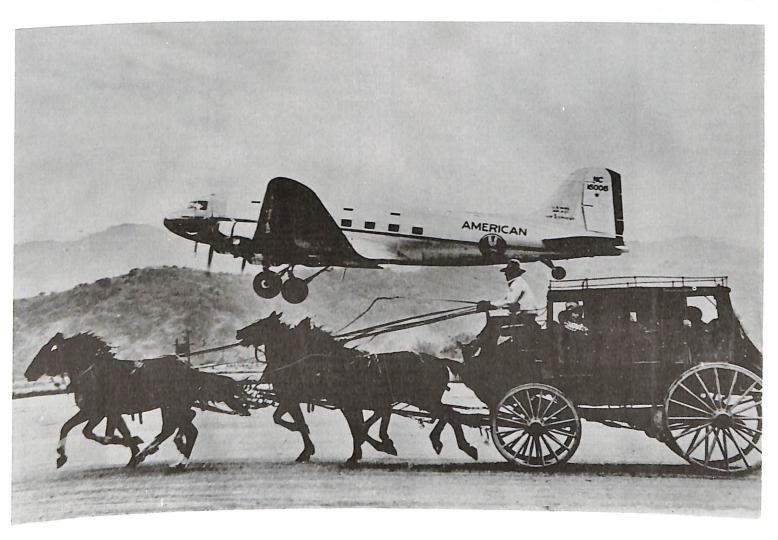


CAPTAIN'S LOG

VOL. XI NO.3



AS SOON AS AMERICAN AIRLINES HAD ITS NEW DOUGLAS DST SLEEPER TRANSPORTS IN SERVICE ON THE TRANS-CONTINENTAL ROUTE, IT LET THE WHOLE WORLD KNOW THAT TRAVELLING ACROSS NORTH AMERICA HAD BECOME MUCH FASTER AND MUCH MORE COMFORTABLE, COMPARED TO THE STAGE COACH OF A CENTURY AGO. (AA PHOTO) DIRECTOR OF OPERATIONS

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THE FLIGHT EXCHANGE

The CAPTAIN'S LOG will publish members' wants, trades and items they have for sale. These requests will be published in the "Flight Exchange" section of the LOG at no charge to Club members. Send this material to: Flight Exchange, CAPTAIN'S LOG, 3381 Apple Tree Lane, Erlanger, KY 41018 USA. Please send such requests on a separate sheet of paper, written or typed so it can be easily read. DO NOT include this material within a letter or on your membership and/or renewal form.

CONTRIBUTIONS WANTED

All members and interested parties who wish to contribute articles, pictures, or other material of interest to the membership are invited to do so. When sending in your material, please be sure to include your return address. All material, after publication, will be returned to the owner. The Editor welcomes ideas on material to be featured in future issues of the CAPTAIN'S LOG.

PUBLICATION DATES

The CAPTAIN'S LOG will be mailed quarterly to all members on approximately the 15th of January, April, July and October. Deadlines for material to be published is the first of the month prior to the mailing date. The CAPTAIN'S LOG is mailed by permit, so please allow ample time for delivery.

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Thank you

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VOLUME XI

NO. 3

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The <u>CAPTAIN'S LOG</u> is the official quarterly publication of the <u>WORLD AIRLINE HOBBY CLUB</u>. Annual subscription rate is \$12 per year. Members outside the U.S./Canada can have their magazine mailed via Air Mail for additional fee. Please write for postage fees as apply to your area.



ABOVE: This 1952 ROBINSON AIRLINES schedule is representative of the schedules of most post-ww? U.S. regional and local service airlines, in that it features the carrier's DC-3 equipment on the cover. Airline Schedules editor George Cearley Jr. presents in this issue a collection of 1950s local service airline timetable covers as a preview to our coverage of that era in the next issue.

The WORLD AIRLINE HOBBY CLUB is open to all persons or groups interested in the collecting of airline memorabilia and the study of airlines and airliners. The CAPTAIN'S LOG is the official publication of the CLUB and contains stories on airlines and airliners and the collecting of various items of airline memorabilia.

Members must report any change of address promptly to the Club in order to receive their copy of the LOG. The Postal Department will not forward permit mail. If we do not have your correct address, you will not receive your LOG. To have a replacement issues mailed to you, it will cost you an additional \$4.00. There will be NO EXCEPTIONS to this charge. Please keep the Club current on your address.

Club memberships will expire at various times during the course of the year. Check your membership number. The last four digets of this number represent the exporation date of your membership. Example: 0001FIRC1285 indicates that this is membership number 1 and receives LOG via First Class mail and membership expires at the end of December, 1985. You will receive several notices before your membership expires. Please get your renewal in as soon as possible.

1



TAKE-OFF TALK

As I begin this job as Captain's Log editor, I want to thank Paul Collins for turning a first-class magazine over to me. A magazine which is gaining readership fast in the airline hobby community and which is becoming well-known in the airline and aircraft manufacturing sectors, particularly among those concerned with airline history.

Of course there have been many other people who have contributed to the success of the magazine. They are the section editors, the writers of articles, photographers, the printers and all who have provided information of any kind or have done any other job required. I thank them all and I hope they will continue to support me as they have Paul all these years. I certainly will need it.

But Paul stands out. He was the one who founded the World Airline Hobby Club and the Captain's Log more than 10 years ago and it was he who kept them going, even when the going got tough.

I am certainly planning to do my best to maintain the high standards set by Paul and others. Except for some minor, mainly cosmetic, changes over the next few issues, I am planning no changes in the present style and format of the Captain's Log.

I will also continue Paul's practice of maintaining close liaison with the section editors about the future contents of the magazine and I will consult with them about their contributions. But I would also like to hear from you, the readers. Do you have any positive or negative - comments? Please let me know. Are there any articles you would like to see in the Captain's Log? Or are there any you see now but don't want to see? Tell me about it. The Captain's Log is YOUR magazine and we would like to make it the best airline history magazine anywhere.

On 1 Jan 86 the World Airline Hobby Club will become the World Airline Historical Society - WAHS - with Paul Collins as its president. Paul decided he would like to spend more time promoting the WAHS and the Captain's Log around the world and therefore wanted to be relieved of the duties of putting the magazine together four times a year. That is why he offered me the editorship and I thank him for his trust in me.

Now that a division of duties has taken place, it might be helpful to explain who looks after what.

Paul will continue to handle ALL WAHS business such as memberships and membership enquiries, dues payments, the Flight Exchange section, changes of address (very important - see page 1) and so on. He will also handle all enquiries about and orders for advertising in the Captain's Log. We need the advertising revenue to keep the membership dues as low as possible, but we promise that we will never become one of those magazines which have twice as much advertising as editorial content. So, if you know of a hobby-or other business which could benefit from advertising in the Captain's Log, please show the owner an issue or two.

Finally, Paul will also continue to oversee the printing of the magazine in Covington, near his home, and he will mail the printed copies to the members. Therefore, all complaints about non-delivery should be directed to him.

I will deal with all editorial matters concerning the Captain's Log. But as in the past, contributors should send their articles about specific subjects to the appropriate section editor (see inside front cover). All general enquiries and any offers to write major feature stories and/or colums should be sent to me. If you don't know where to send your material, send it to me and I will either deal with it myself or I will pass it on to a section editor.

Please keep your letters coming. Without your reaction, we don't know what direction YOU want YOUR Captain's Log to take.

A large part of the contents of this particular issue of the Captain's Log deals with the DC-3. Our special coverage of this most-remarkable and long-lived airliner started in the previous issue and continues here. We look at DC-3 operations in the United and propjet conversions, and we publish some related material.

Our DC-3 coverage will continue in the next issue, when we look at post-WW2 operations in the United States, in which we will focus in particular on how the DC-3 was instrumental in the beginnings and growth of many regional and local service air carriers.

That's it for this first editorial. I wish everyone a pleasant holiday season and a Happy New Year. See you next time.



Foo

HELP NEEDED

The editorial team of the Captain's Log would like to borrow photographs of DC-3s in service with U.S. domestic airlines after World War 2 for publication in the next issue. In particular welcome will be photos of the DC-3 in the liveries of local service airlines and the regionals in their early years, say up to 1955. Any photos lent to us will be handled with the publication. If you want to help us, please mail your photos to the editor AFTER the Christmas mail rush. Thank you.

DC-3: EARLY U.S. SERVICE

by Joop Gerritsma

It was the summer of 1934. The DC-2 fleet of TWA had been playing havor with the fortunes of American Airlines for months. AA had been formed on 13 May 34 out of the ashes of American Airways and it was still flying its predecessor's fleet of old, slow Curtiss Condor sleeper transports and noisy Ford and Fokker triplanes, plus assorted other aircraft, all equally old, slow and uncomfortable.

By the time the year would be over, the airline would be recording a loss of more than \$2 million, all thanks you Jack Frye's TWA and its DC-2s, and to a lesser extent the Boeing 247s of W.A. (Pat) Patterson's United Air Lines.

There was no doubt about it: Cyrus (C.R.) Smith of American needed something similar ... only better. And he needed it fast.

Sure, he had looked at the DC-2, had even bought 16 during 1934, but they were not suitable for the purpose he wanted them for: transcontinental sleeper service. The fuselage was just not wide enough to accommodate berths along one side and still leave enough walking space against the other side.

During that year, therefore, AA's Vice-president of Engineering, William Littlewood, President C.R. Smith and others discussed a larger version of the DC-2 to meet the airline's needs.

Greater payload, a body wide enough to accommodate berths on each side of the isle and increased range to fly New York - Chicago non-stop and transcontinental services with only three intermediate stops were the major requirements.

Design work started immediately and in the summer of 1934 Douglas built a mock-up.

However, Donald Douglas was less than enthusiastic about building the DC-3. His small company had its hands full meeting demand for the DC-2. Why disrupt

a good thing by taking on a new project, particularly an sircraft that would appear too big for the passenger loads of the day? Besides, Douglas did not believe in the future of night travel. Day travel, that is where he saw a future.

However, he accepted the challenge when Smith told him he'd buy 20 of the new aircraft, with options on 20 more, for a price of \$110,000 each - a \$2-million deal, made over the telephone and without a written contract signed until months after the first DC-3 had been delivered.

For the rest of the summer, engineers from both Douglas and American worked together under Littlewood and Douglas' project engineer Fred Stineman.

Manufacture of the first DST, as the new plane was called, started toward the end of 1934 and it was ready on 14 Dec. 35 when its two 900 hp Wright Cyclone engines were run up for the first time. Another run-up took place two days later and on 17 Dec. Douglas test pilot Carl A. Cover took the new ship up from Clover Field for the first test flight. History had been made.

The date was memorable for another reason as well. It was 32 years to the day that the Wright brothers, Wilbur and Orville, made the first successful, controlled powered flight in the history of mankind, half a continent away, in the sand dunes at Kitty Hawk, North Carolina, 17 Dec 1903.

The first DST, registered X14988, remained with with Douglas for the next half year for development

C/n 1494, the historic first DST. Note the row of small windows above the regular cabin windows. This aircraft was destroyed in a crash near Kobmaster, MC., on 15 OCT 42 while in USAAF service as a C-49E.

(American Airl. photo)



2

flying. It was finally deleivered to American on 11 July 36. By that time it had acquired the small dorsal fin ahead of the vertical tail surfaces we all know so well on the DC-3. In AA service, the aircraft was reregistered NC14988 and named "Flagship Texas".

The first American Airlines DST to go into service was the second aircraft built: NC16001 "Flagship New York." It went onto the non-stop "American Eagle" service between New York and Chicago on 25 June 36. Strangely enough, although having been built as a DST, the aircraft was furnished as a 21-passenger day-plane.

Dayplane service with the "true" DC-3 started on 18 Aug 36 with NC16009 "Flagship District of Columbia". Transcontinental "American Mercury" DST services over American's southern route through Fort Worth, Texas, commenced on 18 Sept and took 16 hrs eastbound and 17 hrs 45 mins westbound.

By 1937 AA's full fleet of eight DSTs and 12 DC-3s was in service: the DSTs on the transcontinental sleeper service and the DC-3s on the northeastern and eastern network.

Outwardly there was only one small difference between the DST and the DC-3. The DST had a row of four small windows on each side of the fuselage above the line of regular windows. These small windows afforded passengers in the upper berths a view outside and also brought light into their compartments. These small extra windows were not present on the DC-3 dayplane.

No sooner had the DC-3 commenced commercial service or the orders started to pour in at Douglas'. In fact, the company could not build them fast enough as airlines all over the world eagerly lined up, cheque books in hand.

At this point it is appropriate to mention that when Douglas and American first announced the DC-3, experts predicted only 25 would find a place on the air routes. Optimists said the number could be as high as 50. Douglas had prepared to build 50 if that many could be sold.

We know now that purely civilian DC-3s built totalled about 1,000.

The secret to the DC-3's popularity was not difficult to see. The DST, with the 14 berths removed, could accommodate a third row of seven seats, against the DC-2's two rows, for a capacity of 21 passengers, against 14. At operating costs only three per cent higher, seat-mile costs were about one-third less than that of the DC-2.

Within a few months, United Airlines' W.A. (Pat) Patterson found himself in the same precarious position as American's Smith had a few months before: his aircraft (Boeing 247s) could not compete with the superior DC-3 and were losing money as fast as Smith's Condors, Fords and Fokkers had not too long ago.

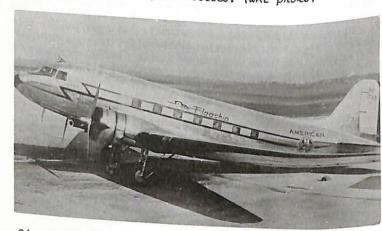
Patterson conceeded defeat and ordered a fleet of 15 Pratt and Whitney Twin Wasp powered DC-3As (10 DSTs and five dayplanes). He put the first one in service on 30 June 37, more than a full year after AA's first DST had gone on line. United started DST transcontinental sleeper service in the following month.

The United DC-3s and DSTs had the more powerful P&W engines and were actually a little faster than AA's aircraft.

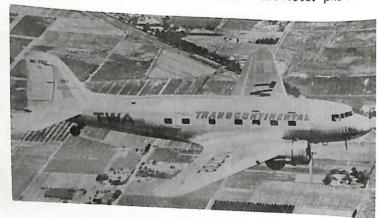
The DST/DC-3 was well-received by the travelling public. No longer did passengers have to endure the physical abuse so often suffered in other - older - types of aircraft. Traffic more than doubled during the next couple of years and C.R. Smith told a New



C/n 1902, NC16062, a DC-3A, was delivered to United Airlines on 3 Jan 37 and is seen here in a combined United/Western Air Express titles. (WAE photo)



C/n 1917, NC17331, A DC-3, was delivered to American Airlines on 13 Feb 37. It was broken up in 1980 (American Airl. photo)



C/n 1922, NC17312, a DC-3B, of TWA is seen in unusual 'Transcontinental' colors, date unknown. The aircraft was broken up in 1980.

York businessmen's gathering, "The DC-3 freed the airlines from complete dependence upon government mail pay. It was the first airplane that could make money just by hauling passengers."

Eastern Air Lines also bought the DC-3 for its "Great Silver Fleet" when it ordered two in 1936 and eight more the following year. Eastern even leased



C/n 1953, a DST-A, of United Air Lines, delivered to them 16 July 37 and is now with PBA as N43PB. (UAL photo)

four from United for its peak winter season in the eastern U.S. that year.

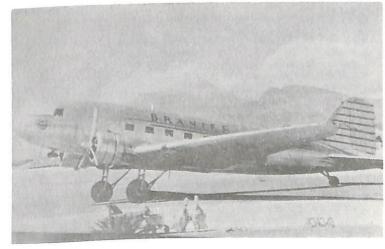
By the end of 1936, 31 DSTs and DC-3s had been delivered, of which 29 went to U.S. airlines: 20 to American, seven to United and two to Eastern.

TWA also ordered the DC-3, but selected the more powerful DC-3B with Wright Cyclone 102Bs of 1,000 cruise hp. These aircraft were half sleepers and half dayplanes, with eight berths and nine seats each. They went on the Los Angeles - New York service on 1 June 37.

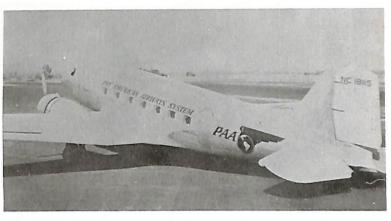
Four DC-3s were bought by Braniff Airways in August 39. Named Super B-liners, they entered service between Dallas and Amarillo on 3 Feb 40.



C/n 1996, NC18120, a DC-3, was with Eastern's 'Great Silver Fleet' from 23 Oct 37 to 22 June 44. It was scrapped in Japan in 1970. (Douglas photo)



C/n 2180, NC21774, a DC-3, went to Braniff on 28 Dec 39. It was reported still active in 1981. (Braniff photo)



C/n 1991, NC18115, went to Pan American in Oct 37 and was cancelled in 1939, fate unknown. (Douglas photo)

The importance of the DC-3 in pre-World War 2 U.S. domestic air transport cannot be overestimated. R.E.G. Davies, in his monumental work "Airlines of the United States since 1914" says that of the 15 largest U.S. airlines in 1942, 12 operated the DC-3, and 260 aircraft in their total combined fleet of 322 planes were DC-3s.

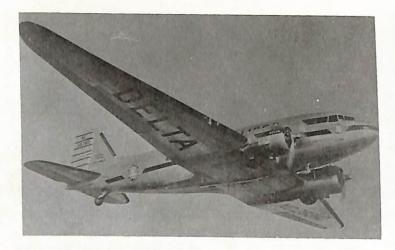


C/n 2198, NC21793, a DC-3, was delivered to American Airlines on 24 Feb 40 and ended its active life in Canada in 1973. (American Airl. photo)



C/n 2263, NC28325, was designated a DC-3 by Douglas, but it was clearly a DST (see the narrow windows above the regular cabin windows). It was delivered on 9 Aug 40 and also served with TWA and the USAAF before having a series of private owners after WW2.

(American Airl. photo)



C/n 3277, NC28340, a DC-3, was with Delta from Nov. 40 until 1968. (Delta photo)



UWV2 shot of a TWA DC-3 advertising war bonds. Other airlines carried similar messages on their aircraft during the war. (TWA photo)

Among these operators, American had 74, Braniff 10, Chicago and Southern six, Colonial four, Delta five, Eastern 39, Northeast three, Northwest 10, Pennsylvania Central 16, TWA 37, United 49 and Western/Inland seven.

Together they were carrying more than 90 per cent of all commercial air traffic in the country.

Right from the first flight, in 1935, the DC-3 endeared itself to its pilots by proving false predictions it would be "too big to handle," a criticism often expressed while the aircraft was still in the design stages.

The DC-3 also proved its strength and ability to take unusual punishment and fly home.

Soon after entering service, a fully-loaded DC-3 was descending through clouds when it was caught by a downdraft so strong that many of the seats were torn from the floor and several passengers were injured when their safety belts snapped. The aircraft, however, flew on and landed safely. A rigid examination failed to reveal even one loosened rivet in the airframe structure itself.

Another DC-3, belonging to Capital Airlines after WW2, once lost five feet from one wing and 52 inches of aileron in a mid-air collision - and everyone on board lived to tell the tale because the DC-3 took them down safely.

