



*The Quarterly for Airline Memorabilia Collectors around the World*

Vol. 22 - No. 3 - 1996

INSIDE:

## Boeing 777

*Three times 7 = Boeing jet for the  
21st Century*

*Schedules of US Air predecessors*

*A new "oldest" NW junior crew wing*

# CAPTAIN'S LOG

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Below: *Aracelio Roman took this picture of United's new 777-222A, N768UA, msn 26919, line number 11, at EWR in the Fall of 1995. For more photos by Arcelio, see The Photo Corner on p. 19-22.*





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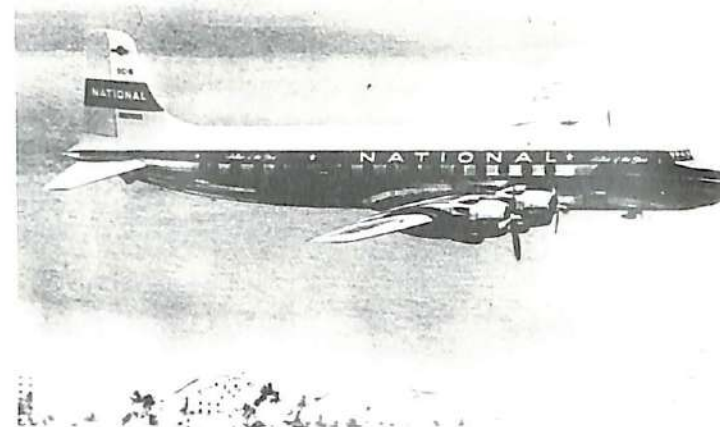
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In his postcard Corner column (p.10), Allan Van Wickler discusses the great B&W airliner postcards issue by George V. Enell in the 1940s and 1950s. Although no new Enell cards have been issued for nearly 40 years, the surviving cards are eagerly sought by collectors.

Above left: Unnumbered National DC-6 over Miami Beach, and right: #4A Trans World Airlines L-1049G Super Constellation.

**CAPTAIN'S LOG**

Vol. 22 - No. 3 - Fall/Winter 1996/97

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**FLIGHT MANIFEST**

- 2. **Take-off Talk** the Editor  
Saying farewell to a friend and introducing a new editor.
- 3. **Aircraft Profile** Bill Hough  
Three times 7 = Boeing's jet for the 21st Century.
- 10. **Postcard Corner** Allan W. Van Wickler  
George Enell's propliner postcards are jewels.
- 14. **Sticker Chatter** David Rowe  
With golden oldies from Europe.
- 20. **The Photo Corner** Richard Fedorco II  
Photos by Aracelio Roman, Jerry Elmas, Fred Del Monico.
- 24. **Wings & Things** Charles F. Dolan  
New Editor introduces himself.  
& Closeup with a centerfold.
- 29. **Airline Happy Hour** Al S. Tasca  
TWA "Connie" update and new sticks.
- 30. **Airline Schedules** George W. Cearley Jr.  
U.S. Air predecessors.
- 34. **Junior Crew Insignia** Stan Baumwald  
A new "oldest" NW wing is found.
- 35. **What Is It?** Ken Taylor  
Wings from the new republics in the former USSR.  
More Questions answered and new questions asked.
- 37. **Airline Playing Cards** Thomas Dragges  
The DC-2 and DC-3 on decks of cards.
- 39. **New in the Bookcase**  
&42. Our review of new airliner books, with titles by Jon Proctor and Richard Luckin.
- 41. **Have Your Say** Letters from our Readers  
More on the Frontier postcard.  
Lots more on prices for memorabilia.
- 43. **WAHS Membership News** Paul F. Collins

It is with deep regret that I have to tell you of the resignation of Dick Koran as "Wings & Things" Editor of the CAPTAIN'S LOG. He is stepping down for health reasons.

Dick started his column in the Spring 1982 issue and it was an immediate success. He dug deep into his own memories and researched published materials to come up with his always well-informed and easy-reading stories. He quickly mastered the art of photographing crew wings with those devilishly tricky polished brass, silver and gold surfaces. What is more, when it came to acquiring new wings for his collection and for presentation in the CAPTAIN'S LOG, he seemed to have a pipeline to just about every major wing collector and airline in the world and to quite a few of the smaller ones as well. I'll greatly miss his contributions, personal letters and phone calls.

Dick retired as a 727 captain with American Airlines in 1994. Before going on the 727, he had flown the BAC One-eleven and the 720 for them. Before AA he had flown with the Air National Guard (including a tour on KC-97G tankers) and with Beech. Following retirement from AA, he and his wife Diane moved from the Detroit area to sunny Florida, where they had a new house built.

Because of the move, much if not all of Dick's extensive collection of wings was temporarily packed away for a while and his good friend Charlie Dolan wrote a few guest columns.

When Dick's health started to suffer this year, he and Diane asked Charlie to take over as Editor of the "Wings & Things" column.

