CofA lapsed 1.11.39. Regn cld 31.8.41 by Secretary of State. Reported as impressed 31.8.41 but untraced.





**Above, left:** The only Fox Moth to be registered in the Irish Republic was c/n 4003, EI-AAP which was bought by Iona National Airways. (via JM Collection)

**Above, right:** C/n 4004 G-ABVI was the first Fox Moth to be operated by Hillman's Airways, seen here in the well-known company colours before any titles, name or fleet number were added. (via JM Collection)

**Left:** G-ABVI's last owner was the Romford Flying Club, where this demonstration of prop-swinging was taking place. The bulge in the cabin door is clearly visible from this angle, as is the fact that the aircraft is unchoked. The young lady on the right is believed to be Joan Hughes, later of the ATA. (Keystone via JM Collection)

4004 Regd **G-ABVI** [CofR 3677] 3.32 to Phillips & Powis Aircraft (Reading) Ltd, Woodley. Regd [CofR 3781] 6.32 to Edward H Hillman t/a Hillman's Airways, Maylands; later named "Chris" and fleet no.5. CofA 3495 issued 17.6.32; delivered 18.6.32. Based Stapleford wef 5.34. Regd [CofR 6517] 25.11.35 to Hillman's Airways Ltd. Merged into British Airways Ltd 11.12.35 and rgd to them [CofR 6626] 10.1.36. Regd [CofR 6886] 1.4.36 to Hillman & Cross Ltd, Maylands; change of name 8.5.36 to Essex Aero Ltd. Operated by T Campbell-Black's British Empire Air Display and damaged on take-off after forced landing Ashgate, nr Chesterfield 13.4.36. Regd [CofR 7166] 6.7.36 to Laurence Lipton, Maylands. Regd [CofR 7930] 8.6.37 to Anthony O Humble-Smith, Bournemouth. Regd [CofR 8418] 25.3.38 to Romford Flying Club Ltd, Maylands. Destroyed in Romford Flying Club hangar fire Maylands 6.2.40. Regn cld 7.2.40.

4005 Regd **G-ABVK** [CofR 3679] 3.32 to Edward A Hillman t/a Hillman's Airways, Maylands; later named "Doreen" and fleet no.6. CofA 3456 issued 23.6.32. Based Stapleford wef 5.34. Regd [CofR 6558] 3.12.35 to Hillman's Airways Ltd. Merged into British Airways Ltd 11.12.35 and rgd to them [CofR 6625] 10.1.36. Regd [CofR 6961] 29.4.36 to Laurence Lipton, Maylands/Stapleford. Regd [CofR 7955] 23.6.37 to Pine's Airways Ltd, Porthcawl. Regn cld 29.12.39 as sold. Impressed as **X2867** 12.2.40. Used by ATA White Waltham. To DH Witney for major inspection 23.7.41. Soc 19.8.41.

4006 Regd **G-ABVJ** [CofR 3678] 3.32 to Eastern Air Transport Ltd, Skegness. CofA 3499 issued 24.6.32. Delivered 28.1.33 to [subsidiary] Skegness & East Lincs Aero Club, Skegness. Regd [CofR 4334] 12.4.33 to [proprietor] Michael D Llewellyn Scott, [following appointment of Receiver to Eastern Air Transport Ltd] t/a Eastern Air

Transport, Skegness. Sold [1.35] and regd [CofR 7220] 2.4.35 to Midland Airways Ltd, Sywell. Regd 28.7.36 to Clifford Wright, Ryde, IoW (based Brooklands). CofA lapsed 7.8.36 and regn cld 12.37 as pfwf. (Reported as dbf - probably whilst on overhaul at Brooklands 24.10.36).

4007 Regd **G-ABWB** [CofR 3719] 4.32 to Edward A Hillman, t/a Hillman's Airways, Maylands. CofA 3500 issued 5.7.32. Sold on as new and regd [CofR 3877] 7.32 to The Scottish Motor Traction Co Ltd, Renfrew. Regd [CofR 4591] 9.7.33 to North Sea Aerial & General Transport Ltd, Brough (for operations on Hull-Grimsby Humber Air Ferry service). Based Woolsington late .36. Regd [CofR 7573] 2.1.37 to Blackburn Aircraft Ltd, Waltham. Regd [CofR 8367] 3.3.38 to Graham H Jackson, Southampton. Departed Southampton 2.6.38 with Clive Bayly for Calcutta/New Guinea. Regn cld 27.2.39 as sold. Regd **VT-AKV** [CofR 367] 12.38 to D J Minwala, Karachi. Regd [CofR 367/2] 7.39 to unknown. Regn cld 30.7.41.

4008 Regd **G-ABWF** [CofR 3726] 4.32 to Edward A Hillman, t/a Hillman's Airways, Maylands. CofA 3501 issued 8.7.32. Sold on as new and regd [CofR 3878] 7.32 to The Scottish Motor Traction Co Ltd, Renfrew (later Turnhouse). Badly damaged in crash into ht cables Helmsshore, nr Haslingden, Lancs 31.1.33. Repaired at Stag Lane 4.33 and regd [CofR 4336] 13.4.33 to Airwork Ltd, Heston (but based Barton). Loaned to National Aviation Day Display [pilot Geoffrey Tyson] and damaged in collision with DH.60G EI-AAI near Limerick 7.7.33. Regd [CofR 5332] 1.9.34 to Arthur H Dalton, Heston. Departed Heston 11.10.34 [pilot Flt Lt Sullivan] for India for India Air Pageant tour. Operated by pilot, E R Andrews [possibly with Pageant] and hit tree on take-off Hattargi, 20 mls from Belgaum, India 28.3.35; Mr Pardhy of Karachi Flying Club killed. Regn cld 5.35 as pfwf.

4009 Regd **G-ABWD** [CofR 3721] 16.7.32 to The De Havilland Aircraft Co Ltd, Stag Lane (allocated to agents Brian Lewis & Co Ltd). CofA 3534 issued 27.7.32. Regn cld 7.32 as sold abroad. Regd **CH-344** 3.8.32 to Marcel Geneaux, Geneva-Cointrin. Crashed nr Lyon 30.4.33 [pilot Geneaux]. Regn cld 1.5.33.

4010 To DH Australia with CofA 3489 issued 15.6.32. Regd **VH-UQM** [CofR 449] 22.8.32 to De Havilland Aircraft Pty Ltd, Mascot; fitted with Gipsy III. Regd 22.9.32 to Holyman Bros Pty Ltd, Launceston; named "*Miss Currie*". Regd 18.10.32 on name change [1.10.32] to Tasmanian Aerial Services Pty Ltd, Launceston. Regd 10.33 on name change to Holyman's Airways Pty Ltd, Western Junction. Transferred 1.11.36 to Australian National Airways Pty Ltd, Melbourne [and regd to them 25.11.36]; operated 6.37 by Australian Aerial Medical Service, Broken Hill; named "*Dromana*". Later operated on Flying Doctor Services by Dr J G Woods. Destroyed in hangar fire Broken Hill 6.9.39.

4011 To DH Canada as set of components for local assembly. Regd **CF-ATV** [CofR 1215] 26.11.32 to G N (Norm) Irwin, Whitby, Ontario. Regn lapsed 25.11.33; renewed 15.3.34. Reported as sold .34 to C & J Austin t/a Austin Airways; but probably error for CF-ATX. Sold 29.1.35 & regd [CofR 1519] 30.1.35 to T B Fraser, Montreal. Regd [CofR 1960] 30.4.37 to Bruce Watt, St Hubert Airport, Montreal. Written off in forced landing on Riviere aux Outardes, nr Baie Comeau, PQ 18.9.37 following in-flight cabin heater fire. Regn lapsed 30.4.38.

4012 Regd **G-ABYO** [CofR 3874] 7.32 to The De Havilland Aircraft Co Ltd, Stag Lane (although originally allocated to Canada). CofA 3550 issued 16.8.32. Delivered 9.32 to Norman W G Edgar, t/a Norman Edgar & Co, Whitchurch; inaugurated scheduled services between Bristol & Cardiff 26.9.32; regd to him [CofR 4117] 5.1.33. Operated as Norman Edgar (Western Airways) Ltd wef 9.33. Reported as delivered 16.2.34 to Airwork Ltd at Barton and to Heston 28.4.34. Crashed & dbf Caerwent, Monmouth 16.6.34; 1 passenger killed. Regn cld 5.35 as pwfu.

4013 To Mosawa & Co, **Japan** with CofA 3539 issued 22.7.32. Probably operated by Japan Aerial Transport Co.

4014 Regn **ZS-ADE** (2nd allocation) reserved for DH South Africa but ntu. Regd **G-ABZA** [CofR 3900] 26.8.32 to Thomas G Mapplebeck, Stag Lane/Belgrade. CofA 3565 issued 30.8.32 and dd ex Heston to Aeropot 31.8.32. Regn cld 9.32 as sold abroad. Regd **UN-SAK** [CofR 32] 5.10.32 to Societé de Navigation Aérienne Yougoslave (Aeropot), Belgrade. Reregged **YU-SAK** 9.33, Aeropot. To Army Air Arm (VV) 4.41 and regn cld 4.41 as destroyed.

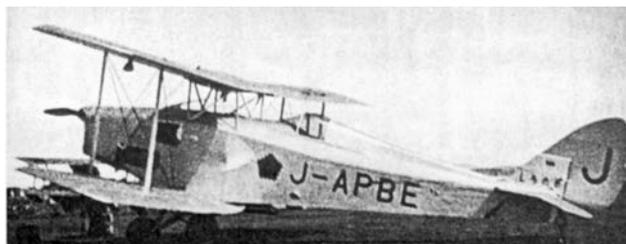
4015 Regd **G-ABXS** [CofR 3796] 6.32 to Major Herbert G Travers, Stag Lane. CofA 3570 issued 7.9.32. Regd [CofR 4153] 1.33 to Philip A Wills, Stag Lane. Loaned to HRH The Prince of Wales 5.4.33-6.33. Possibly sold 6.33 to unknown party. Sometime operated by Ayrshire Aero Club (unconfirmed?). Regd [CofR 5762] 2.4.35 to The Hon Brian Lewis, t/a Brian Lewis & Co, Heston [Elstree wef



**Above:** G-ABYO c/n 4012 was a "Speed Model" Fox Moth with enclosed cockpit, perhaps because of intended sale to Canada, but operated for a time by Western Airways. (via JM Collection)



**Above:** J-BIEG was supplied to the Japanese Aerial Transport Co and may have been c/n 4013 and intended as a pattern aircraft for the KR-1 copies. Alternatively c/n 4013 may have become the modified J-APBE operated by a police unit in Manchuria - **Below**. (via JM Collection)



5.35]. Regn cld 7.35 as sold (allegedly to Prince E de Linge?). Regd **VH-UVL** [CofR 541] 6.9.35 to MacRobertson Miller Aviation Co Ltd, Maylands; operated for Aerial Medical Service, Port Hedland, WA. Badly damaged in hangar collapse in cyclone Port Hedland 11.1.39. Sold 2.6.39 & regd 3.4.40 to Sidney D Marshall, Sydney [CofA renewed 12.3.41]. Regn cld 12.10.42. Impressed into RAAF as **A41-2** 7.10.42. To 4 EFTS Mascot 21.10.42. To 1 RCF Garbutt 8.11.42; renamed 1 RCS 4.12.42. To 8 CU Goodenough Island 5.11.43. Soc 17.11.43. To 26 RSU Madang 23.11.43, and reduced to spares 30.11.43. New airframe built in New Zealand [early 90s] and sold [10.93] to Ken Orrman, Shepparton, Australia as VH-UVL. Regd **VH-UVL** [reserved .98] 27.7.00 to Ken E Orrman, Shepparton, Vic; painted in RFDS c/s "*John Flynn*". Regd 9.4.02 to Dr Roy Fox, Kellyville, NSW [based Bankstown].

4016 To Mosawa & Co, **Japan** with CofA 3673 issued 29.11.32. Possibly used by Japan Aerial Transport Co.

**Right:** Fox Moth G-ABZM c/n 4018 flown by The Master of Sempill who performed the opening ceremony of the Westgate Motor House Co's private aerodrome at Down Hatherley, Gloucester on 27th September 1932. (via JM Collection)





**Above, left:** C/n 4022 G-ABZN spent two years in hot, dry Egypt as SU-ABA and was later sold to somewhat colder climes in Sweden as SE-AFL.

**Above, right:** First of the New Zealand Fox Moths, ZK-ADC c/n 4025 had an open cockpit.

**Left:** This low-quality photo had a caption about delivering cattle vaccine in the Okavanga region of South Africa. It must surely show Aerial Farming Services ZS-CFP c/n 4023 or ZS-CFR c/n FM33.

(All: via JM Collection)

- 4017 Regd **G-ABYR** [CofR 3891] 11.8.32 to The De Havilland Aircraft Co Ltd, Stag Lane and winner of Hillman Trophy Race 24.9.32, piloted by Hugh Buckingham at 110.75 mph. CofA 3668 issued 22.11.32 to DH Australia. Regn cld as sold 11.32. Regd **VH-UQR** [CofR 458] 21.3.33 to Guinea Airways Ltd, Salamaua, NG [dd Lae 15.3.33 on SS Montoro]. Damaged in crash on take-off Bulwa 30.10.33; flown to Lae inside Junkers G31 and rebuilt. Overturned on landing 14.9.37 [location unknown]; repaired [CofA renewed 20.10.41?]. Destroyed by enemy action Salamaua, New Guinea 21.1.42. Regn cld 11.3.42.
- 4018 Regd **G-ABZM** [CofR 3912] 23.9.32 to The De Havilland Aircraft Co Ltd, Stag Lane. CofA 3588 issued 23.9.32. Sold 17.1.33 to Wilhelm M Omsted, Oslo (and regn **LN-ABP** allotted) but crashed in North Sea off Norwegian coast en route Heston to Oslo 23.1.33; Omsted and Lt Sigurd J Aagenaes [or Aagnes] killed. One wing washed up in Norway 2.2.33. Regn cld 4.33 as pwf.
- 4019 To DH Australia with CofA 3672 issued 24.11.32. Regd **VH-UQS** [CofR 457] 21.3.33 to De Havilland Aircraft Pty Ltd, Mascot. Sold 31.10.33 and regd 6.11.33 to Guinea Airways Ltd, Salamaua, NG [dd Port Moresby 9.11.33 on SS Montoro]. Damaged when overturned Wau 3.34; repaired. Crashed Sandy Creek 14.10.35. Regn cld 5.11.35. Regd 11.37 to same owner. Crashed nr Surprise Creek, New Guinea 5.3.38 and dbf [pilot E W Ditton]. Regn cld 12.3.38.
- 4020 To DH Australia with CofA 3623 issued 20.10.32. Regd **VH-UQP** [CofR 452] 9.12.32 to W R Carpenter & Co Ltd, Salamaua, NG; named "*Jacqueline*"; dd 14.1.33. Change of name 9.36 to Mandated Airlines Ltd [and regd to them 16.10.36]. Crashed nr Golden Ridges, NG 15.3.40; Brian Carpenter injured; salvaged and rebuilt. Crashed Bitoi Valley, New Guinea 30.10.41 [pilot F Bryce]. Regn cld 17.11.41.
- 4021 To DH Australia with CofA 3625 issued (to DH) 26.10.32. Regd **VH-UQQ** [CofR 453] 9.12.32 to W R Carpenter & Co Ltd, Salamaua, NG; named "*Jill*"; dd 5.1.33. Hit trees in cloud on The Watut, Bitoi Valley, New Guinea 16.12.34; pilot E D Crisp. CofA suspended same day. Regn cld 20.5.35.
- 4022 Regd **G-ABZN** [CofR 3913] 28.9.32 to The De Havilland Aircraft Co Ltd, Stag Lane. CofA 3593 issued 1.11.32. Regn cld 3.33 as sold abroad. Sold to Airwork Ltd and regd **SU-ABA** 3.33 to Misr Airwork Ltd, Cairo/Almaza. Returned to UK and regd **G-ABZN** [CofR 6134] 29.7.35 to Airwork Ltd, Heston. CofA renewed 14.8.35. Sold early '36. Regn cld 9.36 as sold. Flown London-Schiphol-Hamburg-Kastrup-Goteborg-Bromma on delivery 9.36 by A Hansson. Damaged Leksand during ferry flight; to ASJA for repairs. Regd **SE-AFL** [CofR 152/CofA 201] 5.3.37 to Per A Nilsson & Jonas E Andersson, Skarvangen/Hammerdal [operated on floats during summer]. Crashed and sank Lake Laxsjon 7.6.38; salvaged and repaired. Sold 15.10.38 to G Unger & K S Gunnerfeldt, Hammerdal/Ostersund. Sold 18.1.39 to GE Rahm & KG Unger, Ostersund/Hammerdal. Regd 31.8.42 to Motor AB Ess, Gavle. Operated by Ostersunds Flygklubb. Ran out of fuel and crashed nr Ostersund 24.3.44; regn cld 28.4.44. Remains/parts sold to Mr Harkmann, Borlange and then '89 to G Claesson, Karemo. Three wings sold '90 to Bjorn Blomstrand, Vastervik to be used in construction of DH.60 SE-BBT/SE-AMO.
- 4023 To DH South Africa with CofA 3624 issued 25.10.32. Regd **ZS-ADH** 12.12.32 to Capt SS Halse, Johannesburg. To Johannesburg Light Plane Club, Baragwanath. Regn cld 6.1.36. Regd **VP-YBD** 1.36 to Capt E H Spencer, Victoria Falls. Regd (.46) to Spencer's Airways Ltd, Victoria Falls. Regn cld pre.47. Sold by Capt E H Spencer's estate in airworthy condition 6.47. Regd **VP-RCE** .51 to J Gordon Watt, Livingstone. Reregid **VP-YLS** .54. Regn cld .56. Regd **ZS-CFP** 17.4.57 to Aerial Farming Services Ltd, Rand. Crashed into wall during spraying operations on take-off Oranjeville, OFS 24.1.58.
- 4024 To Misr Airwork Ltd, Egypt with CofA 3633 issued 3.11.32. Regd **SU-ABG** .32 to Misr-Airwork Ltd. Returned to Heston [by 8.35]. Regd **G-ADNF** [CofR 6147] 13.8.35 to Charles T Berry, Hunstanton and operated by Air Trips Ltd. CofA renewed 21.8.35. Crashed on take-off Hunstanton 11.8.35 [probably later] and badly damaged. Regn cld as sold 10.38 (and CofA renewed 1.10.38). Regd as **VH-ABQ** [CofR 731] 16.2.39 to Kevin Parer, t/a Wewak Air

**Left:** C/n 4026 is now in reality a rebuild of the remains of FM.7 which took over the identity of NC12739 which crashed in 1939. The modern N12739 is current in this eye-catching paint scheme. (via JM Collection)



Transport, NG. Renamed Parer's Air Transport Co [9.39]. Destroyed by enemy action 3.42. Regn cld 11.3.42.

4025 To Southland Aero Club, New Zealand with CofA 3631 issued 2.11.32; shipped per SS *Pakeha*; arr NZ 11.1.33. Regd **ZK-ADC** 27.1.33 to Southland Aero Club, Invercargill. Ff after erection 14.1.33. Leased 10.12.36 to A J Bradshaw t/a Southland Airways. Crashed into surf on landing at Big Bay, Fiordland, West Coast 30.12.36; pilot Bradshaw; 1 passenger killed. Regn cld.

4026 Regd **G-ABZD** [CofR 3903] 26.9.32 to Anthony F H Gee, Stag Lane. Sold by DH to Troubridge Heaton 21.10.32 (and thus Gee probably only nominee). CofA 3626 issued 27.10.32. Regn cld 12.32 as sold abroad. Regd **NC12739** 15.1.33 to Troubridge Heaton, San Mateo, CA (later New York). Regd 21.1.38 to Fanny Martino, Floyd Bennett Field, NY. Regd 13.7.38 to Paul R Smith, Flushing, NY. Crashed .39; regn cld 19.8.39. Identity used in early 60s for CF-BNO (c/n FM.7), which became N12739. The "left-over" remains of FM.7 from its 1976/80 rebuild were sold to Joel Hirtle [see FM.7] for use in rebuild. Regd **N12739** 1.11.95 to Joel M Hirtle, Westerville, OH. Regd 9.1.97 to Joel M & Leeza E Hirtle, Westerville, OH. Current. [Whilst reported [01] on rebuild by Jan Cooper of Newbury Aeroplane Co, Denford Manor, Hungerford, this was an error for c/n 4085, being separately rebuilt by Bill Cooper – no relation]

4027 To Brazilian Naval Air Service (Escola de Aviacao Naval) and used for general utility, ambulance, survey and communications as code **I-3-H-92** with CofA 3691 issued 15.12.32.

4028 To MAEE Felixstowe as floatplane **E.10** for CofA tests 1.33 and issued with Type Certificate No.400. To Brazilian Naval Air Service (Escola de Aviacao Naval) as code **I-3-H-93** with CofA 3758 issued 10.2.33. Absorbed into Forca Aerea Brasileira .41 and given serial **PT-MT 0017**.

4029 To Brazilian Naval Air Service (Escola de Aviacao Naval) as code **I-3-H-94** with CofA 3707 issued 21.12.32.

4030 To Brazilian Naval Air Service (Escola de Aviacao Naval) as code **I-3-H-95** with CofA 3708 issued 21.12.32.

4031 To Brazilian Naval Air Service (Escola de Aviacao Naval) as code **I-3-H-96** with CofA 3709 issued 22.12.32. Absorbed into Forca Aerea Brasileira .41 and given serial **PT-MT 0016**.  
Note: Two of the five Brazilian Navy Fox Moths (4027-



**Above:** Registered E.10 under B Conditions, this Fox Moth on floats is believed to be c/n 4028 which received a floatplane Type Certificate early in 1933. [C/n 4090 being another possibility] It was delivered to the Brazilian Naval Air Service as I-3-H-93. (via JM Collection)

**Below:** In all five Fox Moths were supplied to the Brazilian Naval Air Service. This unidentified landplane is marked 'Marinha' but the serial is not visible. (Museo Aeroespacial via JM Collection)



4031) were later coded **3-D-5** & **3-D-9** but no identity tie-ups etc confirmed.

4032 To DH India with CofA 3723 issued 6.1.33. Regd **VT-ADZ** [CofR 170] 9.3.33 to Tata Sons Ltd, Bombay. Regd [CofR 170/1] 13.3.37 to Indian Aviation Development Co Ltd, Bombay. Regd 1.5.39 to Air Union Joy Riding Co, Bombay. Regd [CofR 170/3] 6.39 to unknown. Crashed 23.4.40; presumed repaired. Regn cld 26.3.51, reduced to spares.

4033 Regd **G-ACAJ** [CofR 4009] 19.11.32 to Flt Lt Edward H Fielden, Hendon for HRH Prince of Wales. Regn ntu and reregd **G-ACDD** [CofR 4097] 6.12.32. CofA 3688 issued 17.12.32. Regd [CofR 4282] 21.3.33 to The De Havilland



**Above:** Tata Air Line Fox Moth VT-ADZ c/n 4032 outside a typical small shelter used at outstation aerodromes - which would take three aircraft with wings folded! (via JM Collection)

Aircraft Co Ltd, Hatfield. Regn cld .33 as sold. Regd **OO-ENC** [CofR 287] 30.3.33 to Roger Guy Hansez, Antwerp. Flown by him to 2nd place in Egyptian International Air Rally/Circuit of the Oases 18-24.12.33. Flown by Hansez from Antwerp to Leopoldville in 4.5 days; departing 24.3.34, arr 28.3.34; return flight dep 3.4.34, arr 11.4.34. Regn cld 21.5.35. Regd **G-ACDD** [CofR 5976] 14.6.35 to Malcolm & Farquharson Ltd, Heston. CofA renewed 15.7.35. Regn cld 7.35 as sold. Regd in New Zealand as **ZK-AEK** [CofR 45] 18.10.35 [18.12.35?] to Air Travel (NZ) Ltd, Hokitika. Crashed on Franz Josef Glacier 29.10.43; [pilot O D Openshaw], later salvaged and rebuilt by DH at Rongotai using new fuselage [No. C1989]; reflown by 21.5.44. Taken over by New Zealand National Airways Corporation 1.10.47; named "*Mohua*". Regd 1.10.53 (or 3.12.53) to W K [Keith] Wakeman of Aerial Sowing (Canterbury) Ltd. Regd 13.9.54 to C A Wornall;

named "*Duke*". To Airwork [NZ] Ltd, Christchurch, from whom bought 26.3.57 by Ray Sweeney. Regd 26.3.57 to Brian N McCook. Regn cld 1.4.57 and shipped to Fiji aboard "*Matua*" [or MV *Tofua*] 6.4.57. Regd **VQ-FAT** 10.4.57 to Brian N McCook, Suva for operation by Air Viti as freighter. Airframe found to be deteriorated at Nausori and CofA suspended 29.10.57. Fuselage burned in fire practice Nausori late 50s. Parts salvaged by Don Nairn, Wellington 9.59 and returned to New Zealand for use in rebuild. Regn cld 26.11.59 as wfu. A new fuselage was built by Myles Robertson, Auckland [.86] and Nairn's parts were sold .90 to Colin Smith and incorporated into this fuselage, which had been acquired from Myles



**Above:** A pristine c/n 4033 as G-ACDD in the Prince of Wales' chosen Guards colours of royal blue and crimson, the cabin interior was finished in burgundy leather. Nice polished cowlings and spats too. (via JM Collection)



**Left:** A pleasing air-to-air of G-ACDD which initially only wore these marks for a little under four months. (Aeroplane via JM Collection)

Robertson's estate, for rebuild as "G-ACDD" for Roger Fiennes. Regd **ZK-AEK** 22.3.93 to Croydon Aviation Heritage Ltd [Colin Smith], Mandeville. Reflown 5.5.93, painted (with NZ regn still on the tail) as G-ACDD and shipped to Oshkosh for Roger Fiennes; to UK 8.93 and based Headcorn but never regd in UK. Returned to New Zealand 11.93. Sold and regd 13.1.94 to Alpine Fighter Collection [Sir Tim Wallis], Wanaka; repainted as ZK-AEK [96]. Regn cld 7.2.07. Regd **CF-YPM** 7.2.07 to 6565441 Canada Inc, Gatineau, Ottawa (painted as C-FYPM). Regd 23.4.07 to Vintage Wings of Canada/Les Ailes d'Epoque du Canada [Mike Potter], Gatineau, Quebec. For sale [8.10].

*\*Note: A composite airframe, painted as ZK-AEK, was completed for display [3.02] at the Museum of Transport & Technology, Auckland.*

4034 To DH South Africa with CofA 3710 issued 28.12.32. Regd **VP-YAD** 6.6.33 to Rhodesian Aviation Co, Bulawayo [also reported as bought from Ronald Starkey 8.33 on hp]. Entered service 27.7.33. Transferred 12.10.33 to (successor company) Rhodesian & Nyasaland Airways Ltd. Damaged Port Harcourt 14.11.36; repaired. Crashed 22.5.37. Airframe used for spares by owner.

4035 To DH South Africa with CofA 3712 issued 30.12.32. Regd **VP-YAK** 11.3.33. Possibly the DH.83 sold to London Rhodesian Mining & Ranching Co, as the personal aircraft of Digby Burnett. Regd **ZS-AEW** 22.6.34. [A DH.83 was acquired by Johannesburg Aero Club 2.38; this appears to be the only candidate]. Impressed as **SAAF 1413** .40. Regd [1.47] as **ZS-AEW** (probably at Baragwanath). Delivered to Eastleigh, Kenya 12.1.47 and regd 4.47 as **VP-KDS** to Noon & Pearce Air Charters Ltd, Nairobi West. Regd 26.10.51 to N E Waugh, Bukoba, Tanganyika. Undercarriage collapsed on landing Entebbe 15.3.52. Not repaired and regn cld 1.54.



**Above:** C/n 4033 was sold to Guy Hansez in March 1933 as OO-ENC and made several long-distance flights. However here we see it flown by Hansez while passenger Rex Newman attempts to flour-bomb a donkey at Antwerp on 15.7.34. (via JM Collection)

**Below:** Later in New Zealand as ZK-AEK, c/n 4033 is seen flying along the coast accompanied by DH.60M ZK-AEJ. (via JM Collection)



**Above:** ZK-AEK came to grief on the Franz Josef Glacier on 29.10.43 but was comprehensively rebuilt at Rongotai with a new fuselage.

**Left:** Another new fuselage was needed to restore ZK-AEK in the nineties when, also painted as G-ACDD it visited Oshkosh, and later Woburn, in summer 1993. (Both: via JM Collection)



**Above:** Canadian Airways Fox Moth c/n 4038 CF-APG on skis.

**Below:** C/n 4039 was intended for the Udet company in Germany but although it was registered as D-2408 there is no evidence that it was delivered from the UK. (Both: via JM Collection)



**Above:** Eventually finding its way to Australia, c/n 4039 appears to have flown through the war years as VH-UTF, becoming VH-RAL following a rebuild in the early 1950s and after two crashes it finally expired, as VH-UAL, in 1968. (via JM Collection)

- 4036 Regd **G-ACBO** [CofR 4058] 12.32 to Mrs Elizabeth J Richardson, Lincoln (based Stag Lane). (Initially allocated to DH India). CofA 3697 issued 17.1.33. Sold 10.33 to M Le Comte L de Mailly-Nesle for flight to Indo-China, via Greece, Syria, Iraq, India & Burma. Regd [CofR 5378] 1.10.34 to George Edge, Nairobi. Regn cld 11.34 as sold abroad. Delivered 29.11.34 and regd **VP-KBH** 29.11.34 to East African Airways Ltd, Nairobi. Regd **VP-YBM** 20.2.37 to E H Spencer, Victoria Falls; operated by Southern Rhodesia Air Services .41. Current [46].
- 4037 To Canadian Airways Ltd as set of components for local assembly. Regd **CF-APF** [CofR 1254] 3.3.33 to Canadian Airways Ltd, Montreal. Regd [CofR 2099/A97] 5.6.37 to Yorkton Airways Ltd, Yorkton, Sask. Regd [CofR 2411] 25.4.39 to J E Cosco, Sioux Lookout, Ontario. Dbf Sioux Lookout 28.10.39 when sparks from adjacent scrub & dead timber burning were blown on to airframe.
- 4038 To Canadian Airways Ltd without UK CofA. Regd **CF-APG** [CofR 1255] 24.2.33 to Canadian Airways Ltd, Montreal. Merged into Canadian Pacific Airlines 7.42. Badly damaged in windstorm Cartierville, Quebec 24.9.42 and wfu.
- 4039 To Udet, Germany with CofA 3736 issued 17.2.33. Regd **D-2408** .33 to Udet Schlepsschrift GmbH; probably not delivered. Regd **G-ACID** [CofR 4402] 23.6.33 to Leonard

StC Ingrams, Heston. CofA reissued 23.6.33. Regn cld 2.35 as sold abroad (although CofA renewed 13.5.35). Regd in Australia as **VH-UTF** [CofR 533] 9.7.35 to MacRobertson Miller Aviation Co Ltd, Perth; named "Dunbar Hooper" 29.6.35; operated by Australian Aerial Medical Service, Wyndham. Damaged on landing Victoria River 18.5.37; repaired. Regd 14.9.38 to George W Lewis, t/a Goldfields Airways, Kalgoorlie, WA; operated for Australian Aerial Medical Service. Regd 12.2.46 to R M Edwards, Darwin. Regd 17.6.47 to H V Moss, Darwin. Regd 10.2.50 to Max Bond, Parafield. Regd 29.3.50 to Robbys Aircraft Repair Co Ltd, Parafield. CofR lapsed 14.7.50 [or 14.10.50]. Regn cld 6.8.51. Rebuilt and regd **VH-RAL** 17.4.53 [or 22.5.53] to Robby's Aircraft Repair Co Ltd, Parafield. Regd 19.3.56 to Australian Aircraft Sales, Sydney. Regd 11.8.58 to Australia Aircraft Sales Pty Ltd, Sydney. Regd 9.12.58 to M Kennedy, Caringbah, NSW. Regn cld 20.7.61. Regd 10.62 to Austerserve Pty Ltd, Bankstown. Regd **VH-UAL** 5.4.63 to same owner. Regd 30.5.63 to D R Walters, Toowoomba, Qld. Badly damaged in crash Fraser Island, Queensland 2.5.64; repaired. Regd 20.4.66 to PJ Pastoral Co, Goomeri, Qld. Crashed off Carlisle Island, Queensland 1.8.68. Regn cld 1.8.68.

- 4040 Regd **G-ACBZ** [CofR 4068] 24.1.33 to John C Sword and operated by Midland & Scottish Air Ferries Ltd, Renfrew. CofA 3735 issued 2.2.33 (and dd 8.2.33). Company ceased trading 9.34 and aircraft "sold to dealer in the South". CofA lapsed 9.3.35. Regn cld 12.36 as sold abroad. Bought 2.2.37 and regd **VH-UZD** [CofR 631] 1.4.37 to Qantas Empire Airways Ltd, Archerfield. Hit trees on take-off Helen Springs 30.6.42; repaired. Hit post taxying Creswell Downs 21.10.45; repaired. Hit fence in crosswind take-off Burketown, Queensland 10.1.48; repaired. Transferred to Lae, NG 1.3.49. Crashed Taipini, New Guinea 3.10.49 whilst searching for strip, badly damaged and abandoned as inaccessible. Regn cld 3.3.50 [or 17.11.49].
- 4041 Regd **G-ACCA** [CofR 4069] 24.1.33 to The Hon Brian E Lewis, t/a Brian Lewis & Co, Heston. CofA 3738 issued 2.2.33. Sold 7.33 and regd [CofR 4661] 27.9.33 to Portsmouth, Southsea & Isle of Wight Aviation Ltd, Portsmouth. Damaged in aborted take-off Portsmouth Airport 8.8.33; repaired. Regn cld 1.36 as sold. Regd in Australia as **VH-UTY** [CofR 531] 4.6.35 to George W Lewis, t/a Goldfields Airways, Kalgoorlie, WA. Sold 18.10.40 and regd 21.10.40 to Guinea Airways Ltd, Adelaide. Regd 20.8.52 to Kingsford Smith Aviation Services Pty Ltd, Bankstown. Regd 2.9.52 [or 2.9.53?] to Papuan Air Transport, Port Moresby. Crashed in swamp Lake Myola, nr Kokoda, New Guinea 17.11.53. Regn cld 20.2.54.
- 4042 Regd **G-ACCB** [CofR 4070] 24.1.33 to John C Sword and operated by Midland & Scottish Air Ferries Ltd, Renfrew. CofA 3734 issued 10.2.33 and dd 13.3.33. Company ceased trading 9.34 and stored Blackpool. Regd [CofR 6613] 1.1.36 to The Giro Aviation Co, Hesketh Park. Stored during war and regn cld 1.12.46 at census, but



**Above:** G-ACCA c/n 4041 of Portsmouth, Southsea and Isle of Wight Aviationcomplete with spats at Portsmouth. (via JM Collection)

**Right:** One of the two Giro Aviation Co Fox Moths which operated pleasure flights from Southport beach pre-war, c/n 4042 G-ACCB, and its companion G-ACEJ, was stored during the war but resumed operations in 1947 until it was forced to ditch in shallow water and nosed-in on 25.9.56. The aircraft has been a long-term rebuild project for many years. (via JM Collection)



restored shortly thereafter. CofA renewed 2.4.47. Regd 25.1.48 to Giro Aviation Co Ltd [although coy formed 8.46]; operated joy flights from Southport Beach. Crashed on take-off Southport Beach 30.8.52; repaired. Crashed on take-off Thrupton 29.3.56; repaired. Ditched in sea opposite Palace Hotel, Southport 25.9.56. Subsequently used as spares source for G-ACEJ. Regn cld 27.4.64 as pwf. Sold 7.66 to Rollason Aircraft & Engines Ltd, Croydon (with G-ACEJ). Fuselage acquired by Midland Aircraft Preservation Society, Coventry .68 [but still at Croydon 3.69]. Later stored Midland Air Museum, Baginton. Regd 23.3.88 to Ian Bruce Grace, Shedfield, but not delivered. Regd 17.8.88 to Edward Alfred Gautrey, Nuneaton (later Bedworth) and on long term rebuild [10.95].

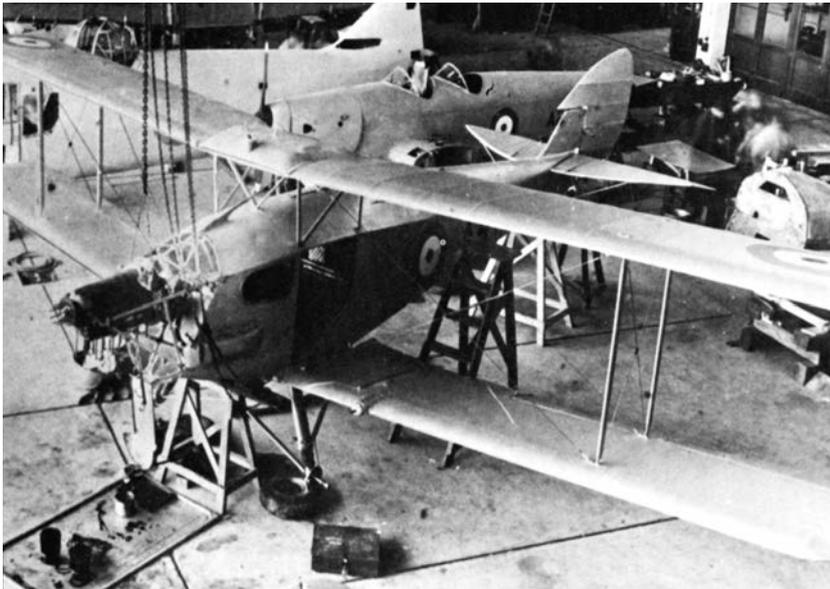
4043 To DH India with CofA 3787 issued 28.2.33. Regd **VT-AEA** [CofR 173] 1.5.33 to The Bombay Flying Club Ltd, Bombay. Regn cld 10.7.41.

4044 Regd **G-ACCS** [CofR 4086] 13.2.33 to The Committee of the British Mount Everest Flight (Houston - Mount Everest Expedition), Heston; as support aircraft for Everest flight. CofA 3759 issued 8.2.33. Departed Heston 16.2.33; flown by The Marquis of Clydesdale. Badly damaged in sandstorms when torn from pickets Allahabad (or Purnea) 12.3.33 (or 13.3.33). Rebuilt by DH and for sale 12.33 as speed model with coupe head. Sold to Air Transport & Sales Ltd, London W1 [who advertised it for sale 2.34].

Sold to Hanleys Ltd (probably Henlys Ltd). Regd [CofR 5305] 16.8.34 to John A Mairs, Portrush, Co.Antrim. Regn cld 8.36 as sold. Regd in Australia as **VH-UUS** [CofR 624] 18.1.37 to Mandated Airlines Ltd, Wau, New Guinea; named "Irene". Overturned on landing following engine failure Pancake Strip, NG 3.9.37; rebuilt and reflowed 10.38. Sold 25.6.42 & regd 6.7.42 to Qantas Empire Airways Ltd, Sydney. Regn cld 23.8.43. Impressed into RAAF 27.7.43 as **A41-3**. To 3 AD Archerfield 8.8.43 and conv to air ambulance. To 2 AAU Archerfield 17.12.43. To 2 AD Evans Head 31.1.45 and to 1 AD Laverton 9.2.45. Sold 22.2.46 to Federal Methodist Inland Mission, Melbourne (for £250). Sold 11.11.47 and regd **VH-UUS** 24.12.47 to C W Lanham, Mount Isa, Qld. Regd 13.4.55 to Joh & A Bjelke-Petersen. Kingaroy, Qld. Regd 15.10.60 to Cropair Aviation Pty Ltd, Runcorn, Qld. Regd **VH-CCH** 31.3.64 to same owner. Crashed at Barney View, Queensland 6.12.65 and regn cld same day. Remains to Archerfield [11.66]. Sold to Maj C A Miller, O'Connor, Canberra (although stored Clifton, Queensland, with parts of VH-UAL after its ditching). Reported as sold to Strathallan Aircraft Collection, Scotland, but export licence refused. On rebuild Fairburn, Canberra c73. Stored in Miller's shed at Carinya, nr Geary's Gap, NSW but destroyed in bushfire 13.2.79. Remains sold to Max Horsecroft, Perth, WA. On "rebuild" [91] by Doug Muir, nr Armadale with new fuselage from Myles Robertson & Stan Smith, Auckland, NZ.



**Above:** The support aircraft for the Lady Houston expedition to fly over Mount Everest included Fox Moth G-ACCS c/n 4044, seen here preparing to leave Heston on 16.2.33, to be flown by the Marquis of Clydesdale. (via JM Collection)



**Above:** C/n 4046 G-ACCF gets airborne - from a small contact print. (via JM Collection)

**Left:** The Royal Australian Air Force impressed four Fox Moths including c/n 4047 VH-ABU, seen here as A41-1 with 35 Squadron, Pearce where it was being overhauled alongside an Anson and a Moth Minor. (via JM Collection)

4045 To DH India with CofA 3822 issued 21.3.33. Regd **VT-AEB** [CofR 174] 1.6.33 to Government of Bengal, Calcutta. To Indian National Airways. Regn cld 2.8.43.

4046 Regd **G-ACCF** [CofR 4074] 2.2.33 to Charles W A Scott, Colchester. CofA 3746 issued 23.2.33. Regd 11.33 to Provincial Airways Ltd, Croydon. Crashed on take-off Doncaster [also reported as Dorchester] 25.6.34; repaired. Regd [CofR 5702] 18.3.35 to British Air Transport Ltd, Redhill. Regd [CofR 8458] 14.4.38 to Redhill Flying Club Ltd, Redhill. Sold 6.39 by Nash Aircraft Sales & Hire Ltd, Croydon. Sold c9.39 (but not regd) to Hugh G Aitchison, Gatwick. CofA lapsed 16.7.40 and regn cld 31.8.41 by Secretary of State. Surveyed for impressment by 41 Group, but found to be in poor condition in care of Southern Aircraft and with problems over ownership. *Possibly later destroyed by bombing?*

4047 Regd **G-ACCT** [CofR 4087] 13.2.33 to John C Sword; operated by Midland & Scottish Air Ferries Ltd, Renfrew (bought through Brian Lewis & Co). CofA 3760 issued 7.3.33 and dd 8.3.33. Company ceased trading 9.34. Regd [CofR 6106] 24.7.35 to Glyn Roberts, t/a West of Scotland Air Services, Renfrew. Damaged in trees on take-off Inveraray 24.9.35; repaired. Transferred 4.37 to new company West of Scotland Airways Ltd. Regn cld 20.11.37 as sold abroad. Regd in Australia as **VH-ABU** [CofR 687] 20.1.38 to James Taxiplanes Ltd [V H James], Maylands. Impressed into RAAF as **A41-1** 16.7.41. To SHQ Pearce 20.7.41. To 35 Sqn Pearce 2.3.42. Forced landed and damaged 18.12.42; to repair at MMA Maylands 29.12.42; returned to 35 Sqn 6.4.43. To Archerfield for overhaul 16.1.44. To 3AD Archerfield 20.9.44. To 2 AAU

Archerfield 4.10.44. Conv to air ambulance 16.11.44. To CMU Evans Head 6.11.45 for disposal. Sold 22.2.46 to Federal Methodist Inland Mission, Kew, Victoria (for £250). Regd **VH-ABU** 12.3.46 to Methodist Inland Mission, Nundah, Qld; later Mount Isa, Qld [flown by Rev C W Lanham as air ambulance]. Regd **VH-GAV** 20.10.48 to Guinea Air Traders Ltd. Lae. Crashed Bulolo, New Guinea 25.4.49 and regn cld 20.7.49.

4048 Regd **G-ACCU** [CofR 4088] 13.2.33 to John C Sword; operated by Midland & Scottish Air Ferries Ltd, Renfrew. CofA 3761 issued 3.3.33. Company ceased trading 9.34 and aircraft sold to dealer in "South". CofA lapsed 4.4.35. Regn cld 12.36 as sold abroad. Bought 2.2.37 and regd in Australia as **VH-UZC** [CofR 628] 23.3.37 to Qantas Empire Airways Ltd, Archerfield. Regn cld 23.8.43. Impressed into RAAF as **A41-4** 27.7.43. To 3 AD Archerfield 8.8.43 and conv to air ambulance. To 2 AAU Archerfield 13.9.43. Hit wires during forced landing Miles, nr Dulacca, Queensland 20.3.45. Wreck to 3 CRD Amberley 27.3.45 and soc 31.5.45.

4049 Floatplane to DH Canada as set of components for local assembly. Regd **CF-ATX** [CofR 1266] 27.4.33 to Robert Cockeram t/a Prospectors Airways, Clarkson, Ontario; named "*Miss Ruth 2nd*". Regd [CofR 1471] 11.10.34 to Capreol & Austin, Toronto. Regd [CofR 1503] 2.1.35 to Howard Watt, Toronto & T B Fraser, Montreal. New CofR 1795 issued 9.9.36 to same owners (to replace lost CofR). Regd 4.5.37 to Howard Watt (only). Regd [CofR 2255/A211] 21.5.38 to [brother] Bruce Watt, St Hubert Airport, Montreal. CofR lapsed 21.5.39. Regd [CofR 2640] 15.5.40 to E Ruddick, Long Branch, Ontario. Regd



**Left:** G-ACCU c/n 4048 was operated in 1934 by Midland & Scottish Air Ferries Ltd and is seen here at Castle Bromwich taking on freight from a local crankshaft company. (via JM Collection)

**Right:** C/n 4049 was delivered in 1933 for assembly in Canada as a floatplane. As CF-ATX it was named "Miss Ruth 2nd" with Prospectors Airways and here is seen approaching a lakeside berth. (via JM Collection)



**Below:** Another view of c/n 4048, this time in camouflage as VH-UZC with Qantas on 10.10.42 at Longreach, Qld prior to impressment as A41-4. (via JM Collection)



[CofR 2951] 17.7.42 to Arthur Fecteau, Senneterre PQ. Regd [CofR 6395] 25.9.47 to J N Stevenson, Amos PQ. Regd [CofR 8500] 27.12.49 to Phil Lariviere, St Felicien PQ. Regd [CofR 9334] 2.3.51 to Wallace F McQuade, Toronto. Regn lapsed 7.12.51.

4050 To DH Canada as set of components for local assembly. Regd **CF-APH** [CofR 1296] 19.6.33 to Canadian American Coaches Ltd, Windsor, Ontario. Regd [CofR 1296] 26.12.33 to Northern Skyways Ltd, Windsor. Regn lapsed 18.6.34. Sold [9.34] to De Havilland Aircraft of Canada Ltd. Regd [CofR 1502] 14.12.34 to A H Farrington, Sioux Lookout, Ontario. Caught fire in air en route Red Lake to Kenora, landed on East Bug Lake, Ontario but dbf 21.12.35. Regn cld 4.36.

4051 To DH Australia with CofA 3801 issued 14.3.33. Regd **VH-UQU** [CofR 467] 4.9.33 to Adastral Airways Ltd, Mascot. Struck by Genairco VH-UOG taxiing Mascot 15.1.36; repaired. Badly damaged in collision with DH.60 VH-UOZ on take-off Mascot 14.4.36; repaired. Regd 26.3.38 to Guinea Airways Ltd, Lae. Damaged in crash on landing Sonia Airstrip, Wau, NG 30.8.41 [pilot C H Gray]. Subsequently destroyed by enemy action in NG 21.1.42. Regn cld 11.3.42.

4052 To DH Canada without CofA. Regd **CF-APO** [CofR 1331] 6.9.33 to A H Farrington, Burford, Ontario. Sold 13.9.33 & regd [CofR 1331] 20.10.33 to R W Starratt t/a Northern Transportation Co, Hudson, Ontario. Regn lapsed 18.3.35. Regd [CofR 1331] 29.8.35 to Starratt Airways & Transportation Co, Hudson, Ont. Regn lapsed 1.5.36. Regd [CofR 1819] 26.9.36 to Konnie Johannesson Flying Service, Winnipeg. Regd [CofR 1820] 26.9.36 to M & C Aviation Co Ltd, Prince Albert, Sask. Regd [CofR 2146/A.138] 26.11.37 to Leonard Waite, t/a Waite Fisheries Ltd, Big River, Saskatchewan. Regd [CofR 2278] 12.7.38 to Cecil N McNeal & Ernest Boffa, t/a McNeal's Air Service, Big River, Sask. Regn lapsed .41. On rebuild [7.42]; stored .44 but scrapped by 3.50.

4053 Regd **G-ACFC** [CofR 4247] 23.3.33 to Blackpool & West Coast Air Services Ltd, Squires Gate; named "Progress I".

CofA 3823 issued 24.3.33; dd 25.3.33. Operated [5.35] by associate Olley Air Service Ltd, Croydon. Regn cld as sold early .36; restored. Owner renamed West Coast Air Services Ltd 6.12.37. Sold 9.38 [regn cld at 1.1.39 census] and regd 20.4.39 to Great Western & Southern Air Lines Ltd, Shoreham (later Speke 3.40). Regn cld 10.5.40 as sold. Impressed as **AX859** 10.5.40. Converted to instructional airframe **2583M** at 1 S of TT Halton. Soc 26.5.44.

4054 Regd **G-ACDZ** [CofR 4199] 15.3.33 to The Scottish Motor Traction Co Ltd, Renfrew. CofA 3808 issued 28.3.33. Crashed into sea on take-off joyriding Port Seton, nr Edinburgh 29.6.33; salvaged and repaired. Regd [CofR 5447] 15.11.34 to Glyn Roberts, t/a West of Scotland Air Services, Renfrew. Transferred 4.37 to new company West of Scotland Airways Ltd. Operated 2.38 and regd [CofR 8504] 18.5.38 to Border Flying Club Ltd, Carlisle. Regn cld 29.12.39 as sold. Impressed as **X2865** 2.3.40 and used by ATA White Waltham. To 5 FPP Hatfield (by 7.40). To DH Witney for major inspection 23.7.41. Soc 19.8.41.

4055 Regd **G-ACEA** [CofR 4200] 15.3.33 to The Scottish Motor Traction Co Ltd, Renfrew. CofA 3809 issued 30.3.33. Hit fence on take-off Victory Park, Girvan 9.6.33; repaired. Regd 6.36 to Sussex Aero Club, Wilmington [unconfirmed]. Regd [CofR 7196] 17.7.36 to Sandown & Shanklin Flying Services Ltd, Lea. Regd 20.9.39 to The Isle of Wight Flying Club Ltd, Lea. Regn cld 23.6.40 as sold. Impressed 23.6.40 as **AW124**. To 46 MU Lossiemouth 27.6.40. To Blackburn Aircraft Ltd for MAP use 13.10.41. To 5 MU Kemble 20.2.43. To instructional airframe **4078M** 8.43. Soc 12.4.44 for spares.

4056 Regd **G-ACEX** [CofR 4235] 3.33 to National Aviation Day Ltd, Ford; named "Youth of Ireland". CofA 3820 issued 7.4.33. Regd [CofR 4317] 7.4.33 to Sir Alan J Cobham,



**Above:** C/n 4055 G-ACEA seen during a pre-war visit to Staverton (Churchdown) airfield. (via Dave Welch / JM Collection)



**Left:** Utility Airways' Fox Moth G-ACEY c/n 4057 marked the official opening ceremony at Walsall aerodrome on 24.9.38 by hitting trees on departure. With typical type resilience "Athene" was repaired only to be destroyed by fire in 1940. (via JM Collection)

**Below:** G-ACEX c/n 4056 was another Staverton (Churchdown) visitor which is difficult to date but the name appears to be "Youth of Ireland" - so 1933-34 is likely. (via Dave Welch / JM Collection)

operated by National Aviation Day Ltd, Ford. Regd 5.34 to Provincial Airways Ltd, Croydon; named "Mercury". Forced landed and damaged Ashley, nr Lymington 19.6.34; repaired. Company into liquidation 10.12.35. Regd [CofR 6912] 15.4.36 to Pine's Airways Ltd, Porthcawl. Regn cld as sold 29.12.39. Impressed as **X2866** 2.3.40. To 3 FPP White Waltham. Overturned on landing Wroughton 6.4.41. Soc 18.4.41.

4057 Regd **G-ACEY** [CofR 4236] 3.33 to National Aviation Day Ltd, Ford; named "Youth of Newfoundland". CofA 3821 issued 7.4.33. Regd [CofR 4318] 7.4.33 to Sir Alan J Cobham, operated by National Aviation Day Ltd, Ford. Regd 5.34 to Provincial Airways Ltd, Croydon; named "Jupiter". Bought 3.35 and regd [CofR 5825] 18.4.35 to Crilly Airways Ltd, Braunstone. Receiver appointed 9.9.36 and sold by receiver 12.36; for sale at Croydon by General Motor & Tyre Co 3.37. Regd [CofR 8240] 25.11.37 to Utility Airways Ltd, Hooton Park; named "Athene". Badly damaged when hit trees on take-off Walsall 24.9.38; repaired. Destroyed by fire Hooton Park 8.7.40. Regn cld wef same day.