And then there is the immortal story of the DC-2½. Author Derek Harvey described it this way in his 1959 book "The Seven Seas - DC-1 to DC-7C" (Cassell



This 1938 photo shows 12 TWA DC-3s with 'The Lindbergh Line' titles. (Douglas photo)



The famous DC2½ of China National Airways Corporation. The aircraft is a DC-3 with the starboard wing of a DC-2 grafted on after the aircraft's own starboard wing had been destroyed in Japanese strafing while the aircraft in a Japanese attack while it sat on the ground.

and Company, London, England): "Strafed on the ground by Japanese bombers, it (a China National Airways Corporation DC-3) lost its starboard wing and the only available replacement belonged to a DC-2 and was 5 feet shorter; the result looked a little lopsided, but after a take-off that made the pilot's hair stand on end, it was flown 900 miles back to base and landed safely."

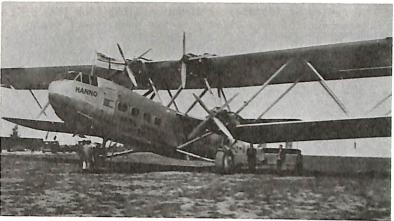
Among the many cockpit refinements of the DC-3 were such things as two independent sets of intruments, in case one set went unserviceable in flight. A new sperry automatic pilot took over much of the flying duties on long flights, thus reducing pilot fatigue.

"There is, however, one flight-deck fault on the DC-3 which to this day has never been cured - the windscreens have leaked from the first model to the last," wrote Harvey in 1959. "Light rain outside, in countless DC-3 pilots' reports, and raincoats have ding to Harvey.

That was written.

That was written 16 years ago. But nothing has changed. Only a few months ago an active Canadian DC-3 driver told this writer the windscreen of his DC-3 still leaks and no one has found anything that will stop it, short of parking the aircraft in a good hangar.





Handley Page HP-42 passenger giant Hanno (G-AAUD) is one of six Hannibal-class airplanes aircraft steward George Poingdestre served on. Note the British merchant marine flag flying over the cockpit.

1932 passport photo of aircraft steward George L. Poingdestre of Imperial Airways. Poingdestre served with Imperial Airways from 1932 to 1936, mainly in the Middle East, North Africa and Pakistan.

Wings & Things

by

DICK KORAN

The airlines came of age in the 1930s, according to Robert Wall, author of 'Airliners', a book that captures the exitement of the early years of air travel.

Wall writes, "In the years that followed 1930, the airliner would change from a lumbering biplane capable of perhaps 90 mph (145 km/h), into a streamlined metal giant that would carry twice the number of passengers and do so using about two-thirds of the power."

Another HP-42, Horsa (G-AAUC), one of the "Giants of the Air," as Poingdestre explains in a note beside the picture in his photograph album. Barely visible is the pennant-shaped Imperial Airways flag flying from the mast on top of the fuselage behind the cockpit.



It is not often that we have an opportunity to take a step back in time with our hobbies. However, I was recently given a chance to do so when I acquired the personal collectibles of George L. Poingdestre, a former Imperial Airways aircraft steward, from a fellow-collector in England.

Poingdestre served as an aircraft steward for the trailblazing British airline from 1932 to 1934, flying on the Handley Page biplane that was considered the ultimate in airliners in those days.

"Named the HP-42, the aircraft was a giant biplane, its upper wing measuring 130 ft (40 m). The structure was all-metal. A corrugated metal skin covered the front and centre fuselage, while the wings and rear fuselage had fabric skins. The upper and lower wings were joined with diagonal Warren struts which eliminated the need for bracing wires. Four Bristol Jupiter engines, each of 550 hp, moved the HP-42 through the air at a steady 100 mph (161 km/h)," says Wall in his 'Airliners'.

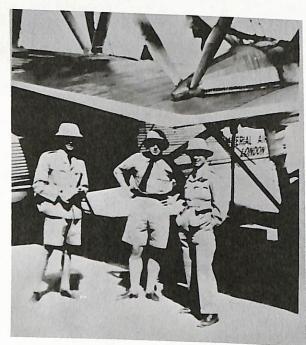
Eight of these 38-passenger giants were built to requirements of Imperial Airways to help provide air access to the Empire.

"The ultimate in elegance, the HP-42 had a fuselage nearly as long and wide as a Pullman car and fully as comfortable, with wall-to-wall carpeting and a stand-up bar.

"Stewards served seven-course meals at tables that were set up between facing seats. Large windows provided an ample view, and the cabin was partially soundproofed, a welcome innovation.

"The craft was exceedingly slow - pilots joked it had 'built-in head winds,' and that trains could overtake it - but it was uncommonly safe, with a landing speed of only 50 miles per hour," according to 'The Airline Builders,' one of the Time-Life 'Epic of Flight' books.

A review of Poingdestre's personal Log Book (he crossed out the word Pilot's on the book covet) shows he accumulated almost 4,500 flying hours as an aircraft steward, with most of his flying time in six of the luxury-class HP-42 airplanes: Hannibal (G-AAGX), Horsa (G-AAUC), Hanno (G-AAUD), Hadrian (G-AAUE), Helena (G-AAXF) and Hengist (G-AAXE). In the Past Experience section of his log book, Poingdestre also listed himself as a passenger on Scylla and Argosy type air transports as well as having flown as staff on the Argosy.



Poingdestre photographed this flight crew at a stop near Gwadar, Baluchistan, enroute to Karachi in what is now Pakistan. Tropical uniforms were no luxury in the slow and low flying Hannibal-class airplanes as well as on the ground after landing. Imperial Airways pilot's wing can be seen above the left breast pocket of the pilot on the right.

As you know, I dwell a lot on the "Wings" feature of this colum. This time, however, I will spend some more time on the "Things" - which is obvious so far as I've said not one thing about wings yet.

By the way, Poingdestre did not wear a wing badge as best as I can determine from his personal photographs. He wore a uniform, of course, and the hat bore the Imperial Airways badge. Two ribbons, from medals awarded for service in World War 1, were worn above the left breast pocket.

The ribbons show he performed military service with the Royal Navy, but there are no other details.

I am still in awe of what I have aquired and I find it most fascinating to say the least. Rather than a piece of metal formed into a wing badge, I have "paper" (the log book, his two passports, some memoranda and some regulations from Imperial Airways, and his personal photograph album documenting his years of service with the airline.

I am surrounded by:

* Imperial Airways Limited Memorandum to all stewards (seven listed), dated 4th February 1935; a Fidelity Guarantee covered by the Guarantee Society, Ltd.;

* Channel-Crossing Safety Regulations having to do with forced descent on water, amended instructions to stewards, dated 12th February 1930;

* As above, amended to stewards, dated 11th August

* two pages of handwritten Tables of Visas Required for Passengers by Air, detailed by Poingdestre;

* Wonder Atlas of the World, by The Literary Press, Ltd., London, from the early 1930s, with G-AAGX Hannibal in flight over the River Thames;

* the personal log book, listing Imperial Airways, Ltd., Victoria S.W. 1, Croydon, and Cairo, as his employer. The records of flights are all entered by

* two British passports issued to Poingdestre: one dated 19 April 1932 and the other 7 June 1935. Both passports are bound together by a ribbon and sealed with wax and the official seal of The Foreign

* Poingdestre's personal photograph album with pictures of the various planes on which he flew, plus Suez Canal, Gaza-Palestine, Baghdad, Bahrain, Arabia, pyramids and the sphinx, and many more. Some of these "walk" through those early days.

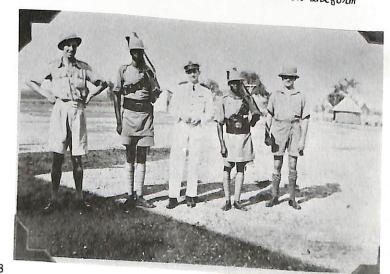
The following is from a handwritten note found with the items, "As entered in Log Book. Flying time for Cairo - Galille 3 hrs 10 min; 6/10/32 Galille - Basrah way) 8 hrs 30 min; 8/10/32 Sharjah (Bahrain mid-25 min; Total 28 hrs 45 min.

"Flying at 100 mph. The first passenger aircraft to land in Bahrain. 5/10/32 left Cairo, arrival Bahrain include Croydon to Paris, 2hrs 15 min by air - Paris by flying boat and Alexandria to Cairo by train 3 hrs

"Overnight stops: 1st night on Continental train, 2nd night Athens, 3rd night Cairo, 4th night Galille, 5th night Basrah, arrive Bahrain 5th day."

I guess the British Airways Concorde of today would punch gaping holes in all flying times listed above. Anyway, I hope you have enjoyed a look into the early Poingdestre items from what I have written so far.

Native policemen of the Sudan stand between flight crew members of Imperial Airways in the early 1930s. Poingdestre is in the middle, in light-colored dress uniform. None of the photos in his photo album show Imperial Airways badges seen were those on uniform hats.





Two pages from George L. Poingdestre's first (1932) passport. ABOVE: visa granted by Greece is shown on page 6 and by Egypt on page 7. An interresting stamp is that on the upper left of the Egyptian visa page. It marks the arrival at Heliopolis Airport, Cairo, of Imperial Airways' "Hannibal" on 16 July 1934. BELOW: Visa issued by the Iraqi Legation in London on page 26 is for travel to Iraq, and the visa on page 27, issued by the Iraqi Legation in Cairo, Egypt. Visa at the top of page 26 was for Anglo-Egyprian Sudan.







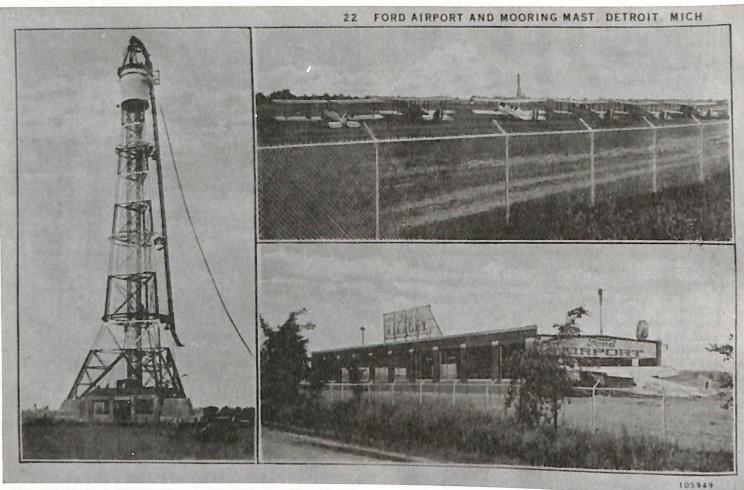
The first page of Poingdestre's personal photo album has the dates 1932-36 written. Photos give a look at early airline travel as seen through the lens of his camera. At upper left is a view of the Suez Canal; upper right shows the left undercarriage strut and wheel of HP-42 airliner; lower left is a picture of Hanno (G-AAUD) at rest in Gaza-Palestine and at lower right is an aerial view of El-Kantara.

Not too long ago I acquired the Fort Airport and Mooring Mast postcard and I have included it along with the "Things" segment in this issue. Finding the postcard triggered some more investigation into local Detroit area aviation lore, including contacting WJR Radio 760 and Oscar Frenette, a historical commentator for the Sketches and Comments segment of the station, for his script on a bit of Detroit aviation history. I am including it with the colum because I think you'll enjoy it.

"Now Sketches and Comments. I'm Oscar Frenette. I was talking the other day about Dearborn Inn and how it was the first airport hotel, accommodating the Ford Airport across the street. But that airport itself is an interresting story. In the early twenties, most airplane ground facilities consisted of a farmer's field or a country fairground.

Henry Ford had a friend - William Stout - who was an aeronautical engineer and who was organizing a company to build an all-metal plane. Ford built a factory and an airport ... facilities that were the most

Someone from American Airlines slipped the Concorde Touchdown patch into my company mailbox at ORD. The patch is from the Experimental Aircraft Association (EAA) convention at Oshkosh, Wisconsin, this summer. The British Airways Concorde arrived in grand style with a touch-and-go on the main runway, followed by a high-speed pass that got everyone's attention. What a thrill it must have been for those who paid \$400 for a seat on flights from Oskosh to Canada and back. The aircraft - in BA colors - is on a white field. Lettering on the patch is red and the border black. The patch measures three inches across.



advanced anywhere at the time. It even housed a weather bureau station and a radio shack. And the airport had its own traffic control system. It was the first to guide flights by radio. And the airport boasted one of the largest dirigible mooring masts in the country.

"The first air freight system was inaugurated at Ford Airport in 1925. Later that year Ford purchased the Stout Metal Airplane Company and not long after that came the first Ford trimotor plane, to be billed as the birth of American commercial aviation. It was the first multi-engined, multi passenger air transport.

"That same year, 1925, Ford Airport installed a 450-mil lion candlepower searchlight that could be seen from 80 miles. The airport sponsored an air tour competition to demonstrate the reliability of airplanes. Until then the emphasis had been on thrills and stunt flying.

"The airport also hosted the first commercial aircraft exposition and it was from that airport that the first regularly-scheduled passenger airline was started ... and a Model "T" bus served as the first airport limousine.

"The first air mail was flown from Ford Airport in 1926.
"In 1927 Henry Ford was given a ride by Col. Charles
Lindbergh ... in his Spirit of St. Louis". Ford wanted to
build a "Model T" of the air ... he called it the "Flivver".
Lindbergh flew the first one. But then a friend of Ford's
was killed in the crash of a Flivver and Henry Ford lost
interest in planes ... and the airport became a proving
ground ... it is all in our gallery of Sketches of Life and
Things in the Great Lakes area.""

My personal thanks go to Oscar Frenette for letting me share this with you, the readers. By the way, the old airport is now Ford Motors' test track adjacent to Greenfield Village in Dearborn. The Dearborn Inn is still there too,

In my next colum I will include a "guess-what" item along with some really great wings - ol' #620 ... NC410H, a Ford trimotor mounted on two giant pontoons with TWA logo of the early 1930s ... a great story.

Ford Airport in Dearborn, Michigan. The back of the card reads, "One of the finest aviation fields in the country. which besides having every facility for mooring mast for dirigibles." This postcard, aquired in the local Birmingham area, shows the airport and for the Ford Motor Company. The card is postmarked of this colum was born.



HELP! HELP! HELP! Here is another "mystery" hat badge. This nice badge is from the U.K., but I don't know which airline. The wings are in gold wire and so are the "W" and the 'anchor' above it. The background is maroon and the backing is black. Your help in identifying this hat badge will be appreciated.



■ Two commemorative items issued by the U.S. Postal Service. For those who have a penchant for air mail items, the 44f stamp depicts the Martin M.130 China Clipper during boarding. The 33f postal value is printed on an air mail post card and shows the China Clipper getting "on the step" during takeoff for some exotic spot in the Pacific. A great card for those "thank you" notes to people overseas who sent you items for your collection.

Nahanni Air flies local services in the Northwest Territories of Canada, as well as charter flights into the Arctic. Many carriers use patches for their wing marks and this is a fine example. The patch is black with the border, lettering an "bird" done in yellow thread





I was finally successful in getting an Air Algerie pilot wing through a friend in Europe. The wing has a semi-flat gold finish over-all. The Air Algerie lapel pin is silver with a red background.



for its flight insigna. Operating from
bases at Fort Simpson
and Cambridge Bay,
the airline flies
passenger and cargo
services in the North
West Territories. The
patch is white with a
blue border. The stylized S and A are
orange with blue
edging. The name
Simpson Air is also
blue.

Another small Cana-

dian airline. Simpson

Air, uses this patch

The Martinair Holland pilot wing is one of the mostelusive to get. I was finally able to accurre it to

Hat badge of Royal American Airlines is done in antique gold with polished surfaces. This badge is one of the nicest I have seen in a great while. It came from one of American's new flight officers who used to fly for the now-defunct carrier.

The Martinair Holland pilot wing is one of the mostelusive to get. I was finally able to acquire it from a crewmember on one of the carrier's DC-10-30s when I boarded the aircraft - face-to-face contact wins again! The wing is heavy, with a gold finish and with a white enamel centre shield with the M in red.



This captain's wing of Royal American Airlines is of done in antique gold with polished "RA", shoulders of the wing and the star. The first officer's wing is the same minus the star. Even the small detail in the crown is polished gold. I first saw these wings when Royal American was flying Viscounts between Tucson, Arizona, and Las Vegas, Nevada.

The Super DC-3 was an attempt by Douglas to quickly enter the post-World War 2 market for a modern twinengined, short-haul airliner. Because even though hundreds upon hundreds of ex-military Dakotas were available at give-away prices, the manufacturers foresaw a demand for a modern successor not too many years away.

Rather than designing a completely new aircraft, Douglas decided a modernized DC-3 would would be the fastest and most-economical way to produce such a successor. The result was the DC-3S or Super DC-3.

The new aircraft employed a standard DC-3 airframe with extensive modifications. The fuselage was lengthe-

The original idea behind the Super DC-3 was that airline customers would turn in their DC-3s for rebuilding to Super DC-3 and the first Super DC-3, N30000, c/n 43158, was such a conversion. The aircraft was formerly a USAF C-47, c/n 6017 and had served with Western Airlines for s short period after WW2 as NC56592.

Douglas also built a second prototype, or company demonstrator, N15579, c/n 43159 and formerly 4122. This aircraft had originally been ordered by American Airlines before WW2 as a DC-3D as NC33662, but it was delivered to the USAF in 1941. It was reregistered by Douglas to N30000 after the first aircraft had been turned over to the USAF as YC-47F for testing.

by Joop Gerritsma

ned by 39 inches (99 cm) forward of the wing and by 40 inches (1.2 m) after the wing. A larger vertical tail provided the required extra directional stability. The nose contours were changed slightly and the engine nacelles were enlarged to permit full retraction of the main wheels. The tailwheel was made partially retractable. New, slightly smaller wing outer panels were installed, and were swept back four degrees at their trailing edges to compensate for the rearward shift of the centre of gravity.

The Dakota's 1,200 hp Pratt and Whitney R-1830 Twin Wasp engines were replaced by 1,475 hp Wright R-1820 Cyclones so operators could take full advantage of the increased capacity of the fuselage. Passenger seating was brought to a maximum of 38 instead of the normal 24 maximum in the standard DC-3.

By the time the first Super DC-3 made its maiden flight on 26 June 49 (some sources say 23 June), it was for more than 60 per cent a new aircraft.

However, the airlines were not interested in the Super DC-3. The cost to have one converted was about the same as that of a new DC-3 before the war and with its tailwheel it did look not nearly as modern as the Convairs, Martins, DC-4/6 and Constellations it had to compete with for the passengers' favor.

Only Capital Airlines of Washington, DC, bought the aircraft. It took delivery of three, in July, Aug. and Sept. 50, but sold them already in April 52, to U.S. Steel, which used them for corporate transportation for a number of years.

With nowhere else to go, Douglas turned to the military. The DC-3S was fitted with a large cargo door and strengthened cabin floor and was turned over to the USAF as YC-47F. The USAF, however, selected the Convair C-131 (CV-24C) over the DC-3S for its short-haul transportation needs and it turned the DC-3S over to the U.S. Navy, which testflew it under the designation R4D-3x, or C-117D as the type was redesignated in 1962.