Therefore, I welcome CHARLIE DOLAN as the new EDITOR of WINGS & THINGS, starting with this issue. In his first column under his own name (p. 24 to 28), Charlie talks a little about his background in the hobby of collecting crew wings. I have known Charlie for several years through the annual Airliners International conventions and the occasional telephone call. And those of you who also know him, know him an easy-going fellow, always cheerful and willing to help. When he is not collecting wings or taking a cruise to Europe with his wife Karen, Charles F. Dolan is a U.S. Customs officer in the Baltimore area.

I know you'll enjoy his columns in future issues of the CAPTAIN'S LOG. The first one is about his close-up meeting with a magazine centerfold. Do make sure you read it!

WELCOME ON BOARD, CHARLIE!

This issue brings you a mix of material. Bill Hough contributed a great story on the new Boeing 777, from its design concept to its introduction into service. Coincidentally, our "Photo Corner" editor, Richard Fedorco, sent in an equally great photo of one of the first United 777s, and I decided to use it on the front cover.

Allan Van Wickler takes a look at the great postcards published by George V. Enell in the late 1950s and early 1960s. To me these B&W cards are just as beautiful as the best of the color postcards published by the thousands each year these days.

David Rowe has dug into his own collection of historic and current labels and BILs for his "Sticker Chatter" column. Between he and I, we have added some items sent in by readers. Dave is hoping the correspondents of the late Don Thomas will keep him informed about what's new and interesting.

Besides the shot of the 777 on the cover (by Aracelio Roman), Richard Fedorco also contributed other photos by Arcelio, as well as shots by Jerry Elmas and Fred Del Monico.

If you are interested in crew wings from the new republics that once were part of the Soviet Union, do turn to Ken Taylor's column "What Is It?" Ken seems to have acquired a solid contact in Eastern Europe and this is not the first time he shows wings from the area.

George Cearly shows some early schedules of US Air predecessors All-American, Turner, Piedmont, Robinson and Mohawk. Nice stuff, George. But you may soon begin calling US Air a "predecessor" airline too, as the carrier is changing its name to US Airways. The move makes sense to me. "U.S. Air" has always struck me as a name that could equally apply to an outfit that sells bottles of oxygen to hospitals.

Just after Stan Baumwald thought he knew everything there is to know about the early Northwest kiddie wings, he finds out from Bob Bullers there is an even earlier one. Have fun renumbering all those NW wings in your junior wing book, Stan!

Last but not least, Tom Dragges shows playing cards illustrating the DC-2 and DC-3, and Al Tasca presents us with half a dozen new swizzle sticks.

We are also presenting a healthy crop of Letters to the Editor in this issue. One is presenting some information on (the original) Frontier Airlines, the others are about my controversial comment in an earlier issue about high prices for collectibles. With all due respect to everyone, this issue is now closed, with representatives on both sides having had their say.

I am catching up on book reviews. I keep telling myself I should publish these reviews sooner after I receive (or buy) the books, but I have found there are only 24 hours in a day. And I do like to read the books before I cobble a review together.

# THREE TIMES 7 = BOEING'S JET FOR THE 21<sup>ST</sup> CENTURY



## INTRODUCTION

The Boeing Company's 777 airliner was introduced into passenger service on 07 JUN 95. This "paperless" aircraft was designed on a modern computer system that eliminated the need for the construction of an expensive mockup. The 777 also introduced the concept of the "design/build team," including engineers, production workers, subcontractors and airline customers. Although Boeing's investment figures are not available, Aviation Week & Space Technology estimates "a significant portion of the \$4 billion in company-sponsored research and development spending over the past three years has been devoted to the 777." (1) The new aircraft, the world's largest two-engine airliner, underwent an extensive series of tests to ensure it would meet stringent FAA requirements for 180-minute ETOPS certification.

N7771, the first 777, was rolled out at Boeing's Everett plant on 09 APR 94 and was photographed by Bill Hough at JFK on 20 MAY 96 on the Tower Air ramp.

## BACKGROUND

Boeing has been producing aircraft since 1916 when William Boeing flew the "B&W" Model 1 seaplane. During the next 40 years, his company would build some noteworthy airliners, including the 247, 307 Stratoliner and the 377 Stratocruiser. During this period, however, most of Boeing's aircraft were sold to the military; their airliners were few in number compared to those built by competitors Douglas, Lockheed and Convair. Boeing's dominance of the commercial airliner market started only with the introduction of the 707, the United States' first jet airliner, which entered service with Pan American in 1958. Boeing followed the success of the 707 with the 727, 737, 747, 757 and 767.

Meanwhile, Boeing's competitors responded with jetliners of their own. The Douglas DC-8 and Convair 880/990 were joined by offerings from the major European manufacturers, including the Sud Aviation Caravelle, Vickers VC-10, Hawker Siddeley (nee deHavilland) Trident and BAC One-eleven. Convair quit the business during the mid-1960s after heavy losses on the 880/990 program. After Boeing announced the widebody 747 in the late 1960s, Lockheed

and Douglas (acquired by McDonnell in 1967 and renamed McDonnell Douglas) introduced competing wide body, three-engine airliners of almost identical size. The L-1011 and DC-10 were designed to carry between 250 and 300 passengers and to operate from airports like New York's LaGuardia that is too small for the 747.