4058 Regd **G-ACEB** [CofR 4201] 15.3.33 to The Scottish Motor Traction Co Ltd, Renfrew (later Turnhouse); fleet no 25. CofA 3810 issued 13.4.33; dd same day. Sold 5.34 [possibly 9.33] and regd 6.34 to Southend Flying Services Ltd, Southend; operated by Southend Flying Club. Crashed on take-off Wisbech 24.5.34; repaired. Regd [CofR 5838] 27.4.35 to W S Shackleton Ltd, Heston. Regn cld 7.35 as sold. Regd in Australia as **VH-USJ** [CofR 534] 9.7.35 to MacRobertson Miller Aviation Co Ltd, Perth; named "John Flynn" 1.10.35; operated by Australian Aerial Medical Service [WA Section], Port Hedland, WA. Damaged in hangar collapse in cyclone Port Hedland 11.1.39. Sold 7.41 and regd 11.8.41 to Australian Aerial Medical Services [WA Section] Inc, Port Hedland. Crashed on take-off Port Hedland, WA 13.4.42; repaired by 2.43. Flown by Dr Harold Dicks during ops by Flying Doctor Service. Regd (55) to Royal Flying Doctor Service, (WA Section) Inc, Perth. Regd 17.5.61 to R C Currell, Maylands. Regd 5.5.62 to Bob Couper Co, Cunderdin, WA. Regd 8.7.63 to W E Dermody, Shackleton, WA. Damaged beyond repair when overturned on landing Shackleton, WA 16.3.64. Regn cld 16.3.64. To Jim Stokes, Cunderdin, WA (10.69). To Les Kordys, Trayning, WA (2.75) and stored. On overhaul Kellerberrin [5.75] later returned to store at Trayning. Sold .89 to Ray Windred, Luskintyre, NSW. Sold [.95] to John Markham, Perth; initially on rebuild by Lyn Forster, Perth; rebuild completed .96/02 by Colin Smith [Croydon Aircraft Co], Mandeville, New Zealand. Regd **ZK-USJ** 11.11.02 to Croydon Aircraft Co Ltd, Mandeville Airfield, Gore. Reflown [as VH-USJ] 22.11.02; named "John Flynn". Regn cld 24.3.03 as sold Australia. Regd **VH-USJ** 28.3.03 to John R P Markham, Subiaco, WA.



4059 Regd **G-ACEC** [CofR 4202] 15.3.33 to The Scottish Motor Traction Co Ltd, Renfrew (later Turnhouse). CofA 3811 issued 13.4.33. Regd [CofR 5817] 15.4.35 to Glyn Roberts, t/a West of Scotland Air Services, Renfrew. Regn cld 4.37 as sold. Regd in Australia as **VH-AAX** [CofR 654] 23.7.37 to Kevin Parer, t/a Wewak Air Transport, Wewak, NG. Damaged when overturned Tring Airstrip, NG 7.11.38; repaired. Owner renamed Parer's Air Transport Ltd [9.39]. Destroyed by enemy air raid Salamaua, New Guinea 21.1.42; regn cld 11.3.42.

4060 Regd **G-ACFF** [CofR 4259] 24.3.33 to Blackpool & West Coast Air Services Ltd, Squires Gate; named "Progress II". CofA 3865 issued 22.4.33. Renamed West Coast Air Services Ltd 6.12.37; later operated by associate Olley Air Service Ltd. Operated [38] by [subsidiary] Channel Air Ferries Ltd, St Just [on joy-flights etc]. Regn cld 1.1.39 at census. Regd 15.3.39 to Great Western & Southern Air Lines Ltd, Shoreham/St Just. Regn cld 2.4.40 as sold. To 20 MU Aston Down 5.4.40 and impressed as **X9305** 10.5.40. To SDF Christchurch 22.10.40. To Westonzoyland 14.12.40 for special duties with ADDU but rejected as unsuitable and returned to SDF 12.1.41. To 5MU Kemble 8.2.41. Converted to instructional airframe **2613M** .41. To 402 Sqn ATC Gravesend 21.8.41. Noted being flown by S/Ldr Michael Lister-Robinson 1.9.41; possibly at Gravesend.

4061 To Austria with CofA 3884 issued 29.4.33. Regd **A-129** 4.33 to Vaterlandische Verkehrsflug, Austria and flown in International Austrian Alpine Flight competition [Alpenflug] 5.33 by G von Brumowsky. Rereg **OE-STA** 1.35 to Osterreichische Fliegerschule, Vienna. Regd **D-OSTA** 6.38 to National Sozialistisches Flieger Korps (NSFK). Regn cld 5.45.

4062 Regd **G-ACGB** [CofR 4314] 21.4.33 to Horace W Noble, Heston. CofA 3874 issued 29.4.33; dd 6.5.33. Regd [CofR 4924] 21.3.34 to Mrs Helen M Barnes, Shoreham. Regn cld 3.35 as sold abroad [via Aircraft Distributors Ltd]. Regd **VT-AGI** [CofR 251] 22.3.35 to The Himalaya Air Transport & Survey Co, New Delhi [based Hardwar, UP]. Regd (12.35) on change of name to Himalaya Airways Ltd, New Delhi. Regn cld 5.8.38.

**Right:** No mistaking the art-deco control tower at Gravesend, where c/n 4063 G-ACGN was based in the mid-thirties and shown here unloading passengers in this period image. (The Commercial Motor, via JM Collection)



**Below:** C/n 4061 was the only Fox Moth sold to Austria where it was first registered A-129, then becoming OE-STA and later D-OSTA. (via JM Collection)



4063 Regd **G-ACGN** [CofR 4362] 9.5.33 to Gravesend Aviation Ltd, Gravesend. CofA 3899 issued 18.5.33; dd same day. Regd [CofR 6190] 13.8.35 to Launcelot J Rimmer, Hooton Park [probably based Gravesend]. Regn cld 11.35 as sold. Delivered by sea [on SS Comorin] to Australia; arr Fremantle 17.12.35; assembled and dd Adelaide 7.1.36. Regd in Australia as **VH-UDD** [CofR 566] 14.1.36 [25.11.36?] to MacRobertson Miller Aviation Co Ltd, Perth. Regd 13.1.40 to Madang Aerial Transport Co, Madang, NG. Destroyed by enemy action Lae, nr Salamaua 21.1.42. Regn cld 11.3.42.

4064 Regd **G-ACED** [CofR 4203] 12.4.33 to The Scottish Motor Traction Co Ltd, Turnhouse. CofA 3888 issued 6.5.33. Loaned to Car Services, Newcastle-upon-Tyne and minor accident Wallasey Beach 12.7.34. Sold 1.6.35 and regd [CofR 6045] 5.7.35 to Northern & Scottish Airways Ltd, Renfrew. Regn cld 3.37 as sold. Shipped to Australia on SS *Time*; arr Brisbane 5.5.37. Regd in Australia as **VH-UZL** [CofR 639] 27.5.37 to W W Pike, t/a Light Aeroplane Pty Ltd, Archerfield. CofA lapsed 26.5.38; sold 21.11.38 and regd 10.12.38 to Guinea Airways Ltd, Adelaide. Destroyed by enemy action Lae, nr Salamaua 21.1.42. Regn cld 11.3.42.

4065 Regd **G-ACEE** [CofR 4204] 12.4.33 to The Scottish Motor Traction Co Ltd, Turnhouse. CofA 3889 issued 6.5.33. Crashed into trees on take-off Riverside Park, Dundee 31.7.34; 2 passengers killed. Regn cld 12.34 as pwf. u.

4066 To Compania Espanola de Trabajos Fotogrametricos, Spain with CofA 3961 issued 22.6.33; ferried as **EC-W15**. Regd **EC-AVA** 12.33 to Compania Espanola de Trabajos Fotogrametricos Aereos [CETFA], Madrid. To Arturo Zuniga, Albareda .35. Written off during Spanish Civil War. Regn cld 12.11.40.

4067 Regd **G-ACGW** [CofR 4370] 24.5.33 to Charles Lloyd, L'Etacq, Jersey; named "*The Blue Fox*". CofA 3910 issued

27.5.33; dd Jersey 25.6.33. Crashed and dbf on take-off Quennevais Racecourse Jersey 1.10.33; Charles & Mrs Ursula Lloyd unhurt. Regn cld 4.2.34 as pwf. u.

4068 Regd **G-ACEI** [CofR 4214] 21.4.33 to The Scottish Motor Traction Co Ltd, Turnhouse. CofA 3915 issued 27.5.33. Crashed and burnt out Alva, Clackmannanshire 1.7.33. Regn cld 12.33 as pwf. u.

4069 Regd **G-ACEJ** [CofR 4215] 21.4.33 to The Scottish Motor Traction Co Ltd, Turnhouse. CofA 3916 issued 30.5.33. Delivered 3.35 and regd [CofR 5818] 15.4.35 to Norfolk & Norwich Aero Club Ltd, Mousehold. Regd [CofR 7087] 21.5.36 to Brooklands Aviation Ltd, Brooklands; stored Brooklands 35/36. Regd [CofR 7206] 22.7.36 to S Norman Giroux, t/a The Giro Aviation Co, Hesketh Park, Southport. Stored during war and CofA renewed 5.6.46 after overhaul by Helliwells Ltd, Walsall. Regd 21.12.47 to Giro Aviation Co Ltd; flown from Southport Beach on joyflights. CofR No changed to R242, .50. Cld 2.6.66 & regd 16.6.66 to Norman Herbert Jones, Claygate; op by The Tiger Club, Redhill. Undercarriage collapsed on take-off Southend 24.3.68; repaired. Cld 20.10.72 & regd 26.10.72 to Anthony Haig-Thomas, Kirby-le-Soken (based Southend). Loaned to Shuttleworth Collection, Old Warden .78. Destroyed 17.7.82 when struck by Musketeer G-AYWS at Old Warden; subsequently burnt out. Regn cld 23.7.82 as destroyed. Some components and engine salvaged and to Newbury Aeroplane Co [.83] for use in reconstruction (& which included wing from CH-344). Regd 11.11.86 to Janice Irene Cooper t/a Newbury Aeroplane Co, Denford Manor, Hungerford. Rebuilt by Ben Cooper/Newbury Aeroplane Co and reflown 24.10.94; painted in SMT c/s, fleet no."30". CofA renewed 27.10.94. To Rendcomb; then Lee-on-Solent [autumn .01]; then Boscombe Down.

4070 To Eagle Oil & Shipping Co Ltd with CofA 3976 issued 3.7.33. Regd in Argentina as **R241** to Shell Mex Argentina Ltda; named "*Gavilan del Plata*". Flown by Colin Abbott of Shell over Andes from Mendoza to Santiago de Chile and return c5.35, reaching 14,200 ft. Regd **LV-HBA** .37; possibly ntu. Still owned by Shell Mex when destroyed in hangar fire San Fernando, Buenos Aires 25.11.37.

4071 To DH India with CofA 3959 issued 27.6.33. Regd **VT-AEJ** 13.9.33 to Rajah I V Krishna Row, t/a The Madras Air Taxi Service, Madras. Regd 7.9.34 to The Madras Flying Club Ltd. Entered in MacRobertson England to Australia Air Race 10.34 by V L Chandi, to be flown by A M Murad [Race No.27] but withdrawn prior to flight. Regn cld 3.10.35 as w/off.



**Left:** Selecting an image for G-ACEJ c/n 4069 is only a problem because there are so many of this well-known survivor! Typifying its 30-year ownership with Giro Aviation, it is seen here at Southport (Birkdale Sands) airstrip with 'Pleasureland' in the background, Norman Giroux in the cockpit, engine ticking over and four passengers getting out, four more getting in for a sunny pleasure flight circuit along the coast and over the resort. (via JM Collection)

**Right:** Pre-delivery photo of the four Fox Moths purchased for survey department Cadastral of the DGA by the Spanish Government and ferried with the marks EC-W19 to EC-W22 in late 1933. (via JM Collection)



**Below:** G-ACKZ c/n 4083 seen at Porthcawl in 1935, presumably when being operated by the C D Barnard Circus. (via G S Leslie/JM Collection)



- 4072 Regd **G-ACIG** [CofR 4405] 10.7.33 to Portsmouth, Southsea & Isle of Wight Aviation Ltd, Portsmouth. CofA 3978 issued 12.7.33. Regn cld 14.4.40 as sold. Impressed as **X9299** 31.3.40 and to 20MU Aston Down. To Gatwick for major inspection 13.2.41. To 18MU Dumfries. Converted to instructional airframe **2614M** 21.6.41. Issued 1.7.41 to 779 Sqn ATC Haberdashers Askes School, Westbere Rd, Hampstead, London NW2. Damaged beyond repair when being lowered from first floor window at school .46.
- 4073 To Spanish Government with CofA 4020 issued 6.9.33; ferried as **EC-W19**. Regd **EC-1E** to Direccion General de Aeronautica; op by Cadastral Dept, Madrid for photo survey purposes. Cancelled during Spanish Civil War.
- 4074 To Spanish Government with CofA 4021 issued 6.9.33; ferried as **EC-W20**. Regd **EC-2E** to Direccion General de Aeronautica; op by Cadastral Dept, Madrid for photo survey purposes. Cancelled during Spanish Civil War.
- 4075 To Spanish Government with CofA 4022 issued 6.9.33; ferried as **EC-W21**. Regd **EC-3E** to Direccion General de Aeronautica; op by Cadastral Dept, Madrid for photo survey purposes. Cancelled during Spanish Civil War.

- 4076 To Spanish Government with CofA 4023 issued 6.9.33; ferried as **EC-W22**. Regd **EC-4E** to Direccion General de Aeronautica; op by Cadastral Dept, Madrid for photo survey purposes. Cancelled during Spanish Civil War.
- 4077 Regd **G-ACIY** [CofR 4422] 9.8.33 to Brooklands Aviation Ltd, Brooklands. CofA 4005 issued 17.8.33. Regd [CofR 5288] 2.8.34 to Henry Deterding, Sywell; (also based Newnham Grounds, Daventry). Regn cld 20.6.41 by Secretary of State. Impressed into Royal Navy as **DZ213** 30.6.41 by 781 Squadron, RNAS Lee-on-Solent. To Station Flight Stretton .42. Last reported at Eastleigh 9.43. (Note: Also quoted c/n "5288"; probably engine number).
- 4078 To Indian National Airways with CofA 4044 issued 12.10.33. Regd **VT-AEM** [CofR 195] 14.12.33 to Indian National Airways Ltd, Dum Dum. Regn cld 26.3.41.
- 4079 To Mitsui & Co, Japan with CofA 4042 issued 10.10.33. To **Japanese Army** as Aikoku-go ambulance aircraft.
- 4080 To Mitsui & Co, Japan with CofA 4043 issued 12.10.33. To **Japanese Army** as Aikoku-go ambulance aircraft.
- 4081 To Indian Air Survey & Transport with CofA 4065 issued 21.10.33. Regd **VT-AEN** 2.2.34 to Indian Air Survey & Transport Ltd, Calcutta. Crashed on take-off 7.5.34. Regn cld 1.35.
- 4082 To DH India with CofA 4070 issued 30.10.33. Regd **VT-AEQ** 7.11.33 to Raja I V Krishna Row, t/a The Madras Air Taxi Service, Madras. Regn cld 14.4.34 as crashed and w/off.
- 4083 Regd **G-ACKZ** [CofR 4473] 27.10.33 to Robert L Palmer, Hatfield. CofA 4077 issued 7.11.33. Operated by Palmer 11.33-4.34 with India Air Pageants Ltd/C D Barnard Circus.

**Right:** The Canterbury Aero Club's new Fox Moth ZK-ADH c/n 4085 at home at Wigram in May 1934. This was yet another example in which the fuselage was wrecked in an accident but replaced with a new one - in this case built by the DH Technical School, after which a new registration, ZK-AGM, was applied.  
(via JM Collection)



Crashed Cockermouth 11.9.35 whilst being operated by "Cathcart-Jones Air Circus"; repaired. Regn cld 1.38 as sold. Regd in India as **VT-AJW** [CofR 342] 10.2.38 to Air Services of India Ltd, Bombay. Crashed Kohlhapur 9.3.41 (date unconfirmed). Regn cld 7.10.46.

- 4084 To DH Australia with CofA 4117 issued 15.12.33. Regd **VH-URI** [CofR 473] 22.2.34 to QANTAS Ltd, Brisbane. Sold 10.12.34 and regd 22.1.35 to Qantas Empire Airways Ltd, Archerfield. Crashed on take-off Wandoola 8.1.36; repaired. Forced landed and ran into ditch Mitchell River 27.2.39; repaired. Undercarriage collapsed on take-off Wandoola 23.1.46; repaired. Badly damaged when overran strip on take-off Boana, NG 24.11.50; repaired. Regd 30.4.52 to N R Wilde, Wau. Regd 26.6.58 to J K Gray, Goroka, NG. Crashed and regn cld 13.11.58.
- 4085 To New Zealand with CofA 4154 issued 22.1.34. Arrived NZ 22.3.34; ff after erection 26.3.34. Regd **ZK-ADH** 11.4.34 to Canterbury Aero Club, Wigram. Leased to Air Travel (NZ) Ltd, Hokitika 11.2.35 - 6.35. Crashed on landing in fog Sockburn, nr Wigram Airfield 7.6.36. Regn cld 11.3.37. Wreck sold to Owen Templeton, an engineer with Air Travel [NZ] Ltd. Rebuilt by Air Travel using new fuselage built-up by DH Technical School, Hatfield

(quoting c/n "T/S 2810") and regd **ZK-AGM** [CofR 126] 1.6.38 to Air Travel (NZ) Ltd, Hokitika; fleet "No.4". Reflownd 10.6.38. To New Zealand National Airways Corporation 1.12.47; named "*Matuhi*". Sold 4.54 to Aircraft Engineering of NZ Ltd. Sold 1.2.56 to Wanganui Aero Work Ltd. Regd 22.1.63 to Terry A Garnier, Christchurch (dd 12.12.62). Crashed and dbf Freezing Flat, nr Minaret Creek, West Wanaka 27.4.63; passenger killed & owner/pilot inj. Regn cld 5.8.63. On rebuild [.01] by Bill Cooper for Russell Brady [but based on very small surviving components]; incomplete at Kintbury (09).

[Also reported as on rebuild by Jan Cooper and Martin Honeychurch at Hungerford [2.03 & 1.09].

- 4086 To Indian National Airways with CofA 4227 issued 20.3.34. Regd **VT-AFB** [CofR 226] 29.5.34 to Indian National Airways Ltd, Delhi [based Lahore]. Crashed 19.2.37. Regn cld 22.7.43.
- 4087 To Spain with CofA 4216 issued 16.3.34; ferried as **EC-W23**. Regd **EC-VVA** 4.34 to Patronato de la Expedicion Inglesias al Amazonas [or Fundacion Jimenez-Iglesias], Madrid (used on floats on Amazon Expedition early .35). Returned to Spain and taken over by Republican forces 7.36. Captured by Nationalists .39 and given serial **30-147**. Regn cld 12.11.40. Regd **EC-AEI** 31.3.49 to Arturo Zuniga Albareda. Regd 31.3.49 [sic] to Angel Sanz Pinal. Regd 4.5.54 to Jose Maria Lletget Hernandez. Possibly operated [56] by Aero Club de Sabadell. Wfu Madrid 2.3.59. Regn cld 25.2.63.



**Left:** C/n 4087 EC-VVA returned to the UK in late 1934 for conversion by Shorts at Rochester to a floatplane for an Amazon Expedition. With a Short Rangoon in the background the owners watch as the land wheels are removed prior to lowering the Fox Moth onto the floats.  
(via JM Collection)



**Left:** At least three Fox Moths were delivered to Tata Sons Ltd, who were the initial customers for VT-AFI c/n 4088. (via JM Collection)

**Below:** Proof that the Fox Moth flew in all seven continents is found in this photo of G-ACRU c/n 4089 in Antarctica, where it took part in survey work for the Rymill Expedition in 1934-37. (via JM Collection)

4088 To Tata Sons with CofA 4270 issued 23.4.34. Regd **VT-AFI** [CofR 222] 14.4.34 to Tata Sons Ltd, Bombay. Regd [CofR 222/2] 17.11.37 to The United Provinces Flying Club Ltd, Cawnpore. Regn cld 4.8.43. Impressed into RAF as **MA959** 31.10.42. Soc by RAF 2.6.44.

4089 Floatplane regd **G-ACRU** [CofR 5021] 28.5.34 to The British Graham Land Expedition 1934/37, Falkland Islands. CofA 4381 issued 11.7.34. CofA lapsed 10.7.35. Returned to Heston 7.37; CofA renewed 20.8.37. Regn cld 1.38 as sold [via WS Shackleton Ltd]. Regd in Australia as **VH-AAZ** [CofR 681] 20.11.37 to Ray JP Parer and Dick Glasson, Wewak, NG. Crashed on landing Wau, NG 12.6.38; repaired. Crashed Black Cat Range, New Guinea 6.11.39, pilot W Forgan Smith injured. Regn cld 11.39.

4090 Regd **G-ACRK** [CofR 4998] 10.7.34 to John Grierson, Rochester; named "*Robert Bruce*". CofA 4379 issued 11.7.34. Specially modified with Short Bros floats for England to Canada flight via Iceland and Greenland Ice Cap [reportedly test flown by DH as **E.10** - but see c/n 4028]. Grierson departed Rochester 20.7.34 but 'CRK' damaged at Reykjavik, Iceland and Grierson returned to England with wing and float for repair. Flight recommenced 21.8.34 and arrived Ottawa 30.8.34. Crashed in Ottawa River on tests nr Rockcliffe, Ottawa 6.9.34; repaired and arrived New York 11.9.34. Regn cld 5.35 as sold abroad. Regd in Australia as **VH-UBB** [CofR 546] 7.10.35 to W R Carpenter & Co Ltd, Salamaua, New Guinea; named "*Roberta*". Operator renamed Mandated Airlines Ltd 6.10.36. Damaged in forced landing Bulolo River, NG 7.7.41 [pilot A J Myers]. Destroyed by enemy action Salamaua, New Guinea 21.1.42. Regn cld 11.3.42.



4091 Regd **G-ACSW** [CofR 5071] 29.5.34 to Harry F [Jim] Broadbent, Hanworth [intended for MacRobertson Race]. CofA 4323 issued 14.6.34. Regn cld 1.35 as sold abroad. Regd in India as **VT-AFT** [CofR 233] 18.9.34 to The Himalaya Air Transport & Survey Ltd, New Delhi [based Hardwar]. Regd (12.35) on change of name to Himalaya Airways Ltd, New Delhi. Regn cld 24.3.41.

**To be concluded . . .**



**Above:** John Grierson crossed the North Atlantic in 1934 in G-ACRK c/n 4090. **Below:** Jim Broadbent's G-ACSW did not take part in the MacRobertson Race but is seen here at the King's Cup at Hatfield in July 1934. (Both: via JM Collection)

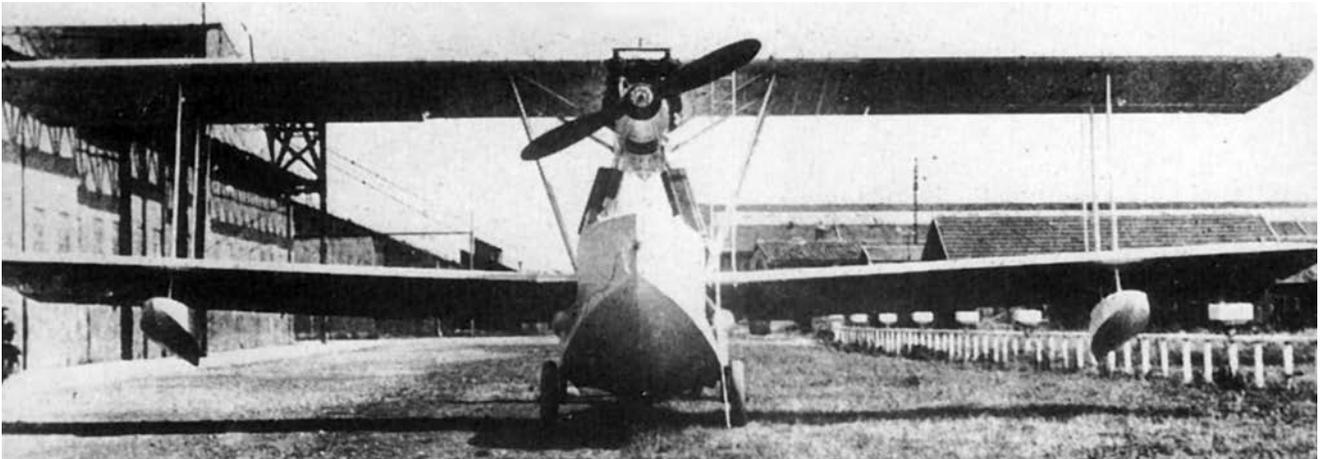


# F-1922

## The French Civil Aircraft Register from 1922

Part 29

By Bernard Martin, Dave Sparrow and Robert Espérou



As in recent issues we are continuing with the New Registrations in alphabetical order as they no longer correspond to CoFR Number order.

### F-Update 1929/30 (contined)

#### New Registrations

2320 **F-AJKQ** LeO 198/2 4  
Cie Générale Aéropostale, Paris (based Marignane). (6.12.29)

2321 **F-AJKR** LeO 198/2 5  
Cie Générale Aéropostale, Paris (based Marignane). (6.12.29)

2322 **F-AJKS** LeO 198/2 6  
Cie Générale Aéropostale, Paris (based Marignane). (6.12.29)

2353 **F-AJKT** DH.60M Moth 1443  
Vicomte Jacques de Sibour, Paris (based Villacoublay); (19.2.30) named "Safari III". Departed for Abyssinia 3.30 and arrived Addis Ababa 27.3.30.

2336 **F-AJKU** Breguet 280T 6  
Cie Air Union, Paris/Le Bourget. (3.12.29)

2337 **F-AJKV** Breguet 280T 7  
Cie Air Union, Paris/Le Bourget. (31.12.29)

**Above:** F-AJKQ was a 450hp Renault-powered LeO 198/2 of Aéropostale. Most other operators used Gnome-Rhône engines in their 198s. (via JM Collection)

2355 **F-AJKX** Breguet 280T 8  
Cie Air Union, Paris/Le Bourget. (5.3.30)

2360 **F-AJKY** Breguet 280T 9  
Cie Air Union, Paris/Le Bourget. (27.3.30)

2368 **F-AJKZ** Bernard 190T 106  
Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (24.4.30)

2345 **F-AJLA** Bernard 190T 107  
Cie Internationale de Navigation Aérienne, Paris/Le Bourget.(31.3.30)

2325 **F-AJLB** Latécoère 28/1 911  
Cie Générale Aéropostale, Paris (based Toulouse). 13.12.29)

2327 **F-AJLC** Sopwith 1-A2 unkn  
M Perrin, Le Havre. (16.12.29)  
(Rebuild. Type also listed as Sopwith 12)

2328 **F-AJLD** Nieuport 21 7045  
Aéro Club du Havre, Le Havre. (16.12.29)

2329 **F-AJLE** Latécoère 28/1 912  
Cie Générale Aéropostale, Paris (based Toulouse). (18.12.29)

**Right:** Only eight Bernard 190T airliners were built, all of which were operated by CIDNA. Powered by a 420hp Gnome-Rhône Jupiter 9Ab 9-cyl radial the type was designed for eight passengers and two crew originally but capacity was reduced to five passengers on routes such as the "Danube Express" as flown by the seventh example F-AJLA. (via JM Collection)





**Left:** British-built DH.60M Moth F-AJLQ c/n 1468 is believed to have been the pattern aircraft supplied to Morane Saulnier prior to their commencing licence production of the type in France.  
(via JM Collection)

**Below:** F-AJLR was a Farman F.200 open-cockpit tandem 2 or 3 seat parasol monoplane intended as a basic trainer. It was powered by a 120hp Salmson 9Ac radial.  
(via JM Collection)

2396 **F-AJLF** Aéro A-38.II 2  
Ex L-BACE. Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (21.5.30)

2420 **F-AJLG** Aéro A-38.II 3  
Ex L-BACF. Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (27.6.30)

2341 **F-AJLH** Morane 133 6  
Société Aéroplanes Morane Saulnier, Puteaux (based Villacoublay). (27.1.30) Also quoted as c/n 2, but convtd to Morane 233 no.2.

Unkn **F-AJLI** Nothing known.

2347 **F-AJLJ** CAMS 53/1 23  
Cie Air Union Lignes d'Orient, Paris (based Marignane). (1.2.30)

2356 **F-AJLK** CAMS 53/1 24  
Cie Air Union Lignes d'Orient, Paris (based Marignane). (5.3.30)

2342 **F-AJLL** Farman 190 38/7166  
Cie Air Union Lignes d'Orient, Paris/Le Bourget. (28.1.30)

2332 **F-AJLM** Latécoère 28/1 913  
Cie Générale Aéropostale, Paris (based Toulouse). (27.12.29)

2333 **F-AJLN** Latécoère 28/1 914  
Cie Générale Aéropostale, Paris (based Toulouse). (27.12.29)

2334 **F-AJLO** Latécoère 28/1 915  
Cie Générale Aéropostale, Paris (based Toulouse). (27.12.29)

2367 **F-AJLP** Farman 301 1/7167  
Société Générale de Transports Aérien, Paris. (24.4.30)

2638 **F-AJLQ** DH.60M Moth 1468  
Société Aéroplanes Morane Saulnier, Puteaux (based Velizy). (2.12.30)

2357 **F-AJLR** Farman 200 8/7168  
Société des Avions HM & D Farman, Billancourt (based Toussus le Noble). (7.3.30)

2358 **F-AJLS** Farman 200 9/7169  
Société des Avions HM & D Farman, Billancourt (based Toussus le Noble). (7.3.30)

2397 **F-AJLT** Farman 200 10/7170  
J Freval, Paris & Marcq Boucher, Lille. (22.5.30)

2410 **F-AJLU** Farman 192 4/7248  
Mlle Claire Camus, Paris. (5.6.30)

2349 **F-AJLV** DH.60M Moth 1463  
Baron de Precourt, Paris (based Villacoublay). (15.2.30)

2552 **F-AJLX** DH.60M Moth 1465  
Comte Pierre de Villefranche, Paris/Orly. (20.9.30)

Unkn **F-AJLY** Caudron 60 6429  
Delattre, Billy-Montigny (based Douai). (10.30) 3-seat conversion.



Unkn **F-AJLZ** Nothing known.

2370 **F-AJMA** Bernard 190T 108  
Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (26.4.30)

2434 **F-AJMB** Morane 230 2/3576 or 53  
Louis Dollfus, Neuilly sur Seine (based Velizy). (4.7.30)

2362 **F-AJMC** DH.60G Moth 1188  
Valentin Tersen, Paris/Orly. (9.4.30)

2664 **F-AJMD** Farman 74 3/ . . .  
Société des Avions HM & D Farman, Billancourt (based Toussus le Noble). (8.1.31)

2695 **F-AJME** Farman 74 4/7177  
Société des Avions HM & D Farman, Billancourt (based Toussus le Noble). (10.2.31)

2404 **F-AJMF** Morane 230 2  
Société des Aéroplanes Morane Saulnier, Puteaux (based Velizy). (30.5.30)

2369 **F-AJMG** Farman 301 2/7182  
Société Générale de Transports Aérien, Paris/Le Bourget. (24.4.30)

2372 **F-AJMH** Farman 301 3/7183  
Société Générale de Transports Aérien, Paris/Le Bourget. (26.4.30)

2402 **F-AJMI** Farman 301 4/7184  
Société Générale de Transports Aérien, Paris/Le Bourget. (28.5.30)

2401 **F-AJMJ** Farman 301 5/7185  
Société Générale de Transports Aérien, Paris/Le Bourget. (28.5.30)

2428 **F-AJMK** Farman 301 6  
Société Générale de Transports Aérien, Paris/Le Bourget. (2.7.30)

2364 **F-AJML** Morane 230 54 (or 55?)  
Société de Propagande Aérienne, Paris. (14.4.30)

2560 **F-AJMM** CAMS 53 15  
Cie Générale Aéropostale, Paris (based Marignane). (29.9.30)

2385 **F-AJMN** Morane 191 51  
Cie Aérienne Française, Suresnes (based Velizy). (10.5.30)

**Right:** Caudron 128/2 c/n 4/6434 F-AJMS at a public event - probably joy-riding. The text on the fuselage reads "Au Grand Balcon"

**Below:** Another Caudron 128/2, this time with only the partial registration F-AJM applied. It was fairly common to allocate a batch of marks to a manufacturer who then completed the task as each aircraft was built and flown.  
(Both via JM Collection)



2726	<b>F-AJMO</b>	Bernard 190T	105	Cie Internationale de Navigation Aérienne, Paris/Le Bourget. (19.3.91)
2373	<b>F-AJMP</b>	Caudron 128/2	1/6431	Société pour le Developpement de l'Aviation, Paris/Le Bourget. (1.5.30)
2374	<b>F-AJMQ</b>	Caudron 128/2	2/6432	Société pour le Developpement de l'Aviation, Paris/Le Bourget. (1.5.30)
2383	<b>F-AJMR</b>	Caudron 128/2	3/6433	Société pour le Developpement de l'Aviation, Paris/Le Bourget. (7.5.30)
2375	<b>F-AJMS</b>	Caudron 128/2	4/6434	Société pour le Developpement de l'Aviation, Paris/Le Bourget. (1.5.30)
2376	<b>F-AJMT</b>	Caudron 128/2	5/6435	Société pour le Developpement de l'Aviation, Paris/Le Bourget. (1.5.30)
2499	<b>F-AJMU</b>	Caudron 59	1101/6463	R.Caudron, Issy. (7.8.30) (or c/n 1104/6463?)
2382	<b>F-AJMV</b>	Farman 190	43	M.Avignon, Montpellier. (7.5.30)
2527	<b>F-AJMX</b>	Morane 147	96	Société des Aéroplanes Morane Saulnier, Puteaux (based Villacoublay). (26.8.30)
2429	<b>F-AJMY</b>	Morane 147	95	Société des Aéroplanes Morane Saulnier, Puteaux (based Velizy). (2.7.30)
2528	<b>F-AJMZ</b>	Morane 147	97	Société des Aéroplanes Morane Saulnier, Puteaux (based Villacoublay). (26.8.30)
2430	<b>F-AJNA</b>	Morane 147	98	Société des Aéroplanes Morane Saulnier, Puteaux (based Villacoublay). (2.7.30)
2361	<b>F-AJNB</b>	LeO 198	12	Cie Air Union, Paris (based Marseille). (28.3.30)
2363	<b>F-AJNC</b>	Nieuport-Delage 391	12	Cie Aérienne Française, Suresnes (based Le Bourget). (10.4.30)
2366	<b>F-AJND</b>	Nieuport-Delage 391	13	Cie Aérienne Française, Suresnes (based Le Bourget). (18.4.30)

**Above:** F-AJMQ, another Caudron 128/2, this example showing an underwing structure which was used as a trapeze by an acrobat during air displays. (via JM Collection)

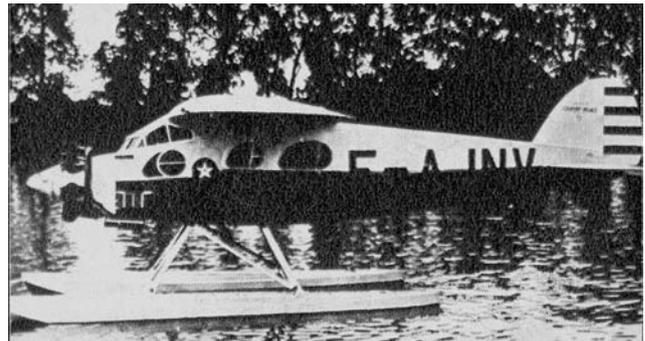
2384	<b>F-AJNE</b>	Nieuport-Delage 391	14	Cie Aérienne Française, Suresnes (based Le Bourget). (9.5.30)
2380	<b>F-AJNF</b>	Schreck FBA.17HT4	191	Cie Aérienne Française, Suresnes. (6.5.30)
2381	<b>F-AJNG</b>	Schreck FBA.17HT4	192	Cie Aérienne Française, Suresnes. (6.5.30)
2600	<b>F-AJNH</b>	Farman 198	1/7172	Société des Usines Renault, Billancourt (based Toussus-le-Noble). (18.10.30)
2388	<b>F-AJNI</b>	Potez 36/13	1585	Société des Aéroplanes H.Potez, Paris (based Villacoublay). (14.5.30).
2389	<b>F-AJNJ</b>	Potez 36/13	1588	Société des Aéroplanes H.Potez, Paris (based Villacoublay). (14.5.30)
2405	<b>F-AJNK</b>	Morane 230	55	Andre Bailly, Nancy (based Velizy). (2.6.30)
2519	<b>F-AJNL</b>	Hanriot 14	295	Ministère de l'Air/Etat Français; loaned to Aéro Club du Rhone et du Sud Est, Lyon. (20.8.30)
Unkn	<b>F-AJNM</b>	Nothing known.		
2453	<b>F-AJNN</b>	CAMS 53/2	25	Cie Air Union Lignes d'Orient, Paris (based Marignane); named "Champagne". (16.7.30)
2411	<b>F-AJNO</b>	Nieuport 641	2	Société de Transports Aériens Rapides, Paris/Le Bourget. (6.6.30)
2440	<b>F-AJNP</b>	Nieuport 641	6	Société de Transports Aériens Rapides, Paris/Le Bourget. (8.7.30)
Unkn	<b>F-AJNQ</b>	Latécoère 28/3	919	Cie Générale Aéropostale, Paris; named "Comte de la Vaulx". (.30)
2435	<b>F-AJNR</b>	Caudron 59	1095/6471	Rene Caudron, Issy (based Amberieu). (4.7.30) (or c/n 1095/6470?)



**Left:** Morane Moth F-AJOC (or possibly F-AJQC?) which was fitted with the 'Bemberg stabilizers' on the interplane struts. We still know nothing more about this device! F-AJOC was the second French-built Moth. (via JM Collection)

**Below:** A poor-quality image but a rare subject - a Nieuport 641 F-AJNV during tests as a floatplane in 1931 or early 1932. (via JM Collection)

2365	<b>F-AJNS</b>	LeO 213	7
Cie Air Union, Paris/Le Bourget. (16.4.30).			
Unkn	<b>F-AJNT</b>	Caudron 59	6470
No further details.			
2425	<b>F-AJNU</b>	Nieuport 641	7
Société de Transports Aériens Rapides, Paris/Le Bourget. (1.7.30)			
2406	<b>F-AJNV</b>	Nieuport 641	4
Société Nieuport Astra, Paris (based Issy). (2.6.30)			
Unkn	<b>F-AJNX</b>	Nothing known.	
2416	<b>F-AJNY</b>	Morane Moth 60M	13
M.Japy, Beaucourt, Terr.de Belfort. (13.6.30)			
3036	<b>F-AJNZ</b>	DH.60M Moth	1240
Henri Le Folcavez, Paris/Orly. (21.12.31)			
2417	<b>F-AJOA</b>	DH.60M Moth	1365
Ex G-AAKB. Andre Jomain, Paris/Orly. (18.6.30)			
2437	<b>F-AJOB</b>	Caudron 193	2/6430
Georges Moreau, Ivry sur Seine. (5.7.30) (or c/n 1/6430?)			
2588	<b>F-AJOC</b>	Morane Moth 60M	2
Georges Lebeau, Paris. (15.10.30)			
2432	<b>F-AJOD</b>	Morane Moth 60M	11
Paul L Richard, Deschanel, later Paris (based Velizy). (4.7.30)			
2394	<b>F-AJOE</b>	Morane Moth 60M	1
Mlle Maryse Hiltz, Paris. (20.5.30)			
2433	<b>F-AJOF</b>	Morane Moth 60M	14
Jacques du Jonchay, Biskra, Algeria. (4.7.30)			
2424	<b>F-AJOG</b>	Morane Moth 60M	15
M.Barrat de Montauvard, Paris. (30.6.30)			
2409	<b>F-AJOH</b>	Morane Moth 60M	16
M.Belotte, Valenciennes. (5.6.30)			



2423	<b>F-AJOI</b>	Morane Moth 60M	17
Alfred Auger, Neuilly-sur-Seine (based Buc).(30.6.30)			
2395	<b>F-AJOJ</b>	Morane Moth 60M	19
Fernand Malinvaud, Limoges. (20.5.30)			
2583	<b>F-AJOK</b>	Morane Moth 60M	20
M.Corniglion Molinié, Paris/Velizy. (14.10.30)			
2449	<b>F-AJOL</b>	Morane Moth 60M	21
Jean Foa, Paris/Velizy. (12.7.30)			
2496	<b>F-AJOM</b>	Morane Moth 60M	23
M.de Montigny, Paris/Velizy. (6.8.30)			
2712	<b>F-AJON</b>	Morane Moth 60M	27
Aéro Club de France, Paris (init. reserved Club Francais de Tourisme Aérien, Paris). (4.3.31)			
2480	<b>F-AJOO</b>	Morane Moth 60M	28
André Robyn, Le Bourget. (28.7.30)			
2481	<b>F-AJOP</b>	Morane Moth 60M	30
M.de Bimard, Paris (based Velizy). (29.7.30)			
2493	<b>F-AJOQ</b>	Morane Moth 60M	9
Ruel Durand, Paris (based Velizy). (5.8.30)			
2403	<b>F-AJOR</b>	Schreck FBA.17HT4	195
M.Dolfus, Neuilly (based Evian-les-Bains). (30.5.30)			
2544	<b>F-AJOS</b>	Caudron 59	1100/6475
René Caudron, Issy. (9.9.30)			
Unkn	<b>F-AJOT</b>	Caudron 154	4/6496 (or 4/6476?)
Aéro Club des Flandres, Lille (based Valenciennes). (9.30)			
2392	<b>F-AJOU</b>	Latécoère 28/0	910
Cie Générale Aéropostale, Paris (based Rio de Janeiro). (16.5.30)			
2390	<b>F-AJOV</b>	Latécoère 28/0	916
Cie Générale Aéropostale, Paris (based Rio de Janeiro). (16.5.30)			

**To be continued . .**



**Left:** Schreck FBA.17 F-AJOR, 180hp Hispano Suiza HS-8Ad, survived the war and later found its way to the Musée de l'Air where it is still displayed. (via JM Collection)

# The Praga E-114 Air Baby

HEAD-ON VIEW No.39



The Czechoslovakian company C.K.D. (Ceskomoravska Kolben-Danek) was originally an aero-engine design and building concern but in 1931 hired the former Avia designers Pavel Benes and Miroslav Hajn in order to expand into aircraft production. Their early Praga designs, with BH- prefix, continued numerically from their Avia designs and included the BH-36 biplane bomber, the BH-39 standard primary trainer, BH-41 advanced trainer, BH-44 and 45 biplane fighter, and the BH-111 low-wing monoplane tourer. Czech policy at the time was to identify aircraft manufacturers with a prefix letter such as A for Aero, B for Avia, E for Praga and S for Letov for example. Thus the 139 BH-39 trainers built by Praga became the E-39 in service.

Benes and Hajn were not the only designers whose work was put into production by Praga. In 1934 Jaroslav Slechta put forward the E-46 project for an open-cockpit ultra-light monoplane powered by an Aeronca 36hp engine. This was developed into the E-114 Air Baby which first flew in that year as OK-PGA for the Czech National Flying

**Above:** The Praga E-114 prototype OK-PGA was fitted with a 36hp Aeronca engine and had notably angular cockpit glazing. (via JM Collection)

Competition. There followed an extensive flight programme around Europe including an appearance at the 1934 Paris Salon.

The E-114 was an all-wood side-by-side cabin high-wing monoplane with a ply-covered hexagonal box section fuselage. The one-piece two-spar cantilevered wing had a straight centre section, a tapered trailing edge and reduced thickness in the outer sections, with unbalanced ailerons, rounded tips and was ply-covered. To enter the cockpit the angular canopy and leading edge of the centre-section were hinged upwards and the side windows downwards. The undercarriage had

**Below:** The second example, OK-PGB, was powered by a Praga B, had spats on the mainwheels, improved glazing and a built-in foothold from which to climb into the cockpit. (via JM Collection)





**Left:** OK-PGB now fitted with a Y-shaped exhaust and with the cockpit canopy in the open position, wing root folded back and side-panels down. (via JM Collection)

**Below:** OK-PGC was re-registered G-ADXL on arrival in the UK but all later Air Babies on the UK register were built under licence by Hills & Sons as the Hillson Praga. (Flight via JM Collection)



**Above:** Close-up of the UK demonstrator G-ADXL showing the exhaust with muffler fitted for cockpit heating, starboard side entry step and the type and c/n stencilled on the aircraft nose. (Flight via JM Collection)

braced and faired mainwheel legs, with a tailskid below the strut-braced tailplane.

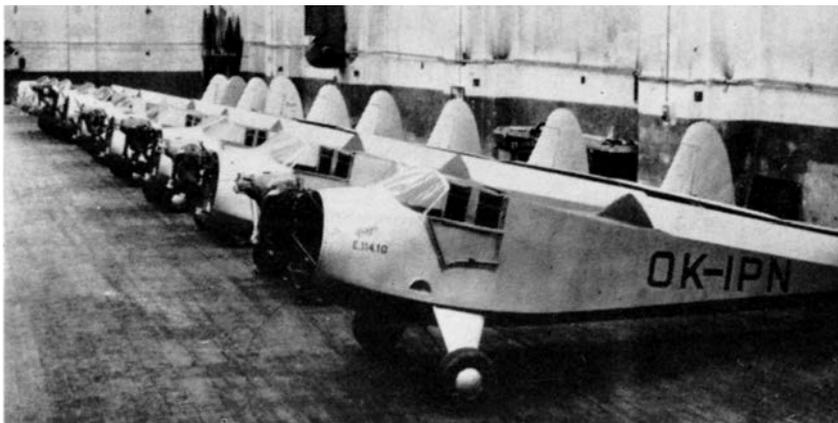
The 36hp Aeronca engine was soon to be replaced by a Praga-built version known as the Praga B which was installed in the second prototype. This aircraft, registered OK-PGB in June 1935, was flown to the UK for demonstrations, arriving at Heston on August 15th with Slechta and the test pilot Kostalek. Despite its size and low power, the E-114 had an impressive performance for a low price – estimated at £280 before UK tax.

The demonstrator immediately aroused interest in Nicholas Comper and F R "Johnnie" Walker who were operating as Comper & Walker Ltd. They are said to have ordered an example from Praga who supplied OK-PGC, c/n 107, in November 1935 although when it arrived it was registered as G-ADXL to F Hills & Sons Ltd at Barton. Hills' interest in the type went even further and an agreement was struck to build the E-114 in their Manchester woodworking factory while the Praga B engines were to be licenced to Jowett Cars. As a result Hills laid down a production line of 35 examples to be marketed as the Hillson Praga. Of these, 25 were registered in the UK, three in Australia and seven were not completed.

**Right:** Air-to-air view of Praga B OK-IPX c/n 23 displaying the pre-war colours of the ARCS - the Aero Club of the Czech Republic. (via JM Collection)



**Below:** A line-up of ten Praga E-114 fuselages awaiting the fitting of wings and cowlings in the factory. In the foreground is OK-IPN which carries c/n 10. (via JM Collection)



Meanwhile, development of the type continued in Czechoslovakia. Basic production using the Praga B-2 in 1935 and 1936 was superseded by the introduction of the flat-four Praga D of 65-79hp. Common mountings allowed the earlier models to be upgraded if required. At the same time some airframe modifications were added. The tail unit was redesigned with increased fin and rudder area, the latter with a straight trailing edge. Balanced ailerons were now fitted and these improved low-speed control to the point at which the aircraft became virtually un-stallable. The increase in engine power resulted in a marked improvement in take-off and climb performance.

Production of the E-114D began in 1936 and continued even into post-war manufacture. It was followed in 1937 by a further redesign which incorporated a reduced wing area with fabric-covered ailerons, while a split undercarriage with wheel spats improved the aerodynamics. This version was known as the Praga E-115 and in this form, even with the B engine, a marked increase in speed and altitude was notable. Indeed in 1938 a class record of 171.5 km/hr was set over a 100km course with a Praga B and a maximum speed was claimed for the D engine version of 210 km/hr.



**Above and below:** This example of the Praga E-114 D was a post-war model, OK-AFK c/n 102. The hexagonal section fuselage shows up well in both views and also apparent is the redesigned fin and rudder shape. A tailwheel is fitted on this aircraft instead of the earlier tailskid. (Both via JM Collection)

It appears that only one prototype of the E-115 was built, the next development, the E-117, following hard on its heels in 1937. This was a significant change within the overall concept of the Air Baby. The wooden fuselage was replaced by a fabric-covered steel tube unit and the cantilever wooden wing was changed to a continuous straight taper. Split flaps were introduced inboard





**Left:** The Praga D engine was a flat-four design which was intended to reduce drag, combining two cylinders into one housing on each side. The crankcase is aerodynamically shaped in order to fit cleanly into the forward part of the fuselage.  
(via JM Collection)

**Below:** From below, the Praga E-114D shows the extent of taper of the wing now fitted with balanced ailerons. Trim tabs may be seen on the port elevator and the rudder.  
(via JM Collection)

of the ailerons; the fin and elevators were of fabric-covered tube but the remainder of the tail unit was still of ply-covered wooden frame. A more spacious cabin was fitted with cockpit doors to facilitate access and the undercarriage had cantilever legs and a tailwheel.

Only two examples of the E-117 were built, OK-PGH and OK-AFU, both fitted with neatly-cowled Praga D engines with which they achieved a claimed 216 km/hr maximum and 185 km/hr cruising speed. At one stage OK-AFU was fitted with a fully-faired nosewheel leg which necessitated moving the mainwheels rearward to compensate.

The final development involved re-engining the E-114 with a four-cylinder 65hp Walter Mikron III in-line but retaining the other characteristics of the earlier model apart from the addition of a tailwheel. Known as the

**Below:** OK-AFN appears to have been a post-war company demonstrator. From the cockpit position partly under the wing and the small amount of glazing the view out could be restricted. (via JM Collection)



**Right:** One disadvantage of the E-114 design was the awkward access to the cockpit. Made to appear easy in this posed photograph, the step up from the mainwheel to the cut-out foot rest would actually be quite a challenge to a lady in a skirt and high heels!  
(via JM Collection)

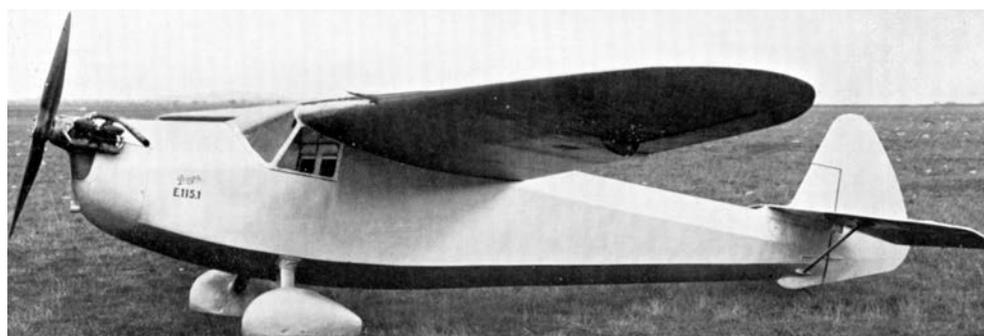


**Below:** In post-war production the E-114 could be as the Praga-engined 114D OK-BGA in the foreground or as the 114M with an in-line Walter Mikron engine as seen on OK-BGB behind.  
(via JM Collection)



Comparitive dimensions and performance				
	Praga B-2	Praga D	E-115 (B-2)	E-117 (D)
Span	11m (36ft 0in)	as B-2	10.8m (35ft 5in)	as B-2
Length	6.6m (21ft 8in)	as B-2	6.8m (22ft 4in)	as B-2
Height	2.4m (7ft 10in)	as B-2	as B-2	as B-2
Wing area	15.25m <sup>2</sup> (164.15ft <sup>2</sup> )	as B-2	12.15m <sup>2</sup> (130.78ft <sup>2</sup> )	14.75m <sup>2</sup> (158.77 ft <sup>2</sup> )
Empty Weight	290kg (639.3 lbs)	330kg (727.5 lbs)	310kg (683.4 lbs)	415kg (914.9 lbs)
All-up Weight	490kg (1080.25 lbs)	560kg (1234.5 lbs)	515kg (1135.3 lbs)	650kg (1433 lbs)
Max speed	147kph (91.3 mph)	150kph (93.2 mph)	173kph (107.5 mph)	216kph (134.2 mph)
Cruising speed	115kph (71.4 mph)	120kph (74.5 mph)	155kph (96.3 mph)	185kph (114.95 mph)
Endurance	3.75 hrs	4.5 hrs	5.5 hrs	3.6 hrs

**Right:** Only one example of the E-115 is thought to have been built. With a tapered wing of reduced area, split undercarriage fitted with spats, redesigned cowling and tail unit, it provided an improved performance from the Praga B-2 engine but still lacked ease of access.  
(via JM Collection)





**Left:** The next stage in development was the E-117 which featured a fabric-covered steel tube fuselage and automobile-type entrance doors to the cockpit. The first prototype was OK-PGH as seen here. (via JM Collection)



**Above and left:** The second prototype of the E-117 was c/n 2 OK-AFU. The shape of the doors has been modified and the rudder appears to have an increase in chord. Also visible is the revised pointed wing shape and the use of split flaps.

**Below:** OK-AFU was also tested with a tricycle undercarriage, the nose strut and wheel being enclosed in a streamlined casing. (All via JM Collection)

Praga E-114M, this version was noticeably longer at 7.11m (23ft 4in) and a little taller at 2.59m (8ft 6in). Performance was better than all but the E-117 with a maximum 185 km/hr (115 mph) and cruise of 165 km/hr (103 mph).

Post-war availability of the Walter Mikron allowed construction of the E-114M to resume and a number of export sales were achieved, notably to France, Finland, Switzerland, Italy, Romania and the Saarland. The lengthened nose and fully-cowled engine were useful recognition features but so too was the post-war model's dihedral. Roles included touring, training and glider towing.

It is believed that some 110 examples of the E-114D and E-114M were built post-war before production ceased in 1948. Post-war c/ns began



at 101 and the highest known is 210. The highest pre-war and wartime c/n known is 156 but there appear to be significant gaps in the sequence commencing at 1 and the higher numbers are duplicated by the post-war sequence.

Returning for a moment to the Hillson Praga in Britain. Construction began in 1936 with c/n H.A.1 which was exported to Australia as VH-



**Above:** Praga E-114M (65hp Walter Mikron III) OK-AFR c/n 109 shows the longer nose to accommodate the in-line engine and also a more marked dihedral of the outer wing sections. (via JM Collection)



**Left:** Perhaps in a further attempt to illustrate the accessibility of the cockpit, another lady begins the climb with one foot on the mainwheel. She will have to stand on the wheel completely in order to get her left foot into the toe-hold - not an elegant process! Only the metal-framed E-117 used doors rather than the hinged-canopy system. (via JM Collection)

UVP, the first UK-registered example being G-AEEU c/n H.A.2. Several were sold to private owners followed by a batch of ten for the Northern Aviation School at Barton and five for the Straight Corporation flying schools. In a number of cases the Jowett-built Praga engines gave trouble and were replaced by 2-cyl 40hp Aeronca JAP J-99 engines.