SUPER DAKOTA

With five aircraft in service, Canadian charter freight carrier Millardair of Toronto, Ontario,

has the world's largest civil Super DC-3 fleet. C-GDOG, at Toronto on 16 July 85, is the latest addition to the fleet. I Gennitum what I





The Navy decided to have Douglas medernize 100 standard DC-3s in its inventory and these aircraft served well in the transport, medevac and personnel roles until they began to be phased out of service from about 1974 on, going in storage.

Spurned by the airlines in 1949/50, the Super Dakota began a modest airline career after the Navy had retired them.

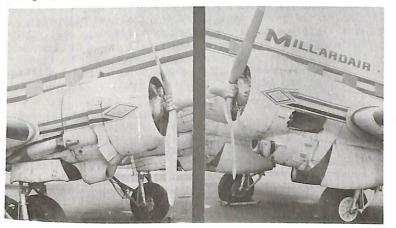
The largest fleet of civil Super Dakotas is now in service with the Canadian cargo charter airline Millardair of Toronto, Ontario, which uses five. Placed in service over the past year and a half, they have replaced a fleet of 10 standard Dakotas and are proving their worth every day. Apart for a larger capacity, the aircraft also offer greater service reliability, particularly because their engines are much newer than those of the remaining Dakotas.

A few other Super Dakotas are in commercial airline use today. Air Dale, another Canadian airline, operates one on charter work in Northern Ontario, Hawkins and Powers Aviation of Wyoming has one and some others are in service with private owners and government agencies in the U.S.

Today, more than 40 years after the last Dakota came off the production line, their R-1830 engines are old and tired. Without exception they all have been overhauled and rebuilt so many times, there is not much life left in them. Replacement parts are no longer series-manufactured and must be made to order, or be retrieved from existing -old- military stocks.

Compare that with the relatively new and well-maintained, low-time R1820 of the ex-Navy Super Dakotas and it is no wonder that people like Carl Millard believe there are many years left in what some have called the "Edsel of Donald Douglas": the Super DC-3.

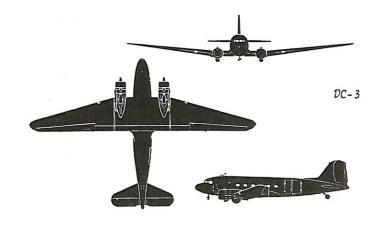
These photographs show the larger diameter of the wright engine in the Super VC-3 (right) compared to that of the Pratt & Whitney in the standard DC-3 (left). Also note the gear doors on the Super DC-3.

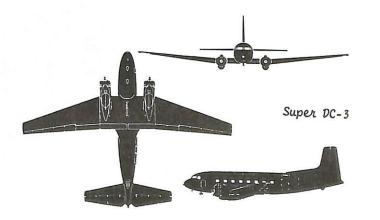




(Left and above) Two photos of the Super DC-3 prototype N30000, but note the difference in the shape of the vertical tail. Version on the right is the one chosen for production. (Below) Capital Airlines was the only airline which ordered Super DC-3s from Douglas. N16019, c/n 43191 was the first for the carrier. It was delivered to them on 24 July 50. (Douglas photographs).







REPORT FROM THE FIELD MIAMI

REPORT BY

JIM "JET" THOMPSON



The entrance to Mari International Airport (postcard by Gulfstream Card Com.)

With this issue we continue our look at both Pan American's aviation history and that of Miami, Florida, started in Vol. 11, No. 1. They were both tied together and this report will cover Miami International Airport.

Let's go back to the beginning of Miami's aviation history: July 21, 1911, at the Miami Country Club golf course, just a short distance away from the present Miami International Airport. On this day a crowd of 5,000 had come to watch Miami's first airplane flight.

Miami was celebrating its 15th birtday and to help honor the occasion, Mayor E.G. Sewell had raised \$7,500 to pay Pilot Howard Gill to give a demonstration flight. Gill was flying a 1910 Warping-tip model biplane.

After starting the engine and letting it warm up, he finally released the brake and the aircraft sped down the fairway on its tricycle-sized wheels. Cows in

Marco Island Airways' Martin 4-0-4s still fly into and out of Miami on a daily basis to and from Marco Island on Florida's Gulf Coast. (Photo from Mary Jayne's postcards for AeroGem).



a nearby field ran. Chickens started flying away. The biplane ran up the side of sand-trap bunker and jumped into the air. It gradually gained some altitude as it crossed another fairway.

Then down she came. A Miami Herald reporter covered the story this way, "The airship appears to be falling to the earth.

"Everyone feels his heart and stops breathing in fear that the machine is going to smash on the ground." As it turned out, Gill landed with a bump, rolled to a stop and hopped out of the crate-like machine.

This was the beginning of today's multi-billion-dollar aviation industry in South Florida.

Shortly after this event, Mayor Sewell asked the Wright brothers to set up a flying school in Miami, but even with a \$1,000 bonus offered, the brothers deal and liked the adaptability of Miami's flat country for operating an aviation school. The Miami the city providing a 200 by 800 feet landing strip, school there during the winter months.

The city also agreed to pay freight charges for four airplanes being shipped in for the school. It also raised \$4,000 to prepare the field as a landing site. This would be the fourth such field in the United States. The others were Wright Field in Dayton, Ohio (hometown of the Wright brothers), Curtiss Field at Hammondsport, N.Y. (near Glen Curtiss' hometown) and another field established by Curtiss at Santiago, California, earlier that year.

Six years later, in 1917, at the start of America's entry into World War 1, Navy Lt. Patrick Bellinger came to Miami to look for possible sites to set up a seaplane base. He chose Dinner Key and much of Miami's aviation activity was centered around the Key for the next several years. This was all covered in the previous report in the Log.

At the end of WW1 a young ace, named Capt. Edward V. Rickenbacker, decided to set up an airline in

Florida. He chose the state after a tour of the entire country and said that Florida was the ideal spot.

In those days there were no navigation aids and the climate in Florida was ideal for flying. Rickenbacker also said that after studying the map, he discovered that Florida was a gateway between North and South America. He figured there would be some potential for an air service here.

Rickenbacker organized Florida Airways and raised enough money to buy a couple of single-engined Stinsons. A short time later he and his associates managed to buy five single-engined Fords. These were the first all-metal airplanes and forerunners of the now famous Ford Tri-motor. Florida Airways operated a route from Miami to Tampa and on to Jacksonville, carrying mail for \$3 per pound.

Unfortunately not too many people would send their mail by air. Therefore many of the early airlines would try to generate some revenue by sending themselves heavy packages by air, often containing a brick or two. Florida Airways was no exeption. But government support remained small, there was little public confidence and the airline went bankrupt.

When Florida Airways closed up, a man named Harold Pitcairn picked up the remains. Renaming the company Pitcairn Airways he began operating from New York to Atlanta, GA. Later he bid on the Florida mail contract and received it. He was using Pitcairn Mailwings, an aircraft he had designed and built himself because he couldn't find any other suitable planes.

Several years later C.M. Keys bought out Pitcairn and changed the name of the airline to Eastern Air Transport Co. Capt. Rickenbacker was hired to manage the growing company and it later became today's Eastern Air Lines.

Getting back to Miami Airport, in the fall of 1928 Pan American began clearing an area of 116 acres of scrub palmettoes and brush land. This land was soon to be called "Pan American Field" and today is known as Miami International Airport.

Operations began on Sept. 15, 1928 when a Pan American Sikorsky S-38 was loaded with 340 pounds of airmail bound for Key West and Havanna.

This first flight was piloted by Capt. Edwin Musick and a newsreel cameraman recording the historic event was the only passenger.

They headed south to Key West where the mail and cameraman were transferred to a Fokker F-10 for the final leg to Havana, Cuba. This was the first scheduled flight from what today is known as Miami International Airport, which was designated as the first airport of entry into the United States.

Five years later there were 13 airfields scattered around the Miami area. The major ones of these were Coral Gables, N.W. 54th Street, All American Airport, Navy Airport and Dirigible Base (now known as Opa-Locka Airport), and Municipal Airport.

Municipal was one of the better fields with such modern items as a beacon light, flood- and boundary lights, four phone lines and rock runways. It was the home base of Curtiss Flying Service, Sky View Airways and Eastern Airlines. Municipal was the airport from which Amelia Earhart took off on June 1, 1937, on her fateful trip around the world.

Eastern decided to move their operations from Municipal to Pan American in 1934. Two years later they were carrying 52 passengers a day into and out of Miami.

In 1937 George Ted Baker gained authority to Miami and extended National Airlines from St. Peters-down to Miami at Pan American Field.



PBA's DC-3s are frequent visitors to Miami. N36PB is pictured in this Bromley & Company postcard.

Things remained the same for the next six years. Then, in 1943, the U.S. Corps of Engineers built an airfield about a mile southwest of Pan American Field that would be called Army Air Field. The Seaboard Railroad tracks ran between the two fields.

A short while later Delta Airlines came to Miami and so did several other, smaller, airlines. They were all using Pan American Field on 36th Street.

By 1945 the airport was overcrowded even though it now had four runways which had all been extended from their original 2,000 feet lengths. The land area around had doubled but the facilities were outmoded.

On Sept. 14, 1945, the Dade Board of County Commissioners put into effect Chapter 22963 which enabled them to act as a Port Authority. The main man behind all this was Mark Wilcox, a state representative from Dade County. A plaque honoring him was placed in the new terminal in 1959 and is still there today.

The first item of business for the Port Authority was to start negotiations for the purchase of Pan American Field. They issued the first Airport Revenue Bonds in the country for \$2,500,000, but unfortunately the money market did not have much faith in the future of aviation even then. As a result Pan American ended up buying the bonds, thus in effect selling the airport to themselves.

Three years later the federal government handed Army Air Field over to the Miami Port Authority. The only stipulations were that the area had to be used for aviation purposes and that the government could take it back if it needed it. The Port Authority also obtained 102 acres of the Convair property in the northeast corner for \$700,000.

In the following year, 1957, the Seaboard Rail-

Eastern Air Lines' L-1011 TriStars are quite numerous at Miami. N317EA is the subject of this Aviation World postcard photographed by DDM Photos.



road tracks were removed and the two airfields were finally joined. The new facility was officially given the new name that has remained to this day: Miami International Airport.

The 1950s saw much progress being made to the airport. Eastern, Delta, National and Pan American agreed to underwrite the airport budget. 36th Street was just a two-lane road then and quite often there were huge traffic jams trying to get to the airport. The baggage claim area was outside and there were three terminal buildings in use at the time. The main terminal was used by Pan American, National, Delta and several foreign flag carriers; Eastern had their own terminal on 36th Street just east of the main terminal and the third terminal was located on 20th Street and was used mainly for charter flights. This terminal was located on what is now the "G" concourse.

During the mid-1950s it was decided to build a new terminal building on land that at one time belonged to the Seminole Fruit and Land Company. This was just east of the terminal buildings at that time. Pan American, Eastern, Delta and National signed leases for the building. They became the support that was needed to issue bonds to raise the money required for the construction of the terminal building. The price for the new facility was \$26 million. By the time it was completed it had been extended to the present "H" Concourse because of the many new airlines which wanted to start service to Miami.

A 270-room hotel was incorporated in the terminal building and at the same time Eastern Air Lines built a \$5.75 million complex which included a 1,218 feet long maintenance building. National Airlines also built a maintenance hangar and office buildings, and Delta built a \$2-million hangar facility next to the new terminal.



HK-1701, a Douglas DC-6A/B, c/n 43828, was a guest at Miami International on 16 Oct 75, operated by the Colombian carrier Cessnyca. (Lakmaker photo)

The new terminal could not beat the jet age, though. On Dec. 10, 1958, a National airlines 707 service arrived from New York to inaugurate the first scheduled domestic jet airline service in the United States. The aircraft was one of Pan American's first 707s and was leased by National for its Florida service between Pan American transatlantic flights.

The giant 707 arrived at the old 36th Street terminal and interestingly, 25 years later Miami was the location for the departure of the last scheduled 707 service in the United States, with the aircraft



Don Calder of Royal Oak, Mich., sent us this picture of a "boat plane" he photographed at Ft. Lauderdale, Florida, one year ago. It is made of the fuselage of a Boeing 307 Stratoliner of 1939, now serving as a houseboat. Only 10 Stratoliners were built. Who can tell us which one this one is?



Constellation HI-328 of Dominican carrier Argo S.A. was at Miami in January 1980. It was built as a C-121B-LO for the USAF with c/n 2607. It was lost in an ocean ditching some years ago. (Krämer photo)

belonging to TWA. That story was covered in an earlier issue of the Captain's Log.

The last 707 flight went back to New York, where the first 707 service had originated from.

NEW TERMINAL INAUGURATED

Two months later, in February 1959, the new terminal was inaugurated. National, Delta, Pan American, Northeast and some foreign carriers were the first before they took are sastern wainted until August

At that time the concourses were single level and veral years later they were made into two levels and jetways were added. In 1969 several parking garages

In 1960 the terminal logged 4.2 million passengers and that number had grown to 19.3 million by 1983. A new international arrivals terminal was opened directly behind the main building in 1979 and it was connected to the main structure by a Peoplemover.



In 1985 Eastern remodelled and expanded two of their three concourses. Plans were made to tear down the Delta hangar and expand the terminal in that direction to accommodate the increased number of passengers.

In 1984 Miami became the third airport in the United States to have Supersonic Concorde services offered by British Airways, with a flight to Washington Dulles Airport.

Miami today is also the home of many old aircraft that may never fly again. The airport is surrounded by old DC-8s, 707s, DC-6s, DC-7s, Convair 880s, C-46s L-188 Electras and the list goes on and on. Many other examples of these types are still flying into and out of Miami on a daily basis, though. Here you can see just about every major airline in the United States except for USAir. Just about every type of equipment flown in the U.S. is also flown through here at one time or another.

There are several good photo locations around the field. You can get some fair shots from the parking garage closest to the Eastern concourses but you will need at least a 250 mm telephoto lens with a 2-power teleconverter (or a regular 500 mm lens), If you have a car, drive around the perimeter road and you can get some nice landing or takeoff shots, depending on the direction of the wind. At the far side of the airport from the terminal building where the two runways intersect, you can get some great shots but you will need at least a 135 mm lens and either the roof of your car or a good stepladder. Fellow WAHC member Mike Jones showed me having a stepladder is the best way. The airport authority has for some reason raised the height of the fence in this area and you will need at least a five-feet ladder or other platform to get up high enough to shoot through the barbed wire running along the top of the fence.

Trying to shoot some of the old aircraft parked in the "Corrosion Corner" section of the airport is a good trick. You will have to find a parking spot and then shoot through the fence most places. At the 36th Street side of the airport a few of the companies will let you photograph some of their planes but you must ask permission first. If they say no, don't persist.

There are several locations along this side of the field where you can pull in and get some shots from the hood or roof of your car.

I want to thank the Metropolitan Dade County Aviation Department and South Florida Aviation News for supplying information for this article.

Aerial view of Miami International Airport as it was in the late 1960s. Pictured are Northeast 727-200s; National 727-200s, a -100 and a DC-8; Pan Am 707s and 727-100s; Air France Caravelle, and Eastern 727-25. The large National Airlines hangar is under construction in the right background. (Murray Bros. Press postcard).

Curtiss C-46A N8874, c/n 30545, was in service with Air Haiti when photographed at Miami on 16 Oct. 75. Earlier it had served with Arabian American Airlines in Egypt, Transaire de Cuba, REAL and Varig in Brazil and several smaller operators.

(Lakmaker photo)



Jet likes all of you to know that the Ohio History of Flight Museum now has T-shirts for sale for people who like this sort of thing. The shirts (see picture) come in adult sizes small, medium, large and extra large. They are made of 100% cotton and are of the best quality on the market. The color is white with the logo in blue. Price is \$7.50 each, plus tax for a total of \$7.92. Please add \$1 for shipping charges. Museum member John Durand did the design and art work for the shirts and all proceeds of the sale will go toward supporting the museum. Drop Jet a line and he is sure to help you out. You'll find his address on the inside front cover of the Log.





When British author and historian J.M.G. Gradidge published his book "The Douglas DC-3 and its predecessors" in late 1984, he did all airline enthusiasts in general and DC-3 enthusiasts in particular a favor they will never be able to return.

Because this book, the result of more than 30 years of research, has already become the world's standard reference work on the operational careers of all DC-3s ever built by Douglas. Within its 674 pages, one finds a concise account of the development of the DC-1, DC-2 and DC-3 and the major dates on which these aircraft entered service.

Other chapters deal with U.S. military procurement, new plants built to produce the DC-3, and brief discussions on the Super DC-3 and the various propjet conversions, as well as production in the Soviet Union and in Japan.

Extensive tables **give** details of the many civil and military variants, their performances, numbers built of each of these, and production statistics of military variants by month and year during World War 2. Another chapter lists those DC-3s which are preserved around the world (more than 100 as of Easter 1984).

However, at this point we are only on page 30. What follows are chapters which list military users of the DC-3 in alphabetical order by country, and then - of most interest to Captain's Log readers - a country by country alphabetical listing of all airlines which ever operated the aircraft. At the end of the listing for each military service and each airline, a listing is given of all serials/registrations of DC-3 operated and at the end of each country one finds a numerical/alphabetical index of all DC-3s ever registered in that country, complete with the manufacturer's number (c/n) for each aircraft. This index also lists non-airline aircraft.

Using these c/ns, one can find the entire operational history of each aircraft in the main section of the book: the production list, from the DC-1 (c/n 1137) to the last Super DC-3 (c/n 43400).

The production list traces each aircraft from the factory to its final fate - so far as records will allow, 40 years after the last aircraft left the line.

The book is illustrated with more than 300 photographs, most of these three to a page, allowing for a size which permits details of liveries, registrations etc. to be very clear. Some of these photographs originated from government and airline archives, but the vast never been published before.

The Douglas DC-3 and its predecessors has been dedicated to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed so tragically at Hannover, West Germany, on May 20, The book has been dedicated and its predecessors has been dedicated to the memory of Stephen Piercey, propliner photographer and its predecessors has been dedicated to the memory of Stephen Piercey, propliner photographer and its predecessors has been dedicated to the memory of Stephen Piercey, propliner photographer and historian particular photographer and predecessors has been dedicated to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed to the memory of Stephen Piercey, propliner photographer and historian par-excellence, who was killed to the proplement of the proplem

The book has been produced by the world-renowned volunteer aviation historical association Air-Britain. pounds for non-members.

If a picture is worth a thousand words, than the photographs in Arthur Pearcy's book "Fifty Glorious Years - A pictorial tribute to the DC-3 1935 - 1985" say it all. There are more than 165 photographs in this large-size book (the pages measure 8 1/2 by 10 1/2 inches, 21 by 27 cm) and they represent a cross section of operators of the Dakota since 1935. 66 of these photographs are of airline DC-3s and 83 of military Daks. The rest are miscellaneous shots of personalities and other subjects, and 32 photographs are in color.

But Arthur Pearcy doesn't forget the facts. In 14 copiously illustrated pages he gives an overview of the development of the DC-1, DC-2 and DC-3 and included it this is a reproduction of the famous letter TWA vice president Jack Frye wrote to Donald Douglas and in which he asked them to develop an airliner suitable to replace TWA's Ford and Fokker trimotors.

Each of the photographs in this book is captioned with a wealth of information about the career of the aircraft depicted.