The European manufacturers were unable to match the commercial success of Boeing's product line and this led to the creation of Airbus Industrie, a multinational consortium whose A300 wide body twinjet entered service with Air France in 1974. Lockheed, meanwhile, had difficulty selling its L-1011 TriStar and stopped building airliners in 1984. By then, Boeing, Airbus and McDonnell Douglas were the major manufacturers of large, widebody jet airliners. The only other widebody manufacturer, Russia's Ilyushin, has not sold any of its aircraft outside the Russian/CIS area.

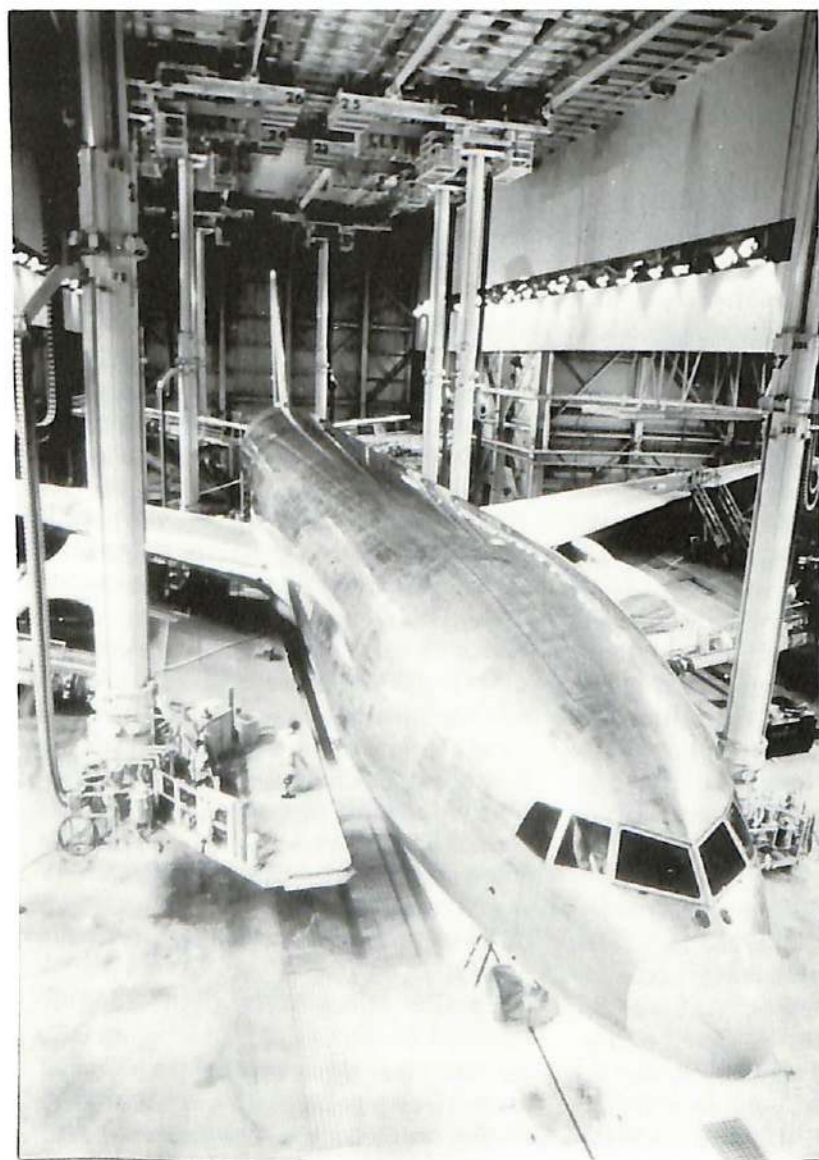
During the mid-1980s, the manufacturers turned their attention to the DC-10/L-1011 replacement market. This is actually two markets: the "domestic" (U.S.) or regional (European) market served by the short-range DC-10-10 and early model L-1011s, and the longer "intercontinental" market served by the DC-10-30, the L-1011-

500 and the 747SP. There was also interest in a large twin-engine aircraft to replace the early 747-100 and -200 aircraft.

## CONCEPTUAL DESIGN

In 1986 Boeing was attempting to interest the world's airlines in an improved version of the successful 767 airliner. The first version of the 767, the -200, entered service with United Airlines in 1982. This 767-200 is a wide body airliner carrying 168 passengers in United's three-class configuration. To meet demand for a larger passenger cabin, Boeing added 21'1" (6.42 m) to the 767-200's 156'1" (47.57 m) length to create the 767-300, which entered service with Japan Air Lines in 1986. United's 767-300s carry 211 passengers in the three-class configuration. The proposed new 767 derivative was designed to plug a hole the Boeing's product line between the 767-300 and the 418-passenger 747-400 (UA configuration). Boeing was proposing a 767-400, 21' (6.40 m) longer than the -300, to compete in this market.