During the war most of the Pragas were stored, being unsuitable for military purposes, but inevitably only five survived in the UK and of these only two flew post-war. What is remarkable is that these two both crashed far from home, a testament to the aircraft's endurance and owners' perseverance, G-AEUP in Turkey July 1946 and G-AEUT in Italy June 1957. Two other Hills-built Pragas went to Australia and two to Singapore. The original Praga-built import G-ADXL had been flown to South Africa (in 16 days) in 1936 and as ZS-AHL was still extant to be converted to a glider in 1953.

**Right:** The compact installation and neat cowlings of the Walter Mikron as fitted to the E-114M version. (via JM Collection)



**Above:** G-AEEU was the second production Hillson Praga, c/n HA2, and the first on the UK Register. It is seen here being held back manually in the absence of brakes or chocks during an engine run before take-off. Having been stored during the war it was used as spares for G-AEUT in the 1950s, which coincidentally became the last airworthy Praga in the UK. (Aeroplane via JM Collection)



**Above:** G-AEUT was the last surviving British-registered Hillson Praga. Seen here at an event at White Waltham, with the Hirtenburg HS9A G-AGAK behind, it was written-off in Italy in June 1957.



**Left:** This Praga E-114 was built as a 114M c/n 122 and went to France as F-BCSQ initially. Sold to Switzerland in 1952 it became HB-UAD and was converted from Mikron to 65hp Continental power and registered as an E-114C.



**Left:** This E-114M I-BUBY was Milan-based in the mid-1950s and is always quoted as c/n 25 although 125 would be more appropriate for a post-war model.



**Left:** Something of a rarity, E-114M c/n 117, ex F-BCSJ, was registered in the Saarland in 1954 becoming SL-AAG. When that register closed it became D-EMIB in 6.59 but was written off on 20.6.64.



**Left:** Hillson Praga G-AEUR was one of the Barton fleet but was written-off in this accident on 1.4.39, the cockpit area fortunately remaining intact. (All: via JM Collection)

# Airliners in Warpaint - Warbirds in Civvies: 5

## KLM in World War 2

Michael West

### THE EARLY YEARS

KLM was founded in 1919 by Albert Plesman and soon became a world-class airline, its use of the tough Fokker monoplanes having much to do with its success. In 1929 KLM had launched a pioneering air service to the Netherlands East Indies (NEI), the world's longest route. In December 1933 Capt Ivan Smirnof in the Fokker XVIII *Pelikaan* (PH-AIP) reduced the time to Batavia (NEI) to 100 hours flying the Christmas mails, and in December 1934 Capt Jan Hondong in the Fokker XVIII *Snip* (PH-AIS), stripped of furnishings and carrying just crew and extra fuel tanks, flew the Atlantic to Curacao in the Dutch West Indies.

By 1934 Anthony Fokker, recognizing the potential of the all-metal Douglas DC-2, had shrewdly contracted to become Douglas' European sales agent for it (and later for the DC-3). Fokker's own civil aircraft manufacturing then declined rapidly. (Fokker had also purchased a manufacturing licence for the DC-2/DC-3 but none were ever manufactured in Europe nor was a sub-licence to Airspeed in England used). All of KLM's fleet of DC-2s and DC-3s arrived by sea from Newark, NJ with wings and tails detached and were re-assembled and test-flown by the Fokker agency.

KLM's first DC-2 *Uiver* (PH-AJU) brought it worldwide publicity in the McRobertson race of October 1934, coming second overall and first in handicap. (Tragically *Uiver* crashed at Rutbah Wells only two months later). By the summer of 1939 KLM's fleet included 13 DC-2s (of 18 received) and 21 DC-3s (of 23 received), serving a European network and the route to the Netherlands East Indies. The latter connected at Batavia to a KNILM Lockheed 14 service to Australia.

By the autumn of 1939 KLM were planning a route to South Africa with DC-3s and had expressed interest in the forthcoming DC-4 for the planned Transatlantic routes.

It could be argued that KLM's involvement in the approaching conflict began in the winter of 1938/1939. KLM and the Czech airline CLS had established the 'Blue Danube Express' from 1938 linking Budapest, Vienna and Prague to London via Rotterdam.

After the Munich Agreement, Germany annexed Czech Sudetenland and some 150,000 refugees fled into unoccupied Czechoslovakia. Fearing persecution, some Czech Jewish families were able to get their children flown from Prague to London (Croydon) on KLM's DC-3 *Kemphaan* PH-ASK. It is unclear whether this was a sole flight, and it appears to be independent of the larger 'Kindertransport' evacuation which used surface transport. Germany swiftly seized most of Czechoslovakia in 1939 and the CLS fleet was taken over by Lufthansa.

Links: Critical Past '1938' <http://tinyurl.com/359bfy5>  
 Getty Images Feb 12Jan1939 <http://tinyurl.com/3chceay>



**Above:** The record-breaking Fokker XVIIIs: in the background PH-AIP "Pelikaan" and in the foreground PH-AIS "Snip". (MW collection)

**Below:** Donald Douglas handing over the first KLM DC-2 PH-AJU "Uiver". (MW collection)



**Above:** Site of the crash of "Uiver" at Rutbah Wells, Iraq, 20.12.34. (Matson Coll. US Library of Congress)

**Below:** Lockheed 14 PH-ASL "Lepelaar", seen here at Ringway, was sold to British Airways as G-AFYU. (R A Scholefield)



**Above:** The Prague - London refugee DC-3 PH-ASK "Kemphaan" taxis past a Lufthansa Ju52 D-AHFN. (MW collection)





**Above:** Lockheed 14 PJ-AIP prior to delivery to the Dutch West Indies from Lockheed. (SDASM)

In 1939 KLM, always looking for new markets, had launched the 'Norway Express' route to Oslo which connected at Kristiansand with a flying boat service to the Arctic Circle. It was aimed at wealthy tourists, and used a DC-2 initially, later a DC-3 if necessary.

KLM imported two Lockheed 14s to Europe in 1938 for its less dense routes, but one (PH-APE) was lost in a fatal crash. In August 1939 the second, PH-ASL was sold to British Airways (it crashed in November 1939 - the British Super Electra attrition rate was rather high). KLM's West Indies division and KNILM also received Lockheed 14s and the latter launched their route to Australia with their Lockheeds.

The outbreak of war severed most of KLM's routes. "HOLLAND" in large capitals was painted on the bare metal roofs of its Douglas fleet to indicate neutral nationality. It was prohibited from flying over Germany or France and initially only its routes to Scandinavia and Belgium remained open but, after a few weeks, flights to England (to Shoreham, and diversion field Lydd) were permitted to resume by the British authorities. The other neutral lines Sabena and the Danish DDL also had to use Shoreham (whilst Air France and British airliners could use Heston for London).

KLM's first contact with hostile military aircraft occurred on September 26th 1939 when DC-3 PH-ASM *Mees* was shot up by a Luftwaffe float-plane on the way back from Stockholm. While *Mees* was being repaired at Schiphol it was painted orange all over with the large letters HOLLAND on the roof and several other aircraft of KLM's Western European fleet were similarly painted orange. (*Mees* was captured at Schiphol in the invasion of 1940 and served with the Luftwaffe and Lufthansa. The Germans even had it rebuilt by Swissair after transporting it by rail from a site in Scandinavia where they had crashed it.)

### THE LISBON ROUTE

In April 1940 KLM boldly launched a service from Amsterdam to Lisbon (Sintra) to link up with the new Pan American Boeing 314 service. French and Spanish airspace was closed to KLM and the Lisbon flights avoided the UK even though KLM served Shoreham. (A *Flight* editorial suggests that the British were unhappy about a neutral link between Holland and Lisbon with connections to America which Germany could use to break the Allies blockade.) The KLM DC-3s flew over water from Amsterdam down the English Channel and over the Bay of Biscay to Oporto in Portugal where they refuelled and completed the journey to Lisbon. The twice-weekly service had been running for 5 weeks when a KLM aircraft, having left Lisbon, received a coded radio message saying that Holland had been invaded by Germany. It returned to Lisbon, then flew to the UK to join the Allies.



**Above:** Douglas DC-3 PH-ASM "Mees" painted orange overall and with HOLLAND identity markings standing in icy conditions, presumably at one of KLM's Scandinavian destinations. (SDASM)

### THE FATE OF THE DOUGLAS FLEET MAY 1940

DC-3s transferred to NEI before the invasion: PH-ALN, -ALO, -ALP, -ALT, -ALW, -ARE, -ARG.  
 Destroyed by bombing at Schiphol 10 May 1940: DC-2 PH-AKK, -AKN, -AKO, -AKP, -ALD. DC-3 PH-ALU, -ARX, -ASP, -AST.  
 Captured by Germany May 1940: DC-2 PH-AKI, -AKJ, -AKG, -AKR, -AKS, -AKT. DC-3 PH-ALH, -ALV, -ASK, -ASM, -ASR.  
 Escaped to Britain: DC-2 PH-ALE DC-3 PH-ALI, -ALR, -ARB, -ARW, -ARZ.

In total five KLM DC-3s and one DC-2 escaped to Britain. Whatever their actual entry point to Britain, (Shoreham was designated) it is known that four orange painted KLM aircraft spent a week at Ringway in May 1940. They were then camouflaged and given British registrations, recorded owner being KLM Nederlands en Kolonien NV, Horseferry Rd, SW1 (usual station Heston).

DC-3s were:  
*Ibis* PH-ALI (G-AGBB) (At Shoreham when Holland was invaded)  
*Reiger* PH-ALR (G-AGBC)  
*Buizerd* PH-ARB (G-AGBD) (Flew to Shoreham from Near East via Marseilles)  
*Wulp* PH-ARW (G-AGBI)  
*Zilverreiger* PH-ARZ (G-AGBE) (Escaped from Schiphol during the invasion)  
 And DC-2 *Edelvalk* PH-ALE (G-AGBH)



**Above:** Douglas DC-3 PH-ARB "Buizerd" became G-AGBD and is seen here with KLM UK wartime staff members in late 1944.

**Below:** PH-ASR. PH-ALI and PH-ARZ in all-over orange parked at Schiphol, winter 1939/40. (Both: Dutch Dakota Association)



Link: Colour Photo of *Zilverreiger* in camouflage at Whitchurch  
<http://tinyurl.com/4xj2at5>

## OPERATIONS IN BRITISH MARKINGS

Photos show that they carried British registration marks underlined with red-white and blue like BOAC aircraft but carried no airline name or badge (later the individual Dutch bird-name of each aircraft was applied to its nose) and they retained KLM interiors .

British attempts to connect with the Pan American Boeing 314 service to Lisbon had involved the rather inadequate DH Albatross and the underpowered AW Ensign both of which needed to refuel at Bordeaux which became unavailable when France fell. It was convenient for the British to hand over the UK-Lisbon route to the experienced KLM team under charter. The book '*DC-3 onder Nederlandse Vlag*' relates how suspicious the BOAC personnel were of the Dutch initially, with talk of an armed BOAC pilot having to fly on each trip to Lisbon (the route they were assigned), and it took the intervention of the veteran pilot and writer Henry Spry Leverton to smooth relations. By December 1940 they were flying with all-Dutch crews.

The UK - Lisbon route became a reliable and essential air link from the UK to the rest of the world. Initially the KLM aircraft were based at Whitchurch but picked up their passengers from London at Heston, then after refuelling in the West Country they flew to Lisbon over the Bay of Biscay. KLM's Captain Tepas crashed DC-3 G-AGBC *Reiger* positioning to Heston in fog in September 1940. After the bombing in September 1940 Heston was abandoned and passengers then had to embark at Whitchurch some 100 miles from London. However Whitchurch did not escape bombing and KLM's DC-3 G-AGBI *Wulp* was destroyed in a raid in November 1940. The route taken was Whitchurch - Chivenor (later St Mawgan)\* - Oporto\*\* - Lisbon. (\* refuelling southbound, \*\*refuelling northbound).

Later, on 1st of June 1943 Captain Tepas and all on board G-AGBB *Ibis* perished when it was shot down by Ju88s over the Bay of Biscay ('Flight777'). KLM's diminished Whitchurch fleet was reinforced with 3 lend-lease Dakotas G-AGJR, G-AGJS and G-AGJT in 1943.

Routes were listed in AVIA 2/2370 file, dated October 1944. The main KLM Lisbon route 1L/2L had become Hurn - St Mawgan - Oporto - Lisbon, 6 times per week. In addition route 25M/26M Whitchurch - Lisbon - Gibraltar, once per week is listed. By this time various routes flown by BOAC also passed through Lisbon, reducing the pressure on the KLM operation.

After the partial liberation of Holland in the winter of 1944/1945 the military Dakota unit No.1316 Flight was formed from the KLM operation in the UK.. KLM had carried about 18,000 passengers on some 1,600 flights on the Lisbon route.

Link: <http://www.britishpathe.com/record.php?id=12028> for 1941 newsreel

## THE NETHERLANDS EAST INDIES (NEI) ROUTE

By 1939 KLM were using a dedicated fleet of DC-3s equipped with just 11 reclining seats from Amsterdam to Batavia on the East Indies run although they also carried a large amount of mail.

KLM's inability to use German and French airspace in early 1940 resulted in the selection of Naples as the terminus for the Dutch East Indies service with connections to Amsterdam by train. The legendary Ivan Smirnoff flew many of these Indies flights and relates in a biography by Anne Coupar-Smith how, as a Queen's Messenger for the Dutch Diplomatic Corps, he had to carry the Diplomatic Bag through Germany on the train. He had a close call when he left the bag behind in a late night club-buffet in Berlin but fortunately retrieved it from the cleaners in the early hours.

When Italy entered the war Naples was abandoned and, from July 1940 to February 1942, the modern airport at Lydda in British mandated Palestine became the Western terminus for this reliable service to the Netherlands East Indies and onwards to Australia. The service was weekly until March 1941 when BOAC requested a second weekly KLM return service Lydda-Batavia to bolster capacity on its Singapore service. The Empire troops involved in the Middle East campaigns in 1941 relied on the KLM service for their mail.



**Above:** DC-3 PH-ARE "Emoe" with typical Vesuvian background when operating from Naples in early 1940. (KLM / MW collection)

**Below:** PK-ALW (ex KLM PH-ALW) loading mails for Lydda. (Harry Clare album, 3 Sqn Association RAAF)



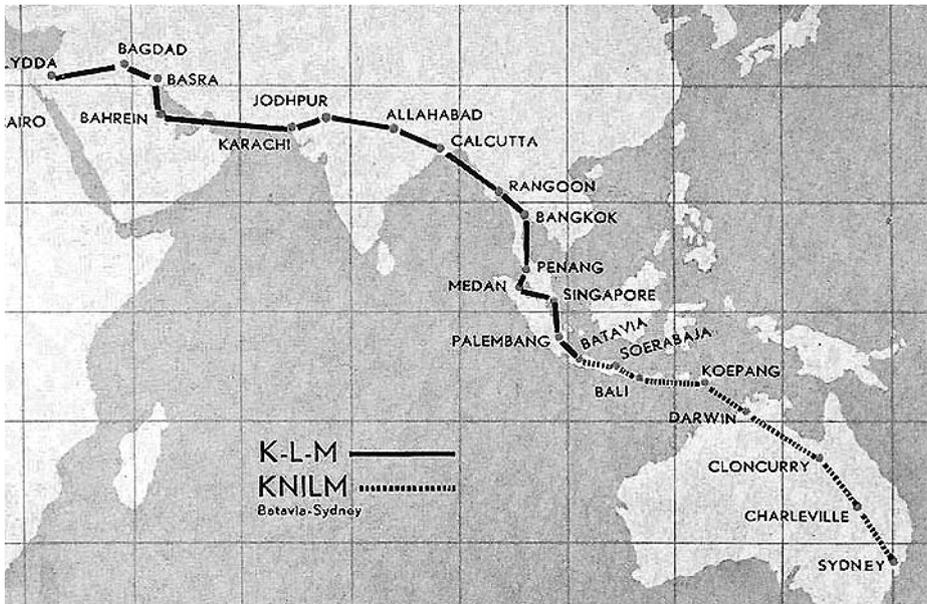
**Above:** The luxury interior of the KLM DC-3 operating the Amsterdam - Batavia East Indies route contained just eleven reclining seats. (KLM / MW collection)

**Below:** KNILM DC-3 in the foreground at Batavia with KLM's PK-ALO "Oehoe" behind. (KLM / MW collection)



KLM's founder Albert Plesman was trapped in Holland when it was invaded but he had previously transferred control of KLM worldwide operations and some of its European fleet to Major W Versteegh, director of the Netherlands East Indies company KNILM

The four KLM DC-3s now dedicated to the Lydda - Batavia route remained in bare metal, but then had large Netherland tri-colour stripes painted on the cabin roof and continued to wear KLM lettering. Registration prefixes were altered from PH- to PK-, namely PK-ALN *Nandoe*, PK-ALO *Oehoe*, PK-ALT *Torenvalk* and PK-ALW *Wielewaal*.



**Left:** The KLM / KNILM route map for the Lydda to Sydney service. KLM operated as far as Batavia (today's Jakarta) and KNILM onward from there to Sydney. (KLM / MW collection)

**Below:** One of the four KLM DC-3s which operated the Lydda - Sydney route, still wearing the company titles but re-registered in the NEI. The red, white and blue Netherlands tricolour is painted above the window line. (SDASM)

Three European fleet DC-3s were painted in KNILM marks without the tri-colour roof stripes and reregistered (PK-AFV ex PH-ALP *Pelikaan*, PK-AFW ex PH-ARG *Giery* and PK-AFZ ex PH-ARE *Emoe*). These were the first DC-3s to reach KNILM which, considering the large area it served, had a rather modest pre-war fleet. KNILM's service to Australia had started with Lockheed 14s in 1938, DC-2s and DC-3s being used later and it had routes to Singapore, Saigon and Borneo in addition to domestic NEI services along the island chain now comprising Indonesia.

KNILM fleet, late 1940..asterisks\* mark those destroyed by March 1942, mainly by Japanese action.

Fokker VII-3m	PK-AFG
Fokker XII	PK-AFH*, -AFI*
Douglas DC-2	PK-AFJ*, -AFK, -AFL
Lockheed 14	PK-AFM*, -AFN, -AFO*, -AFP, -AFQ
Grumman G-21 Goose	PK-AER*, -AES*, -AFR*, -AFS*
Sikorsky S-43	PK-AFT*, -AFU*, -AFX*
DH89A Rapide	PK-AFV*
Douglas DC-3	(KNILM) PK-AFV*, -AFW*, -AFZ*
Douglas DC-3	(KLM) PK-ALN*, -ALO*, -ALT, -ALW
Douglas DC-5	PK-ADA, -ADB*, -ADC, -ADD (-ADA captured by Japanese)

KNILM's DC-5s were delivered with two to the NEI directly in 1940 and two in 1941 after a few months with KLM West Indies Division. KNILM had ordered more DC-3s from Douglas for 1941 delivery but they never arrived. The transport needs of the NEI had become increasingly military and the NEI Air Force did receive a fleet of 20 Lodestars in 1941. The civilian interiors of the KLM/KNILM fleet were stripped to increase payload as cargo and evacuation became the main priorities.

Japanese bombing raids began to take their toll on the KLM fleet in December 1941 when PK-ALN *Nandoe* was destroyed at Medan in Sumatra on the service to Lydda.



**Above:** KNILM Sikorsky S-43W wearing the temporary ferry marks XPK-AFU pre-delivery in January 1941, was the last S-43 to be built. It was destroyed by Japanese action on 19.2.42 at Semplak. (Howard Levy via Bill Larkins)



As the NEI collapsed under the Japanese onslaught the KNILM fleet, equipment, crews and families were evacuated to Northern Australia from where they continued support and evacuation flights for the NEI. DC-3 PK-AFV *Pelikaan* was shot up by Japanese fighters over the Timor sea but its pilot, Ivan Smirnoff managed to crash land it on a remote beach at Carnot Bay near Broome. The survivors were found by an aborigine after several days during which a number of passengers had died. The crash-landing entered Australian folk-lore mainly because of the loss of (and subsequent police search for) a packet of diamonds that Smirnoff had been given to transport from the NEI.

One DC-5 was destroyed and one captured by the Japanese in the invasion of the Indies. KNILM/KLM wanted to continue operations from Australia supporting the Allies on a charter basis rather like the Lisbon service from the UK but the Allied Directorate of Air Transport (ADAT) insisted on requisition and military control of the aircraft and military status for the Dutch crew. (The Dutch aircraft were now marked with the curious civilian-looking radio codes e.g. VHCXC). This effectively was the end for KNILM and the management of KLM reverted to London and an office in New York. The Dutch defiantly marked the end of their independent operations by flying a loose formation of DC- transports under the Sydney Harbour Bridge

#### KLM WEST INDIES DIVISION

The Dutch West Indies was somewhat isolated from WWII combat zones but there was U-boat activity in the area early in the war. KLM West Indies Division served the islands Aruba, Cuba, Dominican



**Above:** PJ-ACA was one of two Lodestars added to the KLM West Indies fleet in 1943. (KLM / MW collection)

Republic, Haiti, Jamaica, St Maarten, Surinam, and Trinidad together with Colombia and Venezuela in South America and finally getting a coveted route to Miami (USA) in 1943. Its adequate fleet comprised two Fokker XVIII PJ-AIO, -AIS; four Lockheed 14s PJ-AIK, -AIM, -AIP, -AIT; and two DC-5s PJ-AIW, -AIZ. The DC-5s were transferred to the East Indies in 1941, two Lodestars, PJ-AKA, -AKB were added in October 1943 and PJ-AIP was written off in Trinidad in August 1942.

#### KLM AND THE DC-5

After delays curing aerodynamic problems, the first tricycle undercarriage airliner to enter production, the Douglas DC-5, was ready for the market in 1939. British Airways ordered 9 in August 1939, with their deposit paid and rapid delivery with sea shipments organised for early 1940. Within days of the order war broke out and BA Ltd were instructed to cancel the order (the deposit being returned to the British Airways agent in New York). BA Ltd's successor BOAC received the DH Flamingo instead, an airliner in much the same class. In the reshuffle of the DC-5 production line KLM received aircraft laid down for BA Ltd. KLM were intending to operate the DC-5 in Europe and at least one received PH-marks briefly before being re-painted at the factory. In the event two were delivered for the West Indies division as PJ-AIW, PJ-AIZ, and two for the East Indies as PK-ADA, PK-ADB.

After some months the PJ- registered pair in Curaçao, West Indies, were shipped by sea to the Netherlands East Indies becoming PK-ADC and PK-ADD. The KNILM DC-5s mostly served on the shorter routes to Saigon and Singapore but one did visit Australia before the Japanese invasion of the NEI and their fuel capacity and therefore range was increased whilst in service in the NEI.

#### DC-5 production (adapted from AAHS monograph):

- # 411 NC21701 (sold to William Boeing), BuAer08005.
- # 422 G-AFYG reserved, parts used to build # 606, 607.
- # 423 G-AFYH reserved, parts used to build # 606, 607.
- # 424 G-AFYI reserved, PH-AXA reserved, delivered as PJ-AIW, transferred to NEI as PK-ADC, to VHCXB March 1942, dbr Nov 1942, assigned 44-83231.
- # 425 G-AFYJ reserved, parts used in # 608.
- # 426 G-AFYK reserved, PH-AXB reserved (but Douglas loading card has PH-AXG), delivered as PJ-AIZ, to NEI as PK-ADD, to VHCXC March 1942, assigned 44-83232, then VH-ARD with A.N.A., then via New Holland Airways to Israel IDFAF'1501' survived to 1955.
- # 427 G-AFYL reserved, parts used in # 609.
- # 428 G-AFYM reserved, PH-AXE reserved (but Douglas loading card has PH-AXB), shipped to NEI as PK-ADB, to VHCXA March 1942, destroyed Aug 1942, assigned 44-48323.
- # 429 G-AFYN reserved, parts used in # 610.
- # 430 G-AFYO reserved, PH-AXG reserved (but Douglas loading card has PH-AXE), shipped to NEI as PK-ADA, captured by Japanese March 1942 in Bandoeng and flown to Japan.
- # 606 - # 612 completed for the US Navy and US Marines, (1 crashed before delivery, 1 destroyed Pearl Harbor), 5 survived WWII, then scrapped.

(Some cancelled BA Ltd positions were briefly assigned to SCADTA and Pennsylvania Central Airlines but the sales fell through).

After the liberation of the Netherlands KLM services resumed with Dakotas to European destinations and within Holland with DH89As while the rail and road network was rebuilt.

In 1945 Albert Plesman persuaded President Truman to loan the Dutch a fleet of C-54s which were marked 'Netherlands Government Air Service' with NL- serials and orange triangle emblems, but operated by KLM crews while KLM waited for delivery of new-build DC-4s ordered from Douglas. The loan aircraft enabled the service to the East Indies to be resumed promptly. KLM was once more in a better position than the British national airline regarding its fleet. Curiously some of the loaned C-54s, sold off to Skyways in the late 1940s came to wear the Speedbird symbol on charter to BOAC

Special thanks to Maurice J Wickstead for KLM material including a translation of 'DC-3 Onder Nederlandse Vlag', also to Paul van den Berg and Paul van der Horn of the DDA, Rob Mulder, Nils Mathisrud, R A Scholefield and Paul van Weezepoel.

Bibliography: 'Dakota, DC-3/C-47 onder Nederlandse Vlag' by Theo Wesselink, Thijs Postma. *Pictorial History of KLM* by Roy Allen. DC-1/-2/-3 *The First Seventy Years* by Jennifer M Gradidge.



**Above:** DC-5 c/n 426 as PH-AXB in California. (Douglas Co.)

**Below:** PJ-AIW c/n 424 in service in the Dutch West Indies. (SDASM)



**Above:** PK-ADA and PK-ADB on the quay at Long Beach harbour in 1940 awaiting shipment to NEI. (MW collection)

**Below:** C/n 424 as PK-ADC camouflaged in Australia. (John Hopton col.)



**Above:** PK-ADA c/n 430 following capture by the Japanese. (SDASM)

**Below:** The original (PH-AXB) c/n 426 survived the war and became VH-ARD, here in New Holland Airways titles. (MW collection)



# The Extraordinary Flight of the 'Moscow Mule'

AN UNUSUAL EVENT UNCOVERED BY MICHAEL WEST



William P Lear was a legendary 'Can-Do' American entrepreneur who had made his original fortune in the early days of radio in the U.S. and was associated with the first successful car radio brand, Motorola. He was a pilot (surviving a crash in his Beech Staggerwing in 1939) and turned his attention to aviation electronics including radios, auto-pilots and automatic direction finders.

In June 1956 he was travelling in Europe marketing his Lear brand compact avionics from his smart white, blue and yellow Cessna 310B N77L (c/n 35117) when he learned of a forthcoming Air Show in Moscow. (The USSR was opening up to an extent after Stalin's death, the period known as 'The Krushchev Thaw'). Legend has it that Lear applied for a visa from the Russians at short notice and was given it in 24 hours (without the U.S. Government's knowledge).

Bill Lear and his wife Moya landed in East Berlin to pick up the obligatory Russian navigator then flew on to Moscow where he was apparently permitted a half-hour aerial tour over the city. The Soviets were greatly interested in the compact and advanced Lear multichannel radio, A.D.F and Auto-pilot in the Cessna.

*N77L at the Pan American Hangar, Heathrow on 13Jan56 (David Banham /abpic)*

There was also an official US delegation including Air Force General Nathan C Twining in a U.S.A.F C-118 at the Air Show. When the U.S. Embassy learned of Lear's sales efforts he was hauled in and reminded of the U.S. embargo on selling equipment with military value to the Soviets.

Lear later commented that the Russian autopilot on their new Tu-104 was like something from the B-17 but he abandoned attempts to sell his equipment directly to the Russians. Since Lear avionics were commercially available in the West, the Soviets no doubt acquired examples to analyse with ease.

N77L was named the 'Moscow Mule' celebrating the first private flight into Russia since before World War II. By the late 1950s Lear was more involved with the Learstar (his Lodestar conversion) and N77L was sold in France in 1960 as F-BJOF and believed wfu in 1974.



*N77L at Croydon Aug58 now with "Moscow Mule" title and European itinerary on rear fuselage. (Brian Doherty /abpic)*

With thanks to David Banham, Brian Doherty, Terry Murphy, Peter Watson

LIFE Photo Lear Moscow  
<http://preview.tinyurl.com/2wm25z4>  
 Articles on Lear 2v8p4xf 2vgtwqd 2wvgrav

# The FARMAN 190 and its derivatives

Michel Barrière

PART FOUR



## Individual F.190 histories (continued):

### F.190 no.11, c/n 7117 F-AIYM

On 22nd September 1928, the Secretary of State for Air, Laurent Eynac, made the decision to postpone the 'grands raids'. But, even if the State was able to ban the journeys which it had been supporting financially and technically, it was unable to do the same for long-distance tourism of a completely private nature as proposed by a previously unknown aviator from Nancy, André Bailly. (A former pilot in the 34th Aviation Regiment, Bailly, aged 23, had 2,000 flying hours and had achieved a tour of 15,000 kms in North Africa with a Morane MS.147.)

His aircraft was an F.190 with a GR5 Ba engine which he had bought for 180,000 francs. If the press described this as a purely production aircraft it was not exactly correct as the articles and photographs of F.190 no.11 showed that it had been designed to carry large capacity fuel tanks in its cabin. The press (ie. "*Le Petit Journal*" of 14.3.29 and "*L'Intransigeant*" of 17.3.29) quoted a total capacity of 2,000 litres, giving nearly 40 hours endurance, which leads one to suppose an uplift of around 1,400 litres in the cabin. This was a capacity similar to that of several recorded F.190s such as the F.192 F-AJLU of Lena Bernstein and the F.191 F-AIVQ of Romeo Popesco.

While its appearance in the register was early (between F.190s no.6 and no.7) its s/n of 11 seems to have been allocated later. On this subject it must be noted that while not conforming to the CdN type specifications of the F.190 by virtue of the fuel capacity originally declared, the aircraft could possibly have been put forward in a different category (as an F.191 perhaps?).

Summoned by Laurent Eynac, Bailly was unable to avoid taking notice of the Minister's decision on one count in particular: the aircraft would not take-off overloaded according to its CdN. The Farman consequently appears to have been lightened; its fuel capacity was reduced to 710 litres, with 550 litres in the enlarged wing tanks and 160 litres in the supplementary tank in the cabin, thus restoring the aircraft to a standard load with the removal of two passenger seats.

### CdN no.2049 issued 15.3.29.

Farman no.11 c/n 7117 was registered as F-AIYM. Photographs show that the aircraft had a metal Levasseur type 151 propeller fitted for the journey. On March 26th the crew, consisting of André Bailly, Jean Reginensi and mechanic Jacques Marsot, took off from Le Bourget. Reginensi, who was Chief Warrant Officer of No.34 Aviation Regiment,

**Above:** F-AIYM, the F.190 no.11 in which Bailly, Reginensi and Marsot made the Paris - Saigon - Paris flight in March/April 1929.

(Rol/Musée de l'Air via H J Hazewinkel)

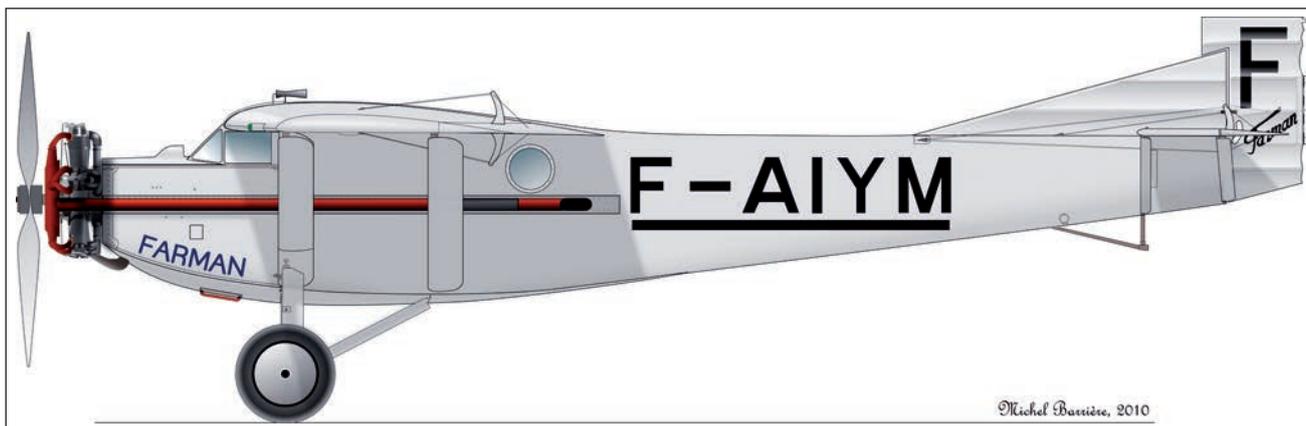
**Below:** In this view F-AIYM carries the inscription "Paris - Saigon" on the nose and also the number "24" on the fin - probably an indication of one of the events in which it participated on its return. (via JM Collection)



**Above:** In this view of F-AIYM the registration lies below the continuous and higher cheat-line and the name "Farman" is to be seen on the nose. (via JM Collection)

was granted three months leave to take part. From 26th March to 5th April, the aircraft, described as a "strictly production" F.190, achieved a fast connection between Paris and Saigon, establishing a record speed for the distance. Its route took in Padua (1,300 km, 26.3), Belgrade (800 km, 27.3), Constantinople (800 km, 28.3), Aleppo (1,000 km, 29.3), Baghdad (800 km, 30.3), Bandar-Abbas (1,500 km, 31.3), Karachi (1,250 km, 1.4), Allahabad (1,500 km, 2.4), Akyab (1,250 km, 3.4), Bangkok (1,250 km, 4.4), reaching Saigon on April 5th at the end of a 750 km stage. The aircraft was named "*Paris - Saigon*" although in the press it was occasionally "*France - Indochine*" but this does not seem to have been painted on it.

Between the 12th and 20th April it made the return journey carrying 50 kg of mail: Saigon to Bangkok (750 km, 12.4), Akyab (1,220km, 13.4),



**Above:** F.190 no.11 F-AIYM with Farman titles. (Artwork: Michel Barrière)

Calcutta, Allahabad (1,250 km, 14.4), Karachi (1,440 km, 15.4), Bandar-Abbas (1,100 km, 16.4), Bassora, Baghdad (1,500 km, 17.4), Aleppo, Constantinople (1,460 km, 18.4), Belgrade, Udine (1,460 km, 19.4), Lyons, Le Bourget (1,050 km, 20.4), thus completing a journey of 26,000 km.

On the 22nd Lucien Coupet transferred F-AIYM to Toussus-le-Noble for an inspection and maintenance. On the 27th Bailly returned home to Nancy where he received a triumphant welcome before going back to Paris the next day for official receptions.

In September 1929, at the time of the next inspection, the Farman had logged 110 flying hours and was fitted with a Chauvière 5120 propeller. In October 1929 Bailly acquired F.190 no.34 to which he transferred the GR5 Ba Titan engine no.5105 from no.11. Fitted with a new engine, F-AIYM took part in various demonstrations such as the Vincennes meeting. In July it won first place in the Lyons Rally.

At the beginning of 1930 it was rebuilt to production standard. It was probably the F.190 of Air Service with luxury fittings which arrived at Toussus in January ("Les Ailes", 23.1.30), later mentioned in a survey in "Les Ailes" on 19th June 1930. In October 1930 it was registered to Sté Air Service with a total time of 263 hours. It flew little in the following year but later returned to a more normal rate of 60 hours a year: 281 hours by September 1931, 340 hours by September 1932, 406 hours by September 1933.

In January 1937, equipped as an ambulance aircraft, it was sent to Spain (Jean Massé, "Des avions pour l'Espagne", les Presses littéraires, 2006). It did not survive the Civil War.

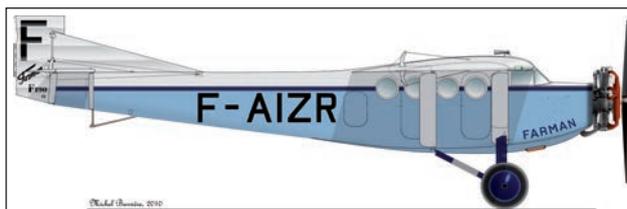
### F.190 no.12, c/n ? F-AIZR, CV-RAC, YR-ABU

#### CdN / Cdl no.2081 issued 29.4.29

Farman 190 no.12, equipped according to the type standard (358 litre fuel tanks, Chauvière 5120 propeller) was registered F-AIZR to Sté des Avions H&M Farman. C/n unknown (possibly 7122?). It was immediately sent on a commercial demonstration to Turkey and Romania. The crew consisted of Commercial Director M.Treillard as mission leader, company pilot Thuau and mechanic Cordonnier. Well received by the Turkish military aviation, F-AIZR was then demonstrated in Romania.



**Above:** The F.190 no.12 as CV-RAC seen at Mokotowski airport, Varsovie, Poland, in June 1931 during a visit by Romanian officers. (Leon Jarumski. NAC - Polish Digital Archives via Michel Barrière)



**Above:** F.190 no.12 in basic Farman house colours prior to sale in Romania. (Artwork: Michel Barrière)

General Gorski, Inspector General of Aviation, and General Dimitrescu, Director of Romanian Aviation, urged M.Treillard to carry them to Constanza where the Savoia S.55s of the Italian General Italo Balbo's "Mare Nostrum" formation were due to visit during a tour of the Mediterranean. Seated in the Farman, they bought it on the spot and the crew returned home by train.

On becoming Romanian, F.190 no.12 was initially used by a military flying school, its livery retained but the French registrations painted out. In June 1931 a delegation of Romanian officers made a visit to Poland. Photographs taken at Varsovie showed F-AIZR newly repainted and wearing registration CV-RAC. In 1933 F.190 CV-RAC was used by the national airline LARES (Liniile Aeriene Romane Exploatate cu Statul). On 15th September it was registered as YR-ABU.

#### To: F.192 No. ? c/n 7122 YR-ABU

On 5th May 1934 YR-ABU received a new CofA probably as a result of its conversion to F.192 (no.21 ?) before ending its career with ARPA (Association roumaine de promotion de l'aviation).

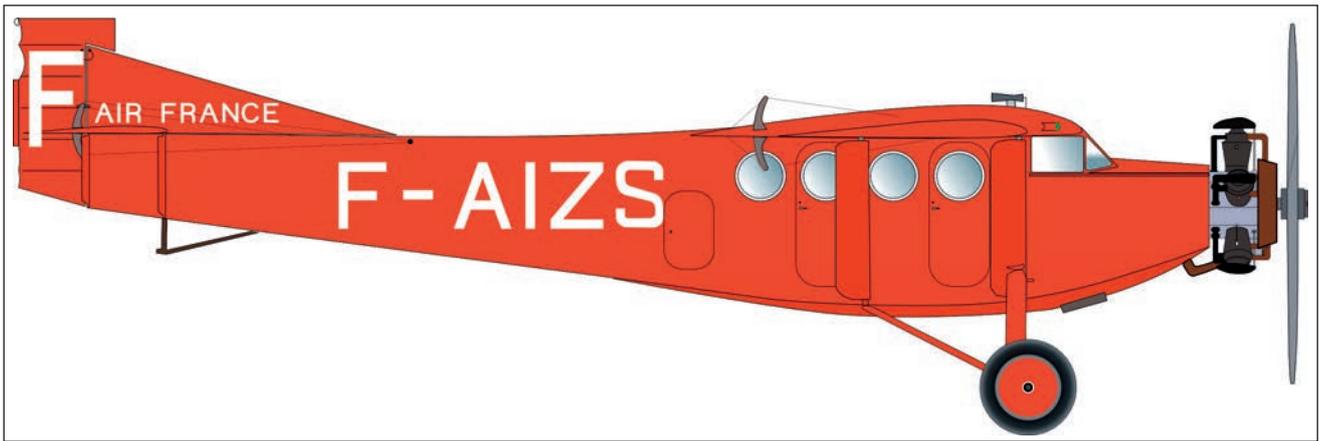
### F.190 no.13 c/n ? F-AIZS

#### CdN / Cdl no.2103 issued 17.5.29.

The ownership of F.190 no.13, initially registered to Sté des Avions H&M Farman, was quickly transferred to CIDNA (Compagnie Internationale de Navigation Aérienne). The aircraft was equipped with small fuel tanks of 140 litres and a Chauvière propeller. Its c/n is unknown but could be 7123. It was intensively used by CIDNA, no doubt it played a part in crew training and ensured the carriage of personnel and goods around the network but it also served as an air taxi. In the summer of 1931 a journalist from the "Petit Parisien" travelled alone on a link between Prague and Varsovie in F.190 no.13 flown by a Czech pilot.

In October 1929 during its check at Le Bourget, its total time comprised 365 hours. In the first quarter of 1930 the aircraft was under rebuild. In November it was inspected at 506 hours and at its next inspection in August 1931 it had reached 733 hours. In the second quarter of 1932 it underwent another rebuild by which time it had achieved 834 hours. In August 1933 it was transferred to Air France on the company's formation and was named "L'Astucieux". On 9th October it was inspected at Strasbourg at 899 hours. On 22nd June 1938, during an inspection at Marignane it was fitted with a GR5 Bc engine, a Levasseur metal propeller, carried TSF equipment and had dual controls.

In 1940 F.190 no.13 was commandeered by the Germans. (Air France archives via Bruno Vielle)



**Above:** F.190 no.13 F-AIZS in high-visibility colour and Air France titles after August 1933 when the airline was formed. (Artwork Michel Barrière)

**Right:** F.190 no.14, as F-AJAI it served with STPO in the Near East and later operated with Air France having acquired the name "L'Arrogant" on the nose. (via George Jenks)



### F.190 no.14 c/n ? F-AJAI

#### CdN / Cdl no.2104 issued 17.5.29.

Registered as F-AJAI to Sté des Avions H&M Farman; c/n unknown (possibly 7129?). In November 1929 it was inspected at Le Bourget with 144 flying hours. In October 1930 it was registered to Air Union. In 1933 the aircraft, transferred to Air France, was based in the Middle East. It then appears to have been used for seasonal charter flights by S.T.P.O. (Sté des Transports du proche Orient = Transport Company of the Near East) an air service operator retained by oil companies to ensure transport provision for personnel and freight, particularly on the Damascus – Baghdad route.

So, in May 1934 it was registered to the S.T.P.O.. In November it rejoined the Mediterranean network of Air France and was named "L'Arrogant". It was probably this aircraft which, piloted by Capt Douchy, provided the pleasure flights at the show put on in November 1935 at Damascus by the 39th half-brigade of the Levant. In October 1935 it was again registered with the S.T.P.O.. In the first quarter of 1937 it was inspected with a total time of 1,105 hours and in October 1930, he was posted to the 39th Regiment d'Aviation du Levant where he spent 8 years. Appointed commander of the navigators' training

In December 1937 F-AJAI was registered in the name of Georges Goumin, an officer serving at Rayak, who named it "Corbineau". (Goumin, born at Orange on 19.2.05 and employed in aviation since 1923, obtained his pilot's certificate in 1929. Promoted to lieutenant in 1930, he was posted to the 39th Regiment d'Aviation du Levant where he spent 8 years. Appointed commander of the navigators' training

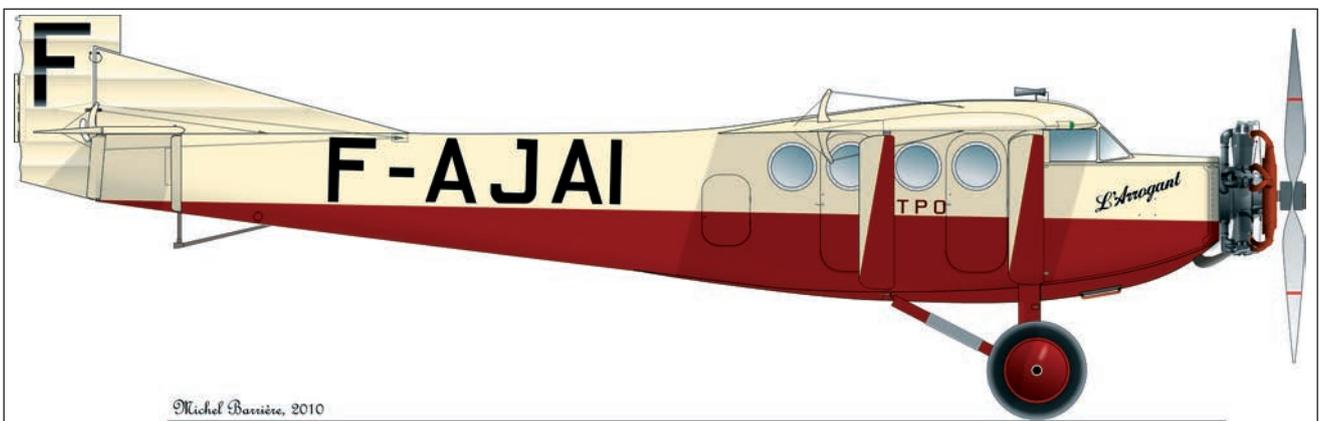
group at St Jean d'Angely in July 1939. Moving to England in 1940, he took part in Free French activities and on 26.5.41, following the desertion of an officer in his group he took part in a suicidal mission on behalf of British troops in Crete and was killed when his Glenn Martin was shot down.)

In October 1938 its inspection at Rayak with 1,189 hours showed that its configuration had hardly changed since its construction. F.190 no.14 was struck off the French register in April 1939 and was probably placed in storage there when, in July, Georges Goumin was recalled to France. Apparently it remained in store at Rayak, so this aircraft might well be the unidentified F.190 recovered and used in 1942 by the FAFL with the registration FL-AUM (see later).

### F.190 no.15, c/n ? F-AJCC, EC-LAA

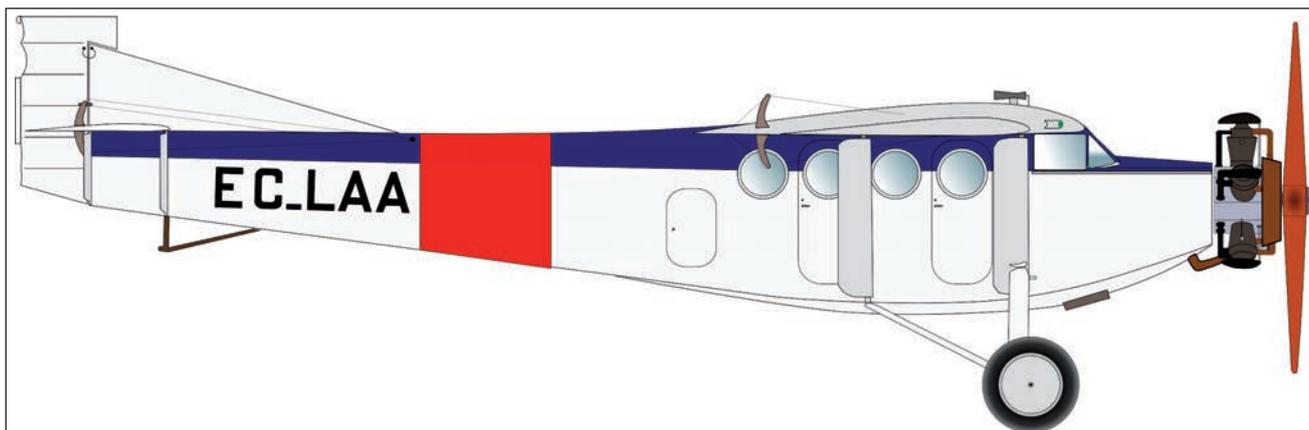
#### CdN / Cdl no.2117 issued 25.5.29.

Registered F-AJCC to Sté des Avions H&M Farman, then to the SGTA. C/n unknown (possibly 7130?). In January 1930 it took part in the International Exhibition of Barcelona. After the exhibition, Lallouette and Treillard, Farman's commercial director, went to Barcelona to collect the Farman and carried out a demonstration tour in Spain. On January 22nd, Lallouette performed demonstration flights above José Canudas' airfield at El Prat de Llobregat. On the 28th he left El Prat for Madrid. It was anticipated that subsequently he would go to Seville



Michel Barrière, 2010

**Above:** Side view of F-AJAI showing the STPO titles between the cabin doors and name "L'Arrogant" on the nose. (Artwork Michel Barrière)



before returning to Barcelona on his return journey to Paris. However, in February the F.190 no.15 was acquired by the CEA (Compañía Española de Aviación) which put it into service immediately ("Les Ailes" 27.2.30); the aircraft being registered as EC-LAA. Lallonde and Treillard returned to Paris by train.

Unfortunately we have little information about the activities of the F.190 EC-LAA within the Spanish company. Its presence at the CEA flying school at Albacete in December 1930 during a period of unrest might lead us to suppose that it was used for training but it did also carry out flights for route studies or air services.

On January 3rd 1933 the F.190, flown by Wladimir Marchenko accompanied by mechanic Angel Martin, carried out a test flight to study the route between Madrid and Valencia which the CEA were contemplating opening with a Stinson. (Marchenko was later a pilot with LAPE). On March 18th the inauguration of Valencia-Manises took place; the Farman took part in this, flown by Marchenko with two passengers. The Valencia to Madrid route operated by CEA was opened on this occasion by a Bréguet 26 with four passengers.

Subsequently the Farman does not appear to have been used for regular operations but rather as an air taxi. On September 24th 1934, EC-LAA landed at Barcelona-El Prat de Llobregat airport on a flight from Madrid, flown by Ruano and with four passengers. It set off again in the evening for Madrid with three passengers. Similarly, on January 1st 1935 it landed at Barcelona-El Prat de Llobregat flown by José Laguna with one passenger. However, it did not leave for Madrid until January 10th.

On Saturday 13th and Sunday 14th April 1935, under the management of Ramon Torres, a group of Spanish pilots comprising Puga, Méndez, Laguna and Arangüena, organised for journalists a five-plane excursion from Barajas to Daimiel. The aircraft used were a military de Havilland, an Aero Club Moth, Puga's private Moth, Torres' Potez 43 and the Farman which was flown by José Laguna. The purpose of the journey was to follow by air the route taken by Don Quixote in La Mancha. After a stop-over at Daimiel they returned the following day. Then came the Civil War. September 2nd 1936 saw the aircraft carrying out trial flights at Toulouse-Francazal in the colours of the Spanish Republic. (Jean Massé, "Des avions pour l'Espagne"). "A Spanish aircraft, EC-LAA Farman F.190, a blue monoplane with the red band of the Frente Popular was prepared and initiated test flights" ("L'Eclair" 2.9.36, via Jean Massé). It was probably destroyed in a bombing raid at Barajas.

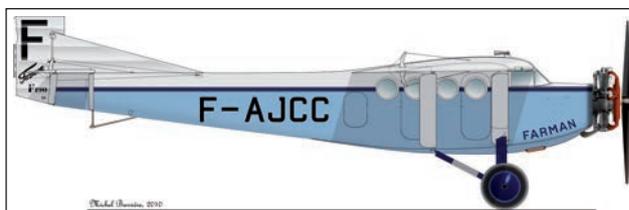
### F.190 no.16, c/n 7131 F-AJBS

**CdN / Cdl no.2132 issued 14.6.29.**  
Registered F-AJBS to the SGTA.

**To F.192 no.19, c/n 7131 F-AJBS**  
Registered in October 1931 as F.192 no.19 to the Sté de Propagande aérienne. It regularly took part in air displays, for example: on October 18th 1931 at Loches air show, on October 25th at Parçay-Meslay and on September 18th at Joué les Tours.

**Above:** F.190 no.15 served with the Spanish company CEA for six years as EC-LAA before taking up the red banner of the Republicans in the civil war.

**Below:** No.15 in Farman/SGTA colours as F-AJCC before sale to Spain. (Artwork: Michel Barrière)



In November 1932 it was briefly registered in the name of motor racing driver Guy Bouriat (perhaps as a way of regularising ownership before a new transfer), then in December to Maurice Salle, a pilot and aircraft salesman based at Neuilly sur Seine. (Salle was Beechcraft agent in France in 1936. Employing René Drouillet as a pilot, he played a part privately in the transfer by the latter of an aircraft to the Negus in Ethiopia. [Presumably the Beech 17? – Ed.]

The Farman was then acquired by Roger de Chesne, organiser of the Angers 24-hours event and driving force of the Aéro Club de l'Ouest. Michel Détrouy took delivery of the aircraft at Villacoublay on January 27th 1933 and it was then flown to Angers-Avrillé by Roger de Chesne accompanied by his mechanic Ménard, by M.Lasneret the treasurer of the Aéro Club, and by another passenger.

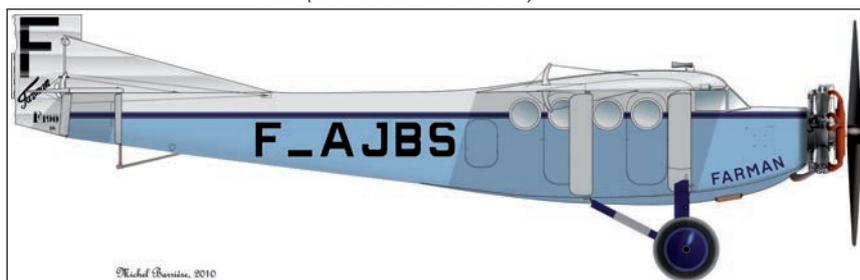
F-AJBS was registered to Roger de Chesne in February 1933 and then, on March 7th, it was christened "Ville d'Angers" with great pomp by Monsignor Rumeau the Bishop of Angers; Mme Gasnier du Fresne became the 'godmother' of the aircraft and M.Proust, the Mayor of Angers, became the 'godfather'. The Farman was subsequently used by Les Transports Aériens de l'Aéro-Club de l'Ouest, a subsidiary company.