The photographs are presented in a chronological order, with short chapters of text dealing with individual time periods (Pioneer Days 1935-41 is the first)

There is no doubt in the mind of this reviewer: this book belongs on the bookshelf of every airline enthusiast, not to mention every DC-3 enthusiast. It is published by Airlife Publishing in England and Aeolus Publishing, Ltd. in Vista, California.

Airextra is a bi-monthly aviation magazine published in Britain by Ian Allan, Ltd., publishers of the monthly sister magazine Aircraft Illustrated, one of Britain's foremost aviation hobby magazines.

The June-August 85 issue **Q**f Airextra is in its entirity devoted to the DC-3.

Included are articles on the birth of the DC-1, DC-2 and DC-3; civil service up to World War 2: on the Dakota at war and on British charter airline Air Atlantique, at present Europe's major DC-3 operator.

Other chapters in this fine magazine deal with DC-3 survivors in Europe (flying and preserved in museums) by world-renowned DC-3 historians John and Maureen Woods and a five-page DC-3 scrapbook section with photographs of post-WW2 British airline Dakotas.

In all there are 88 photos of Dakotas in this magazine, including four DC-1 and -2 shots, eight pre-WW2 airline DC-3 photos, 34 post-WW2 airline photos and production line, Donald Douglas himself). The remainder are of military Daks.

Airline buffs should not be scared away by the cover art of this magazine: a military Dakota going down in flames during the ill-fated Arnhem operation of 1944. The majority of the photographs and text deals with airline DC-3s.

Recommended and well-worth the price of 1.25 British pounds.



Revenue-earning cargo propjet DC-3 G-AMDB, c/n 26432, of BEA (British AW photo)

JET-POWERED DAKOTAS

by Joop Gerritsma

For many years airlines and other firms have tinkered with the DC-3 trying to get that little extra ounce of performance out of it that they needed for their particular operation.

In the 1950s AiResearch fitted doors for the landing gear and cleaned up the engine nacelles to squeeze a few extra miles of cruising speed out of the old bird.

Some South American Dakotas achieved a better hot-and high take-off performance after these modifications and with the installation of 1,450 hp R-2000 Twin Wasps of the DC-4, replacing the 1,200 hp R-1830 Twin Wasps. These aircraft were called Hi-Per (for high performance) DC-3s.

A French company fitted a light auxiliary jet engine to the underbellies of its DC-3s to provide an extra punch for take-off from its African and Asian network airports. Some operators in South America copied the USAF and installed small solid-fuel rocket boosters under the fuselages to boost take-off performance with a full load.

But the most-radical surgery ever performed on the good old Dakota was the installation of propjet engines. The Conroy conversions in the U.S. are the best-known of these, but they were by no means the first.

In 1949 British aero-engine manufacturer Armstrong Siddeley installed two of its 1,475 ehp Mamba propjets on Royal Air Force Dakota KJ839, c/n 25623 for engine test purposes only. The first flight was made on 27 Aug 49 and the aircraft was converted back to Twin Wasp power in 1958 before being sold to Skyways, a small independent British airline. This same aircraft is now operated by Paterson Aircraft Corp. of Miami, Florida

Conroy Turbo-Three, a DC-3 fitted with two Dart ptopjets from a former Capital Airlines Viscount. N4700C is c/n 4903.



and flies for Seagreen Air Transport as N4797H.

Also in 1949, Roll-Royce fitted two of its Dart R.Da.3 propjets of 1,530 hp each. This allowed the aircraft to cruise at more than 250 mph (400 km/h), compared to the more sedate 165 mph (265 km/h) of the standard DC-3. The service ceiling went to 25,000 ft (7,600 m) from 21,900 ft (6,600 m). The aircraft used for this installation was again an RAF Dakota, KJ829, c/n 25613. Later it received the civil registration G-AOXI for tropical weather trials in Dakar, West Africa. The aircraft returned to the RAF in 1957 and was sold on the civil market for spares in 1963.

Two Dakotas of British European Airways were the next to acquire propjet power. The airline had them converted to Darts in 1951. Both, G-ALXN, c/n 26106 "Sir Henry Royce" and G-AMDB, c/n 26432 "Claude Johnson" were converted by Field Aircraft Services and used by BEA for 18 months on its cargo services within Britain and to the Continent to familiarize air and ground crew with the operation and maintenance of propjets pending the delivery to BEA of its large fleet of Viscount propjet airliners on order.

The first scheduled cargo service was made by G-ALXN from London to Hannover on 15 Aug 51. After the two aircraft had served their purpose, they were converted back to Twin Wasp power and remained in service with BEA until 1962.

All four propjet **conversions** to this point were for test or other experimental purposes only. But two decades later, California entrepreneur Jack Conroy had other ideas.

He saw a market for a propjet-engined DC-3 and so, on 13 May 69 he flew his Turbo-Three, a DC-3 with two R-R Dart R.Da-7 engines of 1,890 hp each, but torque limited to 1,350 hp. As the BEA Dart-Dakotas before it, the engines drove four-bladed Rotol propellers. The DC-3 used for this conversion had been used by TWA after World War 2, followed by a series of private owners, before Conroy acquired it. Its had c/n 4903 and was registered N4700C.

However, a lack of interest by airlines and anticipated certification problems resulted in the project being abandoned.

In 1974 Conroy fitted two Darts to Super DC-3 N156WC, c/n 43193, which was once the third Super DC-3 for Capital Airlines. The aircraft was called the Super Turbo Three (STT) and Conroy's partners in the venture were Pilgrim Airlines and Air New England in the U.S. and Laurentian Airways of Canada.

Conroy aimed the aircraft squarely at the emerging commuter market in the U.S. and at Alaskan north slope operations, but again, a lack of interest doomed the project. The STT was turned over to Pilgrim and sat at New London, Connecticut, for many years, wasting away. Its present status is unknown.

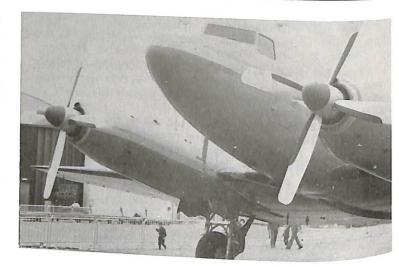
With the two 1,740 ehp Darts, the Super DC-3 had maximum payload capacity of 7,500 lbs (3,400 kg), 4,500 lbs (2,000)kg more than the standard Super DC-3). Fully loaded the performance of the aircraft was close to that of the piston-engined version.

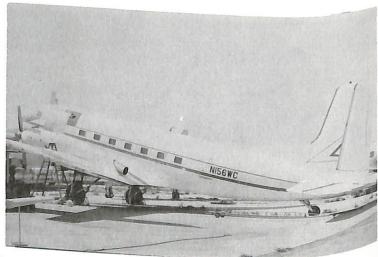
In 1977 Conroy tried again. He took his old N4600C and had one of his companies, Aircraft Technical Services Corp. of Van Nuys, California, install three

(RIGHT, top to bottom) C/n 26106 with Rolls-Royce test registration G-37-1, in BEA Freight Express livery. Note four-bladed props (Rolls-Royce photo); Another shot of c/n 26432, G-AMDB, of BEA. Note how far Darts project forward (British AW photo); Engine installation in Conroy Turbo-Three N4700C, c/n 4903; Super DC-3 N156WC, c/n 43193 of Pilgrim, amandoned at New London, Connecticut.











(Above) Tri Turbo-3 Dakota N23SA, c/n 4903, in Polair colors (Photo via John Wegg). (Above, right) Same aircraft in flight in cargo and miritime control configuration. (Right) DC-3TP Turbo Express N330TX, c/n 26744, on a test flight. It now flies for an airline in Alaska, hauling freight as passengers. (Below, right) Installation of PT-6A propjets in DC-3TP. Note also the longer front fuselage, due to 40 in (1.02 m) insert before the wing to keep centre of gravity in place.

Pratt & Whitney (Canada) PT-6A-45 propjets of 1,174 ehp each. After completion, the aircraft was reregistered N23AS in the name of Specialized Aircraft, another Conroy company and carrying the name "Spirit of Hope" on the nose, it made its first flight on 2 Nov 77.

A special cargo version of the Tri Turbo-3 had 850 shp PT6A-41 engines driving four-bladed props. It was projected to have the same structural strengthening as the prototype. Gross weight would be 30,000 lbs (13,500 kg) and payload 10,000 lbs (4.500 kg). Empty eight would have been 3,200 lbs (1,440 kg) less than the standard Dakota's 16,970 lbs (7,640 kg).

Conroy claimed key to the Tri Turbo-3's performance was the nose-mounted engine. It was to be used mainly for take-off and high-speed cruise. For normal cruise it could be shut down and the propeller feathered for economy. The two-engined cruising speed at 10,000 ft (3,050 m) would be 180 mph (290 km.h) instead of 230 mph (370 km/h). Shutting down the centre engine also increased the range of the aircraft: from 2,700 miles (4,350 km) on three engines to 3,200 miles (5.150 km) on two engines.

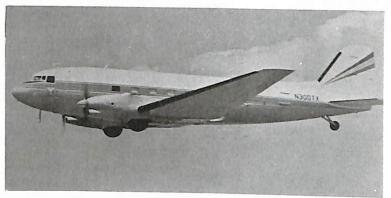
Another feature that increased the aircraft's utility was the proposed swing tail to facilitate loading large items.

Conroy planned several versions and roles for his new creation. The prototype represented a cargo and maritime patrol version with strengthened wings, a heavier undercarriage and heavy-duty wheels and brakes.

A commuter airline version meeting CAB FAR Part 298 regulations then in effect, was to have been powered by three 750 shp PT6A-34 engines, driving three-bladed propellers. Gross weight would have been limited to 26,000 lbs (11,700 kg) and the empty weight would have been 3,600 lbs (1,600 kg) less than that of the regular DC-3.

The prototype toured the U.S., Canada and Western Europe, but found no buyers. In 1979 it was transferred to Polair Inc., of Santa Barbara, California and it carried that company's yellow and navy blue colors and the Polair name while on lease to the U.S. Navy in Alaska that year.







Slightly more successful is a propjet conversion by the United States Aircraft Corporation of Van Nuys, California. USAC installed two 1,260 ehp PT-6A-45R engines driving five-bladed Hartzell props in DC-3 with c/n 26744 in 1983. To keep the aircraft's centre of gravity in the same location, the fuselage was lengthened by 40 in (1.02 m) forward of the wing to compensate for the lighter engines.

Called the Turbo Express DC-3TP, the so-far only conversion, registered N300TX, made its first flight on 28 July 83. It entered commercial service with Harold's Air Service of Fairbanks, Alaska, on 29 Oct 84 and flies passengers and freight to remote communities in central and northern Alaska.

A second conversion for Harold's is planned, but this one will be powered by slightly more powerful PT-6 engines.

An order for two DC-3TP conversions for Basler Flight Service of Oshkosh, Wisconsin, for delivery by the end of 1983 did not proceed.

The DC-3TP in its present form has a 3,600 lbs (1,620~kg) payload advantage over the regular DC-3 because of the lighter-weight engines. Total payload is 30 passengers or 7,000lbs (3,150~kg).

CONVENTION PHOTO WINNERS



Ron Kluk of Chicago, Illinois: FIRST PLACE in color print category with "TWA MD-80 in the Landing."

by PAUL COLLINS

Each year it is getting harder and harder to be a judge at the convention for the photo/
slide contest. This is because for each of the past three or four years the competition has really been tough with the quality of the material increasing.

This year was no exception. Marion Pyles was the head judge and he said the difference in points between first, second and third place winners was really very slim.

This year we were lucky enough to have everyone who won the contests, plus the second and third place winners, provide us

Steve Twomey of Castro Valley, California: SECOND PLACE in color print category with "LH 707 with Bird."



Rick Neyland of El Segundo, Calif. SPIRIT award in color print category with: "DC-8 in the Sunset."

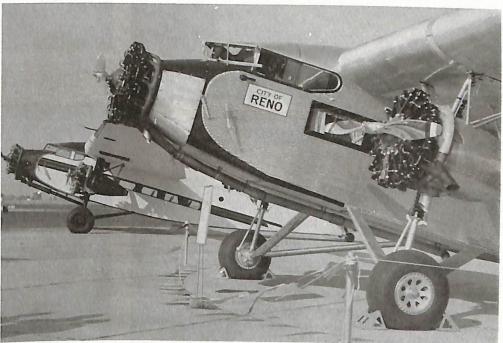
with a copy of their winning entries for publication in the Captain's Log.

Illustrated here are those photos and slides which were judged the winners at the Airliners International 85 convention.

We would like to thank all people who entered in the competition and we congratulate the winners. For those who did not win a first, second or third place this year, there is always Hartford in 1986. See you then.



William T. Larkins of Pleasant Hill, California: THIRD PLACE in color print category with "Ford Tri's".





William Larkins of Pleasant Hill, California: FIRST PLACE in black & white print category with "Lockheed Constellation 749."

Doug Bauder of Newport Beach, California: SECOND PLACE in black & white print category with: "Air California 737 at Night".





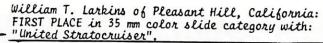


Doug Bowder of Newport Beach, California: SECOND PLACE in 35-mm color slide category with "Wide Body Tails".



Doug Bowder of Newport Beach, California: THIRD PLACE in 35-mm color slide category with "737 at Sunset."

Yves Le Lain, Santa Cruz, California: FIRST PLACE in Salon Photo category with "Engine and Tail" (Iraqi AW 747)



William T. Larkings of Pleasant Hill, California
THIRD PLACE in black & white print cetegory
with "United Mainliner Yosemite in the landing".

↓ (United DC-6)





FLYING ON SUNBELT'S SHORTS 360

by David Lee Wilcox

Sunbelt Airlines of Camden, Arkansas, is no longer. The commuter carrier declared bankruptcy in Oct. 84 after having operated for 5 1/2 years.

WHAC member David Lee Wilcox of Grapevine, Texas, rode on the airline's Shorts 360 about half a year earlier, when things were still looking up. Here is his report.

At the time of my flight, 13 April 84, Sunbelt served Camden, El Dorado, Ft. Smith, Fayetteville and Little Rock in Arkansas; Memphis in Tennessee; Jackson and Meridian in Mississippi, and Dallas/Ft. Worth in Texas.

The fleet consisted of three Shorts 360 and two Embraer Bandeirantes.

Mr. Wilcox said he arrived at the American Airlines terminal 3E-Gate 36 at Dallas/Ft. Worth and got his ticket at the Sunbelt counter, which is no longer there.

A van drove the 11 passengers for Sunbelt flight
151 out to a brand-new Shorts 360, N912SB (c/n SH.3624).
After entering the box-like fuselage of the 360,
one passes a lavatory, the coat closet and the small
galley with folding seat for the flight attendant.

Forward, Mr. Wilcox said, the Shorts offers "a new degree of Jet-Age comfort to the regional airline market." Seating arrangement in the cabin was 12 rows

36-seat cabin of Sunbelt 360. Colors are orange and brown.





Sunbelt Shorts 360 waiting for passengers at DFW (photos by David Lee Wilcox except Wright 360)

of three seats: one seat on the port side and two sideby-side on the starboard side. Eact seat has its own individual reading light and air vent. Carry-on baggage is stowed in enclosed overhead compartments on both sides of the cabin. Sliding doors at the front of the cabin lead to the cockpit.

The white, orange and brown 360 taxied out to the main north-south runway at DFW and after a brief engine warm-up, started its take-off roll. Only 1,000 to 1,500 feet (300 to 500 m) later, the aircraft was airborne and climbed out after heading east over Las Calinas, Irving and North Dallas. The Shorts levelled off at a cruising altitude of 10,000 feet (3,000 m).

Mr. Wilcox observed that the cabin noise in the 360 "is considerable, as on the Shorts 330."

Nearing El Dorado, the aircraft began a gradual descent and as it approached the airport, the engines went to full power to control the aircraft in the low-altitude turbulance. Vibration induced by wind currents was heavy between 800 and 1,000 feet (250 and 300 m).

Upon landing, the forward speed on the runway was reduced rapidly by the reverse speed on the propellers.

Passenger and freight doors are close to the ground. Note Sunbelt logo on tail.



Once parked on the ramp, both engines were shut down and all passengers deplaned for the 20-minute stop-over before continuing to Camden. The flight so far had taken one hour and seven minutes.

Mr. Wilcox said an employee at the Avis car rental counter in the terminal told him she remembered when Texas International operated eight Convair 600 flights a day to various cities in Arkansas, Louisiana, Tennessee and Texas. "It used to be a lot busier at El Dorado," Mr. Wilcox said the Avis employee had told him.

At 9:48 a.m. the call came for boarding Sunbelt's Flight 151 to Camden and Memphis. This time there were 20 passengers. At 9:50 a.m. the engines were started and two minutes later the aircraft was on its way.

It is only 35 miles to Camden and the 360 did not climb any higher than 3,000 ft (1,000 m). 11 minutes later another slow descent brought the aircraft into Camden's Harrel Field. The company's hangar there still had the name Jam Aire, Inc. on it.

Jam Aire was the previous name of Sunbelt, under which it had been founded in 1978. Jam Aire started services to El Dorado and Pine Bluff in February of the following year and operated Cessna twins, the largest of which was a Ce.402C for eight passengers. El Dorado and Pine Bluff had been dropped by Texas International when it disposed of its Convairs and went to concentrate on jet operations only.

Jam Aire changed its name to Sunbelt in April 1982, by which time it operated a Bandeirante and three Ce.402Cs, together with one Ce.310R and one Ce.337G.

While Sunbelt's 360 continued its flight to Memphis with about a dozen passengers on board, Mr. Wilcox talked with some of the airline's staff at Camden. He said they told him the carrier was planning to increase its fleet to 10-12 Shorts 360s in 1984-85, establish a major hub at Memphis, Tennessee and add service to several key cities in the south, the Ohio River Valley and the Mississippi River Valley. The airline was also linked up with Republic's Escort computate airline's flights.

Indeed, the future looked bright.

Flight 154 back from Camden to El Dorado and DFW arrived from Memphis at 3:55 p.m. and the Shorts left

While the passengers on the morning flight had been served a Continental breakfast (pastries, coffee, tea and juice), the afternoon passengers had a snack of peanuts, cheese and crackers and soft drinks or liquor. Mr. Wilcox said he managed to get some Sunbelt napkins and a Shorts 360 safety card for his collection.

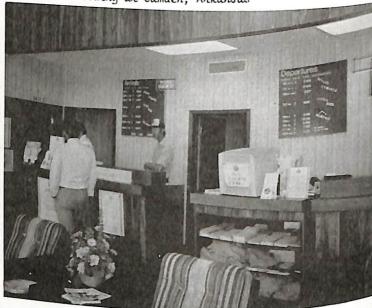
"I enjoyed flying on Sunbelt's Shorts 360," Mr. Wilcox said. "It is unfortunate that they went bank-rupt, as the airline seemed to have a bright future. "But so are the realities brought forth by Deregulation."

Sunbelt may have disappeared from the U.S. skies, but the Shorts 360 has not. Other regional airlines flying the aircraft include Simmons, Suburban, Atlantic Southeast, Imperial, Newair and Wright.