In late 1986, McDonnell Douglas launched the MD-11 derivative of its DC-10. This three-engine aircraft was designed to seat 321 passengers in a typical mixed seating configuration. The following year



**Above:** Final assembly of N7771, the first Boeing 777.

**Left:** N7771 in the paint shop.

(Both photos by Boeing)

Airbus launched the A330/340 joint program. These three aircraft were aimed at the hole in Boeing's product line between the 767-300 and the 747 as well as at the DC-10/L-1011 replacement market. After the MD-11 and A330/340 programs were launched, Boeing began studying a number of 767 derivatives under the general designator 767-X.

#### ADVANCED DEVELOPMENT

The 767-X proposals ranged from a minor fuselage stretch to a major redesign. Some of the proposals included upper decks, but none were particularly attractive to the airlines. By 1988, with the A330, A340 and MD-11 programs already under way, Boeing decided to design a new airplane, the 777, that could carry about 350-375 passengers. To ensure it would be well-received by its customers, Boeing invited representatives of eight airlines, the so-called "Gang of Eight," to Seattle to provide design input. The airlines represented were leaders in their parts of the world: United, American and Delta from the U.S., British Airways from Europe, Japan Air Lines, All Nippon Airways and Cathay Pacific from Asia and Qantas from Australia. This "Gang of Eight" provided input on various design issues of concern to the airlines and their passengers, such as the size of the overhead luggage bins and the location of galleys and lavatories. The airlines also provided input into flight deck design, urging Boeing to use a more-advanced layout than used in the 767. One of them, American, was instrumental in encouraging Boeing to design folding wingtips that would allow the airline to park their 777s at gates designed for the smaller DC-10 and 767 wingspans. As of MAR 96, no 777 customer had ordered this option.

Boeing's market research identified three markets for the new aircraft. The "A" market aircraft would carry 370 passengers some 4,630 nautical miles, the longer "B" market aircraft would carry 305 passengers 7,230 nautical miles and an even longer-range "C" market, such as U.S. to India, was also considered. Stretched versions of both the "A" and "B" market aircraft were also planned. Boeing's sales force was authorized on 08 DEC 89 to begin selling the new product. The first order was received from United Airlines, on 15 OCT 90. This order, for 34 aircraft plus 34 options, was enough for Boeing's board of directors to formally launch the program on 29 OCT.

The 777 program was led by Phil Condit, who would be promoted to president in 1992. He was assisted by director of engineering Alan Mulally, assistant general manager Neil Standal, director of operations Dale Hougardy and director of finance Fred Howard. The project leaders departed from past Boeing practice by organizing the 767 workforce into some 240 "design/build teams" (DBTs). Each DBT was responsible for part of the aircraft. The DBTs included people from design, production and where appropriate, subcontractors and airline customers. Four members of the "Gang of Eight" assigned people to work with Boeing DBTs on a full-time basis. The idea behind the teams was to improve communication and fix potential problems before production began. The slogan "Working Together" was adopted for the 777 project and the first aircraft was so titled upon its rollout in 1994. Boeing found that the teams were effective in improving the design process and reducing costly rework due to design mistakes that were not discovered until production was under way.

#### DETAILED DESIGN

The 777 was designed on a state-of-the-art computer system called Computer Aided Three-dimensional Interactive Application (CATIA) which was developed by Dassault and IBM. Another program, Electronic Preassembly In the Computer (EPIC) was used to integrate the various aircraft parts into a completed aircraft without building a mock-up. The individual parts were de-

signed in three-dimensional format using CATI. The EPIC system puts these components together in a simulation of the whole aircraft. Situations where two parts attempt to occupy the same space are detected and corrected before any metal is cut. In this way, the computer design process saved both time and money. Using the computer to design the aircraft resulted in the elimination of at least 50% of change error and rework. Dale Hougardy told *Aviation Week & Space Technology* that CATIA eliminated between 50% and 80% of nonconformance reports (things in the wrong place), compared with previous programs. By reducing rework and factory floor changes, Boeing was able to save both time and money. A production worker told the magazine that "the parts snap together like Lego blocks" during assembly.<sup>2</sup> Another advantage of the CATIA system is that the design problems that do occur, are solved faster. The detailed design phase continued into 1993, even after the first parts of the aircraft were being assembled.

Boeing elected to equip the 777 with a fly-by-wire (FBW) control system. Earlier airliners have cables connecting the pilots' controls on the flight deck to hydraulic systems that move the control surfaces on the wings and tail. Fly-by-wire systems replace the cables with computers which translate the pilot's movements of the controls into electronic signals that carry the commands to the control surfaces. Boeing opted to design the system so that the pilots can override the computers and remain in ultimate control. Boeing's chief pilot, John Vashman,

was the main proponent of this design philosophy.

The 777 retains the traditional control column instead of having the "joystick" control used on Airbus Industrie's aircraft. The computers that govern the control system provide feedback to the pilots in the form of resistance on the control column like the pilots would feel if there were a mechanical link.

The 777 flight deck is equipped with modern liquid crystal displays (LCDs) instead of the cathode ray tube screens found on earlier Boeing aircraft. LCDs take less space, require less power and generate less heat than the CRTs they replace.