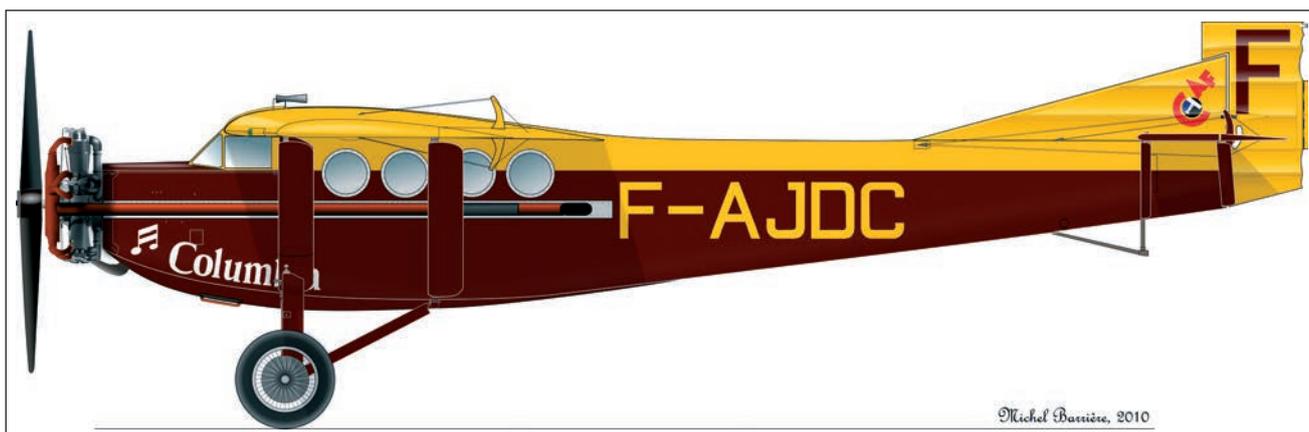
### CdN 1323 renewed by Veritas on 7.1.35

Registered on 7th January 1935 to the Compagnie Aérienne Française and still named "Ville d'Angers", it remained based at Angers-Avrillé. In the third quarter of 1937 a special inspection recorded it with a total time of 429 hours. On September 28th 1938 and inspection at Angers revealed 549 flying hours.

The Farman was probably impressed in 1939.

**Below:** F-AJBS, no.16 in original F.190 condition as registered to SGTA. (Artwork: Michel Barrière)





**Above:** F.190 no.17 was operated by the Compagnie Aérienne Française in this chocolate and yellow livery with the company logo in red on the fin.  
(Artwork: Michel Barrière)

**Right:** F-AJDC of the CAF was hired by the music company Columbia to transport the Alexander jazz orchestra which accompanied the 1932 Tour de France for touring aircraft. Band members indulge in a little publicity horseplay! The aircraft registration is not evident however.  
(Betrancourt Collection via F-X Bibert)



### F.190 no.17, c/n 7132 F-AJDC

#### CdN / Cdl no.2222 issued 12.8.29.

Registered F-AJDC to the Compagnie Aérienne Française and based at Suresnes. There is very little information about its use by the C.F.A.. It is possible that in 1932 it was used in the trans-Saharan route trials led by the C.G.T. (Compagnie Générale Transsaharienne) as a replacement for F.190 no.18 F-AJDD. In June 1932 it accompanied the Tour de France for tourist aircraft carrying the Alexander jazz orchestra on behalf of the Columbia company.

F.190 no.17 was registered on March 9th 1939 to the Aéro-Club de Chartres when it was decided to replace the engine with a Salmson.

#### F.192 no. ?, c/n 7132 F-AJDC

##### Change of type registered 15.5.39.

This was apparently the last of probably 25 (?) F.192s produced. Doubtless impressed, its ultimate fate is unknown.

### F.190 no.18, c/n 7133 F-AJDD

#### CdN / Cdl no.2256 issued 10.9.29.

Registered F-AJDD to the Compagnie Aérienne Française and based at Suresnes. Its initial use within the C.A.F. is unknown to us. In 1931 after an important visit to Africa, M.Dumesnil the Air Minister decided to speed up the establishment of the beaconing system of the Reggan – Gao air route. The C.G.T. (Compagnie Générale Transsaharienne) which operated the motor vehicle service on this route then opened the trans-Saharan air route. The link from Algiers or Oran to Gao (in present-day Mali) took 6 days and cost 3,990 francs. As far as Colomb-Bechar the route was a rail service; then from Colomb-Bechar to

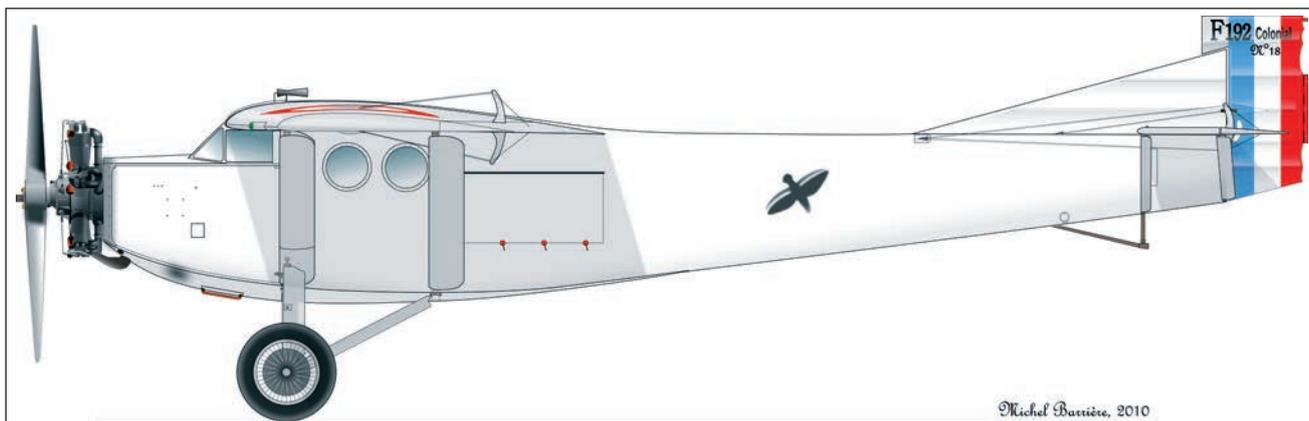
Reggan (in central Algeria) it was by C.G.T. motor vehicles. To connect Reggan to Gao, theoretically with a monthly return service, the C.G.T. called upon the C.F.A.

The aircraft engaged for this route was Farman F.190 no.18 F-AJDD. Flown by Obrecht, it was seemingly painted in the chocolate and golden yellow colours of the C.F.A.. On November 25th F-AJDD landed at Oran having flown from Marignane with M.Level a director of C.F.A. and his wife on board. It was followed by F.198 no.1 (F-AJNH) flown by Arrachart who had also come from Marignane to carry out his route survey for the Paris – Madagascar link.

The inaugural flight took place on November 29th 1931. Obrecht carried M.Level, Geroges Estienne the founder of C.G.T., and two civil servants returning to their posts. F-AJDD had no problem in completing this 1,300 km route over the desert, with a stop-over at Bidon 5, in convoy with Arrachart's F.198. The experiment was due to last for five months. For the passengers the time saved was appreciable: eight and a half hours of flight instead of three days by car, for a higher charge of only 12%. The aircraft carried an obligatory load of 100 kilos consisting of a wireless, emergency supplies and drinking water. Obrecht himself operated the radio, announcing the departure and arrival details and able to make contact in the event of an accident.

The Gao – Reggan return journey took place on December 22nd. On this occasion the Farman carried two passengers, a Taureg as interpreter, and 50 kilos of baggage which was the mail from Niamey.

The departure of the following flight scheduled for the 27th December, took place in fact on the 28th, the aircraft carrying only the interpreter, the mail and some freight. F-AJDD began the journey from Reggan to Gao but shortly after take-off from Bidon 5 a control cable broke causing the aircraft to crash. Obrecht contacted the C.G.T. by radio and



by December 31st the pilot, his interpreter, the mail and the freight were recovered to Gao. According to the press, the aircraft appears to have been destroyed.

(Note: The F- register is not categorical on this point. Furthermore, the confirmed existence of an unidentified F.190 ambulance equipped with a GR5 Ba and named "Farm 18" at Bamako in 1933 gives rise to the belief that it was repaired in a local military workshop.)

On January 24th Obrecht resumed the service with a new Farman F.190. This can be deduced to be either no.6 F-AIYD or no.17 F-AJDC which were the only F.190s that C.A.F. had at that time. The experimental service continued for five months, up to April or May 1932, then stopped due to lack of demand. The Air Force subsequently carried out a regular mail service with some Potez 25s; the C.G.T. did not resume its flights until 1934, using Caudron Phalenes.

#### F.190 no.19, c/n 7134 F-AJCD

The airframe of F.190 no.19 was used in the production of F.192 no.2.

#### F.190 no.20, c/n ? F-AJDP

##### CdN / Cdl no.2158 issued 28.6.29.

Acquired by Gnome-Rhône and registered F-AJDP in the name of Paul-Louis Weiller and based at Le Bourget-Dugny. C/n unknown (probably within the series 7135 to 7137). Named "Gnome-Rhône", the aircraft wore the company logo, a rider on a winged horse. In all, the Gnome-Rhône company acquired in turn four examples of the Farman F.190 family, including no.10 which it never put to its own use.

All the aircraft were luxuriously equipped, in keeping with the latest technological developments, particularly those produced by the company itself: profiled wheels, leather upholstery, thick fitted carpets and top of the range equipment such as Messier brakes, electric starters and central heating.

**Above:** This ambulance aircraft reported as "18" with the 1st Squadron of the AOF (Afrique Occidentale Française) at Bamako, 1933, may have been F.190 no.18 retrieved from the desert and rebuilt as an F.192. (Artwork: Michel Barrière)

##### CdN V 1369 renewed 21.11.30.

Registered on 12th December 1930 to Air Orient, the transfer of property having been carried out in October. The aircraft was based at Damascus and provided the service on the Damascus – Karachi route. On March 29th 1932 it was caught in a sandstorm while carrying out a special mission for the League of Nations commission responsible for demarcating the borders between Iraq and Syria. It crashed near Tell-Farida, 150 km from Rutbah and 350 km west of Baghdad, with three fatalities: the pilot Julien Risser, mechanic Huber and their passenger the Swiss Colonel de Reynier, president of the commission.

#### F.190 no.21, c/n 7141 F-AJFB

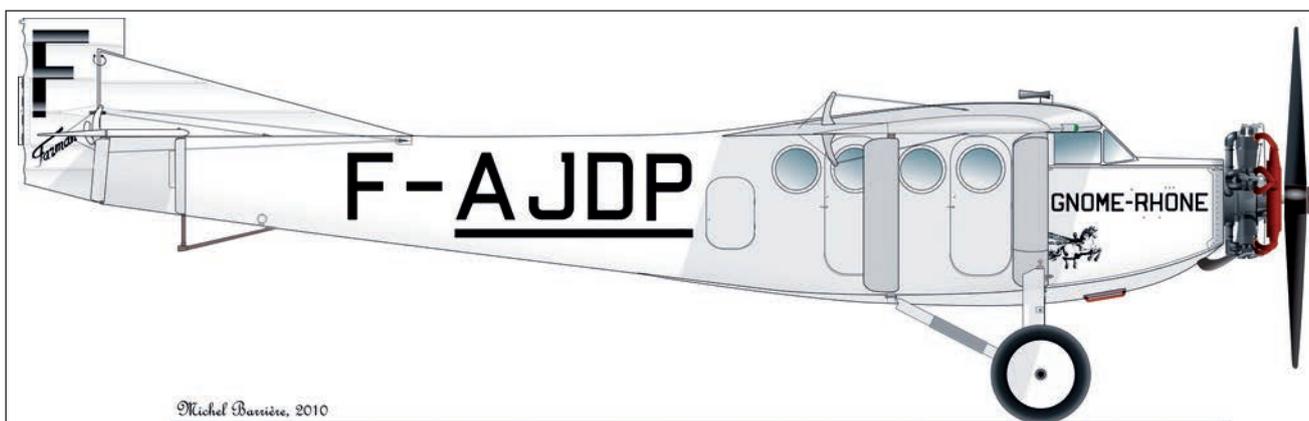
The airframe of F.190 no.21 was used in the production of F.193 no.1. (See later entry)

*To be continued . . .*



**Above:** F-AJDP, F.190 no. 20 was the personal aircraft of the president of the Gnome-Rhône company, Paul-Louis Weiller. (via JM Collection)

**Below:** The company titles and logo were carried on the nose of the aircraft which was luxuriously-equipped. (Artwork: Michel Barrière)



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WINTER ISSUE  
DECEMBER 2011

# Air-Britain ARCHIVE

The AIR-BRITAIN Civil Aviation Historical Quarterly



CAAC : Civil Aviation Administration of China fleets

Imperial & BA go to war

Farman F.190 series

DH.83 Fox Moth

Reid & Sigrist Snargasher

AIR-BRITAIN - Founded 1948



The AIR-BRITAIN Civil Aviation  
Historical Quarterly

No.4 2011

ISSN: 0262-4923

32nd YEAR

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The ARCHIVE website may be visited at  
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ARCHIVE is published quarterly, in March,  
June, September and December by  
Air-Britain (Historians) Ltd., in association  
with *Air-Britain Aviation World*, *Aeromilitaria*  
and the monthly *Air-Britain News*.

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## COVER PHOTO



Still wearing Imperial's 'Speedbird' G-AFBL  
"Cooee" was the last Short S.23 Empire flying  
boat to be delivered, being transferred to  
Qantas 3.38 where it became VH-ABF.

**CLOSING DATE for contributions to next  
ARCHIVE:** January 20th 2012

## Contents:

### The Whole Truth:

The DH.83 Fox Moth	2011/147
China: CAAC	2011/153
Feedback	2011/170

### F-1922 Register

2011/173

### Head-on View:

The Reid & Sigrist R.S.1	2011/177
Imperial & BA go to War	2011/181
The Farman F.190	2011/187



## HEAD-ON VIEW - WHAT IS IT? Number 42

Perhaps less easy to identify from this photograph among the many low-wing monoplanes of its era, this little tourer came from a company which may be best known for a high-wing STOL aeroplane and a piloted missile. Full details next time. (via JM Collection)

## In this issue

This issue features the return of the Development of Commercial Aviation in **China** series which re-opens with a look at the growth of CAAC from 1949 and its subsequent diversification, taking the story up to the 1980s and including the fullest possible fleet lists from that period. Indeed the fleet list will continue in the next issue which will feature from Boeing to Yunshuji (but is actually shorter than this issue's list!). As the series continues the subjects will generally be shorter than in the past and those that are not will come in bite-sized chunks. Our thanks to Martin Best and his China History Group for their continued efforts to bring us the fruits of their research and meanwhile may we remind readers that suitable photos are always welcome – future issues will cover subjects such as CAT in SE Asia, Foshing, FEAT, China Airlines, etc.

The Whole Truth series on the **DH.83 Fox Moth** by Malcolm Fillmore continues, completing the UK production, and Australian, and progressing into Canadian manufacture. If your favourite Fox Moth photo hasn't yet appeared it would still be welcome and can be used to illustrate the Index section when the series ends in the next issue.

Thanks to Michel Barrière's efforts we can continue the detailed histories of the **Farman F.190** series which feature some incredible aviation stories, record attempts, African adventures and political intrigue, and that's only this issue's selection! We are also grateful to Michael West for a further topic in his **Airliners in Warpaint** series which this time looks at the effect on the Imperial Airways and British Airways Ltd fleets. There is a link back to the Douglas DC-5 which was part of the KLM story last time. This subject has also generated some interesting **Feedback**, part of which we have included this time along with some additional Chinese material. We do have more Feedback in hand on several topics but intend to clear the backlog fairly soon.

Using material from the late Jack Meaden's collection, this issue's Head-on View describes the **Reid & Sigrist R.S.1**, known unofficially as the Snargasher. This design morphed into the post-war Desford and Bobsleigh which we will cover next time, though there will also be a new HoV topic as illustrated at the top of this page. Finally there is another episode of the multi-compiler series of the **French** Register since 1922, now established in the 1930s. No extract from the Yugoslav register this time but as we approach the end of the airliner blocks it will return and take us into the single engine groups.

## Vacancy filled?

As we go to press it would appear that a volunteer has come riding over the crest on a white charger.... Well not quite, but by the next issue we hope to be in a position to confirm the appointment of a new *Archive* Editor. If all goes to plan there will be at least one joint issue and a period of overlap so, for the time being until there is a definite announcement please continue to use the current editor for contact.

## New Books

Although we have announced the imminent arrival of the *Bristol 170* and the *Douglas DC-3 volume 3* already, without success, we are now confident that production difficulties are behind us and that by the time this is read both will be available from the Sales Department, indeed one has already arrived. If you haven't yet ordered one or both of these you can now safely do so – or leave the Sales form in an obvious place, after all, Christmas is coming.... A third new title, *Sitting Ducks and Peeping Toms*, is also available. Fully described in the Sales list, this is different. UAVs are now very much a part of our lives and the story of their development, testing and use from the earliest times is fascinating, has never been told in such detail and is very well written and superbly presented.

## The Whole Truth

# The DH.83 Fox Moth

Malcolm Fillmore

Part 2

*Right: C/n 4094 was registered in Newfoundland to Imperial Airways Ltd who operated two on meteorological flights fitted with Fairchild floats. (via JM Collection)*



i4092 Floatplane to India with CofA 4490 issued 5.9.34. Regd **VT-AFZ** [CofR 240] 7.11.34 to Irrawaddy Flotilla & Airways Ltd, Rangoon; named "Zinyaw". Damaged beyond repair when it hit buoy on take-off Bassein River 5.37. Regn cld 26.8.37.

4093 To Newfoundland Government (for use by Depts of Customs, Public Health & Welfare and Natural Resources) with CofA 4514 issued 26.9.34. Shipped on SS *Nova Scotia*, dep Liverpool 11.10.34; arr St John's 17.10.34 & reflight 30.10.34. Regd **VO-ABC** 10.34 to Imperial Airways Ltd and operated by them from St John's on floats under contract for meteorological flights etc. Struck by boat which had broken loose in gales at Norris Arm, 150 mls NW St John's, Newfoundland 25.8.35; damaged and not rebuilt.

4094 To Newfoundland Government (for use by Depts of Customs, Public Health & Welfare and Natural Resources) with CofA 4515 issued 26.9.34. Shipped on SS *Nova Scotia*, dep Liverpool 11.10.34; arr St John's 17.10.34. Regd **VO-ADE** 10.34 to Imperial Airways Ltd and operated by them from St John's on floats under contract for meteorological flights etc. Struck by boat which had broken loose in gales at Norris Arm, 150 mls NW of St John's, Newfoundland 25.8.35; damaged but rebuilt. [UK CofAs renewed 1.10.37; 1.11.38 & 1.11.39]. To Newfoundland Government Air Services. Taken over by RCAF 17.6.41 and to instructional airframe **A135** 11.9.41 and issued to Edmunston High School, New Brunswick. Returned to service as **VO-ADE** as landplane at RAF Ferry Command, Dorval 31.7.42 and used by 45 Group as hack. Damaged in pilotless take-off Gander Bay 22.2.44; repaired by 16.3.44 (unconfirmed). Soc 24.10.45 as returned to Newfoundland Govt.

4095 To Canada without CofA. Sold to The Athabaska Syndicate and regd **CF-AVE** [CofR 1585] 14.5.35 to F K Morrow & W M Archibald, t/a The Jubilee Syndicate (name

change), Toronto. Regd 7.6.35 on incorporation as Borealis Co Ltd. CofR lapsed; renewed 6.6.37. Regd [CofR 2329/A253] 1.8.38 to Consolidated Mining & Smelting Co of Canada Ltd, Trail, BC. Ran into snow-ploughed road on take-off and badly damaged Yellowknife NWT 17.4.42.

4096 To DH Australia with CofA 4560 issued 2.11.34. Regd **VH-USL** [CofR 500] 28.12.34 to Arnheim Land Gold Development Co NL, Darwin. Regd 28.6.35 to Qantas Empire Airways Ltd, Archerfield. Damaged beyond repair when torn from moorings in dust storm Winton, Queensland 1.1.38. Regn cld 1.38.

4097 To New Zealand with CofA 4554 issued 22.10.34. Regd **ZK-ADI** [CofR 16] 29.1.35 to Tourist Air Travel & Transport Service (NZ) Co Ltd, Hokitika; arrived 8.12.34; dd 15.12.34. Owner renamed Air Travel (NZ) Ltd early.35. Damaged in collision with bullock on take-off Weheka 8.2.35; pilot Bert Mercer unhurt; repaired 6.35. Operated by West Coast Airways .35. Sold 12.4.43 to RNZAF as **NZ566**. Operated by Communications Flight, Rongotai. Sold 16.7.48 and regd **ZK-ASP** 6.8.48 to New Zealand National Airways Corporation; named "*Mimiro*". Regd 3.12.53 to W K [Keith] Wakeman of Aerial Sowing (Canterbury) Ltd, Christchurch. Regd 28.7.54 to Air Contracts Ltd, Masterton; fleet no.5. Regd 18.1.57 to Alex H Blechynden, t/a Skyways, Hamilton. Regd 6.4.59 to R N Rae, Tauranga (later Rotorua). Regd 10.10.60 to S M Marker, Christchurch. Badly damaged in forced landing Harewood 12.6.61; repaired. Sold 10.61 to John H



*Right: C/n 4097 was initially operated pre-war by Air Travel (NZ) Ltd as ZK-ADI and became the only Fox Moth to serve with the RNZAF during the war, as NZ566. (via JM Collection)*



**Left:** After the war c/n 4097 was restored to the civil register with NZ National Airways and became ZK-ASP. After several changes of owner it was taken on a tour of North America as seen here at Abbotsford, BC in 1975. It was sold in the USA becoming N83DH but was soon to find its way to the UK.  
(Dave Welch)



**Above:** ZK-ASP c/n 4097, the last UK-built Fox Moth, at a fly-in at Watsonville on 19.5.74. (Wim Zwakhals collection)



**Above:** Although built in the UK in 1934, c/n 4097 was not British-registered until 50 years later when it was rebuilt by Ron Souch and painted in Guards colours as G-ADHA; these marks not having been taken up when originally allocated to a Tiger Moth. (via JM Collection)



**Left, upper:** After returning to New Zealand in 1997 the Fox Moth was restored in its original marks as ZK-ADI in Air Travel (NZ) Ltd colours. (via JM Collection)



**Left, lower:** This colour image reveals that what appears to be a light tone in a monochrome photo is in fact a high-visibility orange! ZK-ADI is seen here at Mandeville in 2000, where it is now based with the Droydon Aircraft Company. (Dave Welch)

**Right:** Work in progress! A replica of CF-BNI undergoing gradual construction at the Canadian Bushplane Heritage Centre, Sault Ste Marie, Ontario was photographed on 6.9.11. It is said to be using some original parts although the Yellowknife, NT static CF-BNI used parts from several others! It is also said to incorporate parts of the original FM28 CF-DJB.  
(Dave Welch)



Switzer, Christchurch. Regd 29.7.68 to A J Evans, Auckland. Badly damaged on landing following engine failure nr Clevedon 30.7.68, to Ardmore for rebuild. Regd 18.3.70 to R Myles Robertson, North Shore, Auckland. Regd 20.4.71 to David K Lillico, Auckland. Regd 15.11.72 to R Myles Robertson, Auckland. To USA 16.4.74 by Robertson on barn-storming tour. Badly damaged on landing Cajon Pass .75; repaired. Regn cld 15.7.75 as sold in USA. Regd **N83DH** .75 to Hamburg Airdrome Inc [Robert M Schultz], Lakeview, NY. To UK and rebuilt by Ron Souch, Hamble .84/85. Regn cld 18.11.84. Regd **G-ADHA** 3.12.84 to Brian D Woodford, Chalmington. Regd 15.4.85 to (Woodford's company) Wessex Aviation & Transport Ltd, Chalmington. CofA renewed 7.8.85. CofA lapsed 22.8.94. Shipped to Croydon Aviation Heritage Trust, Mandeville, New Zealand .96; arr Dunedin 4.9.96. Regn cld 3.2.97 as sold New Zealand. Regd **ZK-ADI** 4.2.97 to Croydon Aircraft Co Ltd [Colin Smith], Gore; painted in Air Travel NZ Ltd c/s. Reflown 17.2.97. Owned by Gerald Grocott; based Waipukurau [02] & for sale. Regd 30.8.01 to Double U Anchor Ltd (W Smith), Napier. Regd 21.8.02 [wef 11.6.02] to Croydon Aviation Heritage Trust, Mandeville. Regd 21.11.02 to Croydon Aircraft Co Ltd, Mandeville.

*Note: A static replica painted as ZK-ADI was being built for display at Hokitika, New Zealand .95 by a volunteer group led by Max Dowell, to commemorate local Bert Mercer; on display [06].*

#### DE HAVILLAND AUSTRALIA Production

DHA.5 Regd **VH-UZS** [CofR 672] 17.11.37 to Dept of Interior, Commonwealth of Australia; op Flying Doctor services, flown by Dr Clyde Fenton of Northern Territory Medical Services, Katherine, NT. Engine failure on take-off and crashed Katherine, NT 10.10.41; pilot R M Edwards; passenger killed. Regn cld 10.10.41.

DHA.6 Regd **VH-AAA** [CofR 692] 23.2.38 to Bush Church Aid Society for Australia & Tasmania, Sydney [based Ceduna, SA]. Damaged in forced landing after take-off Ceduna, SA 8.43; repaired. Regd **VH-BYA** 9.49; ntu. Regd **VH-CAS** 9.9.49 [28.9.49?] to same owner. Regd **VH-GAS** 16.6.50 to same owner. Regd 16.12.53 to J P Conley, Kings Cross, NSW. Regd 18.12.53 to Papuan Air Transport Ltd, Port Moresby [to replace VH-UTY]. Regd 6.6.61 to Austerserve Pty Ltd, Bankstown. To P Matthews. Hit power lines on landing Rockdale Station, nr Yanco, NSW 12.1.63. Regn cld .63. Rebuilt by Bunn Bros and regd **VH-AAA** 15.2.94 to Robert A Bunn, Bungowannah, NSW. [Not yet certified 12.04].

#### DE HAVILLAND CANADA Production

FM1 Prototype Canadian DH.83C, originally allocated as **CF-DAB-X**; not used. Regn **CF-BFI** reserved 16.11.45 to De Havilland Aircraft of Canada Ltd (and initially flown as **CF-BFI-X**). First flown 5.12.45 or 9.12.45 [more likely former]. Regd [CofR 3670/A1207] 12.1.46 to Arthur Fecteau, Senneterre PQ. Regd [CofR 9057] 26.9.50 to J A R Demers, Val d'Or PQ. Regd [CofR 12401] 5.10.53 to J B Lavoie, Amos PQ. Regd [CofR 13802] 13.7.55 to G Samson, Amos PQ. Sold back 2.58 to J B Lavoie but crashed on delivery flight on take-off from Mauzer Lake, Parent PQ 21.7.58.

FMC2 Regd **CF-BNI** [CofR 3429/A1019] 7.3.46 to A V B, B M & H W Giauque t/a A V Giauque Explorations Ltd, Yellowknife, NWT. Regd [CofR 3712] 8.6.46 to Discovery Yellowknife Mines Ltd, Yellowknife. Destroyed in forced landing with engine failure Morris Lake, NWT 25.7.47. Used as basis, with other wrecks, of static rebuild by Don Allinott, St Albert, Alberta. To Western Canada Aviation Museum, Winnipeg .85. To Prince of Wales Northern Heritage Centre, Yellowknife 22.9.87 and on static display, fitted with skis. A replica, said to use some parts of the original CF-BNI and c/n FM28, is under construction at the Canadian Bushplane Heritage Centre at Sault Ste Marie, Ont; see photo above.

FMC3 Regd **CF-BNK** [CofR 3428/A1018] 18.2.46 to L A Seguin, [Gold Belt Air Service Ltd]. Rouyn PQ. Crashed on take-off Little Authier Lake, 40 mi N of Amos PQ 17.8.46.

FMC4 Regd **CF-BNL** [CofR 3445/A1035] 15.3.46 to McAvoy Diamond Drilling & Development Co Ltd, Yellowknife, NWT. Crashed after severe icing at Porridge Lake, 20 mi N of Yellowknife NWT 4.10.46. Remains to Western Canada Aviation Museum, Winnipeg and stored .96.

FMC5 Regd **CF-BNM** [CofR 3557/A1130] 2.3.46 to W I Hall, Val d'Or PQ. Repossessed [by .49] and regd [CofR 8146] 25.4.49 to Newfoundland Airways Ltd, St John's. Regd [CofR 8884] 26.7.50 to E A Baird, Gander. Regn appln 31.3.52 to Corner Brook Garage, Corner Brook, Newfoundland. Sank at moorings during storm South Brook, Newfoundland 4.52.

FM6 Regd **CF-BNN** [CofR 3448/A1038] 21.3.46 to Sherritt Gordon Air Transport Ltd, Sherridon, Manitoba. Regd [CofR 7955] 12.5.49 to H J & W K Parsons t/a Parsons Airways, Kenora, Ontario. Regd [CofR 21886] 9.11.59 to J H Edwards, Kenora, Ont. Regd [CofR 23847] 20.9.60 to



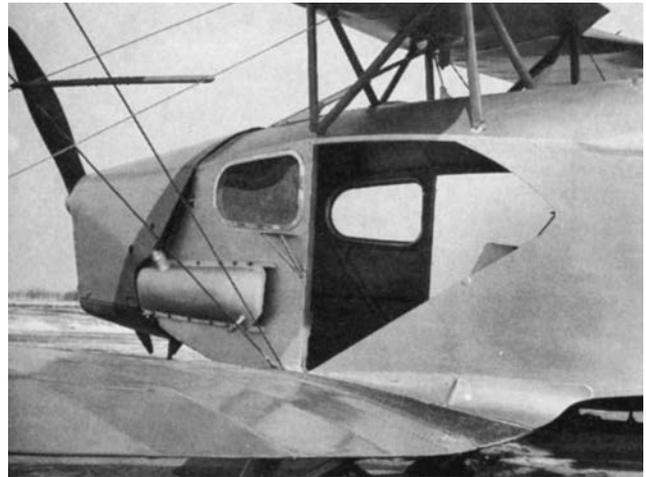
**Left:** C/n FM7 was originally CF-BNO, N12739 and C-GQHN. It was rebuilt using parts of c/n FM28 and a new fuselage FM28/2 and re-regd CF-DJB for Max Ward whose original C-FDJB c/n FM28 had crashed in 1976. It is seen here being flown by Watt Martin at Milton, Ontario in July 1986. (via JM Collection)

- Richard D Jackson & Neil Walsten, Kenora, Ont. CofA lapsed 17.9.61. Regn cld 24.2.69. Sold 18.2.68 by Sabre Industries Ltd, Winnipeg to RS Grant, Parry Sound, Ontario for rebuild. Returned to Sabre Industries Ltd. To Bart Bourne, Toronto [76] for rebuild.
- FM7 Regd **CF-BNO** [CofR 3466/A1053] 27.3.46 to HJ Parsons, Fort William, Ontario. Regd [CofR 15679] 3.8.56 to HP Parsons, Flin Flon, Manitoba. Regd [CofR 15681] 8.8.56 to EN Reynolds, Stanley NB. Regd [CofR 21657] 2.10.59 to EC Myers & ME Popp, Winnipeg. Regd [CofR 25298] 15.11.60 to KF Horton, Stamford, CT, USA. Canadian regn cld 7.10.61. Adopted papers and c/n (4026) of N12739 and regd **N12739** 22.6.61 to Kenneth J Horton Jr, Stamford, CT. CofA issued 4.8.61. Regd 6.3.63 to Peter J Bracia, Garden City, NY. Regd 7.9.63 to John M & Katherine M Louck, Monmouth IL. Regd 23.9.64 to Jack Adams Aircraft Sales Inc, Walls MS. Sold 16.4.65 and regd 16.4.65 [?] to Luther C Johnson Sr, t/a Johnson Flying Service, Greenville, SC. Damaged during wind-storm. Regn lapsed .70. Sold 23.5.75 [at auction following death of LC Johnson] to Allan F Coggon, Saulte Ste Marie, Ontario. Regn cld 23.10.75 (but not regd in Canada). Sold 1.11.75 to Geert E Frank, East Kingston, NH and regd to him 19.5.76 (but title unconfirmed). Sold 15.10.76 [by Frank] to Wardair Canada (1975) Ltd, Edmonton [after loss of FM.28] but found to be in poor condition. Regn **C-GQHN** allotted 9.11.76 to Wardair Canada {1975} Ltd, Toronto but NTU and cld 9.12.77. US regn cld 5.5.80. To Watt Martin .80 and rebuilt (using c/n "FM28/2") with new fuselage built by Hans Peuker, Agincourt, Ontario & existing wings and fin & rudder etc from FM.28. (Note, the remnants from this rebuild, including the stripped fuselage, were stored in rafters of Watt Martin's hangar at Milton .88 and were later sold to Joel Hirtle - see c/n 4026). Regd **C-FDJB** 30.6.80 to Wardair Canada [1975] Ltd, Edmonton; based Pearson International, Toronto. Rereg **CF-DJB** 2.7.80 to same owners. Regd 9.12.83 to Wardair Canada Inc. Regd 2.5.89 to Maxwell W Ward, Edmonton, painted in Polaris Charter Co Ltd c/s [Max Ward's initial coy]. To National Aviation Museum, Rockcliffe 12.1.90. On display with floats [8.03]; museum renamed Canada Aviation Museum. (See also c/n FM28)
- FM8 Regd **CF-BNP** [CofR 3480/A1064] 29.3.46 to A Matt Berry, Edmonton. Regd [CofR 7837] 16.3.49 to Territories Air Service Ltd, Edmonton. Sold 7.12.51 to De Havilland Aircraft of Canada Ltd. Regd [CofR 10789] 5.3.52 to Robert R Colley, Casummit Lake, Ontario. Dbf on take-off Duck Lake, Ontario 22.9.54. Regn cld 7.5.69.
- FM9 Regd **CF-BNQ** [CofR 3447/A1037] 22.3.46 to AVB, BM & HW Giauque, Yellowknife, NWT. Regd [CofR 11320] 23.9.52 to WN Millar, Toronto. Sold to HH Smalley. Sold 7.55 to Ilford Airways Ltd, Ilford, Manitoba. CofA lapsed 22.11.54. Damaged beyond repair when struck by runaway Cessna 180 Ilford, Manitoba 1.12.55. Regn cld 1.56.
- FM10 Regd **CF-BNH** [CofR 3494/A1075] 4.4.46 to Usacan Engineering Corp Ltd, Toronto. Crashed on night take-off (by drunk engineer) Yellowknife NWT 20.6.46. Regn cld 8.50.
- FM11 **CF-BNR** regd [CofR 3535/A1108] 5.4.46 to Sten T Lundberg, Toronto. Regd [CofR 9020] 21.9.50 to Hans Lundberg Ltd, Toronto. Regd [CofR 10956] 16.5.52 to Detectors Ltd, Toronto. Crashed into trees on take-off Authier Lake PQ 22.6.52. Regn cld 9.52.
- FM12 **CF-BNS** regd [CofR 3534/A1107] 12.4.46 to Fletcher Air Transport Co Ltd, Sault Ste Marie; named "Algoma Bird". Regd 8.7.48 [on change of name] to Great Northern Skyways Ltd. Regd [CofR 8246] 10.9.49 to Thomas F Carr, Port Arthur, Ontario. Crashed on take-off Port Arthur, Ontario 1.9.51. Regn cld 17.2.69.
- FM13 **CF-BNV** regd [CofR 3756/A1276] 17.7.46 to AD Blagrove, St Donat PQ. Regd [CofR 4028] 17.9.46 to Blagrove Air Service Ltd, St Donat, PQ. Sold 11.50 to M Pritclerc, St Laurent, PQ. Regd [CofR 11254] 8.7.52 to D Pearson & W Wilson, Longueuil, PQ. Crashed into trees on take-off nr Longueuil, PQ 19.12.54. Regn cld 5.56.
- FM14 **CF-BNW** regd [CofR 3634/A1178] 10.5.46 to J Sponarski & WW Roderick, [Spinwood Sportland Airways Ltd], Rainy River, Ontario. Deliberately side-slipped into water to avoid cliff on take-off run nr Nestor Falls, Kakagi Lake, Ontario 30.8.46. Regn cld 3.47.
- FM15 **CF-BNX** regd [CofR 4072/A1519] 9.7.46 to Pays Plat Outfitters Ltd, Rosspport, Ontario. Hit trees on take-off and dbf Cirrus Lake, Ontario 12.6.47. Regn cld 7.47.
- FM16 **CF-BNY** regd [CofR 3651/A1195] 12.6.46 to RW Moulton, Kingston, Ontario. Regd [CofR 4005] 7.9.46 to Northern Ontario Airways Ltd, Kapuskasing, Ontario. Regd [CofR 7112] 30.6.48 to Quinte Skyways Ltd, Trenton. Regd [CofR 8787] 14.6.50 to Muskoka Air Trails Ltd, Huntsville, Ont. Regd [CofR 8812] 28.6.50 to DH North, Haliburton, Ont; op by Haliburton Highlands Air Services. Regd [CofR 11954] 29.5.53 to AF Falby, Parent PQ. Regd [CofR 12405] 14.10.53 to CL Mattaini, Algoma Mills, Ont. Regd [CofR 13349] 22.2.55 to Lau-Goma Airways Ltd, Algoma Mills, Ont. Dbf during repairs Algoma Mills, Ontario 18.7.57. Regn cld 6.58.
- FM17 **CF-DIQ** regd [CofR 3865/A1375] 28.5.46 to KJ Springer, Toronto. Regd [CofR 5043] 3.10.46 to Central BC Airways Ltd, Prince George, BC. Spun in & crashed nr Prince George, BC 3.7.48; 3 killed. Regn cld 1.49.



**Above:** CF-BNV c/n FM13 had an eight-year career during which it served four owners, all in Quebec. (via JM Collection)

**Right:** The DH Canada-built DH.83C Fox Moths had an enlarged port door opening - door removed here - making access much easier for bulky freight. (via JM Collection)



FM18 **CF-DIR** regd [CofR 3863/A1373] 6.8.46 to De Havilland Aircraft of Canada Ltd, Toronto; used for demonstrations. Sold 23.12.47 to De Havilland Aircraft Co Ltd, India and regd **VT-CLS** 21.2.48 to Nalanda Airways Ltd, Patna. Regn cld pre.90.

FM19 **CF-DIS** regd [CofR 4078/A1524] 2.7.46 to Northern Ontario Airways Ltd, Kapuskasing, Ont. Regd [CofR 5819] 13.6.47 to Kashower Air Service Ltd, Oshawa, Ont. Regd [CofR 5947] 10.7.47 to W B Willadsen, Toronto. Regd [CofR 6409] 20.10.47 to Great Northern Skyways Ltd, Sault Ste Marie, Ont. Engine failure & crashed McGregor Bay, Ont 13.3.48.

FM20 **CF-DIT** regd [CofR 3718/A1245] 18.6.46 to Davenport Mining Co Ltd, Toronto. Regd [CofR 6828] 9.3.48 to Associated Airways Ltd, Edmonton. Regd [CofR 8498] 17.1.50 to A M Fisher, Peerless Lake, Alberta. Regd [CofR 9043] 2.10.50 to Western Airmotive Ltd, Edmonton. Regd [CofR 9150] 5.12.50 to G H Green, Red Lake, Ont. Caught fire in nose hangar & dbf Red Deer 17.2.52. Regn cld .52. Regd **CF-DIV** 18.7.08 to Neil Davidson, Kimberley, BC. Regd **CF-DIT** 30.4.09 to same owner.

FM21 **CF-DIU** regd [CofR 3719/A1246] 19.6.46 to J D & D D Starratt, Hudson, Ont. Forced landed on lake following mid-air fire 6.12.48. Regn cld .49. Components sold [03] to Neil Davidson, Kimberley, BC for rebuild. Regd **CF-BFI** 12.1.06 to Edward N [Neil] Davidson, Kimberley, BC [rebuilt in New Zealand]. Regd **CF-DIU** 15.12.09 to same owner.

FM22 **CF-DIW** regd [CofR 3630/A1174] 25.5.46 to A Watts & D MacKenzie, Toronto. Repossessed and regd [CofR 7170] 15.7.48 to De Havilland Aircraft of Canada Ltd, Toronto. Regd [CofR 7927] 27.4.49 to S F Offord, Manitowaning,

Ont. Regd [CofR 9329] 9.3.51 to Great Northern Skyways Ltd, Little Current, Ont. Sold 15.9.56 to Leavens Bros Ltd, Toronto. Regd [CofR 19429] 9.1.58 to E Makela, Whitefish, Ont. Regd [CofR 19698] 24.6.58 to GC Davidson, Brampton, Ont. Regd [CofR 19745] 17.7.58 to J H Fursman, Willowdale, Ont. Regd [CofR 27230] 1.8.61 to W T Martin, Bronte, Ont. Regd [CofR 24503] 26.10.61 to Eugene Jolin, Asbestos PQ. CofA lapsed 26.6.62. Stored dismantled [69]. Regn cld 15.2.79.

FM23 **CF-DIV** regd [CofR 3766/A1286] 10.7.46 to Youngmacs Prospecting & Development Co Ltd, Toronto. Hit rock on landing and sank Ghost River Post, Albany River, Ontario 17.8.49. Regn cld 26.10.60.

FM24 **CF-DIX** regd [CofR 3765/A1285] 5.7.46 to Muskoka Air Trails Ltd, Huntsville, Ont. Regd [CofR 11859] 8.5.53 to Riverton Airways Ltd, Winnipeg. Regd [CofR 19040] 29.11.57 to A A Mann, Red Lanke, Ont. Regd [CofR 19185] 13.5.58 to Northland Fish [1957] Ltd, Winnipeg. Regd [CofR 19195] 28.5.58 to J H Funk, Prairie Grove, Manitoba. Regd [CofR 19348] 21.11.58 to N Love, Sioux Lookout, Ont. Regd [CofR 26572] 20.11.61 to Henry C Boulanger, Winnipeg. CofA lapsed 21.11.64. To George Fournier, Lac du Bonnet, Manitoba .68; still stored there [02].

FM25 **CF-DIY** regd [CofR 3720/A1247] 5.7.46 to J F Ross & J C Wright [Quinte Skyways Ltd], Trenton, Ont. CofA lapsed 21.5.48. Regn cld 13.9.50.

FM26 **CF-DIZ** regd [CofR 5568/A1982] 29.7.46 to Mont-Laurier Aviation Co Ltd, Mont Laurier, PQ. Regd [CofR 11827] 22.4.53 to J N Stevenson, Chibougamau, PQ. Grounded 18.12.53. Regn cld 22.3.60.

**Right:** CF-DIW c/n FM22 spent most of its time in Ontario but the date and location of this photo are not recorded and apart from the registration the aircraft is unmarked. (via JM Collection)





**Left:** C/n FM27 CF-DJA in a tranquil setting on an Ontario lake, fitted with Edo-2425 floats. (via JM Collection)

**Below:** CF-DJC c/n FM29 was the first aircraft operated in 1946 by Max Ward, later of Wardair fame. It wears the titles of Polaris Charter Co Ltd of Yellowknife and the white and red colour scheme which he later applied when he bought c/n FM7 in 1989 and presented it as the second CF-DJB to the Canadian Aviation Museum at Rockcliffe. (via JM Collection)

FM27 **CF-DJA** Floatplane regd [CofR 5519/A1950] 7.10.46 to Lakeland Skyways Ltd, North Bay, Ont. Regd [CofR 9044] 26.7.50 to Lakeland Airways Ltd, Temagami, Ont. Dbf in nose hangar North Bay 15.2.52. Regn cld 3.52.

FM28 **CF-DJB** regd [CofR 5527/A1958] 5.2.47 to J B Barker, Richvale, Ont. Regd [CofR 5724] 22.5.47 to Hicar Exploration Co Ltd, Toronto. Regd [CofR 6980] 16.3.48 to H Audet, La Sarre, PQ. Regd [CofR 7912] 24.3.49 to F X Martel, La Sarre, PQ. Regd [CofR 9071] 7.10.50 to Mrs Edla Hayberg, Kenora, Ont. Regd [CofR 11300] 16.9.52 to Jack H Edwards, Kenora, Ontario. CofR lapsed 4.12.52; regd 9.2.59 to same owner. CofA lapsed 12.6.70. Sold 19.2.73 [but not regd] to Max Ward of Wardair. Regd **C-FDJB** 16.7.76 to Wardair Canada Ltd, Edmonton. Crashed into Lake Ontario, off Toronto Harbour 5.9.76 during Canadian National Air Show [pilot Garth Martin]. Salvaged and used for spares by Watt Martin, Milton (see *comments under c/n FM7*). Remains sold [91] to Canadian Bushplane Heritage Centre, Sault Ste Marie, Ont and rebuilt by Ken Chessman [with new fuselage allocated c/n "FM55/1"] to static condition [96+]; noted still under construction [9.11] painted as "CF-BNI".



FM29 **CF-DJC** regd [CofR 3912/A1403] 9.8.46 to Maxwell W Ward, Edmonton but t/a Polaris Charter Co Ltd, Yellowknife. Regd [CofR 6564] 18.11.47 to Miners Air Service Ltd, Yellowknife. Operated by Yellowknife Airways and crashed on north shore of Great Slave Lake 22.1.49; 3 killed.

FM30 **CF-SAL** regd [CofR 3905/A1396] 12.7.46 to Government of Saskatchewan, Dept of Natural Resources & Natural Development. Destroyed in hangar fire Prince Albert, Saskatchewan 2.8.47.

FM28/2 see FM7

**To be concluded . . .**



**Left:** C/n FM28 was the original CF-DJB which was re-registered C-FDJB in 1976 to Wardair whose titles it carried below the cockpit. It crashed into Lake Ontario during the National Air Show at Toronto on 5.9.76 and parts were salvaged to help construct the replica "CF-BNI". Registration CF-DJB was then used by Wardair on the rebuilt c/n FM7. (Wim Zwakhals collection)

# The Development of Commercial Aviation in China

PART 14

## Civil Aviation Administration of China



**MARTIN S BEST,  
CHINA HISTORY RESEARCH GROUP**

### *Introduction*

Whereas most of the articles in this series have dealt with the history of the airlines of the Republic of China (ROC), this article deals with the principal airline of the People's Republic of China (PRC). One reason for studying the Civil Aviation Administration of China (CAAC) was to investigate the history of the Western aircraft that were used in mainland China following the departure of the Nationalist regime.

Initially it was only intended to cover the history of CAAC up to the end of the piston era but later it was decided to extend this history to devolution in the 1980s, when CAAC delegated commercial operations to regional airlines and remained principally the regulator of the Chinese airline industry. It is not intended to cover the history of these later, regional airlines in this series. This would require an additional series of articles. Such information can be obtained from other Air-Britain publications, such as the annual Airline Fleets books, and Air-Britain News.

### **CCAC**

The People's Republic of China (PRC) was proclaimed in Beijing on 1st October 1949. On 2nd November, the new administration established an airline to fill the void in southern China. The China Civil Aviation Administration (CCAC) quickly started services on twelve routes linking Beijing with the southern cities of Hankow, Chungking, Kunming and Guangzhou. The equipment was an improvised collection of aircraft left behind by the departing Nationalist airlines and those aircraft of CATC and CNAC that defected from Hong Kong on 9th November 1949. [Davies p.383]

### **SKOAGA**

The Chinese Civil Aviation Bureau was first established at the beginning of 1950 with Soviet help. Nominally under the Ministry of Communications it was in practice controlled by a high-level military committee. On 27th March 1950 the operating airline came into being. The Chinese name was Ren Ming Hong Kong Kun Sze, but it was more commonly known by the Russian acronym, SKOAGA (sometimes

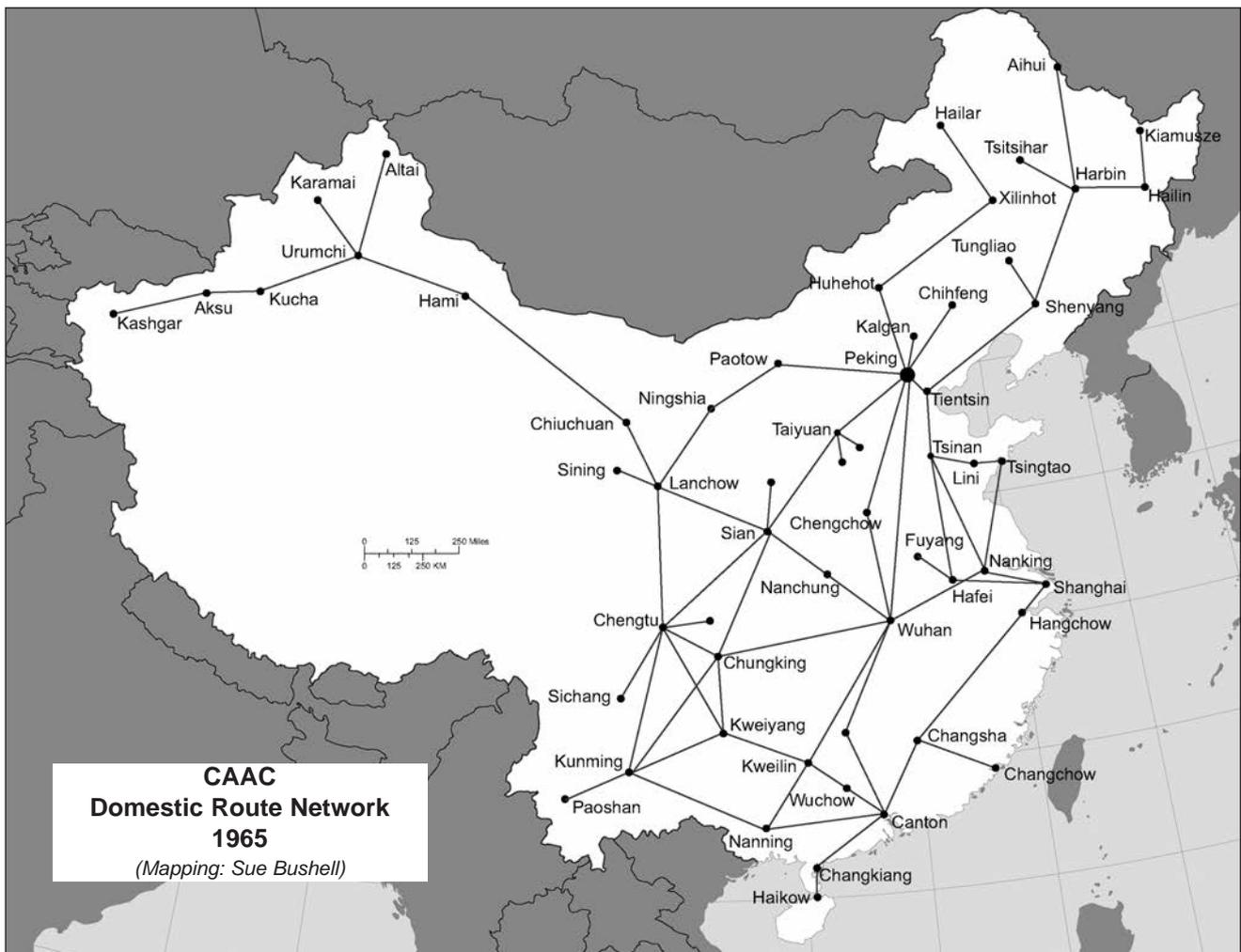
*Above: After acquiring four ex-Pakistan International Trident 1Es in 1970, CAAC followed up with orders for 33 new Trident 2Es and three 3Bs. Tested as G-AZFY, '250' was the sixth to be delivered in January 1974, later becoming B-250 and then B-2212. (via JM Collection)*

shortened to SKOAGA) which, in Russian, stood for Sovietsko-Kitaysko Aktsioneren Obschestvo Grazhanskoi Aviatsii. The English translation was the Sino-Soviet Joint Stock Company. The stock was held in equal amounts, 50% each. It took over Hamiata, the similarly-owned joint airline that had been founded as a wartime expedient, and Hamiata's fleet of Lisunov Li-2s passed to SKOAGA. Aeroflot provided technical assistance. (Please see Part 3, *Archive* pp.2007/121-140, for a history of Hamiata.)

On 1st July 1950 the first scheduled international service of the new Sino-Soviet airline was flown from Beijing to Chita, Irkutsk and Alma Ata. The company commenced domestic routes on 1st August 1950 when two routes were inaugurated, one being Tianjin – Beijing – Hankou – Guangzhou – Chongqing, the second Chongqing – Chengdu – Guiyang – Kunming, using Li-2s and Il-12s borrowed from Aeroflot. During the latter half of 1950, the first batch of the CAAC Li-2s was delivered allowing CAAC to develop more domestic routes. [B&T p.6]

Rather as in the past, when Eurasia had tended to serve northern China and CNAC had served the central and south, the same spheres-of-influence arrangement prevailed. SKOAGA took care of the north and CCAC spread its wings in the south. In the north, SKOAGA regained the airways of Manchuria, and by reaching the border, established a foreign route to Chita, a staging point on Aeroflot's trans-Siberian network, and thus a direct air connection between Beijing and Moscow. To the northwest, the old Hamiata route was maintained to Alma Ata. In the south, CCAC began a service on 1st August 1950 northwards from Guangzhou to Hankow; and on to Tientsin; then, from this strategic point on the Yangtze River, a link to Szechwan, at Chungking and Chengdu.