Right: Wright Airlines' Shorts 360 at DCA, Aug. 84
(Robert Fossum photo)

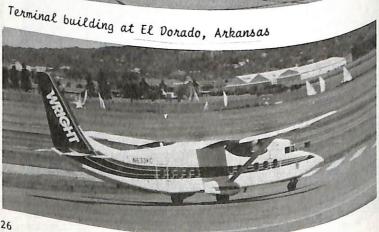


Sign identifies Sunbelt as user of this corner of the terminal building at Camden, Arkansas



Sunbelt departure lounge at Camden





STICKER CHATTER

DON THOMAS

Welcome to our new CAPTAIN'S LOG editor, Joop Gerritsma of Canada. Joop is well-known for his indepth stories on airlines on our continent and overseas.

PAN AM has joined the airlines using the Airbus. It now flies the A-300, the A-310 and has the A-320 on order. Airbus Industrie has issued labels for the A-300 and A-310 of Pan Am. One is shown here (#1).

There is a large round blue label for Pan Am's Air Bridge between Miami and Orlando - "14 flights a Day" (#2). It was picked up at the Convention and is probably not still in use.

There may have been one for the Air Bridge between Miami and Tampa but nothing like that is in use at Tampa. Was a label for this ever printed? A German Pan Am issue is shown: "Ich fliege auf Airbus" (I fly on the Airbus in German - #3).

Re Pan Am, Hal Rounds is doing a great job with the history of this airline. Also, Jim Thompson's story on Dinner Key is superb. Photos from Keith Armes' collection really dress up the story.

Miami City Hall is moving to the new Government Center in downtown Miami, vacating this historic old seaplane terminal building. Latest news is that there is talk now of restoring the building to its old magnificence and converting it into an Air Museum, perhaps with the backing of Pan Am, Dade County, the Clipper Pioneers and other interested parties.

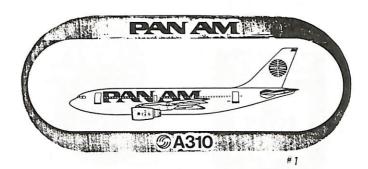
The big revolving globe now at the Science Museum would be placed back where it was originally, in the center of the lobby, as seen on old Pan Am postcards (#4).

Pan Am in New York has loaned some models and memorabilia to the Historical Association of South Florida for a special exhibit, "Wings over Miami", which covers Miami's aviation history up to 1940. The exhibit will be at the Historical Museum at the new Civic Center, a stop on Miami's new rapid transit system, until February. Eventually much of this memorabilia may end up in the Dinner Key air museum.

WAHC members, when in Miami, may enjoy a visit to this museum. Your Sticker Chatter editor loaned the museum some PAA, NYRBA, Eastern, National and Chalk's labels, timetables, photos, flight covers, etc. for the special exhibit.

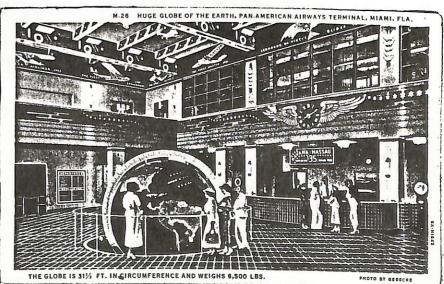
There is also an interesting PAA-seaplane exhibit at Planet Ocean on the causeway leading to Key Biscayne.

Collectors of schedules/timetables/ brochures may be interested in the sixpage well-illustrated article I wrote in the spring 1985 issue of the JOURNAL of the American Aviation Historical Society. Copies may be obtained from the AAHS, 2333 Otis St., Santa Ana, California 92704, for \$2.50 postpaid.





#4



27















We show here three new Delta Airlines labels, picked up at the convention (##5 - 7). Actually, we have to keep Delta's Public Relations office advised of many of their new issues, as Delta offices in various cities print their own publicity labels and the Atlanta head office seldom receives samples for their historical files. This same situation goes for many other airlines.

Jack Roderick sends in the new Piedmont "Airline of the Year" label (#8). It is in brown (words, "wing" and outer rim) and blue.

Pat McCollam of Aircal sends in a new BIL from Westair (#9) and some miscellaneaous tags.

Loyal correspondents like these help us keep up with the new issues. Sam Nakamura of New York sends in 100 TWA postcards with the airline's new 767. That is enough for our New Issue Service of the A&ALCC-AFA.

At the convention Joe Gula donated a lot of meterial for the NIS, as did Don Lussky and Paul Collins. Trev Davis in Australia sent in some new issues from that country and Eric Frazer sent in 100 of the new etiguettes used by Australia's post office.

The Fokker F-27 and F-28 are illustrated in new labels, orange or red-orange in color. The F-28 (#10) is on Horizon Air. The F-27 we have is from Midstate Airlines.

Rolls-Royce of Britain is now a most prolific label-issuer. They seem to have a new label or two for every aircraft using its engines, and all in brilliant colors and exotic designs. Three are illustrated (###1 trated (##11-13). These manufacturers' labels will be illustrated. be illustrated in a separate catalogue. Dave Rowe and John Ellis in Britain are working on it now.

Airliners International of course also had a sticker for the conveticn in June. It shows the China Clipper flying over the partly-completed San Francisco Bay Bridge in 1935 (#14).

Qantas has changed its BILs. The name Qantas is in larger the now in larger type and a kangaroo is shown at before bottom of the label. Comes four horizontal as before with instruction with instructions on top (#15).



#14

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#15

Air Canada's office in Germany must be responsible for the new one shown: "Man fliegt auf uns" (People fly with us, in German - #16).





Pratt & Whitney, the U.S. aircraft engine manufacturer, has their familiar black-and-silver label now in three colors: silver, red and blue (#17).

American Trans Air's label shows the tail of their DC-10 (#18).

Markair, a new airline flying schedules all over Alaska, has a label showing the tail of their 737-200 jet. This label was sent in by John Ziegler of Pennsylvania. The aircraft's tail is brown, with a background of silver skies (#19).

Air South had a BIL, black on white, but they folded in 1982. It is a good idea to save these plainlooking BILs, especially from the smaller commuter and charter airlines. Many of them don't last very long, so their labels become rare. So far in the past couple of years in Florida alone, several airlines have gone broke - Dolphin Airways, Northeastern, Gulf Atlantic and Air Florida among them. PBA filed for bankruptcy, but is now flying on reduced schedules and looks as if it will recover. Northeastern also has revived. Air Florida was taken over and remaned Frontier Horizon. Some airlines in bad financial straits are reorganized and staff wages are cut, which induces strikes. We illustrate a sticker put out by the Air Line Pilots Association supporting the strike at Continental Airlines (#20).



#18



PILOTS ASSO SUPPORT THE CONTINENTAL PILOTS STRIKE MARCOPOLO · CRUSINESS CLASS. From 1st October on every Cathay Pacific flight.

The Marco Polo label is a promotional issue by Cathav Pacific of Hong Kong. Colors are brown on cream (#21).

No word from Pan Am on commemorating the 50th anniversary of the China Clipper flight over the Pacific with a special sticker, but they do plan a special commemorative flight in a 747, renamed the China Clipper II. This special flight will depart San Francisco on November 22, 1985 and will arrive in Manilla on November 24 after and overnight at Honolulu and brief stops at Midway, Wake and Guam. The cost to WAHC members and the rest of the general public will be \$5,500 First Class, and \$2,900 Economy Class. Better reserve early - seats are limited, especially in First Class.

HOME ADDRESS

PHONE

IT IS STRONGLY RECOMMENDED THAT ALL BAGGAGE BE LABELLED WITH OWNER'S NAME AND ADDRESS PLEASE USE THESE LABELS They will help protect you against loss. Label all baggage both inside and

29

outside and lock it. ITEMS OF VALUE SHOULD BE CARRIED WITH YOU IN YOUR IN-CABIN BAGGAGE

Just to fill the remaining space on this page: an illustration of the complete new four-in-a-row BIL 04 Pantas, mentioned earlier (See #115).

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PLEASE LABELYOUR BAGGAGE BOTH INSIDE AND OUTSIDE AND LOCK IT.

QANTAS FORM 2829 (9/82) PRINTED IN AUSTRALIA

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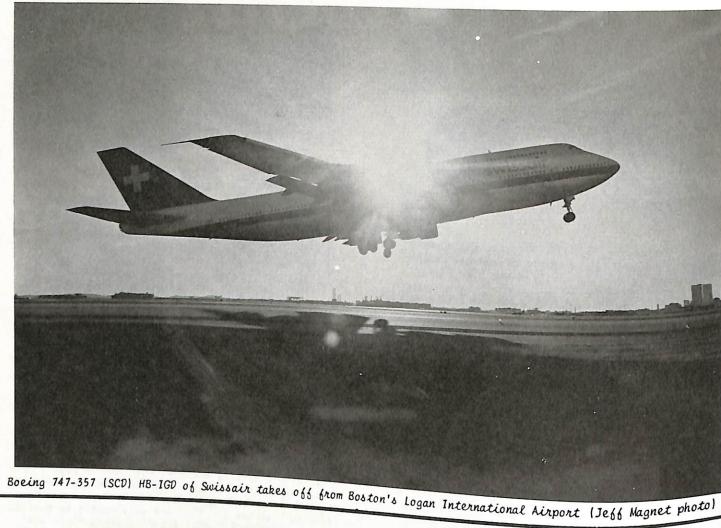
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	Queensland)

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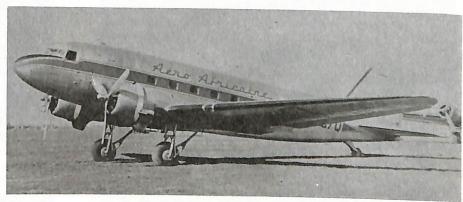
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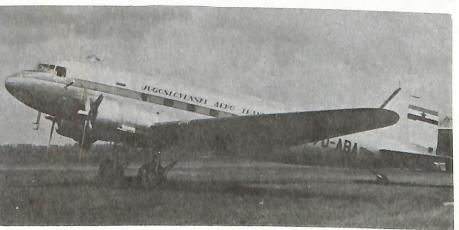


Only seconds before touchdown: Eastern Air Lines DC-9-31 at the end of another flight into Logan International Airport, Boston, Massachusetts. (Jeff Magnet photo)

C-47 (DC-3C) F-BCYQ, c/n 19328 (top) is somewhat of a mystery. It appeared in Aero Africaine titles at Amsterdam shortly after WW2, presumably for conversion from military cargo service to passenger service by Fokker. However, the history of this aircraft doesn't list the name Aero Africaine as one of its owners. Or was that only an operating name for Soc. Africaine de Transports Tropicaux, which was the registered owner of the aircraft from 28 May 47 to Feb 48?

YU-ABA, c/n 12366 (bottom) is an ex-Royal Air Force C-47 modified to DC-3C passenger standard by Fokker in 1947. It was photographed at Amsterdam prior to delivery to Jugoslovenski Aero Transport.





The Slide

Collector

by GEORGE HAMLIN

THE CONVENTION

San Jose's 1985 edition of Airliners International provided a wide variety of slides for sale or trade and some good shooting at Bay Area airports, including SJC itself.

Another pleasant aspect of the convention was of course the opportunity to meet with friends and fellow-collectors, as well as having the opportunity to view literally thousands of airliner slides We are looking forward to next year - Hartford in '86.

SLIDE SELLERS

Member I.E. Quastler has provided us with a recommendation for a slide service which calls itself Aust Air Data. They cover Australia and neighboring areas. Further information is available from:

Aust Air Data P.O. Box 37 Sylvania Southgate 2224 Australia

During the spring we became aware of what was termed the "First Worldwide Slide Auction." Of more particular interest was that the slides included in this mail auction were of non-current material, with most of those offered dating from the early and mid-70s. Examples of some of these vintage slides were 747s from Delta and National, and an Electra from Air Florida's early operations.

The quality of the slides which we have seen from this group is excellent. The description included with the liststates that "all are correctly exposed Kodachrome rampshots and many would meet current AeroGem standards."

At the time this colum was written, it was not clear when the next auction would be held. If you are interested, further information is available from:

Airline Slide Auction 6004 Kirby Road Bethesday, Maryland 20817 USA

Several people played a part in bringing this
Member Brush Partial to us.

Member Bryant Petitt obtained permission from collector Dean Motis for us to use these shots; Lawrence.

Picking up where we left off last time, only a decade or so earlier, we have a chance to view three of Continental's propliners: a DC-3, DC-7B and Viscount, all at Love Field, Dallas, Texas.

Moving considerably further west, the next subjects are a Hawaiian Airlines Convair 340 and DC-6B at Honolulu followed, still further west, by a North Japan Airlines DC-3 at Tokyo's Haneda Airport and a Canadian Pacific Britannia at an unknown location.

I hope that you enjoy them.

SAFETY

Sometimes it is a good idea to place our hobby activities in perspective and consider matters other than photographic techniques. One such matter is, or at least ought to be, safety while shooting slides, especially when shooting on the ramp. It might help to put this into perspective by considering that the objects of our attention are dangerous pieces of machinery, particularly when they are in operation.

While we are engrossed in shooting, it is easy to become distracted and not notice an aircraft which has been pushed back from the gate and is about to start its engines. But the jet blast when the aircraft begins to taxi will get your attention. Glancing around frequently, in all directions, can help to avoid nasty situations.

Something else to be very wary of are engine intakes. This is particularly true of aircraft such as the 737-300 which has large, powerful close proximity to careless photographers.

Needless to say, pay attention and react quickly when someone directs you to move.

Naturally, the privilege to photograph on the rampcarries with it the responsibility not to interfere with operations.

Finally, remember that even a potentially great shot in not worth the risk of an injury.

As usual, you have kept us supplied with intersecting material for this colum. We hope that your shooting and collecting will go well.

See you next time.

1 - 7 by Mel Lawrence 10-12 by Stephen Chung 15-16 by Dennis Andrews

8 - 9 by Jon Proctor 13-14 by Trevor Ogle



1. N18945 is a pre-WW2 DC-3A, c/n 2018, at DAL in January 1983 while on **lease** to Continental.



3."Jet powered" Viscount V.812, N254V, c/n 366, passes Braniff's maintenance base at Love Field. Ship went to Channel AW of Britain in May 1966.



5. This DC-6B, N90809, c/n 43817, provided four-engine safety for over-water sectors. Seen at HNL, Nov. 1963.



7. Canadian Pacific operated "Whispering Giant" CF-CZA, c/n 13393, a Bristol Britannial Srs.314. Seen "somewhere in the Orient?"



2. Sporting a gold star instead of gold tail, DC-78 N8214H, c/n 45525 shot at DAL three months before it was sold by Continental.



4. Hawaiian called this CV-340 a "Super Convair." N5510K c/n 76, became a propjet CV-640 in 1966.



6. JA-8058, a pre-World War 2 DC-3A, c/n 4806, was one of only two DC-3s of North Japan Airlines. Seen at Tokyo in January 1980.



8. New livery of SAS shows lots of white, and the flags of Denmark, Norway and Sweden. 747-238B (SCD), c/n 22381 "Dan Viking" is landing at JFK.



9.TWA's MD-82 N902TW, c/n 49153 is shown taking off from St. Louis.



11. Mid Pacific's newest: Fokker F-28-400 N282MP, c/n 11223, also at HNL recently.



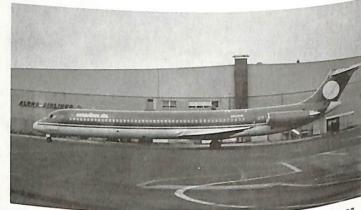
13.CP Air's ex-United DC-10-10, N1836U, c/n 47968, landing at Toronto's YYZ in Sept. 84. Note EXPO 86 titles.



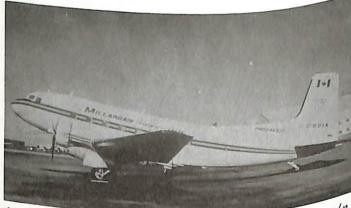
15. People Express 747-133 EI-BPH, c/n 20013, is ex-Air Canada C-FTOA and is on lease from Guiness Peat. Seen at Newark in February 1985.



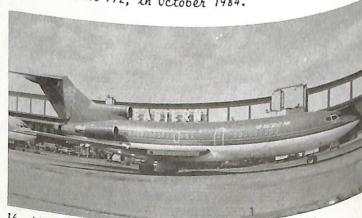
10. One of the more colorful L-1011s in service: N752BE of Hawaiian Air, recently at HNL.



12. Hawaiian also flies this MD-81, N849HA, c/n 48073, still reflecting its lease to American International.



14. Nice portrait of Millardair's C-1170 C-GDIK, c/n 43369, also at yyz, in October 1984.



16. Also at Newark, Regent Air's 727-191 N504RA,

'DC-3 REPLACEMENT FEVER' IN THE 1940s& 50s

by Joop Gerritsma

The desire to replace the DC-3 is nearly as old as the DC-3 itself. Before World War 2 Douglas itself developed the DC-4 to take over transcontinental services in the U.S. and long-haul services in other parts of the world. The DC-5 from the same stable was intended mor medium— and short-range services but it faded into oblivion because of the success of the DC-3.

Since the end of the war many successful aircraft have taken over segments of the market formerly served by the DC-3. We only mention the Convair, Viscount and F-27 here at the top end of the scale and the Twin Otter, Metro, Be-99 and many others at the lower end.

Other designs were less successful and many never came off the drawing boards. Some were built in prototype form and a few others were built in small numbers only. Here is a look at some of those.

SAAB SCANDIA

The Swedish SAAB Scandia was one of the earliest "DC-3 replacements." it was a twin-engined aircraft for 24-32 passengers (maximum later increased to 36), powered by two 1,650 hp Pratt & Whitney Twin Wasp piston engines (1,800 hp with water injection for take off). Design work started in 1944 and the first flight of the Scandia took place on Nov. 16, 1946.

The abundance of cheap war-surplus military DC-3s on the market was no doubt the reason airlines were



SAAB 90 Scandia SE-BSB, c/n 90105, of SAS went to VASP of Brazil in 1957.

not lining up to place orders. It was not until 1948 that A.B. Aerotransport of Sweden ordered 10. The first four of these, however, went to Aerovias Brasil. Scandinavian Airlines System (SAS), which had taken over ABA's European services, took the other six.

Aerovias Brizil soon sold its aircraft to VASP, also of Brazil, before it had taken delivery of all, and VASP ordered five more. SAS also ordered two more and these, plus four of the five new VASP aircraft, were built by Fokker in The Netherlands because of SAAB's military commitments.

SAS introduced the Scandia in November 1950 and used them mainly on its domestic services in Sweden and Norway. They were withdrawn in 1957 and sold to VASP. This carrier also bought the prototype and so operated all 18 aircraft built. They remained in service until the mid-1960s.

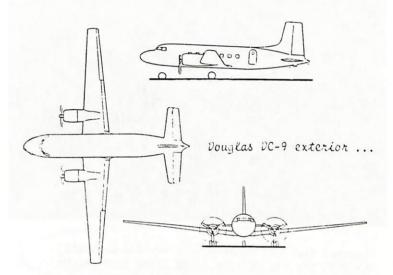
A 38-passenger version and a version with pressurized fuselage were never built.

Wing span: 91ft 10in (28 m); Fus. length: 69ft 11in (21.3 m); Max. take off weight: 35,275 lbs (16,000 kg) Normal cruise speed: 211 mph (340 km/h), Max. range: 1,559 mi (2,510 km).