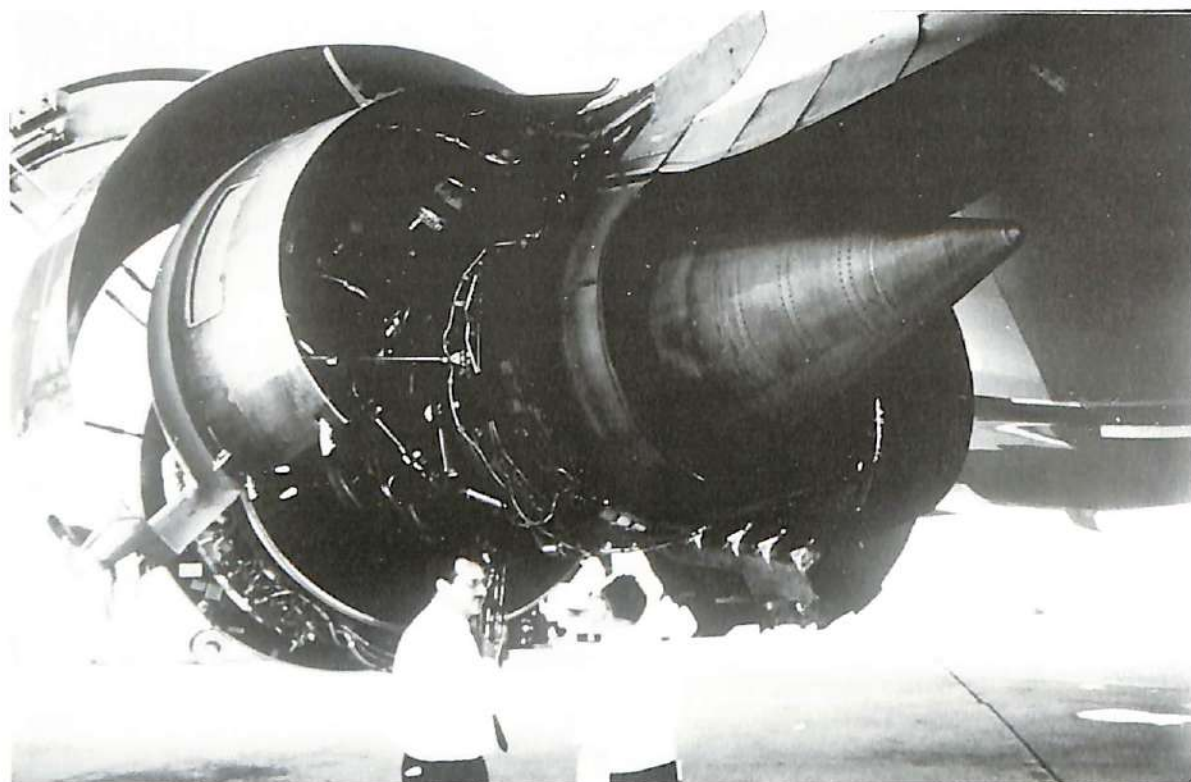
#### ENGINES

All three major engine manufacturers were designing engines to power the 777. Pratt & Whitney's offering, the PW 4048, was selected by launch customer United while General Electric's GE90 will power the British Airways 777 fleet. It is noteworthy that BA selected GE over its traditional supplier Rolls Royce and its new Trent 800. All three engines have large-diameter fans and can produce in excess of 80,000 pounds (36,000 kg) of thrust. An interesting point is that the diameter of the engine cowling is basically as wide as the fuselage of the 757.

The engines designed for the 777 would become the most-thoroughly tested ever. All three companies planned a major engine testing program using wind tunnels and laboratory tests. Internally, Boeing engineers debated the need for a flying test bed for the engines. One side of the argument was that the laboratories and wind tunnels were sophisticated enough to duplicate in-flight conditions. The other, more conservative side maintained that in-flight tests should be used to validate the ground-test results. The arguments favoring in-flight tests prevailed and two 747s were modified for the purpose. The Pratt & Whitney engine flew on 747 #1, leased back from the Museum of Flight at Seattle for the purpose, while the GE engine flew on a company test aircraft out of Mojave, CA. The Rolls Royce Trent flew on #1 after the P&W tests were completed. Boeing's goal was to have the



Large liquid crystal displays (LCDs) dominate the flight deck. The 777 also retains the traditional control column, rather than having a "joystick." (Photo by Bill Hough)



777 certificated for 180 minute ETOPS (Extended-range Twin Operations) flights upon delivery to launch customer United Airlines. 180 minutes ETOPS refers to the time the aircraft is allowed to fly on one engine in the event of an in-flight engine shutdown. This time is especially important on over-water flights. Earlier twin-engine aircraft such as the 767 and A310 entered service under the 60-minute ETOPS rule. Two years after the 767 started flying it was certificated for 180-minute ETOPS operations, after it had proved engine reliability. For the 777 to enter service under the 180-minute ETOPS rule, the Federal Aviation Administration (FAA) would have to be convinced that the 777 and its engines are reliable. A major testing program of engines and other components such as the APU (Auxiliary Power Unit) would be necessary for ETOPS certification.