SKOAGA was gradually maturing to provide essential links to the USSR, and extended its route to Siberia so as to terminate at the important city of Irkutsk, starting in December 1952. A few months later, it reached out to China's far west, by extending a branch from the old Hamiata route at Urumqi (Tihwa) to Kashgar (Kashi), an extension of 1,200 miles. [Davies pp.384-385]



In the spring of 1951, swarms of flies and mosquitoes needed urgent extermination because of widespread damage to the sub-tropical areas around Guangzhou in southern China. CAAC called on the general aviation division to modify a C-46 as an insect sprayer. Many sorties were flown until the C-46 had successfully completed its task. At that time the C-46 was by far the largest aircraft in China ever to be used as an insect sprayer. The next task awaiting the C-46s was in July 1951 when three C-46s flew a total of 120,000 kg of food and general flights over Tibet, most of which were dropped from the air in mountainous terrain. [B&T p.6]

## CPAC

CAAC formed China People's Aviation Company (CPAC) on 15th July 1952 with a base at Tianjin. The fleet of 45 aircraft, comprising mainly C-46s and C-47s complete with CPAC titles, opened thirteen new routes, ten domestic and three international. The airline was short-lived and ceased operations in December 1952. After six months' flying, a total of 200,000 passengers were carried and 2,047 tons of cargo and mail. [B&T p.6; Gradidge p.175] The formation of a China People's Aviation Company was announced on 17th July 1952. [Davies]

## Minhaiduy

In March 1954 SKOAGA and CCAC merged to form the Zhonghua Ming Hong Jui (transliterated as Minhaiduy) under the general jurisdiction of the China Civil Aviation Bureau. There were six major regional bureaus, at Beijing, Shanghai, Guangzhou, Shenyang, Sian and Wuhan, with sub-bureau at Chungking and Lanchow. The fleet was almost entirely composed of a mixture of US-built DC-3s and Lisunov Li-2s. Soon afterwards, the first Ilyushin Il-12s and Il-14s began to arrive from Moscow.

Cautiously the new airline began to feel its way as the national flag carrier, but its freedom was restricted to friendly neighbours, of communist or near-communist persuasion. Otherwise it was a hostile world.

On 11th April 1956, the first trans-border route (other than to the USSR) was opened, from Kunming to Rangoon, via Mandalay, with an Ilyushin Il-14. On 29th May 1956, a second route, from Guangzhou to Hanoi, via Nanning, found another friendly destination; and on 3rd April 1959, the third route, from Beijing to Pyongyang, North Korea, via Shenyang, completed China's air links with its political allies. Both of these last-named routes were opened with Lisunov Li-2s, demonstrating that the People's Republic was not giving high priority to showing the flag overseas. Chairman Mao considered it more important to unify the country.

Another of Mao's priorities was to build up China's military strength, including that of the Air Force (PLAAF); and in pursuit of this goal, and with technical help from the Soviets, aircraft factories were built and aircraft production initiated, almost entirely in the construction of Soviet designs, under Soviet licence agreements. The airline benefitted from the aviation programme, so that, by the late 1950s, it had a fleet of 28 Lisunov Li-2s, five Ilyushin Il-12 from the USSR, 58 Ilyushin Il-14, and no less than 300 Antonov An-2s, that sturdy little maid-of-all-work single-engined biplane, and of which at least two-thirds were built in China as the Y-5. Also, some Czech Aero 45s, and Soviet Yakovlev Yak-12s and Yak-18s completed the fleet for training and communications work. (No Yaks are listed in the Chinese civil aircraft register published by Ballantine & Tang.)

During 1956, the first of many Ilyushin Il-14s were flown from the Soviet Union to join the CAAC fleet. The next year many Czechoslovakian-built Avia 14s and East German-built VEB 14s joined the fleet to make CAAC a very large operator of the Il-14. CAAC published official figures in 1957 revealing that a fleet of 118 aircraft comprising Aero 45s, An-2s, Il-12s, Il-14s and Li-2s, all of which had replaced the earlier C-46s and C-47s. The only Western-built airliner flying in China between 1957 and 1963 was the Convair 240, *Beijing*. Davies (page 387) states that Li-2s and Il-14s were built in China but there is no evidence to support these statements. Gordon & Komissarov (page 196) state that the designation Y-6 was reserved for a Chinese version of the Il-14 airliner but

**Right:** Ilyushin Il-14M '654' of Minhaiduy, acquired in 1956. The company had a fleet of 58 Il-14s by the late 1950s, some of which were built in East Germany or Czechoslovakia. (via JM Collection)



eventually the plan was cancelled in favour of the more advanced An-24 turboprop airliner, which was built in large numbers as the Y-7.

With this adequate but old-fashioned fleet, Minhaiduy built up a network of routes that served the whole country; but the service provided bore little comparison with an air service in the West. While a route map and a timetable existed, most flights were made according to local demand, and this was restricted to administrators, Communist dignitaries, and bureaucrats. Air traffic control was rudimentary, and flights were cancelled at the slightest indication of bad weather; for navigational aids were all but non-existent. The same applied to reservations and ticketing, which was a ponderous, almost primitive system. The Civil Aviation Bureau was coy about publishing information or statistics, merely reporting, in 1958, that the network had doubled in length in five years to 26,000 km (16,000 miles); the number of routes to 29; and the number of cities served to 42. Two of the points served were Fuyang, from Hofei; and Sining, from Lanchow, both with the An-2, which came into service at the end of 1955. They claimed a 100% safety record.

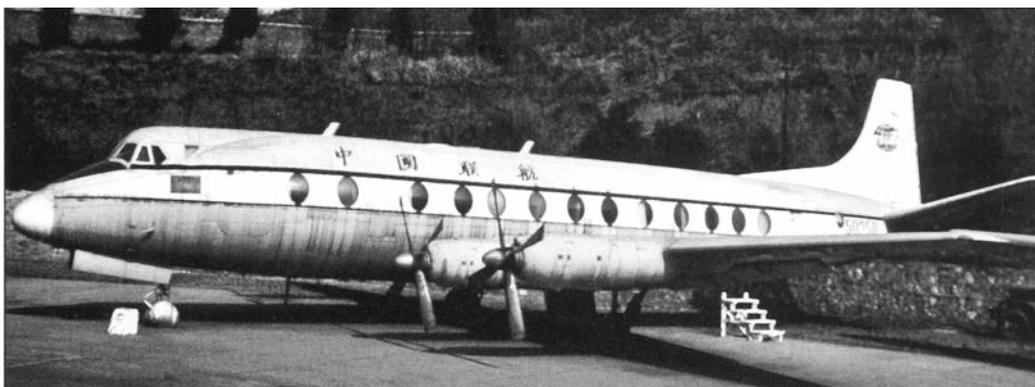
By now almost dependent upon Soviet aircraft, either imported or built under licence, CAAC suffered a setback during the early 1960s as relations between Peking and Moscow deteriorated. Such was the vehemence of the opposing sides that the Soviet Union withdrew thousands of people who had been sent to China as advisers, and these included a large number of aircraft industry technicians. The Chinese, under Russian tutelage, had been learning how to install and to operate heavy industry and manufacturing, but still had a long way to go. By 1960, however, it was able to build its own jet fighters and bombers but its progress in the production of commercial aircraft had been limited to the little An-2. Fortunately, the ties with the Soviet Union had not been shattered completely, as China was later able to import some four-engined Ilyushin Il-18s and other aircraft, but meanwhile CAAC had to do something to modernise its fleet.

## The turboprop era

It was out of the question to trade with the capitalist arch-enemy, the United States, but fortuitously, relations with Great Britain were improving. In 1957, Britain had initiated the first cautious moves towards loosening trade embargoes with China; and China was able to open a Commercial and Cultural Office in London. In 1961, after much behind-closed-doors negotiation, the China Civil Aviation Bureau ordered six Vickers Viscounts. With these four-engined turboprop airliners, China could at last move into a new age of technology.

In April 1962 the Civil Aviation Bureau became the Civil Aviation Administration of China (CAAC), under which name it was to operate during the next thirty years. During the next decade great strides were

**Right:** China's honeymoon with the British aircraft industry began with the order for six Vickers V.843 Viscounts, delivered in 1963-64. The third of these, '406', later B-406, was transferred to the Chinese Air Force as '50258'. It is seen here as such at the Datang-Shan Museum near Beijing in 1992 although it has since been repainted in CAAC colours. (via JM Collection)



made both at home and abroad. Within China, services were improved in 1965, when twenty Ilyushin Il-18s were acquired to supplement the six Viscounts that had entered service in 1963. These 100-seat aircraft became the mainline workhorses of the fleet, flying the vital routes between all the big cities. One of the Il-18s was selected and modified as Chou En-lai's personal aircraft. In 1964 a direct air link was opened between Guangzhou and Phnom Penh, Cambodia, where Prince Norodin Sihanouk attempted a neutral position in Indochina. [Davies pp.389-390]

## Acquisition of jet aircraft

In 1970, CAAC ordered five Ilyushin Il-62 four-engined jets from Moscow and simultaneously struck a deal with Pakistan to buy PIA's four Hawker Siddeley Trident 1Es, which had been operating out of Karachi for several years. This was almost certainly a straight swap for a squadron of Chinese MiG-19s for the Pakistan Air Force. Also in 1970, CAAC introduced the Antonov An-24 for its secondary routes, and these were to perform solidly for the next twenty years.

On 13th May 1971 the first Ilyushin Il-62 made its first revenue passenger flight, on a nonstop Beijing – Guangzhou routeing, thus dispensing with the almost mandatory stop at Wuhan (formerly Hankow), which had become a crossing point and way-station for all the mainline inter-city links in the domestic heartland of China. On 24 August 1971, apparently satisfied with the ex-PIA aircraft's performance, and with both airframe and engine product support forthcoming from the British, CAAC ordered six Trident 2Es, fitted with 140 seats, at a price of £20 million (\$48 million). Another twenty Tridents were ordered later. The record was marred slightly during the year, when an ex-PIA Trident crashed in September 1971 (or on 13Aug71) in Inner Mongolia, north of Beijing, on a special flight. It was carrying the Defence Minister, Lin Piao, who had fallen out of favour with the strictly orthodox Chinese politicians; and the cause of the crash was strongly rumoured to have been sabotage.

On 21st February 1972, President Nixon arrived in Beijing on his historic visit that at last broke the ice that had characterised the frigid relationship between the People's Republic of China and the United States. The negative aspects of the Cultural Revolution had put China backwards by at least a decade, yet CAAC had showed resilience during this chaotic period. During 1972 there was a flurry of orders for new aircraft, beginning spectacularly with one on 24th July for two Anglo-French Concorde airliners, priced at \$34 million each; and a third aircraft was ordered a few weeks later. The plan was to operate a route from Beijing to Paris, via Karachi, Teheran and Bucharest, all points where China's political relations had been friendly enough to permit serious discussions on the establishment of air services.



**Left:** In an attempt to establish long-haul services and to catch up with airliner development in the West, CAAC ordered ten Boeing 707-300 series in 1972. The last of these, B-2420 is shown visiting Gatwick in 1986. (R W Simpson)

Far more practical was the order, confirmed on 11th September, for ten Boeing 707s, for a total of \$120 million, plus 40 spare Pratt & Whitney JT3D engines for \$26 million, and a Redifon Boeing 707/Trident simulator for \$4.8 million. Early in August, six more Trident 2Es (making twelve) had been ordered, for \$56 million; and on 13th November the Trident order was raised to twenty, for a further \$59 million. Two of the Tridents were the Series 3B version, with a longer fuselage and capacity of up to 180.

The spending spree did not quite stop there. In 1973, thirty more Antonov An-24s were ordered from the Soviet Union, so as to provide a good second-tier domestic airline support for the Tridents, intended for the mainline routes; and on 4th December of that year, the Trident order was once again raised to a total of thirty-five. The fifteen additional tri-jets cost about \$100 million, which was raised by loans from western banks.

The spring of 1973 also marked the beginning for CAAC as it launched jet-age services. Tridents began domestic services on 15th March, the first route between the two largest cities, Beijing and Shanghai. The first route to Europe was inaugurated on 18th April, with an Ilyushin Il-62 flying once a week from Beijing to Tirana, Albania, via Teheran and Bucharest. Far more pragmatic was the service, opened on 27th October 1974, from Beijing to Paris, with only one stop, at Karachi, with the new Boeing 707s. Trial runs had been made with the Boeings on the Tirana route from August 1973, and they had also opened the link with nearby Tokyo on 29th September 1974, to provide an air connection across the Pacific as well as to Europe. The Il-62s opened a direct service to Moscow on 30th January 1974 and the 707s replaced the Il-62s permanently on the route to Bucharest on 29th November, the symbolic Tirana terminus having been quietly dropped. China joined ICAO as a full member in October 1974.

The next few years were ones of consolidation as CAAC digested the change-over from propeller-driven aircraft to jets. As the services increased, more in frequencies on existing routes and in upgrading of aircraft types than the addition of new city pairs, the airline began to adjust to a new level of operational efficiency. Its reservation system was still archaic, by western standards; its infrastructure of navigational aids and air traffic control were ponderous, even primitive, so that the aircraft utilization was extremely low – only a few hours on average per day. It experienced the first serious fatal accident, when an Antonov An-24 crashed en route from Guangzhou to Shanghai, killing 40 people. But by 1977, the old Li-2s had been retired from scheduled service; the Boeing 707s and Il-62s were taking care of the international routes; while the Tridents, Il-18s, Viscounts and a few Il-14s provided a comprehensive network of domestic connections throughout China.

Early in 1978 Shen Tu became the Director General of CAAC and until his retirement in April 1985, he was to preside over the most important period of development in the airline's history. Enormous challenges lay ahead if China was to take its place in the world of air transport as an equal with the flag carriers of the industrial nations of the west, and even with the representatives of what were becoming known as the nations of the Third World. China's leaders did not wish to be classified as among these latter because its airliners were of an obsolete generation. China's Il-62s and Boeing 707s had gone into service a full decade and a half after the Pan American trans-Atlantic inaugural of 1958. When he took office, Shen had been conscious of the fact that Pan American's very large Boeing 747s had already been in service for eight years. So, on 16th December 1978, CAAC signed a contract with

Boeing for three 747SPs, the shorter version that had a longer range than the standard 747, and able to fly nonstop from Shanghai to New York. All the trans-Pacific airlines were flying wide-bodied jets, and China was not intending to be a humiliated exception.

On 1st April 1978 a new route was opened to Addis Ababa, Ethiopia, via Karachi, with 707s. On 4th May of the same year, CAAC matched Swissair on a route to Zurich, with a technical stop at Urumchi and a traffic stop at Belgrade, also with 707s. On 3rd May 1979 Ilyushin Il-62s began flying to Frankfurt, via Tehran and Bucharest. A direct connection to the Middle East was made on 28th July 1980, to Sharjah and Baghdad.

Closer links were also made with neighbouring countries in east Asia. Osaka had already been added as the second Japanese destination in 1976, and Nagasaki became the third, on 1st November 1979, not long after the route to Manila opened, on 4th September. Bangkok was added on 29th August 1980. Withdrawing from the previous policy of serving allied nations for purely political reasons, the service to Phnom Penh, begun on 23rd January 1976, was terminated in February 1979, as the conflict in Cambodia seemed to show no end; and all flights to Tirana, occasionally served as extensions to the Bucharest service, ended sat about the same time.

The most significant regional expansion, however, was right on the doorstep. Hong Kong had been strictly off limits since 1949. On 12th October 1978, the airway door was opened and CAAC Tridents began a connecting link with nearby Guangzhou. The Hong Kong links were forged even more strongly on 21st June 1980 when, after much negotiation, a pooled service opened from Shanghai, on a daily frequency, that comprised five CAAC Tridents and two Boeing 707s of Cathay Pacific Airways.

The first Boeing 747SP was delivered to Beijing on 27th February 1980, and was introduced on the route to Paris on 1st April 1980. CAAC made its first flights to the United States in October 1980, when six flights were made from Seattle to China, but these were on a special charter for General Motors. On 15th November 1980, the Frankfurt service was extended to London; and on 7th January 1981, a Boeing 747SP began service from Beijing and Shanghai to San Francisco and New York. On 3rd November 1981, direct Trident service between Kunming and Hong Kong saved travellers the change of aircraft or train at Guangzhou. On 12th April a new trans-Pacific service terminated at Los Angeles.

Starting in 1978 McDonnell Douglas began negotiations to sell DC-9s to China. They would enter into an agreement under which the Shanghai Aircraft Factory would be permitted to build the DC-9 or its developments, under a licensing agreement. On 9th December 1983 two McDonnell Douglas MD-80s arrived in Shanghai as demonstrator aircraft but with the presumption of a sale if they were satisfactory. The Shanghai region of CAAC put them into intermittent service. On 12th April 1985 the final agreement was signed in China for the purchase of 26 MD-82s, with the formal approval from the Chinese Government. The negotiations had taken six years. Twenty-five of the aircraft would be assembled in Shanghai, from sub-assemblies delivered from Douglas at Long Beach, starting in January 1986. The value of the contract was more than \$800 million. [Davies p.392-396]

Meanwhile Boeing had not been idle. In 1981, Boeing sent a 737-200 demonstrator to tour CAAC's routes. The six-day itinerary included Lhasa, Tibet, at an elevation of 11,600 ft. and ringed with even higher

mountains, where the twin-engined competitor to the Douglas twin performed well. In mid-November 1982 CAAC ordered ten of the Boeing twins, and significantly made the deal directly with Boeing, rather than through the purchasing agency, CATIC. The 737s entered service from 1984.

In January 1985 CAAC ordered eight Shorts 360 regional airliners, to be deployed for service in the Shanghai region in July, and in the Wuhan region in August of that year. In April 1985, through China Aviation Supplies Corporation, it ordered three Airbus A310-200s, each with 218 seats, of which 18 were first-class. The first two Airbuses went into service in June. Showing impartiality in its supply sources, CAAC also ordered ten Tupolev Tu-154s, intended for the Xinjiang Division; signed a letter of intent for ten British Aerospace BAe 146-100s; and on 23rd May 1985 signed a contract for eight Boeing airliners, one 747-200 Combi, two 767s and five 737-200s, at a total cost of \$350 million.

CAAC's reputation was not helped by an increase in the number of fatal accidents. After its first reported accident in 1976, there were more. A Trident crashed on take-off at Beijing on 14th March 1979, killing 44 people; another crashed en route from Guangzhou to the holiday resort of Guilin (Kweilin) on 27th April 1982, killing 112; an Ilyushin Il-18 burst into flames on landing at Guangzhou on 24th December 1982, killing 23 and injuring 28; and another Trident collided with a military aircraft at Guilin on 14th September 1983, killing all eleven on board. These accidents resulted in criticism and pressure was brought to bear at the highest levels of government in Beijing, to reorganise the entire civil aviation system. (See summary table below.)

China's elder statesman and architect of modern China, Deng Xiao Ping, stated in one of his speeches in 1980 that civil aviation must adopt the road of enterprise. His motivating words were followed by an important policy reconstruction by CAAC. The same year, China Aviation Supply Corporation (CASC) was established, responsible for the procurement of aircraft, engines, spare parts, maintenance equipment and a considerable amount of ground handling equipment required for China's many airports. It took a further four years of planning for CAAC's next historic move in Chinese aviation, when in 1984 CAAC transformed its massive aircraft fleet into eight major airlines to operate under their own identity. Gradually the airliners appeared in their new identity. [B&T p7]

"CAAC has been in the process of a major structural reorganisation over the past few years. The aim has been for CAAC to concentrate increasingly on its role as a regulatory body and gradually to reduce its airline operations. In 1984 CAAC, the national carrier which was actually the Department of International Affairs within the Administration, was broken up to create several regional carriers with varying degrees of independence. These now include Air China (international services have been operated by this carrier since July 1988 and domestic services are also operated); China East (Shanghai), China Northeast (Shenyang), China Northwest (Xian), China South (Guangzhou), China Southwest (Chengdu). China United was established prior to the structural reorganisation. The fleet listing below includes the aircraft operated by all these carriers. Air China is the only carrier operating 747s, and

placed a US\$850 million order for 747s, 767s, and A310s in May 1986. Early 1986 also saw the inauguration of the first passenger services with the first aircraft developed and built in China, the Xian Y-7.

"Routes: The CAAC-affiliated carriers operate scheduled services on a rapidly expanding domestic network (261 routes), boosted by the major airport building programme currently underway. Scheduled international services are operated to Toronto, San Francisco, Vancouver, New York, Los Angeles, Bucharest, Frankfurt, Paris, Stockholm, Zurich, London (Gatwick), Rome, Istanbul, Addis Ababa, Belgrade, Sydney, Melbourne, Sharjah, Baghdad, Kuwait, Hong Kong, Singapore, Rangoon, Pyongyang, Moscow, Tokyo, Osaka, Nagasaki, Bangkok, Karachi, and Manila.

"Fleet: four Boeing 747SP, two 747-200B Combi, one 747-200, five 757-200, three Airbus A310-200, two A310-300, five 767-200ER, ten 707-320B/C, 13 737-200, three 737-200C, ten 737-300, eight MD-82, 21 Trident 2E, two Trident 3B, 13-plus Tu-154M, 20-plus Il-18, 50-plus Antonov An-24, 50-plus Il-14, ten BAe 146-100, five-plus An-26, five-plus An-12, 15 Xian Y-7, Lisunov Li-2, seven Shorts 360, and a number of smaller aircraft and helicopters including Twin Otter, Bell 212, and MBB BO 105. On order: three 747-200, three 757-200, one 767-200ER, 40 Y-7-100, 22 MD-82, two Dash 8-300.

"Executives: director general, Hu Yizhou; director of Department of International Affairs, Lu Ruiling.

"Employees: 50,000.

"Head Office: PO Box 644, 155 Dong-Si Street West, Beijing, PRC."

[*Flight International*, World Airline Directory, 14-20 March 1990]

## Organisation of CAAC

The Civil Aviation Administration of China is the controlling body of all aviation matters in mainland China. From 1949 to 1984 CAAC administered the seven regions of Beijing, Shanghai, Guangzhou, Xian, Chengdu, Urumqi and Shenyang as divisions.

### CAAC 1st fleet

Based at Beijing, the 1st fleet was the Chinese national flag carrier holding the only international operating licence from November 1949 to July 1988. Part international licences were issued on behalf of the 1st fleet to the seven divisions for any international flights that may be operated. Upon the restructure of the 1st fleet, the new organisation became known as Air China operating domestic and international flights.

### CAAC 2nd fleet

The 2nd fleet was the general aviation division of the 1st fleet, which was originally established at Beijing. In 1971 the 2nd fleet moved its headquarters to Taiyuan, Shanxi province. Within the Taiyuan structure, branches were established at Handan, Changzi and Tianjin. In July 1990 the entire 2nd fleet became China General Aviation Corporation.

**Right:** The next stage was the manufacture of Western airliners in China. Agreement was reached in 1985 for the co-production of 25 MD-82s at Shanghai. The second example, to be B-2107, is seen in the factory in late 1987. (via JM Collection)



## CAAC Chengdu

Chengdu was an important centre for aviation, with its neighbouring city of Chongqing. A large aircraft overhaul facility was built at Chengdu many years before CAAC was formed. The regional name was known as CAAC Southwest division and after May 1988 Chengdu became the headquarters of China Southwest Airlines. Sichuan Airlines also operate from the Chengdu base.

## CAAC Guangzhou

The Guangdong Province city of Guangzhou was identified as the southern division of CAAC and aptly named its regional airline China Southern in December 1991. Even before this date the southern division was widespread with main branches at Wuhan and Zhuhai and subsidiary branches at Guilin, Changsha, Zhengzhou, Shenzhen, Shantou and Xiamen. China Southern is also part owner of China Ocean Helicopters and Guangdong General Aviation.

## CAAC Shanghai

The CAAC Shanghai region was the first region to allow a joint venture airline to commence operations in direct competition with the CAAC Eastern division in December 1985, when Shanghai Airlines was established. It was not until April 1988 that China Eastern was born from the CAAC Shanghai structure. China Eastern has its headquarters at Shanghai and branches at Hefei, Nanchang and Hangzhou. The general aviation division is based at Nanchang and Hefei.

## CAAC Shenyang

The Shenyang division, situated northeast of Beijing, covers Liaoning, Jilin and Heilongjiang provinces and is now the headquarters of China Northern Airlines at Shenyang. The other two main airports of Changchun and Harbin are large and active branches of Shenyang housing the biggest general aviation division in China. Y-5s, Y-11s and Y-12s work alongside a variety of helicopters in this vast region of farming and forestry.

## CAAC Xian

Since 1949, the division of Xian has been situated at a small airport almost within the city boundary of Xian. As jet traffic increased throughout the 1980s, a new airport had to be built at Xianyang. The disused bomber base was selected as the new international airport for Shaanxi Province and this became the headquarters for the newly created China Northwest Airlines. The secondary airport at Lanzhou in neighbouring Gansu Province was retained as the general aviation airport.

## CAAC Xinjiang

Xinjiang Province, one of the largest in China, relies heavily on air transport and in view of its closeness to the Kazakhstan border, it is no surprise that Russian-built aircraft have been operated by the region since 1949. CAAC Xinjiang evolved into Xinjiang Airlines. The general aviation division, a joint venture between China Xinjiang Airlines and Xinjiang General Aviation division, is based at Shihezi operating Y-5, Y-11 and Y-12 aircraft for industrial work.

## CAAC Government

Within the structure of CAAC, government aircraft are separated from airline and military operations. A mixture of civil and military aircraft were operated but flown by military crews.

## CAAC-IASC

The original Industrial Aviation Services Company, founded in 1949, was responsible for all general aviation outside the control of the 2nd fleet. Most aircraft, mainly Y-5s, Y-11s, Y-12s and a few helicopters, have been incorporated into regional general aviation divisions.

## CAAC Military

The CAAC Military division is primarily for transport aircraft operated by the military for military operations and civil emergencies, such as disaster relief. Their aircraft are a mixture of civil and military types.

## CAAC-NCAA

The North China Aviation Administration (NCAA), a secondary branch of the CAAC Northern division, is responsible for financing and administration of all technical training institutes in the north China region. The biggest of these facilities is Tianjin housing 14 training exhibits ranging from a Y-5 to an ex-Pan American Boeing 707.

## CAAC-SCAA

The South China Aviation Administration (SCAA), a secondary branch of the CAAC Southern division, is responsible for financing and administration of all technical training institutes in the south China region. The Guangzhou facility based at Baiyun airport, believed to be the largest facility in southern China, holds three Tridents, one An-24, one Il-14, a derelict Y-5 and a dismantled Il-14.

## Devolution of CAAC regional divisions

CAAC division	devolved airline	date
CAAC 1st fleet	Air China International Corporation	1985
CAAC 2nd fleet	China General Aviation Corporation	1987
CAAC Chengdu	China Southwest Airlines	October 1987
CAAC Guangzhou	China Southern Airlines	1986
CAAC Shanghai	China Eastern Airlines	December 1987
CAAC Shenyang	China Northern Airlines	May 1988
CAAC Xian	China Northwest Airlines	December 1989
CAAC Xinjiang	China Xinjiang Airlines	1985

[Ballantine & Tang; *Flight International*, 14-20 March 1990, pp.79-80]

Two years after the restructuring of CAAC in 1986, the passenger division of the Chinese Air Force was formed as China United Airlines.

## 1950-1999 Total Air Traffic Performed

Year	Total traffic						
1950	157	1963	2935	1976	18681	1989	205602
1951	349	1964	3672	1977	20801	1990	249950
1952	435	1965	4662	1978	29866	1991	320663
1953	712	1966	4965	1979	37536	1992	428456
1954	969	1967	5568	1980	42935	1993	511820
1955	1012	1968	4664	1981	53583	1994	584122
1956	1733	1969	4528	1982	63249	1995	714385
1957	1534	1970	4822	1983	65903	1996	806078
1958	2290	1971	5373	1984	92249	1997	866771
1959	3393	1972	6089	1985	127102	1998	929736
1960	4045	1973	7228	1986	154801	1999	1061127
1961	3586	1974	11062	1987	202833		
1962	2561	1975	17181	1988	231212		

Unit: '0000 tonne-km. [CAAC chronology]

## Defections from Nationalist China

On 9th November 1949, twelve Chinese aircraft defected from Hong Kong to Communist mainland China. These consisted of nine CNAC aircraft and two CATC aircraft as follows:

- CNAC:** C-47: XT-115, XT-121, XT-123, XT-125, XT-129, XT-131, XT-139 (7) and  
C-46: XT-144, XT-154 & XT-172 (3);
- CATC:** CV240: XT-610 (1) and  
C-47: XT-525 (1).

Previously CATC C-47 XT-501 had defected from Guangzhou to Nanking on 25 August 1949 and C-47 XT-507 defected from Hong Kong to Guangzhou on 27 October 1949. Neither of these two aircraft was included in the MOC list of CATC aircraft to be sold to Chennault & Willauer on 12 December 1949. [Archive pages 2009/085 & 2010/29; CF 01Apr2002] Thus a total of fourteen Chinese aircraft are known to have defected to Communist China in late 1949. These were probably all operated by CAAC in China but new Chinese identities are not known.

The twelve aircraft sold to Chennault & Willauer that defected to mainland China were allocated US civil registrations on resale to Civil Air Transport, Inc. (CATI) in the series N8300C to N8393C but these were cancelled, effectively as not taken up, during a clean-up of the USCAR on 7th October 1965. The following CATI registrations, cancelled on that date, are listed in Table 1 of Part 13A (Archive p.2011/023):

<i>N-number</i>	<i>make</i>	<i>model</i>	<i>c/n</i>	<i>notes</i>
N8305C	Convair	CV240	131	to 401
N8319C	Curtiss	C-46D	33674	
N8325C	Douglas	C-47A	13186	
N8333C	Douglas	C-47B	20891	
N8349C	Douglas	C-47A	19620	
N8351C	Douglas	C-47B	32817	
N8353C	Douglas	C-47B	32817	
N8355C	Douglas	C-47A	19062	
N8356C	Douglas	C-47	4573	
N8358C	Douglas	C-47A	18901	
N8361C	Douglas	C-53	4927	
N8375C	Curtiss	C-46A	460	
N8378C	Curtiss	C-46A	33371	
N8387C	Curtiss	C-46A	30369	

i.e. one CV-240, four C-46 and nine C-47/C-53, total 14.

In addition, ex-CAT C-46D N8411C c/n 22345 was cancelled on 7th October 1965 but this was because it had crashed as XT-812 on 6th December 1949.

The first Communist Chinese civil aircraft register published by Ballantine & Tang (see below) includes nineteen aircraft: 1 Catalina, 1 CV-240, 14 C-46s & 3 C-47. This is a poor match against known defectors.

The second Communist Chinese civil aircraft register published in *Archive* Part 12 (pp. 2010/174-175) gives a better match:

Douglas C-47/DC-3	101 to 110? (10);
Curtiss C-46:	201 to 217? (17)
Convair 240:	401 (1)
Canadian Vickers PBV-1A:	501? (1)

This gives a better match for the DC-3s and presumably a number of ex Chinese Air Force (CNAF) C-46s were also operated.

"I mentioned in my recent messages that ISBN 7806005110 Chinese Civil Aviation Review contained summaries of Chinese fleets in 1951 and 1952. The data on page 297 gives the civil aviation fleet in late 1951. This consisted of 29 airplanes. Added to the original twelve were seventeen that had been restored. The seventeen are identified as fourteen C-46s, two DC-3s and one PBY; this is consistent with data I have seen elsewhere. The original twelve are not identified but it seems they are the defectors on 9th November 1949. So tentatively, I believe they are three C-46s, eight DC-3s and one Convair 240. There is other data that also suggests a similar model breakdown.

"Page 307 discusses the fleet of China People's Airline. Between July and December 1952, they either operated or received two DC-3s, three C-46s, four Li-2, ten Aero-45 and one other that I'll return to later. In early 1953, these were supplemented by an additional group of planes consisting of two C-46s and four Po-2s.

"While the number of DC-3s matches the earlier totals well, there are many fewer C-46s, and the Convair is not listed. I suspect the Convair was used as transportation by senior Government officials.

"I haven't been able to identify the one other airplane. My friend gives the phonetic translation as "Su Ge". Hopefully someone can identify what is being referenced. Any ideas? The online dictionary I have doesn't help. The characters are the same as the first two in the Chinese word for Scotland. If all else fails, I can scan the original Chinese and put it in the files area." [MM #707 18Jun2004]

## Catalina

At this point we should explain the probable origin of the Catalina. This is thought to be Canadian Vickers PBV-1A c/n CV-386 ex 44-33907, XY-ABX, VR-HEV.

While looking at data on Chinese Communists fleets in 1950 and 1951, Matt Miller came across a reference to the Communist Chinese "PBY". A translation of a Chinese article on this reads as follows:

"In early 1951, due to a lack of airplanes, the Military Civil Aviation Division asked Guangzhou civil aviation maintenance team to restore a PBY and two C-46 airplanes.

"The maintenance team began their work on 21st February 1951. The PBY was originally discarded in the Zhu Jiang River at Huang Pu,

Guangzhou by a British airline. This airplane had not been maintained for some time and had many areas of damage. Most on board equipment had been damaged and were pieces of junk. During the restoration process, a ship hit the airplane and damaged the right aileron, making the repair work more difficult. It finally took more than a month to restore the plane. Following this, it was flown from Guangzhou to Tianjin."

Matt comments: "This certainly appears to refer to VR-HEV. The description above is generally consistent. I assume 'discarded' could be translated as 'abandoned' without difficulty. VR-HEV was abandoned in the estuary of the Zhu Jiang or Pearl River. Huang Pu is in the suburbs of Guangzhou. The translation says it was abandoned there. However, to be consistent with VR-HEV, it would need to be towed or otherwise delivered there from about 100 miles downstream. The date matches well. The accident in December 1950 would be followed by shipping upriver, allowing restoration work to begin in February 1951." [MM 21May2007]

There is therefore no connection with CNAC's Catalina XT-147, which was detained at Kai Tak from November 1949 to January 1953, subsequent fate unknown. In Part 12 we postulated that VR-HEV may have been given the Chinese serial number '501', as this number (preceding a batch of Ilyushin Il-12s) is otherwise vacant.

The story of the demise of Catalina VR-HEV is told by Chic Eather (p.197):

"At 6.40 a.m. on December 15, 1950 Kai Tak logged the following radio signal: 'Hello Hong Kong approach. This is VR-HEV. My aircraft is sinking rapidly. Am being taken aboard Communist gun-boat. All crew safe.'

"The flying-boat's flight plan details showed that it had departed from Chittagong in East Pakistan (now Bangladesh) at 2.28 p.m. (Hong Kong time) on a direct flight to Hong Kong, expected to take thirteen hours. It carried fuel for 23 hours flying. In the early morning it had been heard circling over Hong Kong with radio contact established. It then reported failure of the main radio transmitter, and its radio officer, Bill James brought his auxiliary equipment into operation. Radio contact ceased soon after, and the next message was the dramatic 6.40 transmission.

"Just under two hours later an RAF Sunderland of the Search and Rescue Unit took off to trace the wayward *fei gei*. It found an unidentified Chinese gunboat towing the Catalina into a small sheltered bay of Wang Kam Island in Communist water adjacent to the Portuguese Island of Colowan.

"Background of the flight was that a Mr Sun Chung-liang had bought the Catalina from MATCO, one of the batch previously purchased from Amphibian Airways in Manila. The pilot was Ross Bohm, the radio officer William Michael James, and the Catalina also carried a flight engineer and the owner from Chittagong. A report in the *Sydney Morning Herald* declared that the crew had agreed to make three flights for Mr Sun, and their pay, for what was said to be checking fuel consumption graphs, would be in three amounts of \$HK10,000, \$HK12,000 and \$HK14,000. But that report came in two years later, on August 14, 1952. The pay seems more than adequate.

"An uncorroborated rumour circulated that the Catalina had landed in the open sea. Conditions at that time were very rough, with a mountainous swell, and the hull had been holed. Captain Bohm managed to get it airborne again and sought the shelter of calmer waters in the lee of one of the many islands close to Macao. Here the gun-boat picked them up, and as it bore down on them some men fishing nearby saw, or reported that they saw, people on the Catalina frantically dumping bags overboard." [Eather p.197] See also *Archive* pp.2009/175-176 and Willing p.22.

## C-46s Wuhan and Guangzhou

"This is further to Clarence's comments in message 1049.

"These two C-46s are also listed in ISBN: 7-80600-511-0 Chinese Civil Aviation Review.

"Guangzhou is on page 287. A photo shows it is #214. As a reminder, at this time the numbers were prefixed Civil Aviation in Chinese characters. The USAAF identity #7915 is shown in the text but since I don't have a translation, I can only assume it is the same plane. The Air-

Britain C-46 book shows C-46 44-77915 was assigned to Chungking and was excluded from the inventory on 1st August 1946. Thus it seems quite possible this is the plane in question. The test also shows the date 1st July 1951.

"Wuhan is on page 294. The plane is identified as #217, with a previous identity 44-7800. This is not the same as the identity given at the web site Clarence found. In that case, 44-77800 was quoted. While this is a valid C-46 serial, there is no obvious connection to China. It was transferred to the Reconstruction Finance Corp (RFC) at Walnut Ridge on 9th January 1946. No further data are provided. A better candidate may be 44-78300, which was excluded at Chungking on 31st August 1946.

"I have scanned the pages in the hope that one of our experts can translate them." [MM 18Apr2005]

Clarence Fu replied as follows:

"I would try to translate the two articles in brief.

"The article in a single column says the *Wuhan's* construction number was 44-7800 and was an ex-CAT aircraft. It was deserted after a landing accident in Tien Ho Airfield. Following is the story of how it was repaired. Then at the last two lines, the repaired aircraft was named *Wuhan* (Civil Aviation Number 217).

"The second article says the repair team in Guangzhou started to repair a PBY on Feb 21st 1951. After a month more of repairing, the PBY flew from Guangzhou to Tianjin.

"Then a 66 men team was sent to the Shanghai Second Repair Shop to repair C-46 Number 7915. This ex-CATC C-46 was abandoned when CATC evacuated from Shanghai and received no attention for 5 years. After 40 more days of struggle, the work completed on June 15th and the C-46 was flown back to Tien Ho on July 1st. It was named *Canton*." [CF 19Apr2005]

A fleet list of CAT C-46s is included in *Archive* Part 11 pp.2010/120-122. This does not include either C-46D 44-77800 c/n 33196 or C-46D 44-78300 c/n 33696 or anything resembling '44-7800'. Similarly there is a fleet list of CATC C-46s in *Archive* Part 9 pp.2009/104-107 and this does not include any mention of 44-77915 c/n 33311 or any number resembling '7915'. Note, however, that CATC C-46 XT-508 (c/n ?) crashed on landing at Wuhan on 1Aug48 and this may have been repaired. Also CATC C-46D XT-515 c/n 33674 (ex 44-78278) was registered as N8319C but cancelled on 7Oct65 with the aircraft that defected to China, so perhaps this aircraft, which is not listed as a defector, was left behind on the mainland.

### 1st Register 1949-1974

f/n	make/model	name	fate
101	C-47	National Day	to Changping as XT-115
102	C-47	China Youth	display BJS Aero Inst
103	C-46	Chongqing 1	to PLAAF
104	C-46	Shanghai 1	to PLAAF
105	C-46	Shanghai 4	to PLAAF
106	C-46	Wuhan 1	to PLAAF
107	C-46	Shanghai 3	to PLAAF
108	C-46	Tianjin	to PLAAF
109	C-46	Shanghai 7	to PLAAF
110	CV-240	Beijing	to '401'
111	Catalina	?	unknown
112	C-46	Shanghai 10	to PLAAF
113	C-46	Guangzhou	to PLAAF
114	C-46	Shanghai 5	to PLAAF
115	C-46	Shanghai 9	to PLAAF
116	C-46	Shanghai 2	to PLAAF
117	C-47	?	to PLAAF as 97042
118	C-46	Shanghai 6	to PLAAF
119	C-46	Shanghai 8	to PLAAF

Initially only the names given above were used. These were derived from the place where they were first overhauled after their defection from the Nationalist Chinese airlines.

Initially, most if not all would be prefixed "Civil Aviation" in Chinese characters. [MM 15Dec2006]

[*Archive* Part 12 p.2010/174; Ballantine & Tang]

### CAAC inventory – December 1949

Convair 240	1
Curtiss C-46	14
Douglas DC-3	2
PBY-5 Catalina	1
[Ballantine & Tang]	

"CAAC published official figures in 1957 revealing that a fleet of one hundred and eighteen aircraft comprising Aero 45s, An-2s, Il-12a, Il-14s, and Li-2s, all of which had replaced the remaining C-46s and C-47s. The only Western-built airliner flying in China between 1957 and 1963 was *Beijing*, the Convair 240." [Chinese Airliners p.7]

CAAC/Minhaiduy fleet, May 1962: ~20 Li-2, ~50 Il-14, ~6 Il-18, ~50 others; total: ~126 [OUP Table 50]

### CAAC fleet list – 1974

type	quantity	notes
Concorde	3	on order, delivery scheduled for 1976-77
Ilyushin Il-62	5	
Boeing 707-320B/C	10	6 delivered, 4 to be delivered by June 1974
Trident 1E	4	purchased second-hand from PIA in 1971 in exchange for squadron of Chinese-built MiG-19s for Pakistan Air Force
Trident 2E	33	6 delivered 1972-73, 12 more to be delivered in 1974, remaining 15 in 1975
Trident 3B	2	to be delivered in 1974-75
Ilyushin Il-18	9	phasing out with introduction of Trident 2E
Ilyushin Il-14	58	
Viscount 800	6	
Ilyushin IL-12	11	
Li-2	26	
Antonov An-24,		
An-14, An-2	100	estimated number
Mil Mi-2	15-20	

[Sources: CAAC officials, Boeing, Hawker Siddeley, via Flight International, 7Feb1974 p.7]

CAAC fleet list (1990): four Boeing 747SP, two 747-200B Combi, one 747-200, five 757-200, three Airbus A310-200, two A310-300, five 767-200ER, ten 707-320B/C, 13 737-200, three 737-200C, ten 737-300, eight MD-82, 21 Trident 2E, two Trident 3B, 13+ Tu-154M, 20+ Il-18, 50+ Antonov An-24, 50+ Il-14, ten BAe 146-100, five-plus An-26, 15 Xian Y-7, Lisunov Li-2, seven Shorts 360, and a number of smaller aircraft and helicopters including Twin Otter, Bell 212, and MBB BO 105. [Flight International, 14-20 March 1990, p.80]

### Regional carriers

The Civil Aviation Administration of China (CAAC) has been devolved into various regional carriers, each operating under the direction of the CAAC. The newly allocated two- and three-letter codes (where known) are shown below (marked \*), along with the operator's base and three-letter airport code. CAAC/Chinese Air Force flights are operated under the name China United Airlines.

airline	codes	date	base (code)
*Air China	CA/CCA	25May88	Beijing-Capital (PEK)
Air China Cargo	CA/CAO	?	Beijing-Capital (PEK)
Air Great Wall		21Jul92	
Capital Airlines	JD/DRA	?	Beijing-Capital (PEK)
Chang An Airlines	HU/CGN	24Dec92	Xi'an (SIA)
Chengdu Airlines	EU	?	Chengdu
*China Air Cargo	CA/CYN	?	Beijing (PEK)
*China Capital Helicopters		?	Beijing (PEK)
China Cargo Airlines	CK/CKK	?	Shanghai-Pu
Dong Intl (PVG)			
*China Eastern Airlines	MU/CES	22Apr88	Shanghai-Pu
Dong Intl (PVG)			
China Express Airlines	G5/HXA	?	Guiyang (KWE)
China Flying Dragon Aviation	CFA	Jan81	Harbin-Ping Fang
China General Aviation		04Jul89	
China Marine Helicopters		12Mar83	

*China Northern Airlines (SHE)	CJ/CBF	09Sep90	Shenyang
*China Northwest Airlines China Postal Airlines	WH/CNW 8Y/CYZ	10Feb92 ?	Xian (SIA) Nanjing-Lukou (NKG)
*China Southern Airlines	CZ/CSN	04Apr91	Guangzhou (CAN)
*China Southwest Airlines	SZ/CXN	22Sep87	Chengdu (CTU)
*China United Airlines	KN/CUA	25Dec86	Beijing-Nanyuan (NAY)
China Xinhua Airlines	HU/CXH	Aug92	Tianjin (TSN)
China Xinjiang Airlines		09May92	<i>see below</i>
China Yunnan Airlines		01Jul92	<i>see below</i>
Chongqing Airlines	OQ/CQN	?	Chongqing (CKG)
CITIC Offshore Helicopters	CHC	?	Shenzhen Heliport
Deer Jet	JD/DER	?	Beijing-Capital (PEK)
Donghai Airlines	J5/EPA	?	Shenzhen Bao'an (SZX)
Donghua Airlines	?	?	Jingjiang (JJN)
Fujian Airlines		08Aug93	
Grand China Airlines	CN/GDC	?	Haikou (HAK)
Great Wall Airlines	IJ/GWL	?	Shanghai-Pu Dong Intl (PVG)
Guzhou Airlines		27Sep91	
Hainan Airlines	HU/CHH	23Nov91	Haikou (HAK)
Hebei Airlines	NS/DBH	?	Shenyang
Henan Airlines	VD/KPA	?	Xian
Jade Cargo International	JJ/JAE	?	Shenzhen (SZX)
Jiangnan Universal Aviation	?	12May90	Changzhou-West Suburbs (CZX)
Jinmen United General Aviation		18Feb92	
Juneyao Airlines	HO/DKH	?	Shanghai-Hongqiao (SHA)
Juhua Airlines		04Apr87	
Kunming Airlines	KY/KNA	?	Kunming (KMG)
Kunpeng Airlines	VD/KPA	?	Xian
Lucky Airlines	BL/LKE	?	Dali City (DLU)
Mudanjiang General Aviation		15Jun88	
OK Airways	BK/OKA	?	Tianjin (TSN)
Shandong Airlines	SC/CDG	?	Jinan (TNA)
Shanghai Airlines	FM/CSH	25Dec85	Shanghai-Hongqiao (SHA)
Shanghai Cargo	F4/SHQ	?	Shanghai-Pu Dong Intl (PVG)
Shan Xi Airlines	CXI	?	Taiyuan-Wusu (TYN)
Shenzen Airlines	ZH/CSZ	14Oct93	Shenzhen (SZX)
Shuangyang General Aviation	CSY	02Sep91	Anshun (AOG)
Sichuan Airlines	3U/CSC	02Feb89	Chengdu (CTU)
Spring Airlines	9S/CQH	?	Shanghai-Hongqiao (SHA)
Tianjin Airlines	GS/GCR	?	Tianjin (TSN)
United Eagle Airline	EU/UEA	?	Chengdu (CTU)
Uni-Top Airlines	UW	?	?
West Air	PN/CHB	?	Chongqing (CKG)
*Wuhan Airlines	CWU	24Apr86	Wuhan (WUH)
Xiamen Airlines	MF/CXA	10Mar92	Xiamen (XMN)
Xinjiang General Aviation	?	?	Shihezi
Yangtze River Express	Y8/YZR	?	Shanghai-Hongqiao (SHA)
*Yunnan Provincial Aviation	?	?	Kunming (KMG)
*Zhejiang Airlines	CJG	07Sep90	Hangzhou (HGH)
Zhingfei General Aviation	?	?	
Zhongfei Airlines	CFZ	?	Xi'an-Yanliang
Zhongyuan Airlines	?	17May86	
*Zhong Yuan Aviation	CYN	?	Zhong Yuan

[AF89 p.7; AF90 p.7; AF91 p.7; AF2010 pp.18-42; GO 11Sep2011; AF2011 pp.19-47; etc.]

The liveries of many of these airlines are illustrated in *Chinese Airlines*, by Ballantine & Tang and *Airlines of the Orient* by John K Morton, pages 44 to 81.

## Fleet list by aircraft type

As usual, consulting multiple sources has led to conflicts of data. A judgement has been made about which source is the more reliable. Generally these conflicts are not explained below.

Please see Part 12 for a discussion on Chinese civil aircraft registers (*Archive* pp.2010/163-178). In particular, note that three civil aircraft registered have been used successively in the PRC:

1st register	1949-1974	Numeric, 3 or 4 digits
2nd register	1974-1985	Numeric, 3 digits with B- prefix
3rd register	1985-current	Numeric, 4 digits with B- prefix

## Aero 45

Ten Czechoslovakian-built Aero 45s were purchased from the Soviet Union in 1953 for aerial mineral exploration and geological and forest surveying. The Aero 45s were retired during 1960 in favour of Yunshuji Y-5s and Lisunov Li-2s. [B&T pp.6-7; MSB 04Jun2004]

"Ten Aero 45s were bought by CAAC in 1951 and the PRC Air Force bought 14 in 1953. A production list obtained from Czech sources has many gaps and many obvious mistakes. It only identifies one airframe as exported to China, namely 51196 OK-KFA registered 16Feb55 and exported to China in 1959, which does not tie in with the above. No doubt the Chinese ones come from the gaps in the production list and it is interesting that there are the following unknowns in the list in the right timeframe: c/ns 5047, 5060-5063, 5092-5094, 5097, 50130, 50131, 50143-50149, 50152, 50153 & 50155; a total of 22 airframes.

"In addition, c/ns 50101 OK-EIW and 50102 OK-EIX were both sold abroad in 1951 with nothing further known. All these airframes would have been built between late 1949 and late 1951. From c/n 50156, production was at Kunovice, which didn't start until 1954, so the Chinese ones have to be no later than c/n 50155." [IT 08Jun2004]

f/n	c/n	date	operator	fate
957	?	1955	CAAC IASC	unknown
958	?	1955	CAAC IASC	w/o in Shaanxi Province (date?)
959	?	1955	CAAC IASC	unknown

+ 7 more with unknown f/n [Ballantine & Tang; IT 08Jun2004]  
[Editor's note: The type was also built in China as the Sungari, with modified windscreen and glazing.]

## Aérospatiale SA315B Lama

reg.	c/n	date	operator	fate
756, B-756	2601	1981	CAAC IASC	r/r B-7201 with China General Jul89
758, B-758	2611	1981	CAAC IASC	r/r B-7202 with China General Jul89

[Ballantine & Tang; BUCH92 p.2; BUCH95 p.2; WHR]

## Aérospatiale SA316B Alouette III

reg.	c/n	date	operator	fate
751	1428	1967	CAAC IASC	r/r B-7401 with China General Jul89
752	1429	1967	CAAC IASC	w/o
753, B-753	1481	1967	CAAC IASC	r/r B-7402 with China General Jul89
754	1484	1967	CAAC IASC	r/r B-7403 with China General Jul89

[Ballantine & Tang; BUCH92 p.2; BUCH95 p.2; MSB]

## Aérospatiale SA332L Super Puma

reg.	c/n	date	operator	fate
B-7945	2132		CAAC Government	
B-7946	2143		CAAC Government	
B-7947	2145		CAAC Government	
B-7948	2151		CAAC Government	
B-7949	2153		CAAC Government	
B-7950	2155		CAAC Government	

[Ballantine & Tang ; BUCH95 p.3]



**Left:** China Northwest's first wide-body aircraft Airbus A310 B-2301 was delivered in April 1992 and is seen here at the end of a test flight at Toulouse.  
(via JM Collection)

### Aerospatiale SA365N Dauphin / SA365N1 Haitun

reg.	c/n	date	operator	fate
B-730	6012	1982	CAAC IASC	r/r B-7101 May85
B-731	6013	1982	CAAC IASC	r/r B-7102 May85
B-733	6023	1982	CAAC IASC	
B-734	6027	1982	CAAC IASC	r/r B-7107 May85
B-735	6031	1982	CAAC IASC	
B-736	6039	1982	CAAC IASC	
B-737	6040	1982	CAAC IASC	
B-738	6041	1982	CAAC IASC	r/r B-7103 May85
B-739	6042	1982	CAAC IASC	
B-740	6046	1982	CAAC IASC	r/r B-7105 May85
B-741	6047	1982	CAAC IASC	r/r B-7106 May85
B-742	6053	1982	CAAC IASC	
B-743	6060	1982	CAAC IASC	r/r B-7104 May85
B-7101	6012		CAAC Industrial, to China Southern Helicopters Apr91, Guangdong General Aviation Mar98	
B-7102	6013		CAAC Industrial, to China Southern Helicopters Apr91, Guangdong General Aviation Mar98	
B-7103	6041		CAAC Maritime Helicopters, to China Ocean Helicopters Apr92	
B7104	6060		CAAC Maritime Helicopters, to China Ocean Helicopters Apr92	
B-7105	6046		CAAC Maritime Helicopters, to China Ocean Helicopters Apr92	w/o South China Sea Oct93
B-7106	6047		CAAC Maritime Helicopters, to China Southern Helicopters Apr91, China Ocean Helicopters Jun92	
B-7107	6027		CAAC Maritime Helicopters, to China Ocean Helicopters Oct91, China Flying Dragon Aug92	
B-7108	044	1991	CAAC Industrial/w/o Pingfang	Aug91
B-7109	045	1991	CAAC Industrial, to China Flying Dragon	May92

[Ballantine & Tang ; BUCH95 p.2]

### Airbus Industrie A310-222/304

reg.	model	c/n	date	p/i	operator/fate
B-2301	222	311	25Jun85	F-WZEJ	CAAC Shanghai, to China Eastern 1May88, WFU, China Northwest Apr92
B-2302	222	320	28Jun85	F-WZER	CAAC Shanghai, to China Eastern 1May88, WFU, China Northwest Apr92
B-2303	222	419	30May86	F-WWBJ	CAAC Shanghai, to China Eastern 1May88, WFU, China Northwest Sep93
B-2304	304	435	31Jul87	F-WWCD	CAAC Shanghai, to China Eastern 1May88

B-2305 304 440 28Aug87 F-WWCF CAAC Shanghai, to China Eastern 1May88  
[AF89 p.7; SEA90 p.8; TAHS2 pp.21-23]

### Antonov An-2 & Yunshuji Y-5

In the mid-1950s China was in need of a rugged, light utility aircraft and the An-2 was an ideal candidate, so the Chinese government requested a manufacturing licence for the type. Thus China became the first foreign nation to build the An-2, receiving a set of manufacturing documents in October 1956. In January 1957 a group of Soviet specialists arrived to assist the local factories in mastering production of the airframe and the power-plant.

State aircraft factory No. 320 in Nanchang was the first Chinese manufacturer of the An-2. In accordance with the local aircraft designation system, the An-2 was re-designated Y-5 (Yunshuji – transport aircraft – Type 5). The 1,000-hp Shvetsov Ash-62IR nine-cylinder radial powering the An-2 was built under licence in Zhuzhou, near Shanghai, as the HS-5 (Huosai – piston engine) from 1956.