DOUGLAS SKYBUS and DC-9

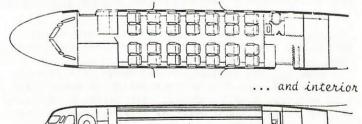
In 1946 Douglas proposed a 24-passenger, highwing aircraft with two 700 hp piston engines as a DC-3 replacement. But this idea never went past the proposal stage.

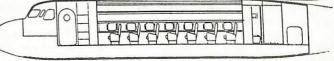
The DC-9 of 1947 went to the preliminary design



stage where airlines were offered performance and capacity figures. The aircraft -provisonally called the DC-9- was to carry 28 passengers and power was to be provided by two 1,500 hp Wright Cyclones or two 1,750 hp Pratt & Whitney Twin Wasps. The aircraft looked like a smaller edition of the Martin 2-0-2 and it was intended for small airlines which had no need for the 40-passenger Martins and Convairs, but wanted a replacement fort their DC-3s. But those were precisely the airlines which also did not have the money to buy new aircraft, and the DC-9 of 1947 went no further.

Wing span: 100ft 10in (30.78 m); Fus. length: 70ft 7in (21.54 m); Max. t/o weight: 31,645 lbs (14,335 kg); Cruise speed: 286 mph (458 km/h); Max. range: 3,720 mi (5,955 km). All performances with the Twin Wasps.





SUPER DC-3

The Super DC-3 made its first flight on June 26, 1949. The type is described in more detail in a separate story in this issue.

HUREL-DUBOIS HD-32

The French Hurel-Dubois HD-31 development aircraft for the HD-32 was first flown Jan. 27, 1953, followed by the first HD-32 on Dec. 29, 1953. The two aircraft-differed basically only in the layout of the vertical tail assembly. The HD-31 had two "endplate fins" at either end of the horozontal tail, and the HD-32 had a more conventional single-tailfin layout.

Air France ordered 24 HD-32s in November 1953 and Aigle Azur, which operated mainly in French Indochina, signed for four the following May. In mid-1955 a production agreement was reached with SNCA Sud-Est (better known as developer of the Caravelle jet) for



(Above) The only Hurel-Dubois HD-31 ever built.
F-WFKU, c/n 01, is seen on an early test flight.
Note the extremely narrow and long wing.
(Below) The first of eight production HD-34 aircraft.
F-3H00, c/n 01 went into service for aerial mapping with the Institut Géographique National in April 58.

(both Gerritsma files)



the construction and sale of 150 aircraft, including HD-32s and the HD-35 and -36 variants for the French

However, the project was abandoned after the single HD-31, two HD-32s and eight HD-34 aerial mapping and cartography aircraft were built. A car-ferry version (HD-37) and a twin-jet version (HD-45) were

In any case, it is doubtful the HD-32 would have made it as a DC-3 replacement. Its unique narrow, extremely long wing gave the aircraft some short take-

off and landing (STOL) capability, but it also would have made it difficult to handle at small airports, especially in underdeveloped areas.

While the HD-31 was powered by two 800 hp Wright Cyclones, the HD-32 had two 1,200 hp Pratt & Whitney Twin Wasps, later replaced by 1,525 hp Wright Cyclones

Wing span: 148ft 7in (45.29 m); Fus length: 76ft 4in (23.27 m); Max t/o weight: 39,960 lbs (18,165 kg); Cruise speed: 168 mph (105 km/h); Max. range: 1,660 mi (1,000 km) - All figures are for the HD-32.

FRYE F-1 SAFARI

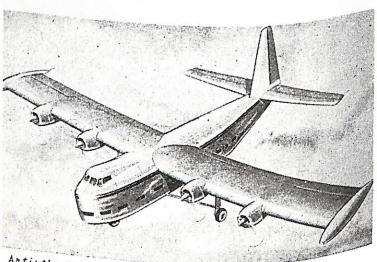
The Frye Corporation was formed in early 1955 in Fort Worth, Texas, by former TWA vice-president Jack Frye. One of his associates in the company was Kurt Weil, the designer of the famous pre-WW2 Junkers JU-52/3M trimotor transport. The purpose of the company was to design and engineer the F-1 Safari as a DC-3 replacement, but not to build it. That would take place in another plant.

A prototype of the aircraft was to have been completed by the end of 1955 or early in 1956.

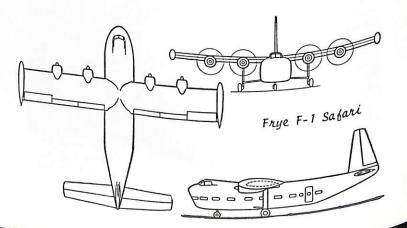
Powered by four 600 hp Pratt & Whitney Wasp piston engines, the Safari would have carried 50-70 passengers.

Called the F-2, a version with two Roll-Royce Dart propjets inboard and two General Electric J-85 propjets outboard was also planned.

Simplicity of construction and maintenance were emphasized and a number of short-haul airlines, insaid to have expressed an interest. Northern Consoplaced orders for two (plus two options) and three to (for 25 passengers and cargo), all for delivery in 1957/58.



Artist's impression of the rrye F-1 Safari



Grumman was said to have been interested in building the Safari at its Bethpage, N.Y., plant. But by the end of 1957 it was said the aircraft would be built in Europe. However, none of these plans materialized.

Wing span: 95 ft (28.95 m); Fus.length 86ft 7in (26.39 m); Max. t/o weight: 30,000 lbs (9,080 kg); Cruise speed 150 mph (240 km/h).

CANADAIR CL-21

In the early 1950s Canadair proposed a series of designs for inter-city transports intended to serve the DC-3 market. The CL-21 was a high-wing, 32-passenger aircraft powered by two 1,500 hp Wright Cyclones and looked much like a smaller Fokker/Fair-child F-27.

The aircraft would have had a crusing speed of 245 mph (375 km/h) and a range of 1,600 mi (2,500 km) The design was abandoned.

Other Canadair designs from this period included the 32-passenger CL-22 of 1951. It was to have been powered by one 2,040 shp Armstrong Siddeley Double Mamba propjet; the 21-passenger CL-23, also of 1951 and powered by one 1,320 shp Double Mamba, and the CL-26

This CL-26 was proposed in high- and low-wing versions and would carry 32-36 passengers. Power was to come from two 1,400 hp Pratt & Whitney R-2180 Wasps.



Accountant prototype with test registration 3-41-1

ACCOUNTANT

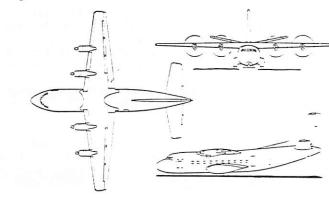
The ATL-90 from Aviation Traders in Britain (later of Carvair DC-4 conversion fame) made its first flight on 9 July 1957. Powered by two 1,730 shp Rolls-Royce Dart propjets, the Accountant carried 28 passengers. Only one prototype was completed and a stretched version for 40 passengers was not proceeded with.

Wing span: 82ft 6 in (25.15 m); Fus. length 62ft lin (18.92 m); Max. t/o weight: 32,000 lbs (14,530 kg); Cruise speed: 295 mph (470 km/h); Max. range:2,070 mi (3,3]2 km).

DOUGLAS MODEL 1940 (DC-10)

In 1957 Douglas came out with a proposal for a four-engined, high-wing propjet airliner for 60 passengers. First airline deliveries were planned for 1960. The aircraft would have been build as the Model 1940 with cabin pressurization and as the Model 1940A without it. The latter would also have been offered in a military cargo version, capable of landing on aircraft carriers, as the Model 1906A. This version, and its civil cargo equivalent, would have come with large clamshell doors under the upswept rear fuselage. Power was to be provided by four Lycoming T-55

(Above) Military cargo version of proposed Douglas Model 1940 (DC-10), identical to civil cargo aircraft. (Below) three-view and interior drawings.





propjets of 1,500 shp each.

Wing span: 102ft 5in (31.24 m): Fus. length 92ft 5in (28.19 m); Max. t/o weight: 65,510 lbs (29,710 kg); Cruise speed: 300 mph (485 km/h); Max. range: 675 mi (1,040 km).

SUPER BROUSSARD

Powered by two Pratt & Whitney Wasp piston engines of 600 hp each, the Max Holste MH-250 Super Broussard 20-passenger airliner made its first flight on 20 May 1959. But the development of small propjet engines in France and elsewhere quickly relegated the aircraft to the role of development aircraft for the slightly larger 17-23 passenger MH-260 with two 740 shp Turbomeca Bastan propjets.

A major drawback of the MH-260 with its square cross section fuselage was that it had no cabin pressurization and this was at the root of the lack of airline orders.

Only nine production MH-260s were completed by Nord Aviation, which had taken over responsibility for the program after Max Holste Aviation got into serious financial difficulties, leading to bank-ruptcy shortly after. The 10th production MH-260, was never completed, as Nord concentrated on the development of the larger, fully-pressurized Nord 262.

Three of the MH-260s, or Nord 260s as they were now called, were temporarily operated by Widerøe of



Cnly 10 Nord 260s were built. LN-LMB, c/n 5, was on lease to Norwegian carrier Widerbe when this photo was taken at Rotterdam, The Netherlands, 14 Sept. 63.

(Gerritsma photo)

Norway and the French domestic airline Air Inter also evaluated the type (in 1963). An order for six by Ansett of Australia was never confirmed and most 260s ended their lives at the French government aircraft experimental establishment Centre d'Essais en Vol

Projected versions of the 260 included the MH-270 with British propjets and the MH-280 with American Lycoming T-53s.

Wing span: 71ft 8 in (21.85 m); Fus. length: 58ft lin (15.57 m): Max. t/o weight: 21,164 lbs (9,610 kg); Cruise speed: 245 mph (392 km/h); Max. range: 62] mi (1.000 km).

These are by far not the only projects or dreams by aircraft designers hoping to come up with the mythical DC-3 replacement. There were many more, most of which did not ever come in the public's eye. Of course the myth remains as elusive in 1985 as it was in 1955, or 1945 for that matter. But the examples

F-1A, a DC-3C, cin 13458, was in service with KLM substitute KLM Aetocarto when photographed at Amster-



The third Nord 260, F-BKRH, c/n 3, operated with engine manufacturer Turbomeca from 1969 on. It was photographed at Paris, France, on 5 June 75.

(Gerritsma files)

above may give an indication of the "DC-3 Replacement Fever" which swept across North American and Western Europe and which reached a peak in the 1950s.

The DC-3 of course has the last laugh. It is still with us and although severely limited in the air transport tasks it is permitted to carry out, the aircraft is not yet giving up. About 375 were still being listed in airline operation in 1984.

However, their days are numbered. The faithful R-1830 powering the remaining DC-3s is no longer in production, and neither are replacement parts. All of the remaining engines have been overhauled and rebuilt so many times, there is not much life left in them. Avgas is getting more and more expensive and is unobtainable in many parts of the world, especially in those out-of-the-way places where the DC-3 is still performing yeoman duty.

The grand old lady will disappear, but what a record does she leave behind. How many other transport aircraft can claim more than 50 years in service?

dam 26 March 67. The aircraft went to Surinam in 1970 as PZ-TLA and was later scrapped for parts.



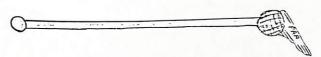
AIRLINE HADDY HOUR

AL S. TASCA

Pan American, the post-war years. Unfortunately I have very little to show from this period, so in order to make even worth writing, I will include some other sticks that I think will be of interest to the collector because these sticks really get the message across because of their shape

Pan American, the post-war years. Unfortunately I have very little to show from this period, so in order to make this article even worth writing, I will include some other sticks. These really get their message across because of their shape.

I would also like to mention here that for the avid collector who keeps track of these articles, I will try to update on a regular basis any infor-



1. This Pan American World Airways stick is six inches long with a round shank and bubble end. The convex globe and one-inch wing with PAA on it are engraved. Known colors of this stick are dark blue and pink, although I have heard of a light blue one and a white one.

Z con A

2. This PAA stick is 3½ inches long with the wing extending out one and one-eighth inches. It is flat-sided and the globe is slightly raised. The engraving on it is the same as on the stick in illustration 1.

3. This six-inch long stick comes from Frontier Airlines. It is 4 inch wide and is shaped like a ski. It is flat, one-sided and comes in white with medium-blue writing and logo. The text reads: FRONTIER AIRLINES Snow Club.

C FRONTIER AIRLINES SnowClub C

4. The American Airlines stick in this illustration is also shaped like a ski and is the same size as the Frontier stick. It comes in white with darkblue writing which means "Now you can ski American Airlines to Salt Lake City, Reno and Albuquerque."

NOW U CAN SKI AA TO SLC-RNO-ABQ

mation on sticks shown in previous articles with regard to size, shape, colors and variations.

It also goes without saying that any information or contradictions you may find, will always be welcome because you, the reader/collector, are the backbone of this hobby. Any feedback on accuracy is essential to all of us.

I want to start by adding information to the Pan American paddle sticks shown in my previous article. Some of these sticks come in bright (pastel?) colors and make really nice displays.

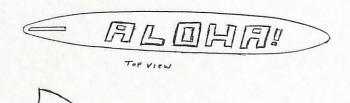
Known colors are as follows: pink, brownish tan, green (olive drab?), yellow and orange. Anyone knowing of any other colors, please pass it on to me so it can be included in a future article.

也 The Snowbird +

The Snowbird

5. Two other ski-shaped sticks, this time from United Airlines. They are identical in shape to the other two and are new issues by UA. Both are dark blue but the size of the letters differs. Other variations may exist, but I won't know this until I get a chance to compare them with other sticks.

6. Here is a Braniff stick in the shape of a surfboard. It was probably used on their service to Hawaii, which was inaugurated in 1971. It measures six inches long, 3/4 inches at its widest point and the fin is extending up 5/16 of an inch. The reverse of this flat stick says "BRANIFF" in the same size and type letter as "ALOHA" on the side shown here. Known colors of this stick are orange, dark blue and yellow.



Side View

AEROMEXICO

HEAVYLIFT CARGO AIRLINES

AeroMexico, formerly Aeronaves de Mexico, adopted its present name in 1972. The airline was established in 1934 by brothers Ramon and Manuel Gonzalez and by Diaz Lombardo. It began Mexico City-Acapulco services in September of that year and operating a motly collection of Bellancas, Wacos, Ryans, Stinsons, Fokkers and Fairchilds, started other domestic services as well in the next few years.

Pan American purchased a 40% interest in the airline in 1940 and soon more-modern equipment in the form of two Boeing 247D and one Douglas C-39 (DC-2 with DC-3 find and rudder) arrived. Also as a result of the Pan Am investment a number of smaller airlines

In the years immediately following the end of $\ensuremath{\text{WW}} 2$ eight DC-3s were acquired and the first DC-4 entered service in 1949. It was followed by four new CV-340s in 1954 to replace the DC-3 on major domestic routes.

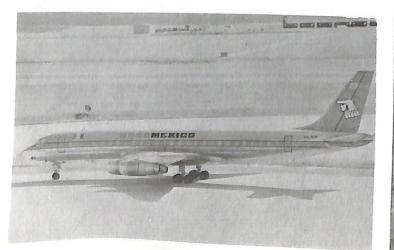
Since 1952 the carrier has taken over a number of other Mexican airlines, including such well-known ones as LAMSA, Aerovias Reforma, Aerolineas Mexicanas and Guest Aerovias. The latter acquisition brought four ex-SAS DC-6Bs into the fleet and they were used to open a MexicO City-New York service in December 1956. In the following year two new Bristol Britannia four-engined propjets were placed on the New York

After a financial crisis and a strike, Pan American turned its remaining 19% shareholding over to the Mexican government in 1959 and in 1962 Aeronaves began route expansion into Central and South America with DC-8 jets. Miami and Western Europe were added the following year and in 1967 DC-9s were put onto the major domestic and Central American routes. The 1970s saw the introduction of the DC-9-32 and DC-10-15, the latter optimized for economical operations from Mexico City's hot-and-high airport.

Besides a 35-point domestic network, AeroMexico now also operates internationally to Los Angeles. Tucson, Houston, Miami and New York in the U.S.A.; Toronto in Canada; Panama City, Caracas and Bogota in Latin America and Paris and Rome in Europe.

The current fleet includes eight DC-9-15, 17 DC-9-32, nine MD-82, five DC-8-51, two DC-10-15 and three DC-10-30.

AeroMexico DC-8-51 XA-SIB, c/n 45855, at Toronto. Ont., Canada on 16 Aug 85 -Gerritsma photo



HeavyLift Cargo Airlines was formed in October 1978 for the purpose of carrying outsized cargoes on a world-wide ad-hoc charter basis. Operations started in March 1980 following civil certification of the first of the airline's Shorts Belfast freighters, formerly operated by the Royal Air Force of Britain.

The airline is a joint venture of Gunard/Trafalgar House and Eurolatin Aviation, companies with shipping and aviation interests respectively.

Besides the five former RAF Belfasts, Heavy-Lift also operates the Trafalgar House executive helicopter, an Aerospatiale AS365N Dauphin, and it has a Cessna 421A, which is used for positioning staff and spares for the company.

Home base is at London-Stansted Airport, U.K.



HeavyLift Shorts SC.5 Belfast freighter G-BEPS, c/n SH.1822, at Rotterdam, Netherlands on 10 Dec 81. - Gerritsma files

NATIONAIR CANADA

Nationair Canada is a Montreal-based charter airline. It operates four DC-8s to 16 holiday destinations in the Caribbean and South America. There are plans to start operating charters to Europe as well.

The four DC-8s include two Series 61 aircraft and two Series 62, the first of this version in Canada.

Nationair Canada's DC-8-61, C-GMXB, c/n 45943, at Toronto, Ont., Canada on 21 June 85.

- Gerritsma photo



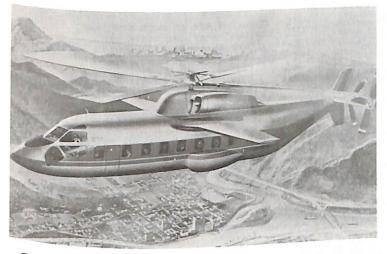
Goneby JOOP GERRITSMA But Not Forgotten

FAIREY ROTODYNE

"The world's first true VTOL airliner, the Fairey Rotodyne is a unique engineering achievement which promises to revolutionize inter-city air transport operations. Simply stated, the Rotodyne combines vertical take-off and landing and hovering capabilities with the forward speed of a DC-3 and seating for 48 passengers."

That is what the respected British aviation journal FLIGHT wrote in its 20 Aug 58 issue about the Fairey Rotodyne, a combination helicopter and fixedwing aircraft, the prototype of which had made its first flight on 6 Nov 57.

The Rotodyne evolved out of a 1951 requirement



The only Fairey Rotodyne ever flown, with military test serial XE 521. New York Airways was said to have been interested in the aircraft.

by British European Airways for a large transport helicopter, capable of serving major city pairs on the airline's network. In 1960 Fairey announced it had received letters of intent for the production version from New York Airways and Okanagen Helicopters (Canada), as well as BEA, which wanted six.