The decision to flight-test the engines was validated on the third P&W 4084 test flight when the engine surged during take-off. This engine had been extensively tested on the ground and Tom Davenport, P&W's manager of the 4084 program, explained "The engine that was installed on the 747 had been through a very severe series of tests, including a number of stalls, where we intentionally forced the engine to act abnormally." Before the flight test, the engine had been stalled more than 50 times. Davenport went on to say that "when we flew on the

Launch customer United Airlines selected the PW 4048 engine for its 777 fleet. The two engineers lend scale to the enormous size of this fan engine. (Photo by Bill Hough)

747, the engine was in a degraded state - it wasn't a new, representative engine; it was a damaged engine that had been worked very hard. And we got an answer from that test program that said that's not a wise thing to do."<sup>3</sup> The engines being flight tested were known as "baseline" engines, the engines that would fly on the production aircraft would be known as "entry into service (EIS)" engines. The EIS engines have a less-flexible casing around the fan blades which should improve air flow and reduce the likelihood of another surge.

In addition to the engines, other parts are built by outside suppliers. For example, various divisions of AlliedSignal Inc. provide cabin air systems, wheels and brakes and the APU. Overseas companies also supply parts of the aircraft, including Japan's Mitsubishi Heavy Industries, Kawasaki Heavy Industries and Fuji Heavy Industries. These three companies signed a memorandum of understanding with Boeing in 1990, under which the Japanese would supply some 20% of the airframe, including the doors. Other suppliers are located in Italy, Australia, Brazil, Korea, Canada, France, Ireland and Singapore. Altogether more than

240 domestic and foreign suppliers are providing parts for the 777.

#### GROUND TESTING

Boeing determined that a major testing program would be necessary before the aircraft could enter service. This was partly due to top management's desire to avoid embarrassing delivery delays and expensive initial service troubles like those experienced by the 747-400<sup>4</sup>. Another reason for this program was the goal of getting the FAA to grant 180-minute ETOPS certification upon delivery of the first 777 to United Airlines. Boeing spent \$370 million building a new Integrated Aircraft Systems Laboratory. Tests began in NOV 92. Dan Virnig, chief

engineer, 777 lab test, told *Aviation Week & Space Technology* that the lab test program would cover 57 aircraft systems and parts supplied by 241 suppliers worldwide. Systems to be tested included: avionics, hydraulics, electric systems, pneumatics, fiber optics and flight control electromechanical interfaces. The components were first tested on 46 stand-alone test facilities and were then sent to one of eight subsystem integration test facilities. From there, testing proceeded to the three major integration test facilities. The fly-by-wire control system would be tested on a rig known as the "Iron Bird" which consisted of a 777 flight deck simulator connected to control surfaces with FBW controls. The final testing phase was flight testing on the aircraft.<sup>5</sup>

Other parts of the aircraft were also tested. The doors, for example, must also work in subzero temperatures. To test this, a door mock-up was chilled to -50 degrees Fahrenheit (-45 Centigrades) and then sprayed with water for several hours until ice had built up over the door and frame. The frozen door was then opened, validating the work of the door design/build team. Another cold-weather test took place in Fairbanks, Alaska. The Auxiliary Power Unit built by AlliedSignal was taken there for "cold soak" tests. This involved letting the APU cool down and then attempting to start it. This was done successfully more than 450 times during the Alaska tests, indicat-



Three stages of the first flight of N7771: **Top:** Powering up the PW engines before the takeoff run; **Center:** In flight, and **Bottom:** The first landing after a successful sortie. (All three photos by Boeing)

chine tool known as the Automated Spar Assembly Tool. After the wing spars have been put together, they are joined to the center section of the fuselage at the Wing-to-Body Join position. Fuselage sections are assembled on a rotating jig and then attached to the wing/center section during the final assembly sequence. Nose and tail sections are then added. After the airframe is completed, the engines are attached. Although the assembly process was fairly smooth due



ing the APU could be relied on to start in cold weather.

#### PRODUCTION

Although parts of the 777 are produced all over the world by Boeing and its subcontractors, final assembly of the aircraft takes place at Boeing's huge factory at Everett, Washington. This factory was built in the late 1960s for the 747 program and was later modified to include 767 production. Boeing spent some \$1.5 billion to expand the factory to handle 777 production while maintaining 747 and 767 assembly lines. The various subcomponents for the aircraft are shipped to Everett by ship, truck and railroad for assembly into complete aircraft.

Assembly began in JAN 93. The first part of the aircraft to be assembled are the wing spars which are assembled on a large ma-



to the computer-aided design, problems did occur. On 21 JAN 94, a door seal blew during a pressurization test. The design of the seal had to be modified before production could continue.

The first completed aircraft was unveiled on 09 APR 94 in an elaborate, day-long media event attended by the press and company employees. CATIA, EPIC and the DBTs proved their worth during the assembly phase. Lyle Eveland, 777 factory manager, told *Aviation Week & Space Technology* the production sequence was on time at the time of the rollout<sup>6</sup>. Boeing chairman and CEO Frank Shrontz added the 777 was "slightly" over budget due to problems in adjusting to the CATIA/EPIC design. The company expected the excess cost to be offset by "better than expected manufacturing efficiencies."