The first Chinese-built An-2 (c/n 0032001, i.e. Batch 00, factory 320, 01st aircraft in batch) was completed in late 1957, making its maiden flight on 7th December. Full-scale production began in March 1958 but the rate of production was rather slow; only 727 examples had been completed when the Nanchang line closed in 1968. The last known Nanchang-built example is 8454 (c/n 1832038).

After that, Y-5 production was transferred to Harbin but in May 1970, before the Harbin factory had a chance to complete a single aircraft, production moved to the Red Star Machinery Factory (plant no. 164) in Shijiazhuang. This factory was more successful as an An-2 manufacturer, rolling out their 1,000th Y-5 on 25th December 1996.

Shijiazhuang-built Y-5s originally had 6-digit c/ns (e.g. B-8032 is c/n 316405: Batch 3, factory 164, 05th aircraft in the batch). In batches 4 and 5 the factory number was replaced by a code, 7055 (for example, B-8038 is c/n 4705517). From Batch 6 onwards the code was omitted (for example, B-8245 is c/n 0623: Batch 06, 23rd aircraft).

The Y-5 (with no suffix) was the first production version and the Chinese equivalent of the An-2T. The Y-5A, an 11-seat passenger version for use on local air services by CAAC, was the Chinese equivalent of the An-2P. It was brought out in 1959 and a total of 114 were built. The Y-5B, brought out in 1989, is an improved transport version with new avionics and a Polish-built Ash-62IR engine instead of the identically rated HS-5. 229 were reportedly built. The Y-5B had the same 4-digit c/n system as used for late Y-5s but the batch number sequence started anew from 01. [Gordon & Komissarov pp.191-194]

reg.	model	c/n	date	operator/fate/transfer
8001	Y-5	5 7055 15	1962	CAAC IASC, to NCAA 1984
8002	Y-5	?	1962	CAAC IASC, to NCAA 1984
8003	Y-5	?	?	CAAC, to Ministry of Agriculture
8004	Y-5	1 320 01	?	CAAC, to Ministry of Agriculture
8005	An-2	1 74(473)05	Apr57	CAAC, to China Northern Sep90

8006	Y-5	4 320 09	?	CAAC, to Ministry of Agriculture	8043	Y-5	10-17	1983	CAAC 2nd fleet, to China General Jul89
8007	Y-5	?	?	CAAC, to Ministry of Agriculture	8044	Y-5	10-20	1983	CAAC 2nd fleet, to China General Jul89
8008	Y-5	?		CAAC, to Ministry of Agriculture	8045	Y-5	10-21	1983	CAAC 2nd fleet, to China General Jul89
8009	Y-5	7 320 25	1961	CAAC IASC, to Southern General Avn Apr91	8061	Y-5	4 7055 13	1976	CAAC IASC, to Eastern General Avn. Apr88
8010	Y-5	?		CAAC, to Ministry of Agriculture	8062	Y-5	0621	1982	CAAC IASC, to Eastern General Avn. Apr88
8011	Y-5	9 320 33	1963	CAAC IASC, to Southern General Avn Apr91	8063	Y-5	0622	1982	CAAC IASC, to Eastern General Avn. Apr88
8012	Y-5	10 320 17	1963	CAAC IASC, to Southern General Avn Apr91	8064	Y-5	?	?	CAAC, to Ministry of Agriculture
8013	Y-5	?	?	CAAC, to Ministry of Agriculture	8065	Y-5	?	?	CAAC, to Ministry of Agriculture
8015	Y-5	11 320 03	1964	CAAC IASC, to Southern General Avn Apr91	8066	Y-5	?	?	CAAC, to Ministry of Agriculture
8016	Y-5	?	?	CAAC, to Ministry of Agriculture	8067	Y-5	?	?	CAAC, to Ministry of Agriculture
8017	Y-5	5 320 11	1960	CAAC IASC, to Southern General Avn Apr91	8068	Y-5	?	?	CAAC, to Ministry of Agriculture
8018	An-2	1 67(473)03	1956	CAAC, fate unknown	8069	Y-5	?	?	CAAC, to Ministry of Agriculture
8019	Y-5	?	?	CAAC, to Ministry of Agriculture	8070	Y-5	8 320 19	?	CAAC, to Ministry of Agriculture
8020	Y-5	?		CAAC, to Ministry of Agriculture	8071	Y-5	7 320 39	?	CAAC, to Ministry of Agriculture
8021	Y-5	?		CAAC, to Ministry of Agriculture	8072	Y-5	8 320 26	?	CAAC, to Ministry of Agriculture
8022	Y-5	?		CAAC, to Ministry of Agriculture	8073	Y-5	8 320 27	1962	CAAC IASC, to Eastern General Avn. Apr88
8023	Y-5	?		CAAC, to Ministry of Agriculture	8074	An-2	1 74(473)12	1957	CAAC, fate unknown
8024	Y-5	?		CAAC, to Ministry of Agriculture	8075	Y-5	8 320 37	1962	CAAC IASC, to Eastern General Avn. Apr88
8025	Y-5	?		CAAC, to Ministry of Agriculture	8076	Y-5	7 320 46	1962	CAAC IASC, to Eastern General Avn. Apr88
8026	Y-5	?		CAAC, to Ministry of Agriculture	8077	Y-5	5 32 018	?	CAAC, to Ministry of Agriculture
8027	Y-5	?		CAAC, to Ministry of Agriculture	8078	Y-5	8 32 030	?	CAAC, to Ministry of Agriculture
8028	Y-5	?		CAAC, to Ministry of Agriculture	8079	Y-5	?	?	CAAC, to Ministry of Agriculture
8029	Y-5	?		CAAC, to Ministry of Agriculture	8080	Y-5	10 320 44	1964	CAAC IASC, to Eastern General Avn. Apr88
8030	Y-5	?		CAAC, to Ministry of Agriculture	8081	Y-5	2 320 06	1958	CAAC IASC, to Eastern General Avn. Apr88
8031	Y-5	?		CAAC, to Ministry of Agriculture	8082	Y-5	?	?	CAAC, to Ministry of Agriculture
8032	Y-5	3 164 05	1976	CAAC IASC, to Air China Industrial May88	8083	Y-5	5 32 013	?	CAAC, to Ministry of Agriculture
8033	Y-5	3 164 10	1976	CAAC IASC, to Air China Industrial May88	8084	Y-5	5 32 026	?	CAAC, to Ministry of Agriculture
8034	Y-5	4 7055 05	1976	CAAC 2nd fleet, to China General Jul89	8085	Y-5	9 320 03	1963	CAAC IASC, to Eastern General Avn. Apr88
8035	Y-5	4 7055 09	1976	CAAC 2nd fleet, to China General Jul89	8086	Y-5	1 32 004	?	CAAC, to Ministry of Agriculture
8036	Y-5	4 7055 12	1976	CAAC 2nd fleet, to China General Jul89	8089	Y-5	?	?	CAAC, to Ministry of Agriculture
8037	Y-5	4 7055 16	1976	CAAC IASC, to Air China Industrial May88	8090	Y-5	7 320 49	1962	CAAC IASC, to Eastern General Avn. Apr88
8038	Y-5	4 7055 17	1976	CAAC IASC, to Air China Industrial May88	8092	Y-5	8 320 18	1962	CAAC IASC, to Eastern General Avn. Apr88
8039	Y-5	2 164 08	1976	CAAC 2nd fleet, to China General Jul89	8093	Y-5	?	?	CAAC, to Ministry of Agriculture
8040	Y-5	5 7055 07	1976	CAAC IASC, to Air China Industrial May88	8094	Y-5	11 320 08	1962	CAAC IASC, to Eastern General Avn. Apr88
8041	Y-5	5 7055 09	1976	CAAC IASC, to Air China Industrial May88	8095	Y-5	10 320 11	1963	CAAC IASC, to Eastern General Avn. Apr88
8042	Y-5	10-16	1983	CAAC 2nd fleet, to China General Jul89	8096	Y-5	10 320 15	1963	CAAC IASC, to Eastern General Avn. Apr88



**Right:** An example of a Yunshuji Y-5, Chinese-built version of the Antonov An-2. B-8073 is in the somewhat weathered colours of China Eastern subsidiary Eastern General Aviation and was used for crop spraying. The feathered winglets are a modification to improve airflow and controllability. (via JM Collection)

8097	Y-5	?	?	CAAC, to Ministry of Agriculture	8210	Y-5	8 320 22	1962	CAAC IASC, to Northwest General Avn. Feb92
8098	Y-5	?	?	CAAC, to Ministry of Agriculture	8211	Y-5	?	?	CAAC, to Ministry of Agriculture
8099	Y-5	?	?	CAAC, to Ministry of Agriculture	8212	Y-5	?	?	CAAC, to Ministry of Agriculture
8100	Y-5	2 320 08	1958	CAAC IASC, to Eastern General Avn. Apr88	8213	Y-5	?	?	CAAC, to Ministry of Agriculture
8101	Y-5	?	?	CAAC, to Ministry of Agriculture	8214	Y-5	10 320 27	Apr60	CAAC Military, to CAAC Flight Institute 1985 r/r B-8214
8102	Y-5	5 320 23	1960	CAAC IASC, to Eastern General Avn. Apr88	8215	Y-5	10 320 30	1964	CAAC IASC, to Northwest General Avn. Feb92
8103	Y-5	?	?	CAAC, to Ministry of Agriculture	8216	Y-5	?	?	CAAC, to Ministry of Agriculture
8104	Y-5	?	?	CAAC, to Ministry of Agriculture	8217	Y-5	?	?	CAAC, to Ministry of Agriculture
8105	Y-5	?	?	CAAC, to Ministry of Agriculture	8218	Y-5	8 320 46	1962	CAAC IASC, to Northwest General Avn. Feb92
8106	Y-5	9 32 025	?	CAAC, to Ministry of Agriculture	8219	Y-5	?	?	CAAC, to Ministry of Agriculture
8107	Y-5	?	?	CAAC, to Ministry of Agriculture	8220	Y-5	?	?	CAAC, to Ministry of Agriculture
8109	Y-5	1009	1983	CAAC IASC, to Eastern General Avn. Apr88	8221	Y-5	4 320 07	1960	CAAC IASC, to Air China Industrial May88
8111	Y-5	1 164 05	1972	CAAC IASC, to Eastern General Avn. Apr88	8222	Y-5	6 320 32	1961	CAAC IASC, to Xinjiang General Avn. Oct83
8112	Y-5	10-18	1983	CAAC IASC, to Eastern General Avn. Apr88	8223	Y-5	?	?	CAAC, to Ministry of Agriculture
8113	Y-5	10-19	1983	CAAC IASC, to Eastern General Avn. Apr88	8224	Y-5	9 320 22	1963	CAAC IASC, to Xinjiang General Avn. Oct83
8142	Y-5	?	?	CAAC, to Ministry of Agriculture	8225	Y-5	?	?	CAAC, to Ministry of Agriculture
8143	Y-5	?	?	CAAC, to Ministry of Agriculture	8226	Y-5	?	?	CAAC, to Ministry of Agriculture
8144	Y-5	?	?	CAAC, to Ministry of Agriculture	8227	Y-5	?	?	CAAC, to Ministry of Agriculture
8145	Y-5	9 320 04	1963	CAAC IASC, to Southern General Avn. Apr91	8228	Y-5	?	?	CAAC, to Ministry of Agriculture
8146	Y-5	?	?	CAAC, to Ministry of Agriculture	8229	Y-5	7 320 47	1962	CAAC IASC, to Xinjiang General Avn. Oct83
8147	Y-5	?	?	CAAC, to Ministry of Agriculture	8230	Y-5	5 320 18	1960	CAAC IASC, to Xinjiang General Avn. Oct83
8148	Y-5	10 320 42	1964	CAAC IASC, to Southern General Avn. Apr91	8231	Y-5	7 320 50	Oct59	CAAC IASC, to Xinjiang General Avn. Oct83
8149	Y-5	?	?	CAAC, to Ministry of Agriculture	8232	Y-5	6 320 15	1961	CAAC IASC, to Xinjiang General Avn. Oct83
8150	Y-5	?	?	CAAC, to Ministry of Agriculture	8233	Y-5	?	?	CAAC, to Ministry of Agriculture
8152	Y-5	?	?	CAAC, to Ministry of Agriculture	8234	Y-5	?	?	CAAC, to Ministry of Agriculture
8153	Y-5	?	?	CAAC, to Ministry of Agriculture	8235	Y-5	?	?	CAAC, to Ministry of Agriculture
8154	Y-5	?	?	CAAC, to Ministry of Agriculture	8236	Y-5	?	?	CAAC, to Ministry of Agriculture
8155	Y-5	?	?	CAAC, to Ministry of Agriculture	8237	Y-5	?	?	CAAC, to Ministry of Agriculture
8156	Y-5	?	?	CAAC, to Ministry of Agriculture	8238	Y-5	3 164 09	1976	CAAC IASC, to Northwest General Avn. Feb92
8157	Y-5	?	?	CAAC, to Ministry of Agriculture	8239	Y-5	4 7055 14	1976	CAAC IASC, to Northwest General Avn. Feb92
8158	Y-5	?	?	CAAC, to Ministry of Agriculture	8240	Y-5	4 7055 06	1976	CAAC IASC, to Northwest General Avn. Feb92
8159	Y-5	?	?	CAAC, to Ministry of Agriculture	8242	Y-5	5 7055 13	1976	CAAC IASC, to Northwest General Avn. Feb92
8160	Y-5	?	?	CAAC, to Ministry of Agriculture	8243	Y-5	5 7055 15	1976	CAAC IASC, to Xinjiang General Avn. Oct83
8161	Y-5	?	?	CAAC, to Ministry of Agriculture	8245	Y-5	0623	1982	CAAC IASC, to Northwest General Avn. Feb92
8162	Y-5	?	?	CAAC, to Ministry of Agriculture	8260	Y-5	?	?	CAAC, to Ministry of Agriculture
8163	Y-5	?	?	CAAC, to Ministry of Agriculture	8261	Y-5	?	?	CAAC, to Ministry of Agriculture
8164	Y-5	?	?	CAAC, to Ministry of Agriculture	8262	Y-5	?	?	CAAC, to Ministry of Agriculture
8165	Y-5	?	?	CAAC, to Ministry of Agriculture	8263	Y-5	?	?	CAAC, to Ministry of Agriculture
8166	Y-5	?	?	CAAC, to Ministry of Agriculture	8264	Y-5	?	?	CAAC, to Ministry of Agriculture
8167	Y-5	?	?	CAAC, to Ministry of Agriculture	8266	Y-5	?	?	CAAC, to Ministry of Agriculture
8168	Y-5	?	?	CAAC, to Ministry of Agriculture	8267	Y-5	?	?	CAAC, to Ministry of Agriculture
8169	Y-5	?	?	CAAC, to Ministry of Agriculture	8268	Y-5	?	?	CAAC, to Ministry of Agriculture
8170	Y-5	?	?	CAAC, to Ministry of Agriculture	8269	Y-5	?	?	CAAC, to Ministry of Agriculture
8171	Y-5	10 320 47	1964	CAAC IASC, to Southern General Avn. Apr91	8271	Y-5	?	?	CAAC, to Ministry of Agriculture
8172	Y-5	10 320 18	1963	CAAC IASC, to Southern General Avn. Apr91	8272	Y-5	4 7055 22	1976	CAAC Military, to CAAC Flight Institute 1985 r/r B-8272 CAAC Flight Institute
8173	Y-5	?	?	CAAC, to Ministry of Agriculture	8273	Y-5	4 7055 23	1976	CAAC Military, to CAAC Flight Institute 1985 r/r B-8273 CAAC Flight Institute
8174	Y-5	?	?	CAAC, to Ministry of Agriculture	8300	Y-5	?	?	CAAC, to Ministry of Agriculture
8176	Y-5	7 320 34	1962	CAAC IASC, to Southern General Avn. Apr91	8301	Y-5	?	?	CAAC, to Ministry of Agriculture
8177	Y-5	0 164 02	1972	CAAC IASC, to Southern General Avn. Apr91	8302	Y-5	?	?	CAAC, to Ministry of Agriculture
8178	Y-5	1 164 01	1972	CAAC IASC, to Southern General Avn. Apr91	8303	Y-5	?	?	CAAC, to Ministry of Agriculture
8179	Y-5	1011	1983	CAAC IASC, to Southern General Avn. Apr91	8304	Y-5	?	?	CAAC, to Ministry of Agriculture
8180	Y-5	1010	1983	CAAC IASC, to Southern General Avn. Apr91	8305	Y-5	?	?	CAAC, to Ministry of Agriculture
8181	Y-5	3 164 02	1976	CAAC IASC, to Southern General Avn. Apr91	8306	Y-5	7 320 18	1961	CAAC IASC, to Northeast General Avn. Sep90
8182	Y-5	0618	1982	CAAC IASC, to Southern General Avn. Apr91	8307	Y-5	7 320 19	1961	CAAC IASC, to Northeast General Avn. Sep900
8183	Y-5	0620	1982	CAAC IASC, to Southern General Avn. Apr91	8308	Y-5	7 320 28	1962	CAAC IASC, to Northeast General Avn. Sep90
8192	Y-5	?	?	CAAC, to Ministry of Agriculture					
8202	Y-5	?	?	CAAC, to Ministry of Agriculture					
8203	Y-5	?	?	CAAC, to Ministry of Agriculture					
8204	Y-5	?	?	CAAC, to Ministry of Agriculture					
8208	Y-5	?	?	CAAC, to Ministry of Agriculture					
8209	Y-5	?	?	CAAC, to Ministry of Agriculture					

8309	Y-5	7 320 29	1962	CAAC IASC, to Northeast General Avn. Sep90	8389	Y-5	7 320 33	?	Industrial May88 CAAC, to Ministry of Agriculture, Industrial Aviation Corp.
8310	Y-5	8 320 32	1962	CAAC IASC, to Northeast General Avn. Sep90	8393	Y-5	?	?	CAAC, to Ministry of Agriculture
8311	Y-5	8 320 45	1962	CAAC IASC, to Northeast General Avn. Sep90	8397	Y-5	7 320 09	Aug59	CAAC 2nd fleet, to China General Jul89, r/r B-8397 CAAC Flight Institute
8312	Y-5	?	?	CAAC, to Ministry of Agriculture	8398	Y-5	9 320 44	1963	CAAC 2nd fleet, to China General Jul89, r/r B-8398 CAAC Flight Institute
8313	Y-5	10 32 021	1963	CAAC IASC, to Northeast General Avn. Sep90	8404	Y-5	9 320 31	Dec59	CAAC Military, to CAAC Flight Institute 1985, r/r B-8404 CAAC Flight Institute
8314	Y-5	3 320 02	1959	CAAC IASC, to Northeast General Avn. Sep90	8410	Y-5	9 320 01	Dec59	CAAC, to Ministry of Agriculture
8315	Y-5	?	?	CAAC, to Ministry of Agriculture	8412	Y-5	9 320 16	Jul60	CAAC Military, to CAAC Flight Institute 1985, r/r B-8412 CAAC Flight Institute
8317	Y-5	7 320 20	1961	CAAC IASC, to Northeast General Avn. Sep90	8413	Y-5	9 320 34	Jun60	CAAC Military, to CAAC Flight Institute 1985, r/r B-8413 CAAC Flight Institute
8318	Y-5	7 320 03	1961	CAAC IASC, to Northeast General Avn. Sep90	8416	Y-5	10 320 05	?	CAAC Military, to CAAC Flight Institute 1985, r/r B-8416 CAAC Flight Institute
8319	Y-5	9 320 24	1963	CAAC IASC, to Northeast General Avn. Sep90	8417	Y-5	10 320 34	Jun60	CAAC Military, to CAAC Flight Institute 1985, r/r B-8417 CAAC Flight Institute
8320	Y-5	?	?	CAAC, to Ministry of Agriculture	8418	Y-5	10 320 38	Jul60	CAAC Military, to CAAC Flight Institute 1985, r/r B-8418 CAAC Flight Institute
8321	Y-5	4 320 06	1960	CAAC IASC, to Northeast General Avn. Sep90	8419	Y-5	11 320 06	1964	CAAC IASC, to Air China Industrial May88
8322	Y-5	?	?	CAAC, to Ministry of Agriculture	8422	Y-5	6 320 09	Feb59	CAAC Military, to CAAC Flight Institute 1985, r/r B-8422 CAAC Flight Institute
8323	Y-5	?	?	CAAC, to Ministry of Agriculture	8424	Y-5	7 320 22	Sep59	CAAC Military, to CAAC Flight Institute 1985, r/r B-8424 CAAC Flight Institute
8324	Y-5	7 320 26	1962	CAAC IASC, to Northeast General Avn. Sep90	8428	Y-5	8 320 49	Dec59	CAAC Military, to CAAC Flight Institute 1985, r/r B-8428 CAAC Flight Institute
8325	Y-5	7 320 27	1962	CAAC IASC, to Northeast General Avn. Sep90	8431	Y-5	11 320 05	Sep60	CAAC Military, to CAAC Flight Institute 1985, r/r B-8431 CAAC Flight Institute
8326	Y-5	8 320 38	1962	CAAC IASC, to Northeast General Avn. Sep90	8434	Y-5	9 32 026	Dec59	CAAC Military, to CAAC Flight Institute 1985, r/r B-8434 CAAC Flight Institute
8327	Y-5	?	?	CAAC, to Ministry of Agriculture	8437	Y-5	2 164 11	?	CAAC Military, to CAAC Flight Institute 1985, r/r B-8437 CAAC Flight Institute
8328	Y-5	3 164 09	?	CAAC, to Ministry of Agriculture	8438	Y-5	216410		B-8438 CAAC Flight Institute
8329	Y-5	?	?	CAAC, to Ministry of Agriculture	8439	Y-5	2 164 15	?	CAAC Military, to CAAC Flight Institute 1985, r/r B-8439 CAAC Flight Institute
8330	Y-5	?	?	CAAC, to Ministry of Agriculture	8440	Y-5	11-16	1983	CAAC IASC, to Northeast General Avn. Sep90
8331	Y-5	?	?	CAAC, to Ministry of Agriculture	8441	Y-5	11-15	1983	CAAC IASC, to Northeast General Avn. Sep90
8332	Y-5	10 320 24	1963	CAAC IASC, to Northeast General Avn. Sep90	8442	Y-5	1 164 03	?	CAAC IASC East, to Wuhan Airlines Apr86
8333	Y-5	5 320 20	1960	CAAC IASC, to Northeast General Avn. Sep90	8443	Y-5	17 320 11	?	CAAC IASC East, to Wuhan Airlines Apr86
8334	Y-5	5 320 21	1960	CAAC IASC, to Northeast General Avn. Sep90	8444	Y-5	?	?	CAAC Southwest, to Yunnan Airlines 1991
8335	Y-5	?	?	CAAC, to Ministry of Agriculture	8445	Y-5	?	?	CAAC Southwest, to Yunnan Airlines 1991
8336	Y-5	5 320 25	1960	CAAC IASC, to Northeast General Avn. Sep90	8447	Y-5	1102	1983	CAAC, to Jihua Airlines Apr87
8337	Y-5	4 320 12	1960	CAAC IASC, to Northeast General Avn. Sep90	8448	Y-5	1105	1983	CAAC, to Jihua Airlines Apr87
8338	Y-5	?	?	CAAC, to Ministry of Agriculture	8449	Y-5	18 320 35	1968	CAAC IASC, to Southern General Avn. Apr91
8339	Y-5	?	?	CAAC, to Ministry of Agriculture	8450	Y-5	18 320 37	1968	CAAC IASC, to Southern General Avn. Apr91
8340	Y-5	5 320 09	1960	CAAC IASC, to Northeast General Avn. Sep90	8451	Y-5	17 320 05	1966	CAAC IASC, to Southern General Avn. Apr91
8341	Y-5	10 320 43	1964	CAAC IASC, to Northeast General Avn. Sep90	8452	Y-5	17 320 06	1966	CAAC IASC, to Eastern General Avn. Apr88
8342	Y-5	?	?	CAAC, to Ministry of Agriculture	8453	Y-5	17 320 08	1966	CAAC IASC, to Eastern General Avn. Apr88
8343	Y-5	9 320 21	1963	CAAC IASC, to Northeast General Avn. Sep90	8454	Y-5	18 320 38	1968	CAAC IASC, to Eastern General Avn. Apr88
8344	Y-5	?	?	CAAC, to Ministry of Agriculture					
8345	Y-5	7 320 38	1962	CAAC IASC, to Northeast General Avn. Sep90					
8346	Y-5	5 320 22	1960	CAAC IASC, to Northeast General Avn. Sep90					
8347	Y-5	?	?	CAAC, to Ministry of Agriculture					
8348	Y-5	3 164 15	1976	CAAC IASC, to Northeast General Avn. Sep90					
8349	Y-5	4 7055 01	1976	CAAC IASC, to Northeast General Avn. Sep90					
8350	Y-5	4 7055 08	1976	CAAC IASC, to Northeast General Avn. Sep90					
8351	Y-5	4 7055 10	1976	CAAC IASC, to Northeast General Avn. Sep90					
8352	Y-5	4 7055 11	1976	CAAC IASC, to Northeast General Avn. Sep90					
8353	Y-5	0615	1982	CAAC IASC, to Northeast General Avn. Sep90					
8354	Y-5	0602	1982	CAAC IASC, to Northeast General Avn. Sep90					
8355	Y-5	1006	1983	CAAC IASC, to Northeast General Avn. Sep90					
8356	Y-5	1007	1983	CAAC IASC, to Northeast General Avn. Sep90					
8382	Y-5	9 320 28	1963	CAAC IASC, to Air China					



**Left:** Antonov An-12B B-3152 in Air China titles is now relegated to ground instruction at CAAC's training base at Tianjin.  
(G Dinsdale via JM Collection)

8455	Y-5	12 320 46	1965	CAAC IASC, to Mudanjiang General Avn. Jun88	8479	Y-5	0107	1990	CAAC IASC, to Jiangnan General Avn. May90
8456	Y-5	12 320 48	1965	CAAC IASC, to Mudanjiang General Avn. Jun88	8480	Y-5	0108	1990	CAAC IASC, to Jingmen General Avn. Feb92
8460	Y-5	12 320 29	1965	CAAC, to Jihua Airlines Apr87	8481	Y-5	0109	1990	CAAC IASC, to Jiangnan General Avn. May90
8461	Y-5	12 320 47	1965	CAAC, to Jihua Airlines Apr87	8482	Y-5	0608	1982	CAAC Military, to CAAC Flight Institute 1985 r/r B-8482 CAAC Flight Institute
8462	Y-5	1110	1983	CAAC, to Jihua Airlines Apr87	<i>Notes: Many Y-5s were re-registered with the B- prefix but generally not with CAAC divisions. [AF93 pp.9-15; Ballantine &amp; Tang; GO 11Sep2011; ST4 pp.20, 636-639, 711]</i>				
8463	Y-5	11 320 37	1964	CAAC IASC, to Northwest General Avn. Feb92	<b>Antonov AN-12 &amp; Yunshuji Y-8</b>				
8464	Y-5	12 320 23	1965	CAAC IASC, to Northwest General Avn. Feb92	<i>reg.</i>	<i>model</i>	<i>c/n</i>	<i>date</i>	<i>operator/fate</i>
8465	Y-5	13 320 20	1965	CAAC IASC, to Northwest General Avn. Feb92	201, B-201	12BP	6 34 44 02	1966	CAAC 2nd fleet, r/r B-3151 (qv)
8466	Y-5	14 320 32	1966	CAAC IASC, to Northwest General Avn. Feb92	203, B-203	12BP	8 34 53 03	1968	CAAC 2nd fleet, r/r B-3152 (qv)
8467	Y-5	15 320 06	1966	CAAC IASC, to Northwest General Avn. Feb92	982	Y-8	?	?	CAAC Govt., fate unkn
8468	Y-5	16 320 44	1966	CAAC IASC, to Northeast General Avn. Sep90	987	Y-8	?	?	CAAC Govt., fate unkn
8469	Y-5	17 320 13	1966	CAAC IASC, to Northeast General Avn. Sep90	989	Y-8	?	?	CAAC Govt., fate unkn
8470	Y-5	17 320 34	1967	CAAC IASC, to Northeast General Avn. Sep90	1053	12	?	?	CAAC Govt., fate unkn
8471	Y-5	17 320 57	1967	CAAC IASC, to Northeast General Avn. Sep90	1054	12	?	?	CAAC Govt., fate unkn
8472	Y-5	17 320 63	1967	CAAC IASC, to Northeast General Avn. Sep90	1056, B-1056	12	7 34 51 07	14Jul94	CAAC Govt. (ex 51056)
8473	Y-5	0101	1989	CAAC IASC, to Jingmen General Avn. Feb92	1059, B-1059	12	7 34 53 07	14Jul94	CAAC Govt., preserved Changping Museum
8474	Y-5	0102	1990	CAAC IASC, to Jingmen General Avn. Feb92	1063	12	?	?	CAAC Govt., fate unkn
8475	Y-5	0103	1990	CAAC IASC, to Xinjiang General Avn. Oct83	1151	12	8 34 53 08	1968	CAAC Govt., preserved Changping Museum
8476	Y-5	0104	1990	CAAC IASC, to Xinjiang General Avn. Oct83	B-3101	Y-8F100	10(08)01	1985	CAAC Flight Research, CAAC IASC Mar89, to China Postal Airlines 11Mar96
8477	Y-5	0105	1990	CAAC IASC, to Xinjiang General Avn. Oct83	B-3102	Y-8F100	10(08)02	1985	CAAC Flight Research, CAAC IASC Mar89, to
8478	Y-5	0106	1990	CAAC IASC, to Xinjiang General Avn. Oct83					



B-3102 is a Chinese-built Yunshuji Y-8 version of the An-12B and is now operated by China Postal Airlines. (via JM Collection)

B-3103	Y-8F100	10(08)05	?	China Postal Airlines 11Mar96 CAAC IASC, to China Postal Airlines 11Mar96	B-470	An-24RV	4 73 092 07	1974	CAAC Urumqi, r/r B-3421
B-3104	Y-8B	?	1985	CAAC IASC, fate unkn	B-472	An-24RV	4 73 092 08	1974	CAAC 1st fleet, r/r B-3422
B-3105	Y-8B	?	?	CAAC IASC, Changan Airlines	B-474	An-24RV	4 73 092 10	1974	CAAC Guangzhou, r/r B-3423
B-3109	Y-8F100	13(08)03	?	China Postal Airlines	B-476	An-24RV	4 73 093 08	1974	CAAC Xian, r/r B-3424
B-3110	Y-8F100	13(08)04?	?	China Postal Airlines	B-478	An-24RV	4 73 093 09	1974	CAAC Urumqi, r/r B-3425(1)
B-3151	12B	6 34 44 02	1966	CAAC IASC, to China General Oct92, WFU TSN, BU 1995	B-480	An-24RV	4 73 094 01	1974	CAAC Chengdu, r/r B-3426
B-3152	12B	8 34 53 03	1968	CAAC IASC, to China General Oct92	B-482	An-24RV	4 73 094 02	1974	CAAC Xian, r/r B-3427
B-3196	Y-8	?	?	CAAC Govt., in Xian Aeronautical Institute	B-484	An-24RV	4 73 094 03	1974	CAAC Guangzhou, w/o Changsha 20Mar80
B-3197	Y-8	?	?	CAAC Govt., fate unkn	B-486	An-24RV	4 73 095 10	1974	CAAC Urumqi, r/r B-3428
B-3198	Y-8	?	?	CAAC Govt., in Xian Aeronautical Institute	B-488	An-24RV	4 73 094 07	1974	CAAC Shanghai, r/r B-3429(1)
B-3199	Y-8	?	?	CAAC Govt., in Xian Aeronautical Institute	B-490	An-24	?	?	CAAC Govt., not r/r after 1985
[AF89 p.7; Ballantine & Tang; SEA90 p.9; ST4 p.164-185, 641-642; WAFH79 p.6]					B-492	An-24	?	?	CAAC Guangzhou, cr Changsha 21Jan76
					B-494	An-24	?	?	CAAC Govt., not r/r after 1985
					B-496	An-24RV	4 73 095 02	May74	CAAC Govt., to China United AL as B-4062
					B-498	An-24RV	4 73 095 03	May74	CAAC Govt., to China United AL as B-4065
					B-500	An-24	?	?	CAAC Govt., fate unkn
					B-3401	An-24B	9 73 052 10	May85	CAAC Shenyang, to China Northern Sep90
					B-3402	An-24B	9 73 053 02	May85	CAAC Shenyang, to China Northern Sep90
					B-3403	An-24B	1 73 070 08	May85	CAAC Xian, to China Northwest Feb92
					B-3404	An-24B	1 73 070 09	May85	CAAC Chengdu, to China Southwest post Sep87
					B-3405	An-24B	1 73 070 07	May85	CAAC 1st fleet, WFU 1990, preserved Chingcheng Entertainment Park
					B-3406	An-24B	1 73 071 05	May85	CAAC Shanghai, to China Eastern post Apr88
					B-3407	An-24B	2 73 081 09	May85	CAAC Xian, to China Northern post Sep90
					B-3408	An-24B	2 73 081 10	-	CAAC (NTU) w/o Jinan Jan85
					B-3409	An-24B	2 73 082 01	May85	CAAC Guangzhou, NCAA Tianjin Jun94, in Tianjin technical school, l/n Mar04
					B-3410	An-24B	2 73 082 02	May85	CAAC Chengdu, to China Southwest post Sep87
					B-3411	An-24B	2 73 082 03	May85	CAAC Guangzhou, to China Southern post Apr91
					B-3412	An-24RV	3 73 089 06	May85	CAAC Urumqi, to China Xinjiang Airlines May92
					B-3413	An-24RV	3 73 089 07	May85	CAAC Xian, crashed Zhongchuang 15Dec86
					B-3414	An-24RV	3 73 090 03	May85	CAAC Guangzhou, to SCAA Guangzhou GIA Apr91
					B-3415	An-24RV	3 73 090 04	May85	CAAC Guangzhou, to China Southern Apr91
					B-3416	An-24RV	3 73 090 05	May85	CAAC Shanghai, to China Eastern Apr88
					B-3417	An-24RV	3 73 090 06	May85	CAAC Shanghai, to China Eastern Apr88
					B-3418	An-24RV	3 73 090 07	May85	CAAC Shenyang, to China Northern Sep90
					B-3419	An-24RV	3 73 090 10	May85	CAAC Urumqi, to China Xinjiang Airlines May92
					B-3420	An-24RV	4 73 092 06	May85	CAAC Chengdu, to China Southwest Sep87
					B-3421	An-24RV	4 73 092 07	May85	CAAC Urumqi, to China Xinjiang Airlines May92
					B-3422	An-24RV	4 73 092 08	May85	CAAC 1st fleet, Air China May88, preserved Hasuhai Holiday Village, l/n Apr00
					B-3423	An-24RV	4 73 092 10	May85	CAAC Guangzhou, to China Southern Apr91
					B-3424	An-24RV	4 73 093 08	May85	CAAC Xian, to China Northwest Feb92
					B-3425	An-24RV	4 73 093 09	May85	CAAC Urumqi, to China Xinjiang Airlines May92

### Antonov AN-24 & Yunshuji Y-7/Y-7-100

reg.	model	c/n	date	operator/fate
B-420	An-24B	9 73 052 10	1969	CAAC Shenyang, r/r B-3401 May85
B-421	Y-7	01 7 03	Mar82	CAAC Govt., r/r B-3433 Oct86
B-422	An-24B	9 73 053 02	1969	CAAC Shenyang, r/r B-3402 May85
B-423	Y-7	01 7 04	Mar82	CAAC Govt., r/r B-3434
B-424	An-24B	1 73 070 08	1971	CAAC Xian, r/r B-3403 May85
B-426	An-24B	1 73 070 09	1971	CAAC Chengdu, r/r B-3404 May85
B-428	An-24B	1 73 070 07	1971	CAAC 1 <sup>st</sup> fleet, r/r B-3405 May85
B-430	An-24B	1 73 071 05	1971	CAAC Shanghai, r/r B-3406
B-432	An-24B	2 73 081 09	1972	CAAC Shenyang, r/r B-3407
B-434	An-24B	2 73 081 10	1971	CAAC Guangzhou, crashed at Jinan 18Jan85 (r/r B-3408 NTU)
B-436	An-24B	2 73 082 01	1972	CAAC Shenyang, r/r B-3409
B-438	An-24B	2 73 082 02	1972	CAAC Chengdu, r/r B-3410
B-440	An-24B	2 73 082 03	1972	CAAC Guangzhou, r/r B-3411
B-442	An-24RV	3 73 089 06	1973	CAAC Urumqi, r/r B-3412
B-444	An-24RV	3 73 089 07	1973	CAAC Xian, r/r B-3413
B-446	An-24RV	3 73 090 03	1973	CAAC Guangzhou, r/r B-3414
B-448	An-24RV	3 73 090 04	1973	CAAC Guangzhou, r/r B-3415
B-450	An-24RV	3 73 090 05	1973	CAAC Shanghai, r/r B-3416
B-452	An-24RV	3 73 090 06	1973	CAAC Shanghai, r/r B-3417
B-454	An-24RV	3 73 090 07	1973	CAAC Shenyang, r/r B-3418
B-456	An-24RV	3 73 090 10	1973	CAAC Urumqi, r/r B-3419
B-458	An-24RV	?	?	CAAC Govt., not r/r after 1985
B-460	An-24RV	3 73 091 01	Nov73	CAAC Govt., to China United AL as B-4061
B-462	An-24RV	4 73 092 05	1974	CAAC Govt., fate unkn
B-464	An-24	?	?	CAAC Govt., not r/r after 1985
B-466	An-24RV	3 73 091 06	Dec74	CAAC Govt., to China United as 51051, B-4064
B-468	An-24RV	4 73 092 06	1974	CAAC Chengdu, r/r B-3420



**Above:** A Yunshuji Y-7-100 version, based on the An-24, under construction at Xian in 1987. (via JM Collection)

B-3426	An-24RV	4 73 094 01	May85	CAAC Chengdu, to China Southwest Sep87					
B-3427	An-24RV	4 73 094 02	May85	CAAC Xian, to China Northwest Feb92	B-3464	Y-7-100C	04 7 06	1985	CAAC Xian, to China Northwest Feb92, Air Guizhou
B-3428	An-24RV	4 73 095 10	May85	CAAC Urumqi, to China Xinjiang May92	B-3465	Y-7-100C	05 7 02	1986	CAAC Xian, to China Northwest Feb92, Air Guizhou
B-3429	An-24RV	4 73 094 07	May85	CAAC Shanghai, to China Eastern Apr88	B-3466	Y-7-100C	04 7 07	1987	CAAC Xian, to China Northern Sep90
B-3433	Y-7	01 7 03	Oct86	CAAC Govt., to Chinese Air Force as 3179	B-3467	Y-7-100C	05 7 01	1987	CAAC Shenyang, to China Northern Sep90
B-3434	Y-7	01 7 04	Oct86	CAAC Govt., to Chinese Air Force as 8192	B-3468	Y-7-100	05 7 03	1987	CAAC Shenyang, to China Northern Sep90
B-3435	Y-7-100	10 7 02	May91	NTU, to China Southwest	B-3469	Y-7-100	05 7 04	1987	CAAC Flying College
B-3436	Y-7-100	10 7 01	Apr91	China Southwest to CAAC Flying College 1996	B-3470	Y-7-100	05 7 05	1987	CAAC Flying College
B-3437	Y-7-100C	09 7 10	Mar91	NTU, to Sichuan Airlines	B-3471	Y-7-100	05 7 06	1987	CAAC Chengdu, to Sichuan Airlines Feb89, Wuhan Air Lines
B-3438	Y-7-100C	09 7 09	Mar91	NTU, to Zhongyuan AL	B-3472	Y-7-100	05 7 07	1987	CAAC Xian, to China Northwest Feb92
B-3439	Y-7-100C	09 7 08	Feb91	NTU, to Zhongyuan AL	B-3473	Y-7-100	05 7 08	1987	CAAC 2nd fleet, to China General Aviation Apr89
B-3441	Y-7-100C	08 7 09	Dec89	NTU, to Sichuan Airlines	B-3474	Y-7-100	06 7 01	1987	CAAC 2nd fleet, to China General Aviation Apr89
B-3442	Y-7-100C	08 7 01	1990	NTU, to Wuhan Air Lines	B-3475	Y-7-100	06 7 03	1987	CAAC Shanghai, to China Eastern Apr88
B-3443	Y-7-100C	08 7 02	1990	NTU, to Wuhan Air Lines	B-3476	Y-7-100	06 7 04	1987	CAAC Shanghai, to China Eastern Apr88
B-3444	Y-7-100	09 7 01	1990	CAAC Xian, to China Northwest Feb92, Air Changan	B-3477	Y-7-100C	06 7 05	1987	CAAC Shenyang, to China Northern Sep90
B-3445	Y-7-100C	09 7 05	1990	CAAC Xian, to China Northwest Feb92, Air Changan	B-3478	Y-7-100	06 7 07	1988	CAAC Hainan, to China Northern Sep90
B-3446	Y-7-100C	09 7 03	Sep90	NTU, to China Northern	B-3479	Y-7-100	06 7 08	1988	NTU, to China Southwest
B-3447	Y-7-100C	09 7 02	1990	NTU, to Air China	B-3480	Y-7-100	06 7 09	1988	CAAC Flying College
B-3448	Y-7-100C	09 7 06	1990	NTU, to Air Guizhou	B-3481	Y-7-100	06 7 10	Jul89	NTU, to China General Aviation, China Eastern Airlines
B-3449	Y-7-100C	08 7 08	1990	NTU, to Air Guizhou	B-3482	Y-7-100C	07 7 01	1989	NTU, to China Eastern Airlines
B-3450	Y-7-100C	08 7 10	1990	NTU, to Air China, Fujian Airlines	B-3484	Y-7-100	07 7 03	1989	CAAC Shenyang, to China Northern Sep90
B-3451	Y-7	02 7 02	1984	CAAC Shanghai, to China Eastern Apr88	B-3486	Y-7-100	07 7 05	1988	CAAC Hainan, CAAC Guangzhou Mar90, to China Northern Apr91
B-3452	Y-7	02 7 03	1984	CAAC Guangzhou, to China Southern Apr91	B-3487	Y-7-100	07 7 06	1989	China Southwest, to CAAC Flying College 1996
B-3453	Y-7	02 7 04	1984	CAAC Shanghai, to China Eastern May88	B-3488	Y-7-100	07 7 07	1989	CAAC Hainan, to China Northern Apr91
B-3454	Y-7	02 7 05	1984	CAAC Guangzhou, to China Southern Apr91	B-3489	Y-7-100	07 7 08	Apr88	NTU, to China Eastern
B-3455	Y-7	03 7 01	1984	CAAC Guangzhou, to China Southern Apr91	B-3490	Y-7-100	07 7 09	1989	CAAC Shenyang, to China Northern Sep90
B-3456	Y-7	03 7 03	1984	CAAC Guangzhou, to China Southern Apr91	B-3491	Y-7-100C	07 7 10	1989	CAAC Xian, to China Northwest Feb92
B-3457	Y-7	03 7 04	1984	CAAC Guangzhou, to China Southern Apr91	B-3492	Y-7-100	08 7 03	1989	NTU, to Air China
B-3458	Y-7	03 7 05	1984	CAAC Shanghai, to China Eastern Apr88	B-3493	Y-7-100	08 7 04	1989	NTU, to China Eastern
B-3459	Y-7	04 7 01	1985	CAAC Shanghai, to China Eastern Apr91	B-3494	Y-7-100C	08 7 05	1989	CAAC Xian, to China Northwest Feb92, Air Guizhou
B-3460	Y-7	04 7 02	1985	CAAC Shanghai, to China Eastern Apr88					
B-3461	Y-7	04 7 03	1985	CAAC 1st fleet, to Air China May88					
B-3462	Y-7-100C	04 7 04	1985	CAAC 1st fleet, to Air China May88					
B-3463	Y-7-100C	04 7 05	1985	CAAC 1st fleet, to Air China May88					

B-3495	Y-7-100C	08 7 06	1989	CAAC Shenyang, to China Northern Sep90
B-3496	Y-7-100C	05 7 09	Aug88	NTU, to Sichuan Airlines
B-3497	Y-7-100	06 7 02	Dec87	NTU, Sichuan Airlines
B-3498	Y-7-100	06 7 06	Dec87	NTU, Sichuan Airlines
B-82700	Y-7-100C	12 7 09	1995	CAAC Flight Institute
B-82701	Y-7-100C	12 7 10	1995	CAAC Flight Institute
B-89050	Y-7-100C	13 7 04	1996	CAAC Flight Institute
B-89060	Y-7-100C	13 7 05	1996	CAAC Flight Institute

[AF79 p.8; ATDB; SEA90 pp.9-10; ST4 pp.188-214, 639-641; WAFH79 p.6]

### Antonov AN-26

reg.	c/n	date	operator/ fate
741	23 06	1974	CAAC Military, to Chinese Air Force
742	23 08	1974	CAAC Military, to Chinese Air Force
743	23 09	1974	CAAC Military, to Chinese Air Force
744	23 10	1974	CAAC Military, to Chinese Air Force
745	24 01	1974	CAAC Military, to Chinese Air Force
746	24 02	1974	CAAC Military, to Chinese Air Force
747	24 03	1974	CAAC Military, to Chinese Air Force
748	24 04	1974	CAAC Military, to Chinese Air Force
749	24 05	1974	CAAC Military, to Chinese Air Force
750	25 02	1974	CAAC Military, to Chinese Air Force
751	25 03	1974	CAAC Military, to Chinese Air Force
752	25 07	1974	CAAC Military, to Chinese Air Force
753	25 09	1974	CAAC Military, to Chinese Air Force
754	25 10	1974	CAAC Military, to Chinese Air Force
755	26 01	1974	CAAC Military, to Chinese Air Force
756	29 02	1974	CAAC Military, to Chinese Air Force
757	29 03	1974	CAAC Military, to Chinese Air Force
758	29 04	1975	CAAC Military, to Chinese Air Force/ China United Airlines
759	29 05	1975	CAAC Military, to Chinese Air Force
760	31 05	1975	CAAC Military, to Chinese Air Force
761	30 03	1975	CAAC Military, to Chinese Air Force
762	30 04	1975	CAAC Military, to Chinese Air Force
763	30 05	1975	CAAC Military, to Chinese Air Force
764	31 10	1975	CAAC Military, to Chinese Air Force
765	31 06	1975	CAAC Military, to Chinese Air Force
766	31 08	1975	CAAC Military, to Chinese Air Force
767	31 09	1975	CAAC Military, to Chinese Air Force
768	33 02	1975	CAAC Military, to Chinese Air Force
769	34 08	1975	CAAC Military, to Chinese Air Force
770	34 09	1975	CAAC Military, to Chinese Air Force
771	39 03	1976	CAAC Military, to Chinese Air Force
772	39 05	1976	CAAC Military, to Chinese Air Force
773	39 06	1976	CAAC Military, to Chinese Air Force
774	39 08	1976	CAAC Military, to Chinese Air Force
775	40 03	1976	CAAC Military, to Chinese Air Force
776	40 04	1976	CAAC Military, to Chinese Air Force
778	41 07	1976	CAAC Military, to Chinese Air Force
779	41 08	1976	CAAC Military, to Chinese Air Force/ China United Airlines
780	42 01	1976	CAAC Military, to Chinese Air Force
781	42 02	1976	CAAC Military, to Chinese Air Force
782	42 03	1976	CAAC Military, to Chinese Air Force
783	42 07	1976	CAAC Military, to Chinese Air Force
784	43 01	1976	CAAC Military, to Chinese Air Force/ China United Airlines
785	43 02	1976	CAAC Military, to Chinese Air Force
786	43 03	1976	CAAC Military, to Chinese Air Force
787	43 06	1976	CAAC Military, to Chinese Air Force
788	43 07	1976	CAAC Military, to Chinese Air Force
789	43 10	1976	CAAC Military, to Chinese Air Force/ China United Airlines
790	44 01	1976	CAAC Military, to Chinese Air Force
791	73 04	1979	CAAC Military, to Chinese Air Force
792	73 05	1979	CAAC Military, to Chinese Air Force
793	73 07	1979	CAAC Military, to Chinese Air Force
794	73 08	1979	CAAC Military, to Chinese Air Force
795	73 10	1979	CAAC Military, to Chinese Air Force
796	89 03	1979	CAAC Military, to Chinese Air Force
797	89 08	1979	CAAC Military, to Chinese Air Force
798	89 09	1979	CAAC Military, to Chinese Air Force
799	90 07	1979	CAAC Military, to Chinese Air Force
800	90 08	1979	CAAC Military, to Chinese Air Force
801	90 10	1979	CAAC Military, to Chinese Air Force

802	91 03	1979	CAAC Military, to Chinese Air Force
804	102 06	1980	CAAC Military, to Chinese Air Force
805	102 07	1980	CAAC Military, to Chinese Air Force
806	103 03	1980	CAAC Military, to Chinese Air Force
807	103 07	1980	CAAC Military, to Chinese Air Force
808	103 09	1980	CAAC Military, to Chinese Air Force
809	104 02	1980	CAAC Military, to Chinese Air Force

[AF89 p.8; Ballantine & Tang; ST4 pp.214-234]

### Antonov AN-30

reg.	c/n	date	operator/fate
871	09 02	1975	CAAC Military, to Chinese Air Force
872	09 03	1975	CAAC Military, to China United Airlines
873	10 01	1975	CAAC Military, to Chinese Air Force
874	10 02	1975	CAAC Military, to Chinese Air Force
875	10 03	1975	CAAC Military, to Chinese Air Force
876	14 09	1978	CAAC 2nd fleet, to B-3301 May85
877	14 10	1978	CAAC 2nd fleet, to B-3302 May85
878	15 01	1978	CAAC 2nd fleet, to B-3303 May85
879	15 07	1978	CAAC Military, to Chinese Air Force
880	15 08	1978	CAAC Military, to Chinese Air Force
881	15 09	1978	CAAC Military, to Chinese Air Force
882	15 10	1978	CAAC Military, to Chinese Air Force
883	16 01	1978	CAAC Military, to Chinese Air Force
B-3301	14 09	May85	CAAC IASC, to China General Aviation Jul89
B-3302	14 10	May85	CAAC IASC, to China General Aviation Jul89
B-3303	15 01	May85	CAAC IASC, to China General Aviation Jul89

[AF89 p.8; Ballantine & Tang; SEA90 p.9; ST4 pp.240-242, 709, 711]

### Beech 200/350 Super King Air

reg.	model	c/n	date	p/i	Operator/fate
B-3551	200	BB-1204	1985	N6927C	CAAC IASC, China General Jul89
B-3552	200	BB-1205	1985	N6927D	CAAC IASC, China General Jul89
B-3553	200	BB-1206	1985	N6927G	CAAC IASC, CAAC Flight Check Jul89
B-3581	350	111	Sep95	?	CAAC Flight Check
B-3581	350	113	Oct95	?	CAAC Flight Check

[Ballantine & Tang; SEA90 p.10]

### Bell 206B JetRanger III

reg.	c/n	date	operator	fate
B-7741	3861	1985	CAAC Flying College	
B-7742	3863	1985	CAAC Flying College	to N633LH
B-7743	3876	1985	CAAC Flying College	w/o
B-7744	3877	1985	CAAC Flying College	
B-7745	3880	1985	CAAC Flying College	to N632LH
B-7746	3918	1985	CAAC Flying College	

[Ballantine & Tang; BUCH92 p.3; BUCH95 p.3; MSB]

### Bell 212

reg.	c/n	date	operator	transfer
B-721	30946	1979	CAAC 2nd fleet	r/r B-7701 May85
B-722	30948	1979	CAAC 2nd fleet	r/r B-7702 May85
B-723	30957	1979	CAAC 2nd fleet	r/r B-7703 May85
B-724	30951	1979	CAAC 2nd fleet	r/r B-7704 May85
B-725	30962	1979	CAAC 2nd fleet	r/r B-7705 May85
B-726	30956	1979	CAAC 2nd fleet	r/r B-7706 May85
B-727	30966	1979	CAAC 2nd fleet	r/r B-7707 May85
B-728	30960	1979	CAAC 2nd fleet	r/r B-7708 May85
B-729	31161	1980	CAAC 2nd fleet	r/r B-7709 May85
B-7701	30946	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7702	30948	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7703	30957	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7704	30951	May85	CAAC 2nd fleet	to China General Aviation Jul89

B-7705	30962	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7706	30956	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7707	30966	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7708	30960	May85	CAAC 2nd fleet	to China General Aviation Jul89
B-7709	31161	May85	CAAC 2nd fleet	to China General Aviation Jul89

[Ballantine & Tang; BUCH92 p.3; BUCH95 p.3; MSB]

### Bell 214ST

reg.	c/n	date	transfer	fate
B-741	28136	Oct84	CAAC IASC	r/r B-7721
B-742	28139	Nov84	CAAC IASC	r/r B-7722
B-743	28140	Nov84	CAAC IASC	r/r B-7723
B-744	28141	1984	CAAC IASC	r/r B-7724
B-7721	28136	r/r	to China Southern Helicopters	Apr91 w/o 18Apr96
B-7722	28139	r/r	to China Southern Helicopters	Apr91 to N6957Y
B-7723	28140	r/r	to China Southern Helicopters	Apr91 to N59806
B-7724	28141	r/r	to China Southern Helicopters	Apr91 to N59805

[AF89 p.8; Ballantine & Tang; BUCH92 p.3; BUCH95 p.3; MSB; SEA90 pp.6, 11]

**CAAC fleet list and full list of references to be completed in the next edition. meanwhile we also have some Feedback from earlier sections.**



### The Development of Commercial Aviation in China Feedback #3 Feedback on Part 5 (Spring & Summer 2008)

#### Japan

There is a comprehensive Japanese J-.... register at [www.goldenyears.ukf.net/reg\\_J-.htm](http://www.goldenyears.ukf.net/reg_J-.htm) to [www.goldenyears.ukf.net/reg\\_J-6.htm](http://www.goldenyears.ukf.net/reg_J-6.htm) (seven web pages with underscore after 'reg').