The prototype of the Rotodyne was powered by two 3,000 shp Napier Eland propjets, but the slightly larger and heavier production version would have two 5,250 shp Rolls-Royce Tyne propjets and carry 57 to 75 passengers. This production aircraft was to fly first sengers. first in the winter of 1961 and delivery of production aircraft was scheduled to begin in 1964.

For take-off most of the engine power was being used to supply the rotor with compressed air to feed the property the rotor with compressed air to feed the pressure jets at the blade tips. Once hovering, power. power was gradually transferred to the propellors for forward flight. During forward flight the short wing of the aircraft delivered 85% of the total lift, with the rotor supplying the remainder in autorotation. For large supplying the remainder in autorotation. For landing the power transfer process would be reversed

The Rotodyne was intended for stage-lengths of

230-265 mi (370-425 km), but it could also operate economically over shorter stage-lengths, carrying up to its maximum of 75 passengers, and over distances of up to 400 mi (640 km) with a lighter payload.

Great flexibility was offered by the large clamshell doors at the rear of the fuselage.

Dimensions and performance of the production Rotodyne were to be as follows: wing span 56ft 6in (17.22 m), fus length 66ft lin (20.37 m), rotor diam. 104ft (30.70 m), cruise speed 200 mph (320 km/h), max range (with 57 pass) 250mi. (400 km), max range (65 pass) 120mi (190 km).

The Rotodyne project was dropped in 1960 after only one prototype was built. The reason is thought to be the high maintenance and operating cost of such a complex machine, and the resulting lack of demand by airline customers.

LOCKHEED HELICOPTER

In 1968 Lockheed-California proposed this 30passenger commuter helicopter for services under 250 miles (400 km). Called the "Time-Saver for the '70s" in contemporary press releases, the helicopter would be "able to take off from building rooftops or small heliports (and) fly future air travellers swiftly and efficiently between major city centers or outlying suburbs."

Lockheed engineers said at the 1968 Hanover, Germany, air show, where the project was shown publicly for the first time, that the helicopter would cruise at 230 mph (368 km/h) "like a fixed-wing plane." They said it could be in service by early 1970. They also announced that Lockheed had at that time larger commercial rotary-wing transports for more than 100 passengers under study.

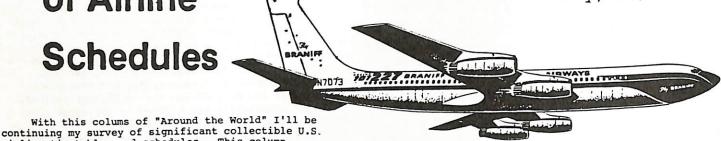
As we know now, nothing came of this and the other Lockheed designs in this field.

30-passenger Lockheed helicopter project of 1968



of Airline **Schedules**

Copyright, 1985 George Walker Cearley, Jr.



features Eastern Air Lines, 1935-1980's. (All data compiled from George Cearley Collection).

airline timetables and schedules. This column

- 1. May 5, 1935 "Speedy" New DC-2 Service.
- October 15, 1935 Then new classic falcon logo (with bird streaking across an eclipsed sun) and "The Great Silver Fleet" slogan appearing
- September 15, 1936 Ad inside features frequent 80-minute flights, New York-Washington in some ways a forerunner of "Air Shuttle" which began April 30, 1961.
- 4. December 1, 1942 Schedules during World War II include patriotic cartoon with U.S. forces mobilized to defeat the Axis powers, with their leaders depicted as cobra, rat, and skunk.
- 5. May 1, 1943 Carrier's typical wartime slogan, "U.S. fighter planes top them all", and ad inside which encourages civilians, when possible, to relinquish their seats to servicemen going
- 6. June, 1946 New four-engine DC-4 "Silverliner" service.
- May, 1947 Introducing L-649 "New Type Constellation" flights effective June that year.
- September, 1948 20th Anniversary timetable featuring new routes to San Juan, Puerto Rico.
- December 1, 1951 Eastern-Mid-Continent and Eastern-Braniff domestic interchange service.
- December 15, 1951 Inauguration of L-1049A "Super Constellation" flights.
- January, 1952 Initial flights with Martin 404
- April, 1952 Contains aborted schedules for Eastern-Braniff-TWA interchange to West Coast.
- December, 1953 New service with Wright turbocompound-powered Lockheed L-1049C "Super 'C'
- 14. August, 1955 Eastern-Braniff through plane service inaugurated to South America.
- December 1, 1955 Eastern-Northwest inter-change flights begin between Florida and
- July 1, 1956 Contains both Eastern and Colonial timetables following merger of the
- December 1, 1958/February 1, 1959 Contain first published "Electra" prop jet flights beginning January 12, 1959. Eastern was world's first "Electra" operator.
- January 24, 1960 First pure jet service by Eastern with DC-8B (DC-8-21) between New York International Airport at Idlewild and Miami.

- October 30, 1960 New "Air Bus" service (class of service, not aircraft).
- March 1, 1961 First complete system quick reference timetable published by any U.S. trunk airline - all others' columnar timetables prior
- April 30, 1961 Inauguration of "Air Shuttle"
- June 1, 1961 Contains ads on both new "Air Shuttle" and "Air Bus" service; route map shows new Dallas/Fort Worth-Florida route inaugurated June 11th.
- July 10, 1961 Contains first published schedules on new Texas-Florida service.
- August 23, 1962 Interim smaller timetable published after strike during Summer 1962.
- July 1, 1963 New Houston-New Orleans "Walkservice.
- January 17, 1964 First Boeing 727 "Golden Falcon Whisperjet" service Eastern was the world's first 722 world's first 727 operator.
- October 25, 1964 First timetable to carry new updated falcon logo still used today.
- an aircraft in the "New Mark" (hockey stick) color scheme.
- December 15, 1966 Eastern-Mackey merger (actually effective January 1967).
- June 13, 1967 New service to the Pacific Northwest linking the important aerospace centers of Company the important aerospace centers of Cape Canaveral; Huntsville, Alabama; St. Louis, and Seattle.
- September 23, 1969 New southern trans-continental services Atlanta-Dallas/Fort Worth (LOVE Field) Worth (Love Field), and Atlanta-Los Angeles.
- December 11, 1969 Advertisement inside features all significant new routes granted in 1969.
- December 1, 1970 New 747's on cover (aircraft were on lease from Pan American).
- April 30, 1972 Inauguration of world's first Lockheed L-1011-385-1 "Whisperliner"
- June 1, 1973 Eastern-Caribair merger.
- December 13, 1977 New "Airbus" service with Airbus Industrie A300.
- 1978-1981 A number of issues with new deregulation
- June, 1982 New routes to South America acquired from Braniff Airways, Inc.

42



Lake Central Airlines

FLY THE SCHEDULED Lake Central Route Serving Key Cities in

KENTUCKY INDIANA ILLINOIS O OHIO MICHIGAN



SCHEDULES

AM 11*	AM 31*	PM 15*	PM 33*	AM 3#	AM 21*	PM 23*	Read Down	Read Up	10°	30°	PM 12*	32°	PM 4#	PM 22°	PM 24°
9 10 9 30 10 19 10 23	10 25 10 45	3 30 3 50 4 39 4 43	6 55 7 15		7 00	6 00	(CST) LV CHICAGO (Note A). (CST) LV CHICAGO (Note B). (CST) AT LAFAYETTE. (CST) LV LAFAYETTE. (EST) LV GRAND RAPIDS (FST) AT KALAMAZOO.	Ar (CST)	9 12 8 52 8 03 7 57	10 19 9 59	3 24 3 04 2 17 2 11	6 49		2 32	9 13
10 49 11 04	11 49 11 54 12 18 12 33	5 09	8 19 8 24 8 48 9 03	9 30 9 57	7 27 7 32 7 02 7 07 7 51	6 27 6 32 6 02 6 07 6 51 6 56 7 28	REST LY KALAMAZOO	Ar (EST) Lv (CST) Ar (CST) Lv (CST) Lv (CST) Ar (CST) Lv (CST) Ar (CST) Lv (CST)	7 30	8 57 8 52 8 25 8 10	1 44 1 29	5 27 5 22 4 55 4 40	12 57 12 30 12 27	2 07 2 03 12 35 12 30 11 46 11 41 11 14 10 59	9 13 8 53 8 49 7 21 7 16 6 32 6 27 6 00
11 26 11 30 12 03	1 12 1 17 2 44			10 00	8 57 9 01 9 34		CST) A RICHMOND CST) LY RICHMOND CST) LY RICHMOND CEST) A CINCINNATI CST) A BLOOMINGTON CST) LY BLOOMINGTON CST) LY BLOOMINGTON CST) LY BLOOMINGTON	Lv (CST) Ar (CST) Lv (EST) Lv (CST) Ar (CST)		7 36 7 32 8 00	1 07 1 03 12 30	4 06 4 02 4 30	1 00	10 37 10 33 10 00	

*DC-3

(CST)—Central Standard Time (EST)—Eastern Standard Time

No:e A: Time denotes limousine arrival at and departure from new terminal at 5700 South Cicero Ave-Note B: Time denotes airliner arrival at and departure from old terminal at 6200 South Cicero Ave.

#Beechcraft Bonanza All flights subject to change without notice

BONANZA SERVICE.

TIMETABLE OF LAKE CENTRAL EFFECTIVE OCTOBER 1, 1951, WITH DC-3 AND BEECHCRAFT

WISCONSIN CENTRAL AIRLINES, INC. ROUTE OF OFFICES: MUNICIPAL AIRPORT, MADISON, WISCONSIN



THE NORTHLINERS

	_	ORTHLINERS								ALL FLIGHTS DAILY		NORTHBOUND — Read Up										
F	ight	FIL 1		BOUND			0.000	Flight	Flight	(CST) CITY (CST)	Fligh 301	Flight 323	Flight 303	Flight 305	Flight 315	Flight 307	Flight 331	Flight 309	Flight 311			
3	12	Flight 310	Flight 324	Flight 308	Flight 314	Flight 322	Flight 306	304	302	Lv. Hibbing-Chisholm Ar. Brainerd Lv.	9:04		1:37	7:04 6:22								
8:	:02	4:00		ນ:20				:::::		Ar. Brainerd Ar. Lv. MINNEAPOLIS-ST. PAUL Lv. Ar. Libura Poul S-ST. PAUL Ar.			1	6:20 5:30	:::::				::::			
	04 54			10:02 10:04	:::::					MINNEAT CETT TO THE	9 (0.000)			2:49		8:19						
•				1:00			7:00			Lv. Eau Claire-Chippewa Falls Ar.	:::::			2:11 2:09	:::::	7:41	:::::					
•		*		1:38			7:38			Ar Duluth-Superior Ar.			1:12	1		↑	:::::					
		4:25		1.10						Ar. Ironwood Ar.			12:27									
		5:10 5:12						:::::		LT. Killingian Ar	:::::		11:52 11:50 11:24		:::::		:::::					
٠		5:45 5:47		↓			4	:::::		Ar. Wausau Ar.	:::::		11:22	1:29		6:59	:::::					
		6:13		2:20 2:22			8:20 8:22	:::::		Ar. Wausau Lv. Stevens Point-Wisconsin Rapids Lv. Ar. Stevens Point-Wisconsin Rapids Ar. Lv. Madison Lv.	:::::		11:05	1:10	:::::	6:40 6:38	:::::					
		6:32 6:34		2:39			8:39 8:41			Ar Ar			10:05	1	1:20	1		9:05	10:20			
		7:17		-7		8:15	-	7:15	6:00	Lv. Clintonville Lv. Ar. Clintonville Ar.		*1:58	1	12:46	1	6:16		1	1			
				3:03 3:05	2:00	1.0	9:03	- 1 1		Ar. Clintonville Ar. Lv. Houghton-Hancock Ar. Lv. Marquette Lv. Marquette Ar.		°1:23		1	11	1	:::::					
			3:50 4:25	3:05						LV. Marquette Ar. Ar. Marquette Lv. Lv. Iron Mountain Lv. Ar. Iron Mountain Ar.		11:54					:::::					
			4:27 3:54							LV. Escanaba Lv.		°12:25 °12:23				11	:::::	11				
			3:56							Monominee-Marinette Lv.		10:56										
			5:25 4:52							Lv Green Bay Lv.		10:27		12:25 12:21		5:55 5:51	12:23					
			4:54 5:21	3:24			9:24			Lv. Oshkosh Lv.		9:55		11:58		5:28 5:26	7:51 7:28					
:			5:25 5:48	3:26 3:49			9:26 9:49		V	LV.		9:17		11:20	12:45	4:50	7:28 6:50		9:45			
-	-		5:50 6:26	3:51 4:27	2:35	8:50	9:51 10:27		6:35	Ar. MILWAUKEE Ar. Lv. Beloit-Janesville Lv.	1	1	9:43 9:41	· •	12:37	4:37	6:37	8:43	9:37			
	,	7:52	6:45	4:45	2:45	9:00	10:45	7:37	°¥	LV. Beloit-Janesville Ar. Ar. Beloit-Janesville Lv. LV. CHICAGO Lv.	<u> </u>	8:15	9:00	10:30	12:00	4:00	6:001	8:41	9:00			

8:35 7:22 5:22 3:22 9:37 11:22 8:20 7:22 Ar AM Light Face Type, PM—Bold Face Type, CST—Central Standard Time. *Eastern Standard Time. Douglas DC-3 on all Flights.

WISCONSIN CENTRAL ALL DC-3 FLIGHTS EFFECTIVE JULY 1, 1951. 43

TRANS-TEXAS AIRWAYS



NORTH AND WESTBOUND

			AM	50 AM	600 AM	56 AM	OB AM	43 PM	11 PM	62 PM	602 PM	54 PM	52 Ph
BROWNSVILLE	(CST)	Lv								3:10			
MISSION MCALLEN-	200					- 1					- 3		
EDINBURG		L₹					7:20						١
HARLINGEN		Ar					7:40			25			١
HARLINGEN		L₹					7:43			2, 25			
MISSION-MCALLEN-							1.1			-7	-horse	58567.11	
EDINBURG		Ar					The "Southwind"			3:56			l
MISSION-MCALLEN-							The		San S	3			l
EDINBURG		Lv					1 3			3:5%			
ALICE	**	Ar					2			4:40			
ALICE	••	Lv								4:48			
CORPUS CHRISTI	-	Ar					8:30			5:0%	0.000	0.000	• • • •
					200	00000					• • • •		
CORPUS CHRISTI		Lv			6:40		8:40			5:15	5:20	,	
BEEVILLE	-	Ar			7:04		9:04			5:39	5:45		•••
BEEVILLE		Lv			7:07		9:07			5:42		•••	
BOUSTON		Lv			1		1		4:50			•••	• • •
VICTORIA		Ar					9:29		5:40	1			٠٠.
VICTORIA		L▼					g:32	200	1000	6:04	T		
SAN ANTONIO		Ar			7:46		1		5:43	6:07			
HOUSTON		Ar		A1000		•••	100 3000		6:32	1	6:24		١
		~	•••				10:22			6:57			
HOUSTON		Lv									-		-
GALVESTON		-				10:50	4					4:00	
CALVESTON		٨r		• • • •		11:10						4:20	
GALVESTON		L₹	• • •			11:13						4:22	
BEAUMONT-PT.ARTHUR	-	Ar	• • • •			11:44						4:54	
	(2)	2							-				
BEAUMONT-PTARTHUR	••	Lv		6:45		1						5:00	
LUFKIN				7:26		To					2000000		1:2
LUFKIN	**	Lv		7:29		Flt					•••	5:41	2:0
NACOGDOCHES		٨r		1		52					•••	5:44	•.0
NACOGDOCHES	**	Lv								0.000	•••		2:2
PALESTINE		Ar									• • • •		2:2
PALESTINE		Lv		1									2:5
TYLER		Ar		8:05							•••		2:5
TYLER		Lv		8:08			120000	• • • •				6:20	3:1
DALLAS		Ar		8:48					1			6:23	3:2
				0.10		•••	•••		1		• • •	7:03	4:0
DALLAS		Lv	6:50								-	_	1
FORT WORTH	**	Ar	7:08			•••		6:00					То
FORT WORTH		Lv	7:13			•••		6:18					Fit
BROWNWOOD		Ar	8:00					6:23					43
BROWNWOOD		Lv	8:03	1000			• • • •	7:10	1				
SAN ANGELO								7:13	1			ACCESS.	
		Ar	8:43					7:53	1				
SAN ANGELO					-		-	-	Ш			•••	
McCAMEY		Lv						8:00					-
McCAMEY		Ar		• • • •				8:41			• • • •		
		Lv						8:44			•••	•••	
GAN ANTONNO	7,00		-	-	-				1		• • • •	•••	٠.,
SAN ANTONIO	. "	Lv							6:63				-
UVALDE	. "	Ar							7:18		•••		
UVALDE	. "	Lv							7:18				
EAGLE PASS	. "	Ar											
EAGLE PASS	. "	Lv							7:42				
DEL RIO	. "	Ar			1				7:45				
DEL RIO	**	Lv		l		1000			8:05				
FORT STOCKTON		Ar				• • • •		1	8:08				
FORT STOCKTON		Lv				• • • •		9:08	9:11				
PECOS	**	Ar						1	9:22			•••	•••
PECOS		Lv							9:46				٠
****					1					1	***		
MARFA-ALPINE	. "	A-							9:48				

AM AM AM AM PM PM PM PM PM PM

* NEW * FASTER * DC-3

EL PASO (MST) Ar .

Starliner FlIGHTS *

TRANS-TEXAS AIRWAYS ALL DC-3 TRANS-TEXAS ALKWAIS ALL DC-3 SERVICE EFFECTIVE JULY 19, 1952 (NORTH AND WESTBOUND FLIGHTS

Fly SOUTHERN . . . The South's Local Service Airline



NEW ORLEANS	(0 0	NOB	ILE	0	JAC	KSO	N	0
MEMPHIS .	30	LUM	BUS	, MI	SS.	0	AT	LAN	A
Read Down Flight Numb	er	102	402	542	•164	544	106	456	
NEW OR Take		MA	AM	AM	PM	PM	PM	PM	
NEW ORLEANS(CST) BATON ROUGE"	Lv		8:00					4:20	
NATCHEZ(CST)			8:33 9:10					5:30	
MOBILE(CST)	Lv	_	1	8:00		1:54		T	
GULFPORT-BILOXI "	Lv			8:28	day	2:22			
HATTIESBURG	Lv			*	1 Da	2:53		IJ	
JACKSON(CST)	Lv		9:46	9:09	ate of S	3:12		6:06	
JACKSON (CST)	Lv		9:46	9:43	Operated Dally Except Saturday	4:05		6:20	
VICKSBURG	Lv			10:05	ОШ	4:31		Ī	
GREENVILLE, MISS " CLARKSDALE"	Lv			11:08		5:08			
MEMPHIS(CST)	Lv	•••••		11:40		5:40			
MEMPHIS (CST)	_	7:10		12:08		6:08	6:40		
TUPELO	Lv			_	1:00		7:21	1	
COLUMBUS, MISS(CST)	Ar	8:16			2:06		7:46	7:18	
COLUMBUS, MISS(CST) TUSCALOOSA	Lv	0.10			2:08		7:48	4	
BIRMINGHAM "	Lv	0.15			2:39		8:19	107 107	
BIRMINGHAM "	Ar Lv	9:16			3:06		8:46 8:48	Connects Flight 107	
GAUSDEN	-33	9:45			3:35		9:14	31	
ATLANTA(EST)	År	11:30 AM		PM	5:20	PM	10:59 PM	PM	

Head Down H	ight Number	202	114	204	116	ATL C		•206	_
CHARLESTON	(50-	AM	PM	PM	PM	PM		PM	
AUGUSTA	(EST) L					4:50			
MACON	" L					5:46			
JACKSONVILLE	(EST) L					6:34			
VALDOSTA	(EST) L	8:00		2:27				7:00 7:46	
MOULTRIE		0.11		3:14				8:07	
ALDANY.		0.00		3:35				8:32	
COLUMBUS, GA		1 3.00		4:00		4		9:10	
COLUMBUS CA		10:10		4:38		7:10		No. of the Contract of the Con	
LAGRANGE		10:14		4:41		7:14		9:14	
ATLANTA		10:36		*		7:36		9:51	
ATLANTA	(EST) A	11:05		5:18		8:05		_	1
			12:25	->	6:55			Daily	
CUEFIAMOUD	1150		1:01		7:31			ig o	
CHECKANILE 6 V			1:34		8:04			erates cept Sal	1
STARIANRIBO			1:59		8:29			cept	
CHARLOTTE	" L	1	2:17		8:47			ST O	
	(EST) A		2:47		9:17			PNI	
		AM	PM	PM	PM	PM	1		

EQUIPMENT: All flights are operated with the famous Douglas DC-3, 21 and 24 Passers aircraft, over authorized airways, under certificates issued by the Civil Aeronautics Stewardess service is provided on all flights.