#### FLIGHT TESTING

The first flight of the 777 took place on 12 JUN 94, when chief 777 test pilot John Cashman took N7771 on what Boeing said was "the most-perfect first flight ever."<sup>8</sup> This marked the start of Boeing's most-ambitious flight-test program, which involved nine aircraft and all three engines. The program involved twice as much flight test time as previous Boeing programs because of the aforementioned "teething problems" with the 747-400 in 1989 and the desire for ETOPS certification upon entry into service. Aside from "a handful of minor headaches" a few problems were encountered during flight tests. The first happened on 20 AUG 94 and involved an in-flight hydraulic failure of a service door located on the underside of the aircraft. Another problem was an explosive decompression on 02 FEB 95. A defective clamp on an air conditioning duct led to the failure of a check valve which in turn caused the pressurized air to escape from the cabin. Seven people were injured in this incident. Despite negative press coverage, the impact of this incident in the flight test program was minor: the check valve was redesigned and the test flights continued. Neither problem caused a delay in the schedule. On 02 FEB 95, the first GE-90 powered 777 built for British Airways entered the flight test program. The first Rolls Royce Trent-powered 777 flight took place on 26 MAY 95.

The flight test program involved many different tests. All of the flight characteristics and subsystems were put through their

paces. The third aircraft flew to Phoenix, AZ to test the air conditioning and instrument cooling systems. "Hot and high" airport tests took place at Colorado Springs. The most-dangerous tests took place at Edwards Air Force Base in California's Mojave Desert. These were the Velocity Minimum Unstick (VMU) and Refused Takeoff (RTO) tests. The VMU tests involved calculating the minimum emergency takeoff speed. This, in turn, requires that the aircraft be rotated sharply so that the tail scrapes along the runway. The RTO test checks the performance of the brakes under emergency stop conditions. During the RTO tests, the 777 was accelerated to 210 mph (380 km/h) before the brakes were applied at 100% power for the 4,000 ft (1,220 m) distance it took the aircraft to decelerate. In this tests the brakes became heated to more than 3,000 degrees Celsius.

The ETOPS certification test involved two phases. The first one included ground tests of the PW 4084 engine at P&W's Florida test site. These tests consisted of 3,000 "cycles" of 171/2 minutes each. Each cycle saw the engine run through all the power settings that it would experience during a flight. Several hundred cycles into the test, a vane actuator arm broke while the engine was at speed. The vane actuator arm on all the flying 4084s had to be replaced and the 3,000-cycle test started again.

The second ETOPS test phase involved a 1,000-cycle on flights ranging from one to nine hours. The final 90 of these flights were operated by launch customer United Airlines under the Early ETOPS Validation and Integration Program (EEVIP). Essentially simulated airline flights, EEVIP put the 777 into service on United's routes without the passengers. During this part of the testing, flight, maintenance and ground handling checks were performed. Any problems that developed, had to be solved by United personnel, who were not allowed to consult with Boeing staff who were on board as observers.

#### ENTRY INTO SERVICE

The problems encountered during the flight tests did not have a major impact on the certification schedule, and United would get their first aircraft on time. The 777-200 received FAA certification on 19 APR 95 and the first aircraft, N777UA, was delivered to United on 15 MAY. The FAA's approval of 180-minute ETOPS came on 30 MAY. Two more aircraft were delivered in

May and the second one delivered to United, N766UA, operated the first 777 passenger flight on 03 JUN 95. The flight was a one-hour "out and back" benefit out of Denver's new airport for the "Youth at Work" summer jobs program.<sup>10</sup> Regular scheduled flights began on 07 JUN with the departure of flight 921 from London-Heathrow to Washington-Dulles. Deliveries are continuing. At the time of writing, United had 16 aircraft in service, with 12 more to come in the second half of 1997 and six more in 1998/99. Japan Air Lines had three with seven more to follow before the end of 1999, All Nippon had five with three to follow in 1997, seven in 1998 and nine in 1999/2000. British Airways deliveries have started and others are on order by China Southern with six, deliveries scheduled to begin in DEC 96. A Trent-powered 777-200 completed route proving trials for Cathay Pacific Airways in the first quarter of 1996 and the airline had seven stretched -300s on order for delivery in 1998/99. The first -200 IGW (Increased Gross Weight) made its first flight in OCT 96 from Snohomish County International Airport at Boeing's Everett plant. Powered by GE 90-92B engines, the aircraft has a range of 7,230 nm and is due for delivery to British Airways in FEB 97.