A search of The National Archives (TNA) online catalogue identified the following file reference, which was checked on 30 May 2008: CO 323/1368/4: Aviation developments in Foreign countries: Japan (1936-37) (original file ref. 1936/3003/8)

No. 605 from British Embassy, Tokyo, 6th December, 1935:

"Sir,  
"With reference to my dispatch No. 378 of July 19th, I have the honour to forward to you herewith an extract from the Japan Advertiser of December 2nd last, which refers to an alleged project on the part of the Ministry of Communications to extend next year the Japan-Formosa air service as far as Bangkok.

"2. In the course of an interview with the Chief of the Aviation Bureau of the Ministry of Communications, the Air Attaché to this Embassy enquired whether there was any truth in this report; and I have the honour to transmit to you a copy of a report addressed by Wing-Commander R W Chappell to His Majesty's Charge d'Affaires, in which he records Mr Kataoka's replies to this and other questions.

"With reference to paragraph 5 of this report, I have requested Wing-Commander Chappell to inform Mr Kataoka privately that in the absence of any official request I am not in a position to give him any

indication of what the attitude of His Majesty's Government would be as regards permission for Japanese civil aircraft to land at Hong Kong and Singapore."

Report No. 19, British Embassy, Tokyo, 2nd December, 1935:

"Sir,  
"In my Report No.16, dated the 30th July, 1935, I had the honour to inform you that the Ministry of Communications had decided to ask the approval of the Ministry of Finance for an expenditure of Yen 13,700,000 for Civil Aviation development in the fiscal year 1936/37. "According to the Press, this amount has been drastically cut by the Ministry of Finance, and only the sum of Yen 1,920,000 has been approved in the Estimates for the financial year 1936/37.

"I interviewed Mr Kataoka, Chief of the Aviation Bureau of the Ministry of Communications on the 2nd December, 1935, and asked him whether this report was correct. Mr Kataoka said that he could not give me the exact figure, but indicated that the press report was approximately correct.

"2. As a result of this cut in the Ministry of Communications estimate for Civil Aviation development, Mr Kataoka stated that the only new routes to be opened in 1936 were as follows:-

Tokyo – Palao.  
Tokyo – Sendai – Aomori – Sapporo.  
Tokyo – Niigata.  
Tokyo – Toyama – Osaka.  
Osaka – Tokushima – Kochi.  
Osaka – Tottori – Matsue.

"Asked whether the route from Fukuoka to Shanghai would be opened in 1936, he stated that the Chinese Government had not yet consented to Japanese aircraft landing at Shanghai, and therefore the date of the opening of this route was uncertain. He, however, was prepared to open this route as soon as the necessary permission from the Chinese could be obtained.

"The exact date of the opening of the Tokyo – Palao route was also uncertain as the necessary preparations had not yet been completed.

"In addition to these routes, it is proposed to run a Sunday service between Tokyo and Dairen.

"3. I also asked Mr Kataoka whether reports in the press to the effect that Japan was proposing to open a new route between Taihoku in Formosa and Bangkok was correct.

"Mr Kataoka stated that it was quite untrue that the route would be opened in 1936.

"He said, however, that it was a proposed route for which he had not yet obtained government sanction. He did not however, anticipate any difficulty in obtaining the necessary consent. If this air route was opened it was proposed that aircraft should fly via Hong Kong and Hanoi (Indo China), and that a weekly service should be maintained. Negotiations had not yet been opened with His Majesty's Government or the French or Siamese Governments.

"Mr Kataoka said that if permission could not be obtained from His Majesty's Government for Japanese aircraft to land at Hong Kong, then they would try to obtain permission to land at Canton. He further stated that if permission was granted by His Majesty's Government for Japanese aircraft to land at Hong Kong, then Japan would be quite willing for Imperial Airways to run a service from Hong Kong to Formosa.

"He said that he did not think that test flights on this route could be carried out before the end of 1936 at the earliest.

"4. I then enquired whether in view of the proposed route to Bangkok, the plan to open an air route between Formosa and Singapore, reported in my Report No.14, dated 16th July, 1935, had been abandoned.

"Mr Kataoka said that this plan had not been given up, but that the route to Bangkok was considered of more importance, as Japanese aircraft would then connect up with both Imperial Airways and the Dutch services run by KLM. If however, His Majesty's Government agreed, the Japanese would like to extend their route from Bangkok to Singapore in the future.

"5. Mr Kataoka asked whether His Majesty's Government's reply to the Japanese request for civil aircraft to land at Hong Kong and Singapore would be favourable, and he said that he would be very grateful if you would let him know unofficially what the attitude of His Majesty's Government would be to such a request."

**The Japan Advertiser** **2nd December, 1935**  
**Air Line Will Link Formosa and Siam.**  
**Japanese Planes to Connect with Services to Europe at Bangkok**  
**Next Year.**  
**Big Program Prepared**

### **Other Plans Include Routes to Hokkaido, Korea, South Seas, Training of Pilots.**

"Japan's first international air line, which will connect Taihoku, Formosa with Bangkok, Siam, will be opened by the Communications Ministry next year, it was announced yesterday.

"At the same time, the Ministry outlined an extensive program of encouragement of civil aviation during the next fiscal year to be financed with an appropriation of ¥1,920,000 granted in the new budget. The program includes expansion of domestic air lines, improvement of airports, training of engineers and pilots and development of airplane motor manufacturing.

"The Communications Ministry, which drew up a ten-year plan for civil aviation under the former Minister, the late Mr Takejiro Tokonami, had asked of the Finance Office appropriation of ¥13,700,000 for the next fiscal year, but could obtain only ¥1,920,000."

#### **Line to Cost ¥7,480,000**

"For the first year, the Taihoku-Bangkok line will require ¥240,000 and over ten years will consume a total of ¥7,480,000, but the expenses will be shared by the Formosan Government General and special accounts in the Communications Ministry.

"Planes on the 1,700 mile line will fly via Hongkong and Hanoi, French Indo-China and at Bangkok will connect with the Imperial British Airways between London and Singapore, the French Air Orient between Marseilles and Saigon and the Dutch KLM operating between Amsterdam and Batavia, according to Mr Naomichi Kataoka, director of the Aviation Bureau of the Ministry, and will make possible a trip from Formosa to Europe in 10 days.

"Other long distance lines to be established next year will connect Tokyo and Palao in the South Seas over a distance of 2,500 miles, and Tokyo and Sapporo in the Hakkaido, 590 miles, and the Tokyo-Dairen service will be supplemented by Sunday service, with an appropriation of ¥51,000. Trial flights on the Tokyo-Sapporo route will be made at the end of next year, with regular service deferred until 1937. Planes will cover the distance in six hours, and the cost, spread over 10 years, will be ¥4,000,000. Flights to Palao will take a day and a half.

"In 1937 it is planned to start an air line between Osaka and Seishin, northern Korea, 640 miles, with an initial disbursement of ¥110,000, according to the Asahi."

#### **New Domestic Air Lines**

"Domestic air lines to be started or taken over from private interests in 1937 include the Tokyo-Nagano-Niigata line, 235 miles; Osaka-Toyama-Nagano, 316 miles; Osaka-Tokushima-Kochi, 185 miles, and Osaka-Tottori-Matsue, 217 miles. The first two are now being operated by the newspaper Asahi.

"New airports will be built in Osaka and Yonago, Tottori Prefecture, and improvements made in present ones in Sendai and Aomori, on the route of the Tokyo-Sapporo line, Tokyo, Nagano, Niigata, Toyama, Tokushima, Kochi, Tottori and Matsue.

"With the next year, ¥200,000 will be spent in the training of 20 first-class pilots, the staff of the Aviation Bureau will be increased by the addition of four commissioners and four assistant commissioners, an airplane testing ground will be constructed in or near Tokyo at a cost of ¥205,000, another ¥250,000 will be spent in encouraging the domestic production of airplane motors, and ¥35,000 will be expended for the 'diffusion of aeronautic ideas in the nation'."

The following is a minute written by Sir Alexander Cadogan of the Foreign Office on 19 November 1936:

"Baron Tomii, the Counsellor of the Japanese Embassy, called this morning on behalf of his Government to enquire what would be the possibility of a Japanese air line obtaining landing facilities in Hong Kong. He explained that there was already a service running three times a week from Tokyo via Osaka and Fukuoka to Taihoku in Formosa, and the Japanese would like to extend this service from the last named place to Hong Kong.

"Baron Tomii pointed out that Hong Kong was now served by Imperial Airways; that it was a terminus of the Pan-American Line via Manila; and that China National Aviation also had landing rights there. With this further proposed Japanese link Hong Kong would become the aviation centre of the Far East, and the Japanese proposal would therefore be as much in British as in Japanese interests.

"Baron Tomii was not authorized to propose or discuss any further details or conditions; he merely wanted to know whether in principle landing facilities could be granted in Hong Kong to a Japanese air line, and I promised to ascertain what the position would be."  
A.C. November 19th, 1936.

The text of this minute was passed to the Under-Secretary of State, Colonial Office, on 2 December 1936, and to the Interdepartmental Committee on International Air Communications (ICIAC) as I.A.C.258 on 7 December 1936, [3] for the consideration of the Committee. An extract from the minutes of the 37th meeting of ICIAC, held on 9 December 1936, [4] reads as follows:

"6. Japanese application for landing rights in Hong Kong.

"The Committee considered a note by the Foreign Office (I.A.C.258) regarding the desire of the Japanese to secure landing rights in Hong Kong.

"The Committee noted that the Admiralty and Air Ministry saw no reason on service grounds for the rejection of this application.

"The Committee felt that, provided adequate reciprocal rights were obtained, the Japanese application might be favourably considered. They decided, however, that the matter should be further discussed at the next meeting."

The extract from the minutes of 38th meeting of ICIAC, held on 16 December 1936, [5] reads as follows:

"8. Japanese application for landing rights in Hong Kong.

"The Committee further considered the Japanese application for landing rights in Hong Kong (I.A.C./258).

"Having regard to the policy recommended for the development of British services in the Far East ..., the Committee agreed to recommend for the consideration of the Secretary of State for Air, and subject to the concurrence of the Secretary of State for Foreign Affairs, that the Japanese application should be granted, subject to the grant of reciprocal rights for a British service from Hong Kong to Japan.

"The Committee noted that the Japanese would probably be averse to granting landing rights in Formosa and that if they established a service to Hong Kong they would probably in due course ask for an extension to Singapore.

"The Committee felt, however, that the consideration of these developments could be deferred till the occasion arose."

[10] Air Ministry, 22nd January 1937. Subject: Japanese Service to Singapore via Shanghai and Hong Kong.

Covering letter to Foreign Office & Colonial Office.

"Sir,

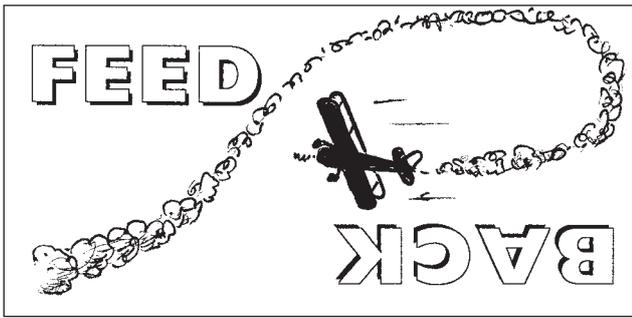
"I am directed by the Secretary of State for Air to refer to Foreign Office letter, No. W.16940/17/37 of 2nd December, with which was enclosed a Minute by Sir Alexander Cadogan recording his conversation with the Counsellor of the Japanese Embassy on the subject of landing facilities for a Japanese air service in Hong Kong in connection with an extension for the present service between Tokyo and Formosa.

"2. As Mr Secretary Eden will be aware, this question was considered at the thirty-eighth meeting of the Interdepartmental Committee International Air Communications, when it was recommended that the Japanese application should be granted, subject to the grant in return of reciprocal rights for a British service from Hong Kong to Japan. Lord Swinton concurs in this recommendation, and, if Mr Eden also agrees with it, would suggest that a reply should be returned to Baron Tomii to this effect.

"3. As regards the suggestion in the memorandum accompanying Foreign Office letter, No. W.17591/17/27 of 15th December, Lord Swinton appreciates that it might be opposed to British interests at Hong Kong to demand reciprocal benefits of a nature which would cause the Japanese to withdraw their request, and from the commercial aspect there would be little advantage in operating a British service to Formosa. But a service from Hong Kong to Nagasaki to Tokyo via Shanghai would be valuable. Although there is little prospect that it will be possible to establish such a service in the immediate future, Lord Swinton thinks that, having regard to the recommendations of the Interdepartmental Committee, a request for the grant in principle of reciprocal facilities to this extent should be made unless Mr Eden sees objection to this course.

"4. A copy of this letter is being sent to the Colonial Office."

Sgd. A H Self



## **KLM AND THE DC-5**

The article in the previous edition seems to have produced a high level of response from readers and in particular some interesting photographic evidence.

**# 426** The DC-5 originally allocated G-AFYK survived the war in Australia and became VH-ARD with New Holland Airways, arriving in Israel carrying immigrants. (One flight only - or more?) The photo at the foot of page 2011/137 was probably taken at Tel Aviv by Charles Cain. The aircraft ended its days in Israel in the smelter at the 'Givat Brenner' kibbutz ca.1957/58, several photos show it there.

**# 428** Was delivered to ML-KNIL as D-905. It was intended for the NEI Army Air Corps but was used by KNILM while the Army retained an option on a minimum number of flying hours. Army use was particularly significant between 12.41 and 3.42 when all civil flying activity was restricted. When the aircraft was unpacked the name "Boschduif", the registration PH-AXB and the KLM titles were all taped over and the orange triangle was applied. After becoming PK-ADB it was later given the serial 44-83230 in error for 44-48323.

**# 430** Followed the same pattern as #428. Also intended for the ML-KNIL, as D-904, it showed evidence of "Eend", "KLM" and PH-AXE when unpacked, becoming PK-ADA. After capture by the Japanese it was maintained at Andir before being flown to Japan.

The first two DC-5s shipped to the NEI were actually owned by the Netherlands Government, which probably also applied to the other two. PK-ADA and ADB were registered to the Government of the Netherland Indies, in effect to the Dutch colonial administration.



**Above:** The "Bagel Lancer", #426 seen in Israel as IDFAF '1501'. (Merchav-aviri.org via R Pflug)

**Credits:** Gerard Casius, Coen van den Heuvel, Herman Dekker, Harm Hazewinkel, Jennifer Gradidge and the late Piet Kok.

More information and photos will follow in the next edition.



**Above:** The derelict fuselage of # 426 prior to scrapping at the Givat Brenner kibbutz in Israel. (Merchav-aviri.org via R Pflug)

**Above, left:** PK-ADA undergoing maintenance by the Japanese at Andir (NEI Archive)



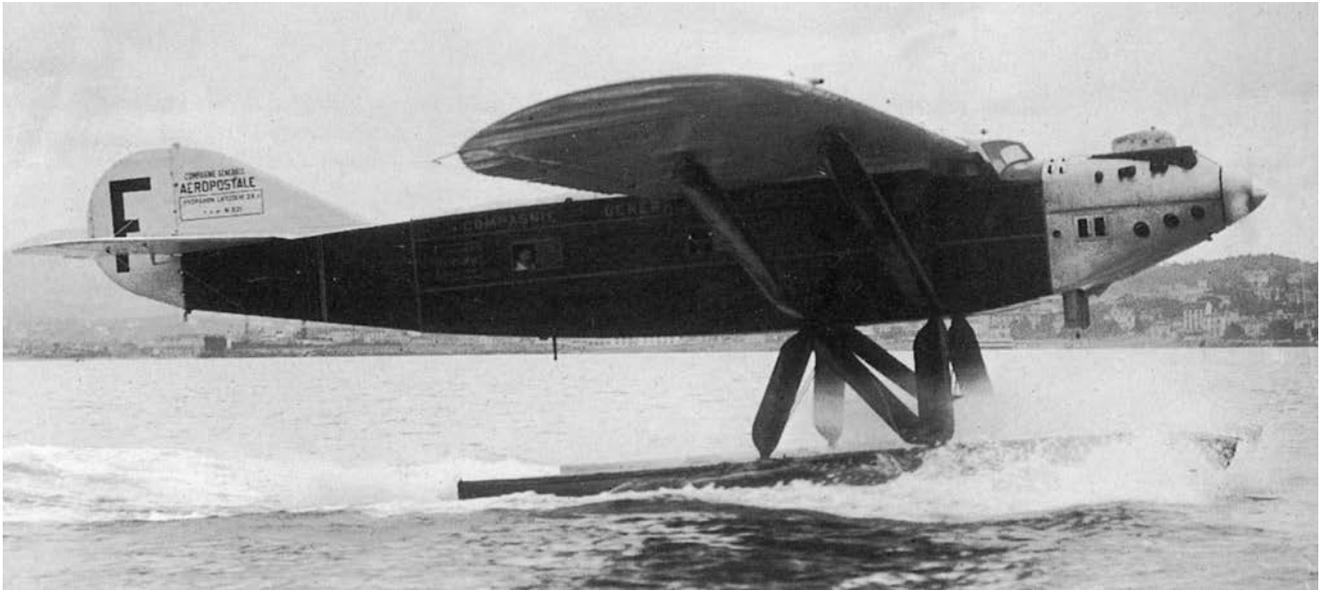
**Left:** Douglas DC-5 PK-ADB of KNILM with the NEI Army serial D-905 visible on the rear fuselage and the registration clearly repainted from PH-AXB at Essendon, Vic on 3.5.41 - (Photo via G Tornij /Gerard Casius)

# F-1922

## The French Civil Aircraft Register from 1922

Part 30

By Bernard Martin, Dave Sparrow and Robert Espérou



As in recent issues we are continuing with the New Registrations in alphabetical order as they no longer correspond to CofR Number order.

### F-Update 1930 (contined)

#### New Registrations

2391	<b>F-AJOX</b>	Latécoère 28/0	917
Cie Générale Aéropostale, Paris (based Rio de Janeiro). (16.5.30)			
2377	<b>F-AJOY</b>	Latécoère 28/0	923
Cie Générale Aéropostale, Paris (based Rio de Janeiro). (1.5.30)			
2378	<b>F-AJOZ</b>	Latécoère 28/0	924
Cie Générale Aéropostale, Paris (based Toulouse). (1.5.30)			
2379	<b>F-AJPA</b>	Latécoère 28/0	925
Cie Générale Aéropostale, Paris (based Toulouse). (1.5.30)			
2398	<b>F-AJPB</b>	Latécoère 28/0	926
Cie Générale Aéropostale, Paris (based Toulouse). (23.5.30)			
2399	<b>F-AJPC</b>	Latécoère 28/0	927
Cie Générale Aéropostale, Paris (based Toulouse). (23.5.30)			
Unkn	<b>F-AJPD</b>	Nothing known	
Unkn	<b>F-AJPE</b>	Nothing known	
2557	<b>F-AJPF</b>	Latécoère 28/3	921
Cie Générale Aéropostale, Paris (based Marignane). (29.9.30)			
2558	<b>F-AJPG</b>	Latécoère 28/3	922
Cie Générale Aéropostale, Paris (based Marignane). (29.9.30)			
2559	<b>F-AJPH</b>	Latécoère 28/3	940
Cie Générale Aéropostale, Paris (based Marignane). (29.9.30)			
2427	<b>F-AJPI</b>	Farman 200	11
Aéro Club de Bourgogne, Chalons sur Seine. (2.7.30)			
unkn	<b>F-AJPJ</b>	Farman 202	3
Esders, Paris (based Toussus-le-Noble). (10.30)			
2525	<b>F-AJPK</b>	Farman 200	13/7195
H M & D Farman, Billancourt (based Toussus-le-Noble). (26.8.30)			

**Above:** Latécoère 28-3 floatplane F-AJPF which was used as a mailplane by Aéropostale on the South America route. This image has been iused in numerous publications, frequently mis-captioned as F-AJNQ "Comte de la Vaulx" which was used by the route pioneer Jean Mermoz in May 1930. No registration is visible but the c/n can be clearly read as 921, confirming our identification. (via JM Collection)

2547	<b>F-AJPL</b>	Farman 200	14/7198
Société Air Service, Paris (based Toussus-le-Noble). (15.9.30)			

2670	<b>F-AJPM</b>	Farman 200	15/7199
Sté des Avions H M & D Farman, Billancourt (based Toussus-le-Noble). (14.1.31) but amended (1.31) to Farman 202 c/n 2/7199.			



**Above:** F-AJPL was a Farman F.202 two or three-seat open cockpit light monoplane powered by a 120 hp Salmson 9 Ac radial.

**Below:** Originally a F.202, F-AJPM was modified in 1933 to F.206 standard with enclosed two-seat cabin, circular cowling and wheel spats. (Both: via JM Collection)





**FURTHER FARMANS:**

**Left:** F-AJPO was a prototype Farman F.230 two-seat light plane powered by a 40hp Salmson 9 Ad radial.

**Below:** F.302 F-AJPP was originally built with chin radiator and 2-blade prop for its H-S 12 Nb engine but later had a side radiator and 4-blade prop as seen here (Both: via JM Collection)



**Above:** F-AJPN was a F.201 and differed from the Salmson-powered F.200 and F.202 in having a 100 hp Hispano-Suiza 6Pa in-line engine and metal Ratier propeller. (via JM Collection)



2794	<b>F-AJPN</b>	Farman 201	1/7187 (or 1/7186)
M.Rabatel (Ratatel?), Paris. (7.5.31)			
Unkn	<b>F-AJPO</b>	Farman 230	1
Sté des Avions H M & D Farman, Billancourt. (CdN quoted in other sources as 1668 of 10.30 but CofR no. unknown) (F-AJPO was also entered incorrectly in the Register as F-AJPO)			
3225	<b>F-AJPP</b>	Farman 302	1/7192
Société Générale de Transport Aérien (SGTA), Paris; (ff 9.30; reserved 10.30 for Farman; CofR 4.8.32).			
2465	<b>F-AJPO</b>	Caudron 230	14/6468
R.Caudron, Issy (based Villacoublay). (4.8.30)			
2523	<b>F-AJPR</b>	Caudron 232	2/6469
R.Caudron, Issy (based Villacoublay). (25.8.30)			
2450	<b>F-AJPS</b>	Caudron 60	56/6472
M.Caudron, Issy (based Montpellier). (15.7.30)			
2451	<b>F-AJPT</b>	Caudron 60	57/6473
René Caudron, Issy (based Montpellier). (15.7.39)			
2659	<b>F-AJPU</b>	Caudron 59	1097/6474
René Caudron, Issy. (5.1.31)			
2545	<b>F-AJPV</b>	Caudron 59	1096/6481
René Caudron, Issy (based Montpellier). (9.9.30)			
2579	<b>F-AJPX</b>	Hanriot 412	2
M.Outhenin Chalandre, Neuilly. (13.10.30)			
2431	<b>F-AJPY</b>	Hanriot 412	3
M.Outhenin Chalandre, Neuilly. (4.7.30)			
2580	<b>F-AJPZ</b>	Hanriot 412	4
M.Outhenin Chalandre, Neuilly. (13.10.30)			
2581	<b>F-AJQA</b>	Hanriot 412	5
M.Outhenin Chalandre, Neuilly. (13.10.30)			
2418	<b>F-AJQB</b>	Nieuport 391	15
Cie Aérienne Française, Suresnes (based Le Bourget). (20.6.30)			
2462	<b>F-AJQC</b>	Morane Moth 60M	4
Jacques Raphael Roques, Paris. (18.7.30)			
2447	<b>F-AJQD</b>	Morane Moth 60M	3
Jacques Raphael Roques, Paris. (11.7.30)			
2464	<b>F-AJQE</b>	Morane 152	01
Sté des Aéroplanes Morane Saulnier, Puteaux (based Velizy). (7.30)			

2706	<b>F-AJQF</b>	Morane 309	1/2706
Sté des Aéroplanes Morane Saulnier, Puteaux. (26.2.31)			
3023	<b>F-AJQG</b>	Morane Moth 60M	8
Serge Nicolesco, Paris. (30.11.31)			
2500	<b>F-AJQH</b>	Morane Moth 60M	10
M.Serven, Toulouse. (11.8.30)			
2510	<b>F-AJQI</b>	Morane Moth 60M	25
Hubert de Rouvres, Paris. (18.8.30)			
2482	<b>F-AJQJ</b>	Morane 181	2
Cie Française d'Aviation, Boulogne sur Seine. (30.7.30)			
2466	<b>F-AJQK</b>	Morane 181	3
Cie Française d'Aviation, Boulogne sur Seine. (21.7.30)			
2467	<b>F-AJQL</b>	Morane 181	4
Cie Française d'Aviation, Boulogne sur Seine. (21.7.30)			
2473	<b>F-AJQM</b>	Morane 181	5
Cie Française d'Aviation, Boulogne sur Seine. (24.7.30)			
2468	<b>F-AJQN</b>	Morane 181	6
Cie Française d'Aviation, Boulogne sur Seine (based Marignane). (22.7.30)			
2470	<b>F-AJQO</b>	Morane 181	7
Cie Française d'Aviation, Boulogne sur Seine. (22.7.30)			
2471	<b>F-AJQP</b>	Morane 181	8
Cie Française d'Aviation, Boulogne sur Seine. (22.7.30)			



**Above:** F-AJQK was a single seat aerobatic parasol monoplane with a 60 hp Salmson radial, one of a batch of 14 registered to Cie Française d'Aviation in July 1930. (via JM Collection)

**Right:** Nieuport-Delage 641 F-AJRA was a four-seat cabin monoplane with a crew of two and was one of seven examples operated by the S.T.A.R. company. The wing was elliptical in plan and power came from a 240 hp Lorraine 7Mb radial. Lower fuselage was red and lettering in black. (via JM Collection)



**Below:** Breguet 270 air observation post prototype F-AJRC shows the almost unlimited view for the observer in the rear cockpit. (via JM Collection)



**Above:** F-AJRE, named "Icare II" was one of two Nieuport-Delage 641s privately owned by Mlle Deutsche de la Meurthe. (via JM Collection)

2469 **F-AJQQ** Morane 181 9  
Cie Française d'Aviation, Boulogne sur Seine. (22.7.30)

2472 **F-AJQR** Morane 181 10  
Cie Française d'Aviation, Boulogne sur Seine. (24.7.30)

2486 **F-AJQS** Morane 181 11  
Cie Française d'Aviation, Boulogne sur Seine. (31.7.30)

2483 **F-AJQT** Morane 181 12  
Cie Française d'Aviation, Boulogne sur Seine. (30.7.30).

2487 **F-AJQU** Morane 181 13  
Cie Française d'Aviation, Boulogne sur Seine. (31.7.30)

2488 **F-AJQV** Morane 181 14  
Cie Française d'Aviation, Boulogne sur Seine. (31.7.30)

2474 **F-AJQX** Morane 181 15  
Cie Française d'Aviation, Boulogne sur Seine. (24.7.30)

2538 **F-AJQY** Nieuport 641 11  
Société de Transports Aériens Rapides, Paris. (6.9.30)

2408 **F-AJQZ** Nieuport 641 8  
Société de Transports Aériens Rapides, Paris. (5.6.30)

2419 **F-AJRA** Nieuport 641 9  
Société de Transports Aériens Rapides, Paris. (27.6.30)

2508 **F-AJRB** Nieuport 641 10  
Société de Transports Aériens Rapides, Paris. (18.8.30)

2832 **F-AJRC** Breguet 270 01  
Société des Ateliers d'Aviation L.Breguet, Paris. (4.6.31)

2489 **F-AJRD** Morane 181 16  
Cie Française d'Aviation, Boulogne sur Seine. (31.7.30)

2400 **F-AJRE** Nieuport 641 5  
Mlle Deutsche de la Meurthe, Paris (based Villacoublay); named "Icare II". (24.5.30)

2643 **F-AJRF** Morane Moth 60M 29  
Charles Massol, Paris. (Initially allocated 10.30 to Edward, Paris). (8.12.30)

2439 **F-AJRG** Nieuport 391 16  
Cie Aérienne Française, Suresnes. (7.7.30)

unkn **F-AJRH** Nieuport 391 17  
Cie Aérienne Française, Suresnes. (14.8.30) Crashed 2.10.30.

2438 **F-AJRI** Nieuport 391 18  
Cie Aérienne Française, Suresnes. (7.7.30)

2658 **F-AJRJ** Nieuport 391 19  
Cie Aérienne Française, Suresnes. (24.12.30)

3712 **F-AJRK** Nieuport 391/2 20  
Cie Aérienne Française, Suresnes. (7.4.34)

2675 **F-AJRL** Morane Moth 60M 7  
M Sabran, Lyon. (20.1.31)

2492 **F-AJRM** Morane Moth 60M 31  
Paul Michel, Saarebruck (based Villacoublay). (5.8.30)

Unkn **F-AJRN** Morane Moth 60M 24  
Société Morane-Saulnier, Puteaux. (10.30) Possibly NTU?

2491 **F-AJRO** Morane Moth 60M 22  
André Hermann, Paris. (5.8.30)

2511 **F-AJRP** Morane Moth 60M 12  
Société des Ateliers et Chantiers de la Loire, Paris. (18.8.30)

3154 **F-AJRQ** Morane 185 1  
Société des Aéroplanes Morane Saulnier, Puteaux. (24.5.32) (Initially regd 9.30 to Cie Française d'Aviation, Billancourt - NTU)



**Above:** Morane 185 F-AJRC, built in 1930, is currently registered in France as F-AZAZ. (via JM Collection)



**Left:** Seen at Heston on July 21st 1930 as 'M2' during the second FAI International Touring Competition, Caudron 193 F-AJSI was flown by Maurice Finat. It was later briefly registered in the UK as G-ABFX before returning to French marks as F-ALLJ. (via JM Collection)

2490	<b>F-AJRR</b>	Morane 191	53	2452	<b>F-AJSH</b>	Caudron 193	4/6478
		Cie Aérienne Française, Suresnes. (4.8.30)				Société des Usines Renault, Billancourt (based Orly). (15.7.30)	
2463	<b>F-AJRS</b>	Morane Moth 60M	18	Unkn	<b>F-AJSI</b>	Caudron 193	5/6479
		Mme Mekkas, St Cloud. (18.7.30)				R Caudron, Issy. (9.30)	
2512	<b>F-AJRT</b>	Morane Moth 60M	5	2774	<b>F-AJSJ</b>	Caudron 193	6/6480
		Club d'Avions Legers des Flandres, Lille. (18.8.30)				R Caudron, Issy. (24.4.31)	
Unkn	<b>F-AJRU</b>	Caudron 232	1/6467	2507	<b>F-AJSK</b>	Caudron 60	56/6490
						Mme Bolland Vinchon, Paris/Le Bourget; named "Les Landes". (18.8.30). (Also quoted as c/n 66/6490)	
Unkn	<b>F-AJRV</b>	Farman 190	50/7202	2678	<b>F-AJSL</b>	Morane 149	01
		Regd 9.30 to Baron Charles de Verneilh-Puyrazeau, Paris; named "In Cha Allah!". Damaged o/l Addis Ababa, Ethiopia 3.11.30; probably not repaired.				Société des Aéroplanes Morane Saulnier, Puteaux. (20.1.31)	
Unkn	<b>F-AJRX</b>	Farman 192	7	2641	<b>F-AJSM</b>	Hanriot 431	2
		Société des Avions H M & D Farman, Billancourt.9.30. Regd OO-ALE 25.10.30.				M.Outhenin Chalandre, Neuilly-sur-Seine. (4.12.30)	
2551	<b>F-AJRY</b>	Farman 197	3/7203	3170	<b>F-AJSN</b>	Potez 29/11	1/1794
		M.le Capitan Goulette, Soissons (based Toussus-le-Noble). (18.9.30)				Société des Aéroplanes H.Potez, Paris. (6.6.32)	
2784	<b>F-AJRZ</b>	Farman 202	7/7200	2494	<b>F-AJSO</b>	Caudron 232/2	3/6482
		Société des Avions H M & D Farman, Billancourt. (1.5.31)				Les Ailes Roubaisiennes, Roubaix. (5.8.30)	
2526	<b>F-AJSA</b>	Farman 200	17/7204	2502	<b>F-AJSP</b>	Caudron 232/2	4/6483
		Société des Avions HM & D Farman, Billancourt. (26.8.30)				Aéro Club de Flandres, Lille/Ronchin. (13.8.30)	
2791	<b>F-AJSB</b>	Farman 200	18/7205	2631	<b>F-AJSQ</b>	Caudron 232	5/6484
		Société des Avions H M & D Farman, Billancourt. (5.5.31)				M.le Colonel Vuillemin, Algiers. (29.11.30)	
2792	<b>F-AJSC</b>	Farman 200	19/7206	2503	<b>F-AJSR</b>	Caudron 232/2	6/6485
		Société des Avions H M & D Farman, Billancourt. (5.5.31)				André Benoit, Sevres (based Orly). (13.8.30)	
2738	<b>F-AJSD</b>	Farman 202	5/7207	2509	<b>F-AJSS</b>	Caudron 232/2	7/6486
		Paul Nanse, Le Havre. (30.3.31)				M.Scordel, Chaumont (Haute Marne). (18.8.30)	
2644	<b>F-AJSE</b>	Farman 202	1/7208	Unkn	<b>F-AJST</b>	Caudron 232	8/6487
		Société des Avions H M & D Farman, Billancourt (based Toussus-le-Noble). (10.12.30)				R Caudron, Issy. (.30 ?)	
Unkn	<b>F-AJSF</b>	Nothing known		2541	<b>F-AJSU</b>	Caudron 232/2	9/6488
						François Bertin, Paris/Orly. (8.9.30)	
Unkn	<b>F-AJSG</b>	Caudron 193	3/6477	2505	<b>F-AJSV</b>	Caudron 232/2	10/6489
		Aéro Club de l'Aisne, St Quentin (based Coupy). (7.30)				M.Gorlacher, Nancy, later Casablanca. (13.8.30)	
				Unkn	<b>F-AJSX</b>	Caudron 232/2	11/6491
				Unkn	<b>F-AJSY</b>	Sopwith 1A2	(-)
				Unkn	<b>F-AJSZ</b>	Hanriot 14	467/8
						Aéro Club du Havre, Le Havre. (10.30)	
				2520	<b>F-AJTA</b>	Breguet 284T	4
						Cie Air Union, Paris. (20.8.30)	
				2646	<b>F-AJTB</b>	Farman 231	1/7210
						Jean de Permangle, Paris. (13.12.30)	
				3037	<b>F-AJTC</b>	Nieuport 481	1
						Société Nieuport Astra, Issy. (22.12.31)	
				2421	<b>F-AJTD</b>	Schreck FBA.17HMT.2	69/1394
						M.Grawitz, Marseille. (28.6.30) (Also quoted as c/n 16/1314)	



**Above:** Farman F.231 prototype F-AJTB (95 hp Renault 4 Pb) in which Marcel Lalouette and Jean de Permangle established world class records for Straight Line Distance, Closed Circuit Distance and Duration. The distance record of 2,700 km from Istres to Villa Cisneros (now Dakhla, Western Sahara) was set on 12.1.31. (via JM Collection)

**To be continued . .**

# The Reid & Sigrist R.S.1 Snargasher

HEAD-ON VIEW No.40



The aircraft instrument makers Reid and Sigrist Ltd became aircraft manufacturers when, in 1938, they began construction of a private venture advanced twin engine trainer. The aircraft, designated the R.S.1, was built at the company's factory in New Malden in Surrey and taken by road to Desford aerodrome near Leicester for final assembly and finishing. During construction the workforce apparently gave the aircraft the nickname "Snargasher" which soon became adopted as its official name. The concept was of a multi-role trainer suitable for twin conversion, navigation, radio communication, gunnery and bomb aiming.

The R.S.1 was a tandem three-seater of advanced design. The fuselage was a narrow streamlined plywood monocoque unit to which was attached a ply-covered elliptical low wing and twin-fin tailplane. Two

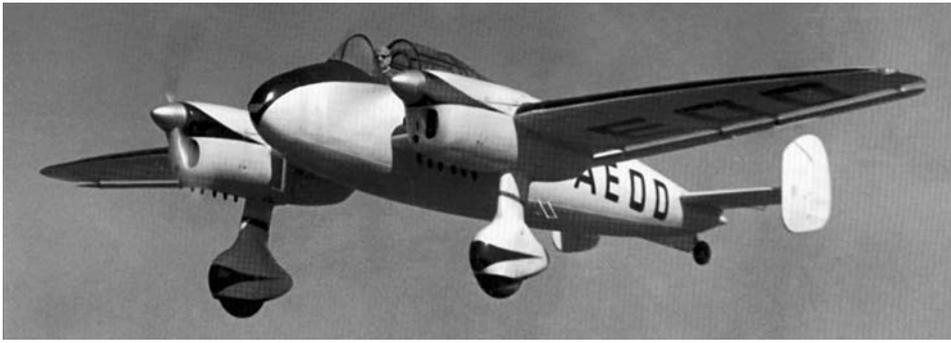
**Above:** The R.S.1 G-AEOD as it appeared at the Brussels International Salon in July 1939. (via JM Collection)

205 hp DH Gipsy Six Series II in-line air-cooled engines provided the power and the fixed cantilever undercarriage mainwheel legs were attached below the nacelles in streamlined fairings. The tailwheel, below the fabric-covered tail unit, had a small triangular fairing in front to smooth the airflow.

Clearly visible slightly below and behind the wing, the hinged trailing edge was divided into flaps in the inner section and ailerons outboard. The cockpit had a long transparent cover with sliding sections and housed the pilot level with the wing leading edge; behind him, over the wing, was the instructor or observer, with the rear position suitable for

**Right:** The R.S.1 with front cockpit cover open and clearly showing the gap between the actual wing trailing edge and the flaps and ailerons below and behind it. (via JM Collection)

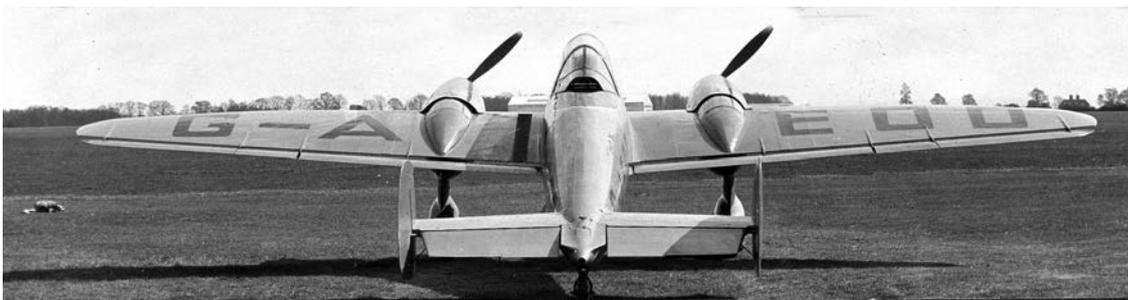




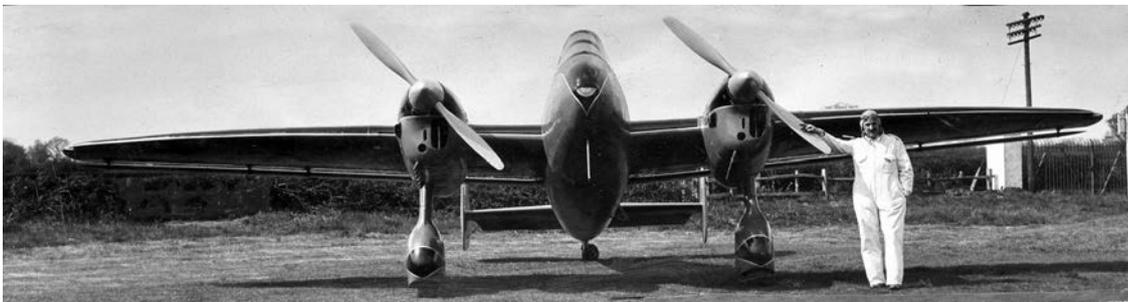
**Left:** The R.S.1 making a demonstration fly past - from this angle the tailwheel fairing shows up well. The cockpit canopy is still open, probably because it was liable to jam in the early days. (via JM Collection)



**Below:** G-AEOD shows off the tapered elliptical wing plan in this view. The rear cockpit gun position can also be seen although the aircraft was not armed at this time. The style of registration lettering makes the last two letters rather difficult to distinguish one from another. (Flight via JM Collection)



**Left:** Rear-end view and head-on view of the R.S.1 Snargasher. The division between flaps and ailerons can be seen and from the rear the walkway on the port wing for access to the cockpits.



The scale which is provided by the mechanic shows the aircraft to be surprisingly small, in fact it was just a little larger than a post-war Gemini twin although it was significantly heavier and also faster. (Flight via JM Collection)



**Above:** As the fly-past continues with flaps lowered the R.S.1 shows the fixed step behind the wing root from which the crew gained access to the walkway and cockpit - quite a steep climb with the long fixed undercarriage raising the front well clear of the ground. The unusually-shaped vertical tail surfaces are also clearly visible, these were fabric-covered, and the un-trimmed balanced rudder line stands out well. (Flight via JM Collection)

a gunner or radio operator. In another role a prone bomb-aiming position was available below the middle cockpit. The nose of the aircraft housed a landing light, with a prominent pitot mast below it.

Registered G-AEOD as early as 9.10.36, perhaps revealing an earlier commitment than most reports indicate, the yellow Snargasher was first flown, by George E Lowdell, early in 1939. Its first public appearance was at the RAeS Garden Party at the Great West Aerodrome (Heathrow) on 14.5.39 where Lowdell demonstrated high and low speed range and manoeuvrability. The R.S.1 received its CofA on 3.6.39 and in the following month was exhibited at the Brussels International Salon of Aeronautics. It was the only twin to be entered in the King's Cup Air Race due to be held on 2.9.39 at Birmingham but cancelled when war became imminent.

**Right:** As a potential gunnery trainer the R.S.1 was designed to carry a Lewis gun in the rear cockpit. The rear section of the canopy was hinged to allow the machine gun to be raised and fired almost vertically. However, we have been unable to find any photograph showing the weapon in place. (via JM Collection)



**Below:** The pleasing lines of the R.S.1 are evident in this low fly-past. Had the 1939 King's Cup been run this aircraft could have been a strong competitor. (via JM Collection)



#### Reid & Sigrist R.S.1 Dimensions and performance

Wing span	36ft 4in	11.13m
Length	25ft 4in	7.77m
Height	8ft 11in	2.87m
Wing area	212 sq ft	19.69 sq m
Empty weight	3,000 lb	1,361 kg
Loaded weight	4,900 lb	2,220 kg
Max speed	205 mph	330 km/h
Cruising speed	190 mph	305 km/h
Range	800 miles	1,287 km
Service ceiling	18,000 ft	5,486m

Despite its excellent performance and advanced design features, the R.S.1 had no future as a production aircraft. It was aimed at the same training role as the Airspeed Oxford but was much more labour-intensive, and therefore expensive, to produce while the Oxford could carry a training crew of up to ten persons. There was at the time no RAF requirement for a gunnery trainer either. The fixed undercarriage was perhaps a further disadvantage and although a retractable version could have improved performance it would also have increased weight and complexity.

Within only a few months War had broken out and any further design work or modification had to be shelved. The R.S.1 was repainted in a camouflaged RAF scheme but retained its civil registration and was used by the company as a communications aircraft apart from a few months for training trials with No.7 EFTS at Desford in 1941. Its last CofA was issued on 15.6.43 and it is generally believed that G-AEOD was broken up at Desford the following year although there was an on-the-spot claim that it was flying as late as 1949 when it crashed. One

**Above:** Close-up view of the front of the R.S.1 shows the landing light in the nose and below it the pitot mast. The Gipsy Six II engines were fitted with DH variable-pitch propellers with a clearance of less than a foot between the propeller arc and the fuselage. (via JM Collection)

**Right:** G-AEOD continued to wear its civil registration during the war, combined with RAF camouflage, when used by 7EFTS and by the manufacturers as a communications aircraft. In this view the rear cockpit cover appears to have been removed. (via JM Collection)





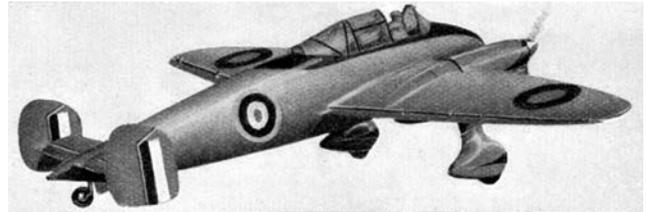
**Left:** The R.S.1 preparing to land with flaps deployed, wearing the wartime camouflage and civil registration.



**Right:** Fred Sigrist (1884-1956) who helped found the Sopwith company as a designer and was later associated at high level with several major UK aircraft companies such as Hawker, Gloster, Avro and Armstrong Whitworth. (Both: via JM Collection)

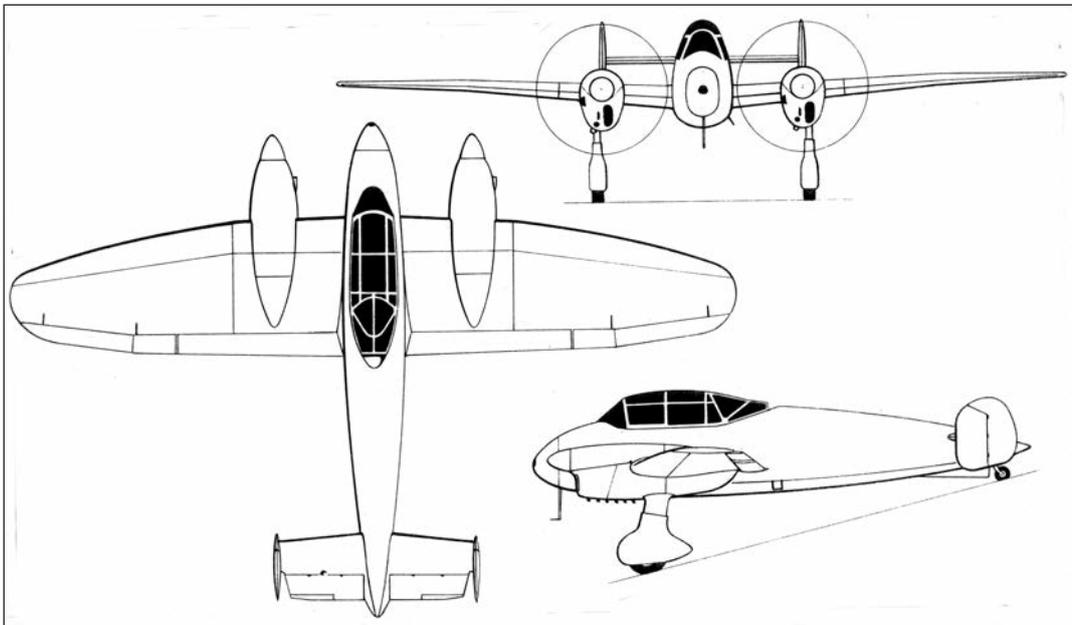
may speculate that a mis-identification of the R.S.3 Desford could be involved? However, the fuselage of G-AEOD was certainly reported at Desford in 1950 and was still there in 1953 when the airfield was sold and its remains presumably burned.

A projected R.S.2 development of the Snargasher did not materialise but before the end of the War the company produced a slightly smaller and more basic two-seat trainer in the form of the R.S.3 Desford G-AGOS in July 1945. This aircraft, together with its various incarnations as Desford Trainer and Bobsleigh, will be featured in the next issue.



**Above:** Mocked-up illustration of an R.S.1 in RAF training scheme, one of several produced by the company. (via JM Collection)

**To be continued . . .**



**Left:** Three-view drawing of the R.S.1 illustrates all of the main features. (via JM Collection)

**Below:** While the R.S.2 version was dropped during the war, the basic design then re-emerged as the R.S.3 Desford. It was almost identical in size to the R.S.1 but without the elliptical wing tips it had a 2 foot shorter span. Amongst other variations were the faired-in cockpit and top decking, the braced tail unit and loss of undercarriage fairings. (via JM Collection)



# Airliners in Warpaint - Warbirds in Civvies: 6

## Imperial and British Airways go to War

Michael West



The result of the MacRobertson race of October 1934 in which a KLM DC-2 airliner finished a close second to the purpose-built DH Comet racer came as a shock to the British civil aviation establishment. Increased competition from US manufacturers and airlines in the Americas and from German and Dutch airlines in Europe and the East had also necessitated a re-think.

In December 1934 Imperial Airways' chairman Eric Geddes and its managing director George Woods Humphery launched the ambitious subsidised Empire Air Mail scheme. They ordered a large fleet of stressed-skin aluminium four-engine monoplanes; 28 Empire flying-boats off the drawing-board from Short Brothers and 12 Ensign land-planes from Armstrong Whitworth. Both orders were later increased.

Short Brothers made rapid progress and by the end of 1936 the first Empire boats were able to make some mail flights and by 1937 were being introduced on the routes to the East and to Africa, providing their passengers with a luxurious service. The mail scheme proved to be so successful that Imperial had severe problems coping with the Christmas post of 1938.

Some experimental Atlantic crossings were made with the Empire boats but even with maximum fuel and a refuelling stop in Newfoundland they could only carry a token payload of mail and a couple of passengers. A lot of effort was expended on the Mercury-Maia composite development and on a flight-refuelling system which would have been an impractical and economic nightmare to operate.



**Above:** British Airways began operating Lockheed 10s in 1937. (via JM Collection)

**Above:** Imperial Airways fleet was enhanced by AW Ensign prototype G-ADSR here taxiing out at Croydon past the somewhat outdated S.17 G-ACJJ "Scylla". (Aeroplane via JM Collection)

**Below:** In an attempt to increase the range of the Short Empire flying boats in-flight refuelling trials were held. Here G-AFCU "Cabot" takes on fuel from Handley Page Harrow G-AFRL over Southampton Water. (Flight Refuelling Ltd via JM Collection)





**Left:** Some of the British Airways Ltd Lockheed fleet undergoing maintenance at Heston in March 1939. In the foreground is the Lockheed 10A Electra G-AEPN, on the left Lockheed 14 G-AFMU with G-AFGN at the end of the hangar and two others to the right. (British Airways via JM Collection)

**Below:** Largest land-plane in the BOAC fleet was the Armstrong Whitworth Ensign. G-ADSV shown wearing camouflage and wartime nationality markings. (via JM Collection)

When 'Cavalier' was sent over in 1937 to operate a New York - Bermuda service, somewhat lamely, it was shipped over in a crate as deck cargo. The service commenced in June 1937 and operated until the aircraft ditched on 21.1.39. Shorts had already begun development of the larger 'G' class flying boat for the Atlantic route but they were used for other duties in WWII; the first, G-AFCI 'Golden Hind', was handed over to Imperial on 24.9.39 but was almost immediately transferred to the RAF along with the next two.

Development of the Armstrong Whitworth Ensign dragged on into 1938, partly because of its manufacturer's military commitments. It also proved to be underpowered and Wright Cyclones were ordered to re-engine the long-range variants. Imperial also ordered a smaller and faster four-engined monoplane from de Havilland with its roots in the Comet racer, the glamorous DH.91 Albatross. Gleaming, silver, but made of plywood, it proved to be rather flimsy, the mailplane variant never being tested over the Atlantic and no examples surviving after 1943.

In November 1937 the MP Robert Perkins (founder of the pilot's union BALPA which Imperial would not recognize) launched a savage attack on Imperial Airways in Parliament: "Imperial Airways service in Europe is the laughing-stock of the world". Lord Cadman was commissioned to produce a wide-ranging report on British Civil Aviation, published in February 1938, in which Imperial Airways was criticised. As a result its Managing Director Woods Humphery felt obliged to resign. Imperial's rival British Airways Ltd was given the routes to northern and eastern European destinations and a share of the Paris services, with the promise of a route to Portugal, West Africa and South America.

In November 1938 the Government went further and decided that Imperial and British Airways would be merged into the British Overseas Airways Corporation (BOAC) (which was ironic in that Robert Perkins had accused Imperial and BA Ltd of operating a cartel!). The merger



**Above:** Also seen in wartime nationality markings, S23 Empire flying boat G-ADHL "Canopus". (via JM Collection)

**Below:** Major J R McCrindle of British Airways, in black overcoat, prepares to board Lockheed 14 G-AFMR at Heston for the inaugural service to Warsaw via Berlin, 17.4.39. (NAC: Polish Digital Archive)



**Above:** Imperial Airways DH.91 Albatross G-AFDK "Fortuna" at Croydon in 1939. Despite its visual appeal the wooden Albatross was unsuccessful in competition with the new aluminium airliners already in production. (BOAC via M West collection)



**Right:** A significant departure from Heston as Neville Chamberlain leaves in Lockheed 14 G-AFGN for talks with Adolf Hitler at Bad Godesberg on 22.9.38. (via JM Collection)

**Below:** Capt Nigel Pelly looks on as Von Ribbentrop shakes hands with Chamberlain at Cologne airport. (Wikimedia Commons/Bundesarchiv)

**Below right::** Following the Munich talks a week later, the iconic image of Chamberlain's return to Heston in G-AFGN with G-AFGO as back-up behind. (M West collection)



was legally and operationally complete by early 1940 and was officially dated 1.4.40. (It could be argued that having a common enemy and purpose avoided the corporate infighting which happened after the 1970s merger of BOAC and BEA). Imperial's 'Speedbird' became the symbol of the new Corporation but the title British Airways was often used loosely instead of BOAC during the war.

British Airways Ltd was a smaller, more market-oriented company than Imperial, with city finance connections (Whitehall securities, the d'Erlangers). It had started augmenting its early British equipment such as the DH Fox Moth, Dragon and DH.86, with foreign types such as Fokkers and Junkers, then from 1937 bought Lockheed 10s and in 1938 the Lockheed 14. The latter's 200 mph cruise speed made even Eastern European destinations only a morning's flight from London. Routes to Budapest and Warsaw (via Germany), and Scandinavia, were launched in this period. BA Ltd's Lockheeds were seen on the Paris route (on which it introduced First and Second Class fares, a marketing success) and on exploratory flights to Lisbon and West Africa.