SOUTHERN AIRWAYS TIMETABLES EFFECTIVE NOVEMBER 10, 1952 (SERVICES IN OPPOSITE DIRECTION NOT ILLUSTRATED) .

Southwest lineage @



LOS ANGELES - SAN FRANCISCO - SACRAMENTO VALLEY - MEDFORD

2 Daily SOUTHERN DIVISION SOUTHERN DIVISION

Ly LOS ANGELES (MUNICIPAL AIRPORT) ALy OXNARD-VENTURA Ly
Ly SANTA BARBARA Ly
Ly SANTA MARIA Ly
Ly SAN LUIS OBISPO Ly
Ly COALINGA LY
Ly MONTEREY LY
LY SANTA CRUZ-WATSONVILLE LY
LY SAN JOSE-SANTA CLARA (MOFFETT FIELD) LY
AF SAN FRANCISCO LY 3 46 3 22 3 00 2 35 2 18 1 45 2 10 2 32 2 57 3 18 3 48 4 26 4 41 5 02 5 15 28 Daily 11 00 11 25 11 47 12 12 12 33 1 27 1 42 2 03 2 16 Daily 9 16 8 52 8 30 8 05 7 48 22 Daily 24 Daily 25 Daily SACRAMENTO VALLEY DIVISION 10 13 10 08 9 48 9 22 9 00 8 34 8 15 8 00 Ly SAN FRANCISCO.
Ly OAKLAND.
Ly VALLEJO.
Ly SACRAMENTO. 11 48 11 38 11 18 10 52 10 30 10 04 9 45 9 30 8 00 8 13 8 34 9 02 9 26 9 54 10 14 10 30 10 36 (x) 11 21 11 45 Ly SACRAMENTO.
Ly MARYSVILLE-YUBA CITY.
Ly CHICO.
Ly RED BLUFF.
Ar REDDING.
Ly REDDING.
DUNSMUIR-MOUNT SHASTA (x).
Ly YREKA.
Ar MEDFORD. 2 11 2 39 2 59 3 15 3 21 4 06 4 30 33 Daily 31 Daily AM-Light Face Type PM-Bold Face Type All Times are Pacific NORTHERN COAST DIVISION Standard. X—Service temporarily LY UKIAH. LY ORT BRAGG-MENDOCINO LY EUREKA-ARCATA. Ar MEDFORD delayed.

EQUIPMENT—21-Passenger
Douglas DC-3's 51 Daily ONE-WAY FARE SAN FRANCISCO 52 Daily LOWER LAKE DIVISION Ly SAN FRANCISCO.
A LOWER LAKE MIDDLETOWN) TO LOWER LAKE \$6.00 PLUS FED. TAX

SCHEDULES SHOW THE TIMES at which planes may be expected to arrive at or depart from stations, and to connect with other planes, but Southwest Airways will not be responsible for consequences arising from delays or from errors in the printed schedule. The times shown are subject to change without notice.

SOUTHWEST AIRWAYS ALL DC-3 SERVICE THROUGH CALIFORNIA AS OF SEPTEMBER 1, 1947. THIS CARRIER HAS NO RELATION TO PSA OR SOUTHWEST AIRLINES (DALLAS). SOUTHWEST AIRWAYS IS A PREDECESSOR OF PACIFIC AIR LINES AND AIR WEST.

BONANZA AIRLINES

SYSTEM SCHEDULE

Effective: July 16, 1955.

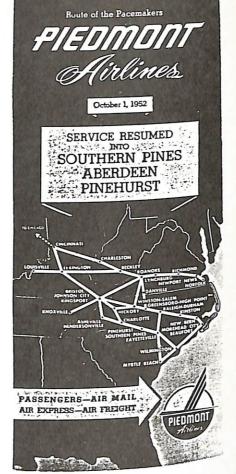
EASTBOUND AND NORTHBOUND												
			32	46	2	4	34	24	48	6	8	23
Effective: July 16, 1955	Read Down	22	34	- 10				_	_			-
RIVERSIDE-ONTARIO		6:15a		7:40a				5:25p	6:00p			
BURBANK	Lv	*		7:55a				5:40p	6:15p			_
LOS ANGELES (International) .	PDT Ar	6:40a		7.550				1				
ANGELES (Informational) .				8:15a				6:00p	6:30p			10:15
LOS ANGELES (International) .	PDT Lv	7:00a		8:42a					6:57p		1	Ar10:40
RIVERSIDE-ONTARIO	Lv			9:26a					7:41p			
INDIO #	Lv			10:09a				1	8:24p			
INDIO #	Lv	*		10:074				6:23p				
SAMTA ANIA LA COMPANIA DE LA CU	Lv	7:23a		-				7:05p				
SANTA ANA-LAGUNA BEACH	Lv	8:05a		-				7:56p				
SAN DIEGO	lv	8:51a		-		1		8:30p	V			
EL CENTRO	MST LV	9:25a		11:15a				9:40p	9:30p			
YUMA	Ar	10:35a		11:130		3					1	
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TIMETABLE OF BONANZA AIRLINES EFFECTIVE JULY 16, 1955, WITH ALL DC-3
SERVICE IN CALTRONAL AIRLINES EFFECTIVE JULY 16, 1955, WITH ALL DC-3
SERVICE IN CALTRONAL AIRLINES EFFECTIVE JULY 16, 1955, WITH ALL DC-3
SERVICE IN CALTRONAL AIRLINES EFFECTIVE JULY 16, 1955, WITH ALL DC-3 SERVICE TO GRAND CANYON AND SALT LAKE CITY.

The covers of the 16 schedules on the following pages are all of local service air-line timetables of the early 1950s, when the DC-3 still reigned supreme on the domestic U.S. short-range network. All these airlines operated DC-3s for the period on the time-tables illustrated.







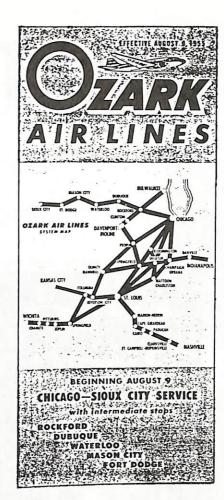






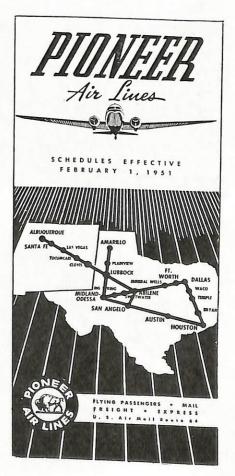








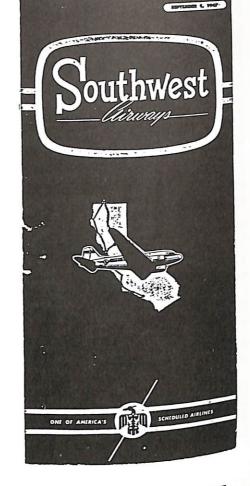














The Tray Table

Dick Luckin has provided us with photographs of several nice items in his collection of airline dinner and other china.

Photo 1 shows a British Overseas Airways Corporation ashtray, used in the airline's lounges and other public areas. Colors are gray and turquoise blue. The logo is in while and the route lines are in yellow. The ashtray was made in England.

Photo 2 is also of an ashtray, but this one from Qantas of Australia. It is in margon and gray and is stamped on the back, but the text is not legible.

Photo 3 depicts a United Airlines coffee mug in dark chocolate brown color with gold patterns and logo. The text on the mug reads, "Celebrate a Proud Land - Born 200 Years Ago." This mug was obviously issued during the Bicentennial of the United States in 1976. Ironically, the mug is backstamped "Japan."

Photo 4 Teapot of American Airlines in dark blue colors. There are no marks or logo on this item, except for a backstamp which reads, "American Airlines."

Photo 5 Another coffee mug of United Air Lines. This one in in black with gold text, reading "Executive Flights United Air Lines Friendhip Service Made with Vandermint.

Photo 6 Continental Airlines issued this black/gray marble-look flower vase with white log. It is backstamped "Made in Taiwan."

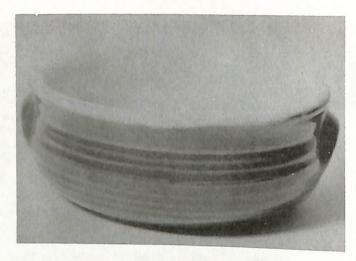
Photo 7 This soup bowl is another Continental Airlines item. The body is white and the patterns are in chocolate brown. The backstamp reads," The Japan-Continental Airlines." Does this mean the bowl was used only on Continental's Far Eastern services?

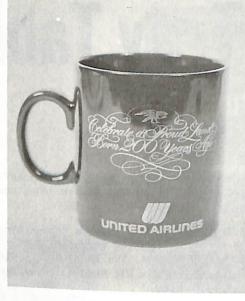














READERS SAY:

Sticker Chatter Editor Don Thomas sent us the following information with regard to Part 1 of Hal Rounds' History of Pan American Airways, published in The Captain's Log, Vol. 11, No. 1:

"I really like the cover of the Spring issue this year, with the big PAA label.

"Hal Rounds is doing a nice job with this airline; a very good in-depth history.

"However, the two good illustrations of Sikorsky aircraft accompanying the article have captions which are inaccurate.

"Page 1: The famed Pan American 'Clipper' designations did NOT begin with these Sikorsky S-42s. The first Clippers were the 'American Clipper', the 'Southern Clipper' and the 'Caribbean Clipper,' all Sikorsky S-40 aircraft.

"On Page 8, the Sikorsky S-36 was NOT the 'main-

"Actually," Mr. Thomas writes, "PAA found the first S-36 completely unsatisfactory and never got more than two or three of them. They were quickly superceded by the improved S-38. In the early years PAA operated a total of 38 of these."

EDITOR'S NOTE: Thanks to Mr. Thomas for pointing this out to us. But in all fairness to Mr. Rounds, we must say that he did not supply the caption for the S-42 picture on Page 1. It came with the picture.

Sharp-eyed readers have of course spotted the transposition of the captions with two of the pictures in the Post Card Corner in the Vol. 11, No. 2 issue, Page 33. By error the postcards of the Aero Trades DC-3 and the CAAC Boeing 737 at Guilin Airport, have each other's captions.

MILLARDAIR

by JOOP GERRITSMA

a Canadian cargo carrier

Carl Millard may buy old airliners, but aircraft preservation is far from his mind when he does so. is hard at work every day earning its keep on a

His airline, Millardair of Toronto, Ontario, Canada, is one of the largest charter airlines in airline. The two dozen or so aircraft do a large part industry, hauling urgently-needed parts between plants in Canada and the United States.

Carl Millard, the 68-year-old, energetic founder, owner and president of Millardair is a former Trans-Canada Air Lines (now Air Canada) captain. He resigned

from TCA in 1955 and founded his own fixed-base and sales operation at Toronto under the name Carl Millard Limited. In 1963 he founded Millardair to fly the duled Toronto - Sarnia (Ontario) passenger service abandoned by Nordair. This large Canadian regional airline had found it could no longer economically rate the service with the smallest aircraft in its fleet, the DC-3, because the traffic volume wasn't

Millardair put a Beech 18 on the run, but also concluded soon that it could not operate the service and make money too. The airline withdrew and started offering cargo charter services to the automotive industry.

Success was not long in coming. Three years later Millardair had two Dakotas, two Beech 18 and three

smaller aircraft in service. During 1972-76 the airline also operated a twin-jet Hansa HFB-320 business aircraft from Germany, for executive charters

In 1977 Millardair had 10 DC-3s in service, which was at that time the largest civil DC-3 fleet in Canada.

Millardair greatly expanded its charter business between Canada and the Southern U.S./Caribbean region during the years that followed and the need for a larger aircraft, with a longer range, became apparent.

The Dakota must make one or two refuelling stops in the U.S. on its way from the south to Canada. It was during one such flight that U.S. authorities seized two dolphins being transported on the flight to Canada. The animals were destined for the Marineland aquarium in Niagara Falls, Ontario, but U.S. authorties took them back to the Gulf of Mexico where they had been captured in the first place, and released them.

BUYS SKYMASTERS

In 1977 Millardair bought three C-54 Skymasters from the military storage depot at Davis-Monthan AFB. All three had been delivered to the USAF, but one of them had served with the U.S. Navy and U.S. Marine Corps before being withdrawn. Carl Millard paid about \$50.000 for each

The airline civilianized the aircraft by installing larger cargo doors and by moving the forward bulkhead in the cabin six feet ahead. This created a cubic cabine volume almost the same as that of the DC-6. Millardair also replaced the military radio and navigation equipment with civilian units.

Millardair operated its first waster charter in July 1977 when two aircraft started moving auto parts from Quebec City in Quebec to Windsor in Ontario, from where they were trucked across the border to Detroit, Michigan. Each of the two aircraft made eight flights before the contract was completed in August of that year.

Millard liked his long-legged Skymasters so much, he bought two more in 1979. These came from the Danish Air Force, but the nosedive of the North American economy caused a slump in automobile sales and the two 'new' Skymasters stood idle beside the Millardair hangar at Toronto International Airport for two David until they were flown to Davis-Monthan in early 1981 for stotage. The airline carried on with its first three Skymasters only, its fleet of Dakotas - six to eight Been 10 Dakotas - six to eight Been 10 Been 18 twins.

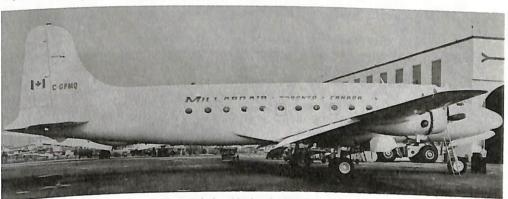
Picked up again, Millardair bought three more surplus Skymasters in 1982.



Douglas DC-4 (C54E-10-DO), C-GQIC, c/n 27302, is one of original three Skymasters of Millardair. Toronto, Ontario, 7 June 82 (All photos by the author)



Vouglas DC-3C (C-47A-DK), C-FDTV, c/n 12192, at Toronto, Ontario 22 July 78. Note the large window forward of the word Canada.



One of three Skymasters acquired in 1982, C-GFMQ is a C-54E-1-DO, c/n 27265 Toronto, Ontario, 13 Aug 85.



Beechcraft E-18S, C-FWUV. c/n BA-428, at Toronto, Ontario 11 Nov 80.

5

Piper PA-31-350 Navajo Chieftain C-GNOM, c/n 31-7852079, at Toronto, Ontaria, 16 Aug 84



At first they too stood unemployed at Toronto, but in the summer of 1984 they were made ready for service and they started flying again in 1985.

THE DAKOTA GOES

It has not been any secret in the airline industry for many years now that the Dakota is nearing the end of its life. The engines are the main problem. The 14-cyl. Pratt & Whitney R-1820 Twin Wasps have been overhauled and rebuilt so many times, they have become big maintenance headaches. Pistons, cylinders and crankcases are hard to come by. Since they are not being made anymore, they must come from ever-dwindling stockpiles.

An added complication is that fewer and fewer maintenance shops still have the expertise to overhaul big piston engines.

Adding all this together results in an increasingly more expensive operation of the Twin Wasps.

Carl Millard had wanted to replace his Dakotas as early as 1981-82, but he did not need, nor could he afford in his kind of operation, new or even second-hand propjets such as the F-27, BAe 748 and others. Even second-hand Convair CV-580s carry a hefty price tag for the kind of operation where speed is of secondary importance, next to immediate availability of trans-

In a time when the term 'fleet modernization' means turning to larger and faster propjet or pure jet equipment, Millard turned to Douglas' own idea for a 'Dakota replacement,' the Super Dakota.

Conceived after the Second World War and first flown in 1949, the Super Dakota was spurned by the airlines in favor of more-modern-looking Convairs and

Martins. The U.S. Navy, however, had Douglas rebuilt 100 of its standard Dakotas to Super Dakota standard and called them the R4D-8. This designation was changed to C-117D in 1962 when the U.S. military standardized their type designations.

That is why Millardair calls its 'new' Super Dakotas the C-117.

By late October 1985 Millardair had all its five C-117s in service and all but one of the remaining last five Dakotas had been retired.

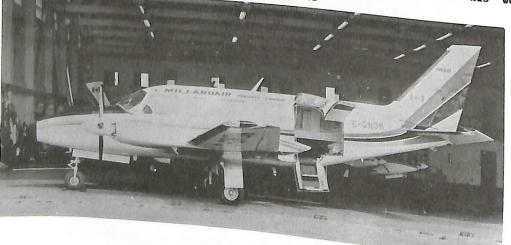
The Super Dakota offers many advantages over its predecessor. The two Wright R-1830 Cyclone engines produce 325 more hp than the 1,200hp Twin Wasps, the fuselage is longer and therefore can hold more cargo, top speed of the aircraft is 40 mph (64 km/h) more and cruising speed is up by 50 mph (64 km/h).

The Super Dakota needs a longer take-off run (watch that big tailplane in a crosswind!) but it climbs much faster, cruises higher (where the air is stable) and flies farther without refuelling (due to the U.S. Navy's long-range taks which the Dakota doesn't have).

Millardair no longer flies exclusively for the automobile industry. Today it also has a big name in the general cargo charter field. And the fleet doesn't only include "warbirds." There are also four Piper Commanches, a Piper Aztec and a Navajo from the same stable. A Cessna Citation bizjet is available for fast personnel transport. But these smaller aircraft contribute only a small part to the total capacity that is

Most of what Millardair carries goes by what Carl Millard calls his "working museum."

PHOTOS OF MILLARDAIR'S SUPER DC-36 ARE PUBLISHED ON PAGES 12 AND 34 OF THIS ISSUE -ED.



Piper PA-30 Twin Commanche C C-GGMJ, c/n 30-1788, at Toronto, Ontario, 16 Aug 84

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