#### Chamberlains' trips

The Czechoslovakian issue came to a head in September 1938. British Airways were selected to fly Neville Chamberlain from Heston on 3 successive weekends for talks with Hitler. The first meeting was at Berchtesgaden near Munich on 15th September 1938; Lockheed 10As G-AEPR and G-AFCS were used and Captain Nigel Pelly was the principal pilot on the flights.

[<http://tinyurl.com/5r8gmfg> newsreel; <http://tinyurl.com/66kmvu4> newsreel]

Hitler proposed a second meeting at Bad Godesberg, so the following weekend on 22th September the Prime Minister was flown by Pelly to Cologne from Heston in the newly-delivered Lockheed 14 G-AFGN with Lockheed 10A G-AEPO as back-up.

[<http://tinyurl.com/63ghj6l> newsreel; <http://tinyurl.com/25ytkfn> newsreel; <http://tinyurl.com/6jh6cvs> photo; <http://tinyurl.com/6ff48at> photo]

**Above:** Lockheed 10A G-AEPO was back-up for the Cologne flight and is seen here as W9106 following impressment in April 1940. (via JM Collection)

For the International Conference at Munich the following weekend Chamberlain flew from Heston on 28th September in G-AFGN with newly arrived G-AFGO in reserve and these aircraft formed the back-drop to the iconic photo of Chamberlain back at Heston with the piece of paper declaring "Peace in our time".

Chamberlain was criticised in Parliament for using American aircraft to attend the talks...perhaps the choice served to remind the Germans that the similar Hudson patrol bomber had been ordered for the RAF. [<http://tinyurl.com/6zuwmdu> newsreel; <http://tinyurl.com/6x9tn4g> newsreel. At Munich <http://tinyurl.com/6er633s> colour photo including two L14s, with Malev Savoia.]

In 1938 as tensions increased over Czechoslovakia the British Government had the Director General of Civil Aviation (DGCA), Sir Francis Shelmerdine, review the role that civil aviation was to play in the updated War plans.

In October 1938 Shelmerdine produced his report, 'An Appreciation of the Employment of Civil Aviation in War' favouring the establishment of the National Air Communications organization (NAC) which was to employ British air transport companies under state charter. These companies signed 'dormant' contracts to be activated on the approach of war to 3 levels of readiness by telephoned codewords. NAC's operations were modified by May 1940 under pressure from the RAF so that the 'Railway Group'\* controlled by the 'Associated Airways Joint Committee' (AAJC) continued to fly commercial services (mostly across water), whilst the remainder which had represented themselves as the 'Group of Independent Operators' and included Mrs Victor Bruce's Air Dispatch had their aircraft directly impressed by the RAF amid some



**Left:** British Airways Lockheed 10A G-AFEB was taken over by NAC and delivered to 24 Sqn 18.12.39. On 12.4.40 it was impressed as W9104 as seen here. (via JM Collection)

**Below:** Short S.23 Empire flying boat G-ADVE "Centurion" is here moored at the Galilee Lido, Palestine, in 1939. Galilee was established as a port of call on Imperial's service between Southampton and Karachi which was inaugurated in October 1937. (US Library of Congress)

dispute over compensation.

\*(Railway Air Services, Air Commerce, Great Western and Southern Airlines, Isle of Man Air Services, Olley Air Service, Scottish Airways, Western Isles Airways and West Coast Air Services).

In his online biography "From Fishing to Flying", Chapter 14 onwards, Allen Finch describes being a Radio Operator with BA Ltd in 1938 and 1939, with overnight stops in the newer European destinations, and his role as a union negotiator with BA Ltd and Imperial Airways. The latter had attracted much Parliamentary criticism for refusing Union recognition, whereas BA Ltd under Major McCrindle accepted Union representation.

Finch records the winding down of civil flying in Europe as peace slipped away.....

"In the (Heston) hangars during this period, frantic packing had been taking place, and great boxes of stores and spares made ready. On Friday morning came the news of the bombing of Warsaw, and evacuation plans were put into effect. Apparently we were to move to Whitchurch aerodrome near Bristol, and loading of the crates on to lorries was begun; aircraft were filled with staff and despatched westwards. All except 'Slosher' (Dennis Slocum) and Co., who were ordered to take a small RAF Signals contingent to Paris, but to land at Shoreham near Brighton for a control check before crossing the Channel. While on the ground there, the contingent O/C, a Squadron-leader, looked at our Lockheed, asked what type it was, and then commented *I expect that one of this size will have brakes*. At that time, my opinion of our armed forces was somewhat low, but this was really too much. To be fair, he was probably a Great War reservist called back into uniform. When we got away, the ether was its usual great cacophony of sound: Croydon bellowing away at some KLM aircraft, Amsterdam and Brussels in some check up on an aircraft's height, and French stations busy with several nationalities at once. With so much noise as always, it was difficult to chip in with the crossing-the-coast signal.

"But when we took off from Le Bourget on our return flight, there was a distinct air of quietness, not so much chatter by far, and it seemed to be dying out as the minutes passed. Then Amsterdam came up with an *ALL STATIONS* call, followed by a long message in Dutch, then in German, French, and finally in English. *The frontiers of Holland are closed. No aircraft may cross. Anyone attempting to do so will be attacked*. Then he fell silent. Quickly, Brussels sent a similar message and he too went silent. This was followed by Paris and Bordeaux, for by this time the more distant stations were not being drowned out as they usually were. Then Hanover, Cologne, Bremen and other stations in Germany went through the same motions and stopped. Finally, I could



hear the far, faint voice of Copenhagen, never before heard at this distance, for it was all so quiet. He did his stuff, had a quick word with Malmo in Sweden, and the air was quite still. Not a sound could be heard. To misquote Sir Edward Grey in 1914: *The lamps are going out all over Europe....* Indeed they were, and a chill finger ran up my spine. This was it! WAR.

"The sequel was a bit of an anti-climax. We returned to Heston, stayed the night, flew to Bristol the next morning, were given billets, and on Sunday heard the Prime Minister announce that we were at war. I had brought with me in my suitcase the remains of a bottle of Swedish Schnapps, and a full bottle of 1911 Tokay. After hearing the announcement and waiting for the bombing to commence, Nigel Pelly, Chamberlain's first pilot, a Miss Evans, one of our typists, and myself, sat in Nigel's car and drank the Schnapps. Very appropriate, I thought. *The Tokay*, I said, *I'll save for the victory party*. ....."

In Hugh Yea's account 'September 1939: Westwards to Whitchurch' (Putnam Aeronautical Review #3) he relates how future RAF Hudson pilots had been used from February 1939 as First Officers on the Lockheed 14 flights over Germany after converting from Ansons in the British Airways Training School at Heston. (One suspects there was also some contact between BA Ltd and Sidney Cotton's enterprise close by). Yea also states that the flight by Slocum and Finch to Le Bourget on 2nd September was the first to have to use the Shoreham control stop between London and Paris.

Yea's article details Imperial's move from Croydon to Bristol. There Whitchurch was a small airfield and some of the aircraft were initially further dispersed, 'Scylla' and 'Syrinx' to Exeter, the DH 91 Albatrosses to Bramcote and seven of the Ensigns to Baginton.



**Left:** The "Croydon Clutter" in August 1939 with a mix of Short S.17s, Handley Page HP.42s and Armstrong Whitworth Ensigns of Imperial Airways with in the foreground a DH.86 G-ACVY "Mercury" of Railway Air Services. (M West collection)



On Saturday 2nd September Imperial's Croydon staff were busy loading pre-crated equipment onto vans and the goods trains at nearby Waddon Station and advance parties of staff set off for Bristol in Green Line Coaches. On Sunday 3rd September at 0730 the main group of staff left Waddon station for Bristol Temple Meads from where they were billeted all over the city in private houses at 21 shillings per week. In 'Croydon Airport and The Battle for Britain' (Cluett, Bogle, Learmonth, Sutton Libraries) Norman Griffiths, an Imperial mechanic recalls being coached to Whitchurch from his billet in Bedminster at 0730 on Monday 4th September...

"Tents had been erected for canteen use, and besides this there was one small hangar...all the aircraft were picketed around the perimeter of the airfield. Pots of green and brown paint and brushes were doled out, and we were detailed by our chargehands to a particular aircraft...all the aircrew were assigned similar tasks and I worked on an Ensign alongside a Captain. The equipment and stores were deposited in batches on the grass and other groups were working on these. We worked all day camouflaging the aircraft with only one break, and I will never forget the paraffin tainted tea which they dished up from those tents. Nearly half the HP42s and Ensigns were completed by the end of the day, and the air was impregnated with the smell of 'dope'."

The lack of shelter became a problem in early 1940, the cold made engine starting difficult and a gale on the 19th March wrecked the HP42s G-AAUD 'Hanno' and G-AAXC 'Heracles', most vulnerable because of their low wing loading.

#### Air Armada leaves Croydon

In November 1939, 605 and 617 Squadrons, stationed at Croydon, flew out to France supported by several Imperial former residents in camouflage, the Short L.17s 'Scylla' and 'Syrinx' and two Ensigns along with British Airways Fokker G-AEOS. The Imperial biplanes did not look entirely out of place as they were escorting RAF Gladiators!

When the much-feared gas attacks didn't happen and the immediate panic subsided some civil air services were resumed from Britain with Imperial/BA Ltd and Air France linking Heston and Le Bourget through a Shoreham-Dieppe corridor using Ensigns and Albatrosses and with the neutral KLM, Sabena and Danish DDL serving Shoreham, approached over water.

[<http://tinyurl.com/3yy3h9f> newsreel, Ensign Heston; <http://tinyurl.com/25wnun6> newsreel, 3 Ensigns Heston background.]

#### Fate of pre-war fleet in 1940

Four Ensigns out of 12 were lost in 1940: G-ADTC was bombed at Whitchurch, G-ADTA crash-landed at Lympne after being attacked, G-ADSX was destroyed at Merville and G-ADSZ at Le Bourget and contrary to rumour it is now not believed that the Germans rebuilt either of the latter two. Nor did the Germans later use the 14th Ensign G-AFZV which fell into Axis hands via Vichy French Mauretania, though the Germans are believed to have salvaged the Cyclone engines.

None of the HP42 or the Short L.17 biplanes survived 1940. Five of the seven DH.91 Albatrosses survived 1940.

Only four Lockheed 14s of the fleet of seven on 3rd September 1939 survived 1940 but two ex-LOT machines were acquired.

**Above:** The scene at Whitchurch in 1940 as the Imperial and BA fleets were camouflaged with Junkers 52, Albatross, Ensigns and Lockheed 10 and 14 all involved. (via JM Collection)

**Below:** Short S.17 G-ACJJ "Scylla" was also among the Imperial Airways camouflaged in 1939. (via JM Collection)



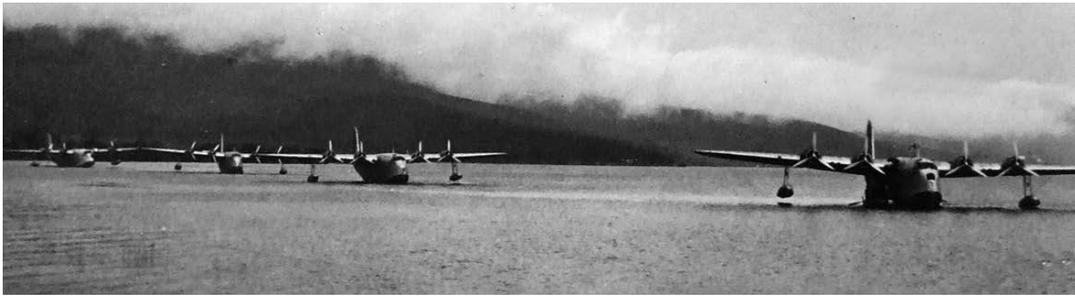
**Above:** Sabena DC-3 OO-AUH in neutral orange at Shoreham, was impressed into the RAF when Belgium was overrun in May 1940. (Ed Coates collection via MW)



**Above:** Ensign G-AFZV was captured following a forced-landing in French West Africa 3.2.42. It was used locally, initially as F-AFZV and then by the Vichy regime, re-registered F-BAHO and given Air France titles. (via JM Collection)

**Below:** Surviving Ensign G-ADTB "Echo" after returning to the UK in 1946 for scrapping. (via JM Collection)ollection)





**Left:** Empire flying boats moored on Lake Bracciano in Italy before that country entered the war. (MWest collection)

**Below:** S.30 G-AFCX "Clyde" which had a diplomatic role in establishing the trans-Africa air route in 1940. (via JM Collection)

Of the 42 Short S.23/30/33 Empire boats built, nine had been lost pre-war, four were impressed by the RAF in 1939/1940, leaving 29. The distribution between BOAC and Qantas/RAAF/TEAL in 1940 was approximately 17 to 12 with some transferring between operators (most of the Antipodean examples were lost in 1942). Twelve Empire boats survived WWII to be scrapped in the UK in 1946/47 and ZK-AMA (G-AFCY) 'Aotearo' a survived in New Zealand as a coffee-bar until the fifties.

The DH.86s gave good service in Africa and the Near East, being impressed by the RAF around 1941.

### Flying boat operations

Imperial moved its marine base to Poole from Southampton. Lake Bracciano near Rome became unusable when the Italians entered the war, swiftly followed by the loss of bases at Biscarosse and Marseilles in France as well as the loss of access to French and Italian airspace.

After the Mediterranean became effectively an 'Axis lake', Lisbon, Gibraltar or Las Palmas, then across Africa, became the only safe route to Egypt and the East and initially Imperial's Empire boats were the only types BOAC could use on the over-water stretches. French territory in Central Africa friendly to the allies was vital for the air route and this was secured by diplomacy on board the Empire flying-boat 'Clyde' which had flown to the Congo River via Lisbon in October 1940.

Some experimental mail flights were made with the Empire Boats from Britain to New York via Newfoundland in 1939 and again during the Battle of Britain in 1940 (the 'Clyde' and 'Clare' flights). These had very minimal passenger capacity but an important propaganda purpose. (<http://tinyurl.com/5vsvbrz>)

Eventually BOAC obtained three Boeing 314s from Pan American to give a genuine transatlantic passenger capability, and famously flew Churchill back from meeting Roosevelt, but already landplanes such as the transport versions of the Liberator were proving capable of reliable transatlantic service.

### Buying American....the puzzle of the British Airways DC-5 order

The all metal DH Flamingo, which flew in 1938, far from being a laughing stock, was a very modern looking type, but curiously neither Imperial or British Airways ordered it at the time. Instead, on the 30th August 1939, British Airways Ltd ordered nine DC-5s from Douglas with rapid delivery by sea to England scheduled between January and March 1940. National Archives file AIR8/286 (*Aeromilitaria* 2002/J J Halley/abix) reveals that the DC-5 order was suspended on 7th September 1939 but a plan to purchase the whole KLM airliner fleet for 4.5 million guilders by the DGCA was still being considered. (British Airways Museum file RS1/1022 records BA Ltd's US agent Carr Bros received a deposit refund of \$228,375 on 21st September 1939 from Douglas re DC-5s).

KLM ordered four DC-5s early in 1939 so one explanation for the Douglas constructors numbers (*Archive* 2011#3) is that KLM deferred their orders for the DC-5s to allow BA Ltd to take over the first nine units on the EI Segundo line, then reinstated them after the cancellation. The DGCA and BA Ltd were evidently in negotiation with KLM around this time, for example BA Ltd had purchased KLM's remaining European Lockheed 14 PH-ASL on 17th August 1939.

Eight DH Flamingos completed at Hatfield in 1940/41 were supplied to BOAC and flown to the Near East via St Eval and Cairo and the four DC-5s completed for KLM ended up with KNILM in the East Indies. (See also *Feedback* in this issue) C/n 426 the DC-5 allocated G-AFYK survived the war in Australia and ended its days in Israel in the smelter at the 'Givat Brenner' kibbutz ca.1957/58.



**Above:** Lockheed 14 G-AFMR "Leander" was used on the trans-Sahara route linking Egypt with Nigeria and on local services within the Middle East until it was impressed as HK984 in 1943. (via JM Collection)

**Below:** Lockheed 14s VH-ADY and VH-ADW, formerly of Aer Lingus as EI-ABW and ABV respectively, staged through Heston in camouflage and British identity bands en route to Guinea Airways. (M West collection)



Two very suitable Lockheed 14s slipped through British fingers in May 1940 when Aer Lingus sold EI-ABV and EI-ABW to Guinea Airways via W S Shackleton. In May/June 1940 these were ferried in camouflage marked VH-ADW and VH-ADY via Heston, France and the Empire route to Australia.

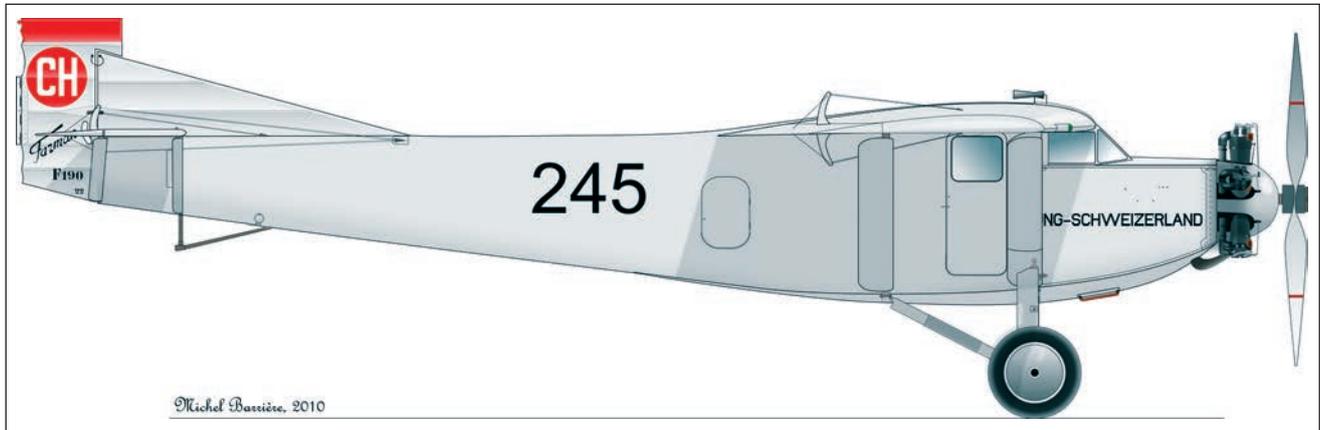
By the end of 1940 the British Purchasing Commission was buying up second-hand DC-2s and Lodestars in the US to reinforce both BOAC and the RAF's transport landplane fleet in the Near East and on the vital air route across Africa.

[Special thanks to Richard Pflug; see <http://tinyurl.com/6dkwgss> (Hebrew translation may be slow)]  
Thanks to Maurice Wickstead, Matt Miller/abix, Jos Heyman, Richard Pflug (NEL aviation Yahoo Group), Herman Dekker, Eddie Coates, Antoin Daltun.

# The FARMAN 190 and its derivatives

Michel Barrière

PART FIVE



## Individual F.190 histories (continued):

### F.190 no.22, c/n ? F-AJEN, CH-245

As the F.191 (formerly F.190 no.5) was conceived – and heavily modified – for a South Atlantic crossing attempt, so the F.190 no.22 was intended to cross the North Atlantic from east to west, from Lisbon to Halifax. This was the proposal put forward by two young Swiss aviators. It was promoted by Oskar Käser, a 22-year old pilot who qualified in 1926 at the Alfred Comte flying school in Zurich. His experience was limited to a flight from Zurich to Bombay (returning to Marseille by sea) as the second pilot to Lt Imhof of the Swiss Army in a Comte AC4 between 11th September 1928 and 4th February 1929.

Following his return, Oskar Käser was tempted by a more far-reaching project. In March 1929 Käser proposed a Zurich – Australia flight to the journalist and traveller René Gouzy (1877 – 1952) which the latter rejected. Such a project, attractive but later repeated on many occasions, did not appear to him to be economically viable.

Käser then found a partner and investor in the person of Kurt Lüscher. Aged 21, he had a diploma from the aeronautical construction section of the Zurich Polytechnic and had only recently begun to take a flying course. It was eventually the trans-Atlantic project which Käser, fascinated by Lindbergh, and Lüscher settled on; the latter being registered for the flight as the navigator. The lessons learnt from the flight by Bailly and Reginensi were used as a working model and served to reinforce Käser and Lüscher's belief in their project. Armand Tschopp, also a Swiss national, who worked as a mechanic at Gnome-Rhône in Paris, joined them. However he was not considered to be a full partner in their bid as he was not being burdened with the cost of the fuel.

The Farman was probably ordered at the end of April during the Geneva exhibition at which the aircraft was shown alongside a display describing the Paris – Saigon journey of Bailly and Reginensi.

Entered in the name of Oskar Käser under reference AIR 2-1932 with registration F-AJEN but with unknown CdN and Cdl numbers, Farman no.22 (c/n 7140?) passed its initial inspection at Billancourt in July 1929. Lucien Coupet carried out tests on 16th and 17th July before submitting it to Veritas at Villacoublay where it was recorded as having a standard 360 litre fuel tank. The aircraft was fitted out for a pilot and three passengers, no other equipment was mentioned, which leads one to suppose that some installations remained to be made.

On the 18th Käser and Lüscher flew in the aircraft with Coupet. During July Käser additionally carried out training for his PSV at the Farman School. The aircraft was delivered at the end of July to Dübendorf where it was modified and prepared for the flight by Alfred Comte. Lit

**Above:** F.190 n°22 CH-245 "Jung Schweizerland" as used by Käser and Lüscher for their transAtlantic attempt. The aircraft was prepared for the flight by the Swiss industrialist Alfred Comte and had a fuel capacity of 2400 litres. (Artwork: Michel Barrière)

by two square windows in the front, the cabin contained two large fuel tanks fitted with a fast dumping system which would enable the aircraft to float in case of ditching. For aerodynamic reasons the sump of the Gnome-Rhône engine had a cowling typical of those of Alfred Comte. Registered in Switzerland as CH-245 and named "Jung Schweizerland".

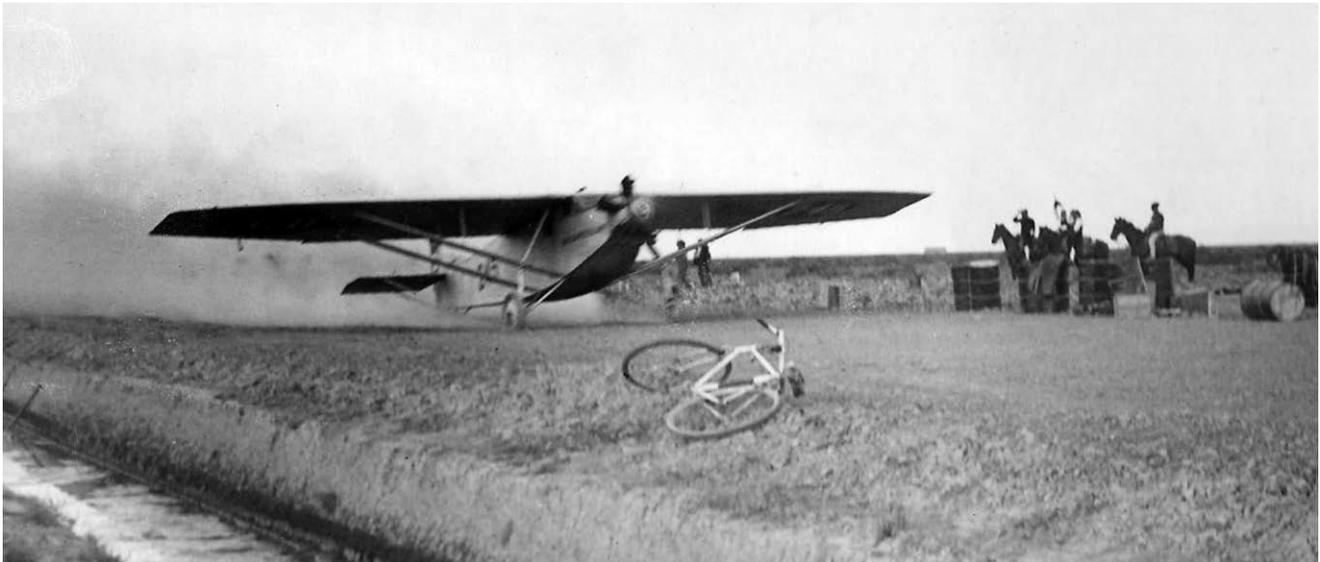
Shortly after its arrival F.190 no.22 was registered in Switzerland. Painted aluminium overall, it received registration CH-245 on 23rd July 1929 and was named "JungSchweizerland". On Monday, 5th August Käser and Lüscher, accompanied by their mechanic Tschopp, took off from Dübendorf for Le Bourget. After having the engine tuned and compass set, the crew carried out fuel consumption and load tests. With its 2,400 litres of fuel, on basing his calculations on the results of Bailly and Reginensi's flight, Käser estimated the endurance of the aircraft as 50 hours at an average speed of 155 km/hr.

This would therefore allow them to achieve the duration of the flight from Lisbon to Halifax which he estimated at 40 hours. However, in the opinion of specialists, the two men underestimated the effect of the headwinds which would confront them near the American coast.

In case of ditching, the aircraft additionally carried survival equipment: including an inflatable dinghy, oxygen masks and cylinders, flares, rockets, fishing rods, chocolate, water, distillation equipment and .... champagne! The crew wore rubberised flying suits. On the other hand there was no radio.

On August 8th the aircraft left Le Bourget for Lisbon, landing at La Baule-Escoublac where Käser paid a visit to his family who were on holiday there. It left on the 9th for Cazaux from where it departed on 10th for Lisbon. There it landed in error at the military field at Amadora before eventually arriving at the international airport of Alverca.

The aviators initially carried out a complete overhaul of the aircraft with the assistance of the Alverca mechanics. However, the airfield was considered too short to be suitable for their attempt and they had to seek an alternative. On 12th August they successfully completed three test take-offs from the beach at Costa da Caparica. The next day Major Ribeiro da Fonseca went with them to show them a favourable area at Juncal do Sol on an extensive agricultural region of drained marshland near to Alverca, on the left bank of the River Tagus (today a nature reserve in the Tagus estuary). This was the location which was finally selected. The crew then waited for several days for favourable meteorological conditions in which to carry out their attempt.



**Above:** CH-245 commencing its take-off run from Juncal do Sol for the transAtlantic attempt on 19.8.29.  
(Collection Fernando Martins via Michel Barriere)

On the morning of 19th August "Jung Schweitzerland", carrying 2,100 litres of fuel and 80 litres of oil, took off at 0719 after a run of 1,200 metres despite its heavy load. It was seen overhead at Terceira in the Azores at around 1800 hours, approximately the time that had been forecast, but ahead lay bad weather, headwinds and fog. Knowledgeable observers remained pessimistic. The landing lights at Roosevelt Field remained lit all night but the handful of supporters, featuring amongst them Capt Lewis A Lancey the navigator of the Bellanca "Pathfinder", waited in vain. The Farman CH-245 had disappeared between the Azores and Halifax and no trace was ever found. The Swiss registration was officially cancelled on 1.1.30.

### F.190 no.23, c/n 7142, F-AJFC

#### CdN / Cdl no.2170 issued 9.7.29.

Registered F-AJFC to the SGTA. In November 1929 at the time of its inspection, the aircraft was only fitted out for one pilot and a single passenger. On 29th March 1930 it was re-registered to Air Service. From 1st August to 3rd September 1931 it operated a daily service carrying newspapers to Deauville while a F.352 similarly served Berck-Plage. On 17th May 1932 the aircraft was based at Nevers, being flown by Portal. On 30th July, still being flown by Portal, it returned to Nevers with three passengers for the large air show of the AéroClub du Nivernais. When Air France was created in 1933 the new company did not want to take over this outdated aircraft.

#### F.193 no.8, c/n 7142 F-AJFC.

While it was in use by Air Service a change of type to F.193 (no.8) was carried out in August 1934 by replacing the Gnome-Rhône 5Ba with a Farman engine. On 21st November 1935 it was registered to René Wauthier who, with his wife, offered it to the Cameroun Government. Fitted out as an ambulance aircraft, the F.193 was equipped with a tent, an operating table and a complete range of medical equipment, enabling not only casualty evacuations but also urgent medical proce-

dures to be carried out. It was named "Caritas" on 21.11.35 by Madame de Noailles and Count Hector de Béarn.

From November 20th it was made the responsibility of Jean-Armand Rousseau, Inspector of Waters and Forests, as representative of the head of the Republic, who was returning to his post and at the same time combining it with his honeymoon, thus ensuring the delivery of the Farman by air to the Cameroun. [Rousseau had previously delivered a Caudron Phalène by air to his posting at Garoua in February/March 1934, the aircraft having been donated to the Cameroun by the French Government.]

On 9th December 1935 Rousseau left for Bordeaux and from there he called at Toulouse, Barcelona, Alicante, Seville, Morocco, Colomb-Bechar, Reggan, Agueloc, Gao, Zinder (on 22.12), Fort-Lamy and Garoua, arriving at Yaoundé on the 25th.

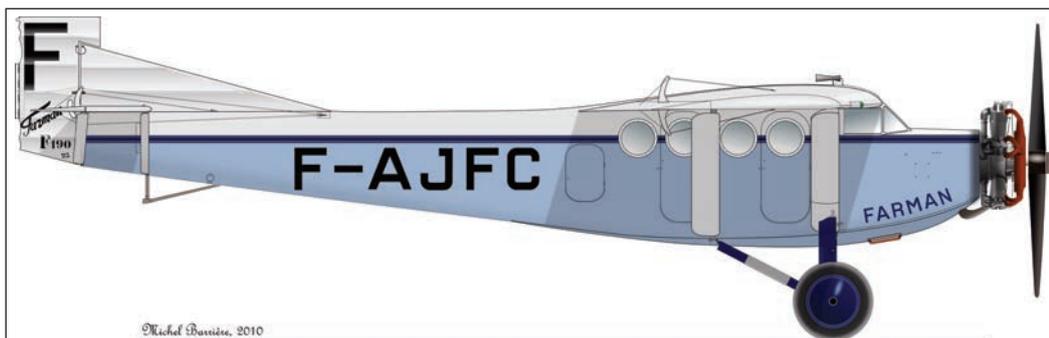
In August 1936 the Farman was used, along with a Caudron Phalène, to demonstrate the potential applications of aviation in the Cameroun, which were for health services, public works or exploitation of forests. Evacuation of patients from Garoua and N'gaoundéré to Yaoundé were carried out. Also demonstrated, without identifying the role played by the Farman, were tasks as varied as researching a suitable bridging point, inspecting firebreaks in the forestry reserves, reconnoitring the density of afforestation, aerial photography exercises over Yaoundé and Douala, and the surveying of air routes.

The aircraft was cancelled on 19.4.37 as destroyed, in unknown circumstances.



**Above:** F.190 no.23 prior to departure for the Cameroun as F-AJFC "Caritas" following conversion to F.193 standard. (via JM Collection)

**Left:** Earlier, F-AJFC was operated in the basic SGTA / Air Service colour scheme. (Artwork: Michel Barrière)





### F.190 no.24, c/n 7144 F-AJFM

#### CdN / Cdl no.2185 issued 31.7.29

Registered F-AJFM to the SGTA initially, then on 11th December 1929 to H & M Farman. This aircraft was fitted out specifically for newspaper transport, two containers were arranged inside the fuselage with a hatch underneath for dropping the cargo. It was thus able to carry 400 kg of newspapers. i.e. about 8,000 copies. In March 1930 it joined the Air Service company which had been set up by Farman.

From 1st August to 1st September 1930, F.190 no.24 carried out a regular service for Messageries Hachette, departing from Le Bourget at 1830 for the Normandy beaches where it arrived about 1935. There it dropped the parcels of newspapers from about 20 metres above and then returned to Le Bourget around 2045.

On August 24th it took part in an air display at Nevers-Cheutinville, flown by Portal accompanied by a mechanic. In May 1931, chartered by the record company Columbia and painted in its colours (blue with red markings ?), it accompanied the Tour de France for touring aircraft. In October 1931 it was recorded as withdrawn from service, but it was not cancelled as it had actually been converted in the summer of that year to F.192 standard (F.192 no.18 ?).

### F.190 no.25, c/n 7145 F-AJFN

#### CdN / Cdl no.2186 issued 31.7.29.

Registered to the SGTA with whom it served from 1929 to 1933. Perhaps an experimental version, it was equipped with a Sabathé cartridge starter.

In 1933, named "L'Amical" it was transferred to Air France. It was at that time fitted with a Gnome-Rhône 5Bc engine and with a reinforced wing. On 26th April 1935 it was registered to the aviator Robert Poirier, of Neuilly-sur-Seine, who had bought it for 13,500 francs. Then, on June 29th it was registered to Mme Suzanne Poirier and in January 1936 it was again registered in the name of Robert Poirier. These suc-

**Above:** F.190 no.24 F-AJFM of Air Service was leased to the Columbia record company in this special colour scheme to transport the Alexander Orchestra as part of the 1931 Tour de France for touring aircraft. (Artwork: Michel Barrière)

cessive changes appear to have been linked to disputes between Robert Poirier, a professional pilot who managed air service activities, and his associates or his clients. On 18th December 1936 the aircraft was mortgaged in a lawsuit with Hachette, then involved in a seizure process on 23rd February 1937 but was removed from that process on 4th May 1937.

The aircraft regularly took part in air displays. On 25th April 1937, flown by Robert Poirier who had secured the post of Commissioner of Parachutists, F-AJFN took part in a display at Vincennes. It took off with the American "Bird Man" Clem Sohn, who jumped out at a height of 2,800 metres. After a free-fall flight demonstration Sohn's two parachutes canded (failed to open) and he crashed to the ground.

On 16th May it took part in an air display at Tours organised by Air Propaganda during which Robert Poirier took off from the airfield of Parçay-Meslay with parachutist André-Ernest Vassard. At a height of 400 metres, backing out of the narrow door of the aircraft, Vassard caught the emergency release of his parachute. The parachute canded and Vassard crashed to earth.

On 11th August 1938 the Farman passed an inspection at St.Cyr l'École with 400 flying hours. The aircraft was probably impressed in 1939.

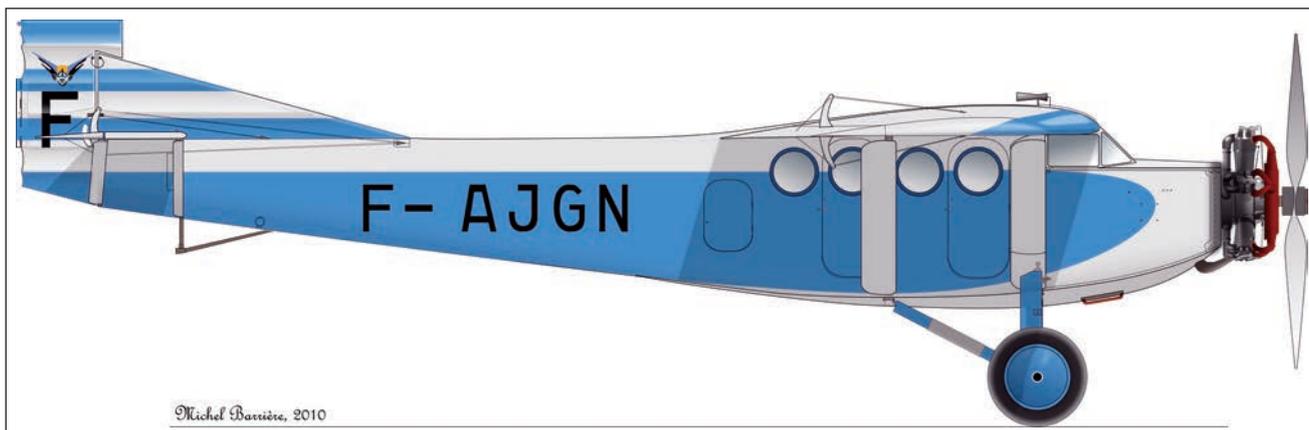
### F.190 no.26, c/n 7147 F-AJGN

#### CdN / Cdl no.2220 issued 12.8.29.

The aircraft's test flight, carried out at Toussus-le-Noble on 31st July 1929 by Lucien Coupet, lasted 29 minutes: climbing to 2,000 metres with a load of 425 Kg and followed by a manoeuvrability test. Then came adverse criticism from the operations director of Air Union who noticed that the emergency hatch which was supposed to be fitted in the roof had not been installed.



**Above:** F.190 no.25 F-AJFN was used by Robert Poirier at air shows for joy-riding and parachuting. It was from this aircraft that the 'bird man' Clem Sohn made his fatal final jump at Vincennes on 25th April 1937. (Artwork: Michel Barrière)



**Above:** F.190 n°26 F-AJGN as used by Air Union in North Africa on the Tunis – Bône route. (Artwork: Michel Barrière)

**Below:** Air Union / Farman timetable of 1933 which includes the route to Tunisia on which the F.190 F-AJGN operated for a number of years. (Dacre Watson collection) .



Registered F-AJGN to the Compagnie Air Union, this was one of the rare F.190s which spent its entire career in regular passenger transport for an airline. It was operated on the Tunis to Bône route in extension of the seaplane link from Marseille, Ajaccio and Nice. In 1930 it carried out 230 flying hours on this route, fitted with Gnome-Rhône Titan engine no.5113.

Taken over by Air France in 1933, it continued to operate the same service. Named "L'Affable" and then "Le Fougueux", it was painted in the national company's colours. It was fitted with a reinforced wing. To our knowledge it is the only F.190 for which there is a photograph in the official company livery.

At the time of an inspection in the second quarter of 1936 Farman no.26 was credited with 711 flying hours.

F-AJGN was registered on 28th July 1937 to the Aéro-Club des Ailes de Vichy. It probably flew there infrequently as it only showed 763 flying hours on its inspection in October 1938. It appeared in the register throughout 1939 and was probably impressed.

### F.190 no.27, c/n 7148 F-AJGO

**CdN / Cdl no.2221 issued 12.8.29.**

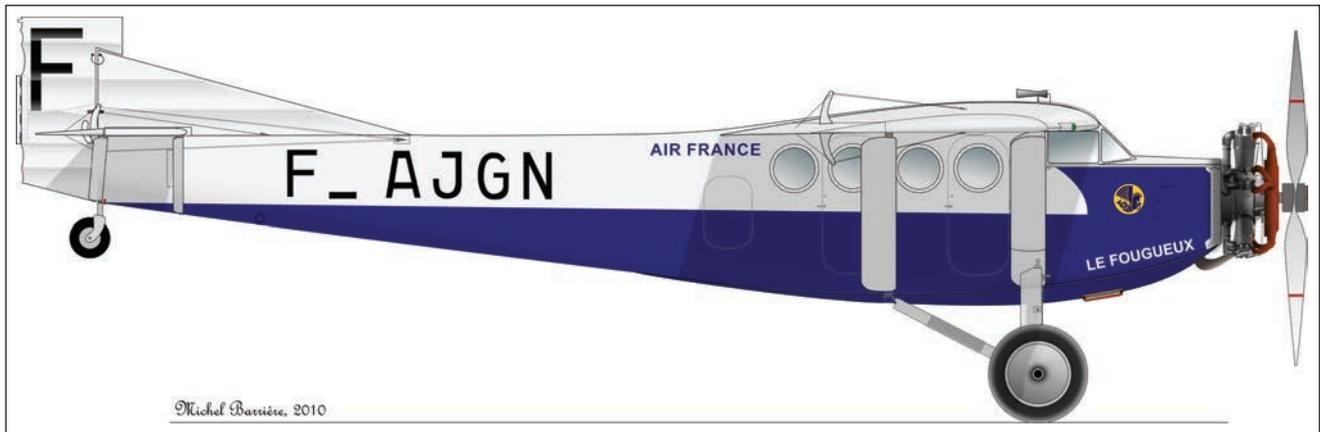
Delivered at the same time as no.26 to Air Union. As with the former, it was fitted with a reinforced wing. At the time of the creation of the national company it was not taken over – or it was immediately disposed of – by Air France.

In September 1929 F.190 no.27, flown by Laulhè, carried Le Brix and the engineer William Loth, known for their work on aerial and maritime navigation aids, on a journey to Brittany. The aircraft still wore the Farman livery in which it was delivered, which suggests that companies themselves painted their aircraft in their own colours according to the networks to which they were allocated.

On May 14th 1933 the aerodrome of Saint Désir de Lisieux was inaugurated, having been created by Robert Tessier and Jeanne Sorbet who wanted to organise regular air displays there. On July 31st the F.190 no.27, sometimes said to have been transferred to Air France, was not taken on charge by the company as it had come up for sale to a Mr MacLeod who returned to Lisieux in the aircraft with his wife, his son and Jeanne Sorbet on board, flown by Tessier.

Then, on 30th August 1933, F.190 no.27 was registered in the names of Robert Tessier and Jeanne Sorbet. F-AJGO took part subsequently in air shows organised on the field such as that of 27th May 1934. In July 1935 the aerodrome was taken over by Potez Aero Service and Robert Tessier decided to sell the Farman.

In May 1936 F-AJGO was purchased by the new Aéro-Club de Dinard and was based at their new airfield of Bois-Thomelin (also known as the Airport of Brindejonc-des-Moulinais). It arrived from Rouen flown by Jean Horlaville and was handed over to the chief pilot of the Aéro-Club,



**Above:** F.190 n°26 F-AJGN was taken over by Air France when the national company was formed and continued to be used on the Tunis – Bône service. Named “Le Fougueux”, it was the only F.190 known to have worn the colours of Air France. (Artwork: Michel Barrière)

Henri Gauthier. Registered on 9th July 1936 to the Aéro-Club de Dinard, it was named “Ville de Dinard”. It regularly operated pleasure flights along the Côte d’Emeraude, carrying a total of 186 customers during the season and taking part in displays at Dinan and Saint-Malo that summer. Nevertheless, the club parted with it in the following year, probably as a result of agreements bound up with the creation of the Aviation Populaire by the left-wing government.

It was registered on 3rd October 1937 to Mr Buret de Saint-Anne, lord of the manor of Champvalloz in Yonne where he had created a private airfield. Based at Versailles, the Farman was captured by the Germans and stored for a time at Orly. It was destroyed during the Occupation. In 1951 Buret de Saint-Anne confirmed its destruction and the aircraft was officially cancelled from the register.

### F.190 no.28, c/n ? F-AJHN

#### CdN / Cdl no.2257 issued 10.9.29.

Registered to the SGTA with whom it was frequently flown by Portal. On 4th July 1931 it took part in the Rallye d’Auvergne in which it finished in first place with 79.113 points obtained in performing a journey from Le Bourget (dep. 0808), Brussels (0920), Amsterdam (1028), Brussels (1130), Amsterdam (1232), Brussels (1335), Le Bourget (1523) and Clermont-Ferrand (1727), a total of 1,600 km with 6 passengers on board.

In August 1933 it joined Air France and was assigned to the continental network but it was withdrawn from service on 23rd August 1934.

#### To F.192 no.?, c/n 7149 F-AJHN

CdN no.1467 renewed on 10.8.35, Cdl no.4656 issued on 11.8.35. This CdN was probably allocated to the conversion of F.190 no.28 to F.192. It was then registered to Propagande Aérienne Française and based at Le Bourget. In the fourth quarter of 1936 it passed a special inspection at 503 flying hours. It was still in service in October 1938 with 797 flying hours. The Farman was probably impressed in 1939.

### F.190 no.29, c/n ? F-AJID

Fuselage F.190 no.29 was used to build F.194 no.1. Its c/n was unknown but should be 7150.

### F.190 no.30, c/n ? F-AJIE

Fuselage F.190 no.30 was used to build F.194 no.2. Its c/n was unknown but should be 7151.

### F.190 no.31, c/n 7152 F-AJHZ, YR-AAM(?)

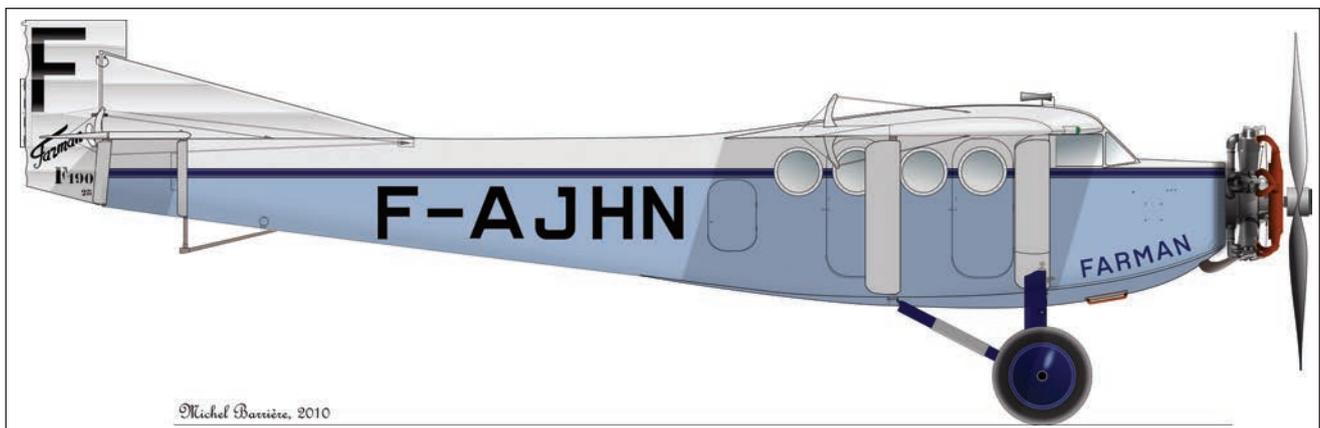
#### CdN / Cdl no.2272 issued 21.9.29.

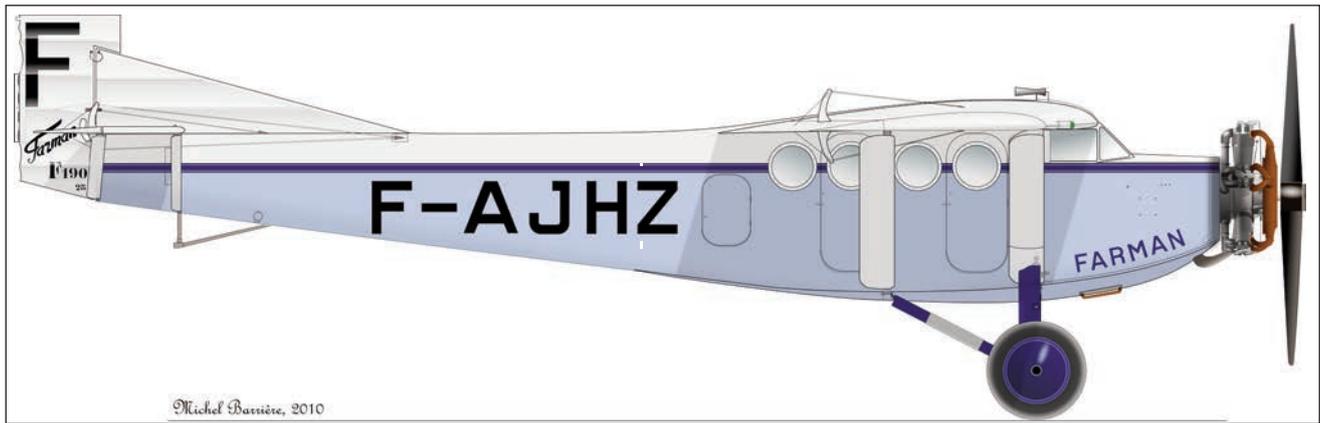
Registered F-AJHZ to the SGTA. The inspection at Billancourt provided evidence that was significant to this aircraft’s career: it had a fuel capacity of only 280 litres rather than the 380 litres which was considered to be standard for the type. On 19th March 1930 it was registered to Air Service.

According to Lallouette, as published in *Le Petit Journal* 15.6.30, the Farman company was contacted by the military attaché of the Romanian legation in Paris and Capt Popp to charter an aircraft able to reach Bucharest by way of crossing the northern part of Romania. The aircraft must land at Munich to take on board an assistant of Capt Popp, the two officers bearing confidential documents concerning national defence. The cost of the charter was to be 40.000 francs. On 4th June Capt Popp specified that the aircraft must land after crossing the northern frontier of Romania. The situation worried Lallouette somewhat, believing that in the event of an emergency landing in Hungary an incident would be caused, he did not arrange authorisation to overfly that country.

On 5th June 1930 Marcel Lallouette, accompanied by the Romanian pilot Popp, took off for Munich at 1400. After having prepared the air-

**Below:** F.190 no.28 F-AJHN as it appeared in the 1931 Rallye d’Auvergne. (Artwork: Michel Barrière)





craft for the following day's flight and taking into account strong headwinds which he expected to encounter with an aircraft fitted with reduced fuel capacity, Lallouette arranged a supplementary reserve of 50 litres of fuel in order to avoid having to land in Hungary. Capt Popp's 'assistant', who would prove to be Prince Carol, came from Paris by car with a passport issued in a false name and, delayed by bad weather, did not arrive until one o'clock in the morning. The next morning the departure from Munich went smoothly followed by overflight of Vienna and Presbourg. After Presbourg Lallouette landed in a field in Czechoslovakia to transfer to the main tank the 50 additional litres of fuel that he had brought. He then took off again towards Hungary, overflying Budapest at a height of 150 metres in disregard of the regulations, before crossing the Romanian frontier.

Once in Romania, Lallouette seeking a source of fuel, landed in the countryside, avoiding the military ranges at Oradea-Mare. He was immediately joined by the Potez 25 of Capt Christesco of the flying centre of Cluj who had followed him since crossing the frontier. The two aircraft departed together but the Farman, again running short of fuel, had to land again in a field 75 km from Oradea. Capt Christesco, arriving alone at Cluj and worried by their absence, turned back, meanwhile Lallouette had gone in search of fuel. Taking Prince Carol on board, Christesco returned to Cluj where Lallouette and Popp arrived just after the departure of the Prince by air with Capt Opris for Bucharest which was reached at 2230. After spending the night at Cluj, Lallouette and his Farman arrived at Bucharest on the following day, June 7th. In recollection of these events the King decided to purchase the Farman F-AJHZ and to decorate Marcel Lallouette. On the 11th December 1930 the aircraft's registration was cancelled.

In Romania, F.190 no.31 initially retained its original condition wearing its French registration but a tricolour stripe of Romanian national colours was painted on the fuselage. Its ultimate fate is unknown. However, in June 1931 a Farman F.190 was registered in the name of Princess Ioana Cantacuzino (the first Romanian woman to qualify as a pilot) and allocated the marks YR-AAM in the Romanian register. This could have been F.190 no.31 and is known to have been cancelled from the Romanian register by 1938.

### **F.190 no.32, c/n 7153 F-AJIA, YU-PEB**

#### **CdN / Cdl no.2273 issued 21.9.29.**

Registered F-AJIA to Société des Avions H&M Farman, then to the SGTA. As with no.31 it was fitted with 280 litre fuel tankage. In December 1929 it was transferred to Air Union.

On 28th June 1933 it was not taken over by Air France but passed on, and registered to, one Constant Crestey, a prominent member of the Aéro-Club de Normandie, pilot, and industrialist of Saint Etienne du Rouvray.

[A communist sympathiser, Constant Crestey became president of the Section d'Aviation Populaire which was founded in 1936 in Rouen. At the Liberation he became Mayor of Saint Etienne de Rouvray. The address "Garage Aviation, Rouen/Madrillet" located next to the aerodrome, appeared in 1934 on the registration of one of his aircraft and

***Above:** Following a short career in France, F.190 no.31 was involved in a clandestine charter flight to Romania where it remained, probably to become YR-AAM later. (Artwork: Michel Barrière)*

showed that he was involved in commercial aviation, which further supported the theory of a leasing to Aeroput and of sending an F.190 to Spain, but we have so far been unable to find any proof of this attestation. (See also Howson "Aircraft of the Spanish Civil War" which places this aircraft in the Republican air force.)]

#### **CdN no.103 / Cdl no.99 in Yugoslavia issued 8.36.**

Either sold or leased, the Farman arrived in Yugoslavia on 15th July 1936, flown by Vladimir Strizevski, chief pilot of Aeroput, and was registered in August as YU-PEB to Aeroput. It was intended that the company would evaluate the aircraft as a potential replacement for their Spartan Cruisers. The Caudron Goeland, of which two examples were similarly acquired, was also considered but rejected as at that time it was still under test. Aeroput finally re-equipped with the Dragon Rapide and Lockheed Electra.

On 17th March 1937, the F.190 provided transport for the journalists of the magazine "Vreme", flown by Otmar Krepel. The on 11th April it was again chartered by "Vreme" to carry journalists to Sofia, flown by Rodoljub Milovanovic. Throughout the whole of this period the aircraft was used and maintained by Aeroput but it was not entered in the company's books and was cancelled from the register before the end of 1937. It was then returned to France but we have not found any proof of its return or of its presence elsewhere. [Certain sources quote its use in Yugoslavia in April 1941. Howson, quoted by Jean Massé, gives it as being taken to Spain. Its return to France could perhaps be confirmed in another way if the aircraft had been purchased. It could just as well have been broken up on the spot.]

### **F.190 no.33, c/n 7157 F-AJJJ**

#### **CdN / Cdl no.2305 issued 3.11.29.**

Registered F-AJJJ in the name of Achille Boyriven, a lieutenant pilot in 1917 and supplier of cloth and saddlery to the luxury motor car industry. We have not yet found any evidence regarding his use of it.

It was re-registered on 12th September 1931 to Air Union and based at Saigon. Veritas issued a new CdN, no.1513, on 26th March 1932 due to a change of weight. It was amongst the F.190s retained in 1933 by the Eastern network of Air France with whom it was named "L'Ardent". It was withdrawn from service in November 1935.

#### **To F.192 no.? c/n 7157, F-AJJJ**

##### **Cdl issued 6.7.37.**

Registered as such as an F.192 to Jacques Caillard, a member of the aero club of Cochinchine. (Caillard had taken part in a 3,000 km journey from Saigon to Hanoi and return in December 1933 involving two Caudron Phalènes of the aero club.) Based at Saigon, the Farman passed inspection on 21.10.38 with 238 flying hours and remained on the register until 1939. Its ultimate fate is unknown.

*To be continued . . .*