Some teething problems have been experienced by United Airlines. Joseph O'Gorman, United's executive vice-president of fleet operations, expressed concerns that mechanical troubles have affected the airline's 777 dispatch reliability. These troubles were said to be minor by both United and Boeing officials. O'Gorman said that the "777 is an excellent airplane. We just want to make it better." 777 dispatch reliability was quoted at 97.5% vs. the goal of 98%. This compared favorably with the dispatch rates of the 747 and 747-400 after each had been in service for six months.<sup>11</sup>

Design work continues on the stretched 777-300, which has been ordered by several Asian Airlines, including Cathay Pacific, Korean, Thai Airways, All Nippon and Japan Air Lines. The -300 will be 33' (10 m) longer than the 777-200 and will be able to carry 89 more passengers in a typical three-class seating layout. Assembly of the stretched version will begin in MAR 97 with the first flight scheduled in October. The first -300 is expected to be delivered to Cathay Pacific Airways in MAY 98. By the beginning of 1996, Boeing had received more than 245 orders for the 777, including at least 36



for the -300. In MAR 96 the company announced it would increase 777 production from two aircraft a month to 3.5 by the fall of 1996. Boeing expects to be building five 777s a month by mid-1997.<sup>12</sup>

Additional, ultra-long-range 777 models are under consideration. Boeing met with a "777-X Working Group," which includes British Airways, American, Delta, Northwest and SAS in the fall of 1995 to evaluate economic and endurance issues pertaining to very long flights. Four different models are being studied: two heavier -200X models and two shortened -300 versions which the company tentatively calls the -100X. *Aviation Week & Space Technology* reported that, if approved by the Boeing board of directors, the program could start in the second quarter of 1997.<sup>13</sup>

#### CONCLUSION

Boeing's 777 program is successful because the company was able to implement major changes in its corporate culture. The DBTs, along with the sophisticated new design software, allowed the 777 recover from its late start against the competition. In less than five years after their order, United was flying their 777s in daily passenger service. By starting the 777 later than the competing designs, Boeing "let Airbus freeze its metal beyond change, and then do it better."<sup>14</sup> After Malaysian Airline System announced their 777 order in JAN 96, *Aviation Week & Space Technology* observed that "For the second time, an airline that was already a customer for one of the Airbus products elected not to complete the family by purchasing the other type."<sup>15</sup> Both Malaysia and neighboring Singapore Airlines

preferred the larger cabin size of the 777-300 to that of the Airbus A330/340. With the successful introduction of the 777 into airline service and more than 200 aircraft on order, Boeing seems destined to maintain its position as the world's premier airliner manufacturer into the 21st Century.

#### NOTES

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**There you are:** *United Airlines presents N767UA, one of its first 777-222, at EWR on 10 SEP 95.* (Photo by Bill Hough)

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# Enell's propliner postcards are jewels

After Sue and I walked the walk and talked the talk at the MSP convention, we drove the drive to Madison, WI, for our first overnight on the long trip home. At 0500, I sat bolt upright in bed and it became quite clear how I wanted to kick off this column.

While I am upset with the high prices of airline postcards in general, it must be remembered, as Larry Myers so aptly stated, that the customer sets the prices, not the dealer.

It is the dealer's motive (read: profit) that is aggressively seeking out the cards from grandmas' attics around the U.S. and the world. So many phenomenal cards have been unearthed! I have never seen more-beautiful cards than the late 1920s four-card set of Standard Airways that Craig Morris found and will keep as a true treasure.

Perhaps I am ahead of the pack in terms of "some of this stuff has to be framed to ensure its preservation." I assure you that if it is done properly and it is hanging on your wall, you'll realize the minimal expense is well worth it. And even more so over the years.

Also, bargains were available at MSP. I saw the twin-photo 4c EWR card (Capital and Mohawk DC-3) sold for \$3. And the best green/white Allegheny 4c company DC-3 card flying right to left, purchased for \$5. So there!

Everyone has the "pretty girl" wartime TWA stewardess card, with her saluting and with the DC-3 in the background. Similarly with the Stratoliner.

Does anyone have the same card with the Connie background? Jon Proctor told me once there was such a card, but I have never seen it.

Does anyone have a spare World Airways DC-6B at Oakland for me? 3 1/2 x 5 1/2 4c chrome.

I am convinced there is even more art out there. I returned from MSP and came across (locally) a TWA pre-WW2 DST small poster flying R to L in 4 color that I had never seen before. Absolutely beautiful. You should see it, properly matted and framed. The calligraphy is the same as on some postcards.

So, keep searching and communicating.

Thanks to the largesse and fine research work by Larry Myers and Tadd Kotick, we are able to present the best list to-date of the black and white real photo postcards out of New York (mostly Idlewild), done by Enell. Let's pick up on Tadd's original essay, keeping in mind that it is six years old. Larry Myers has supervised the effort to update the list since.

## THE ENELL CARDS

"With the close of the 40's, commercial aviation again started growing, setting new goals which its new aircraft designs would hopefully accomplish. Four-engine airliners were the wave of the future and transcontinental air travel was soon to become a reality.



#4. American Airlines Douglas DC-6.



#4A. American Airlines DC-7.

#5. TWA Lockheed Constellation.



Still, a glamorous era of air travel, it is not surprising that airlines and private publishers pumped out millions of cards featuring the latest acquisitions of the airlines that promoted safe, enjoyable air travel. Because the aircraft itself was a star player in this promotion, it is little wonder that so many postcards were produced. It could be said that the postcards produced by George V. Enell came along at the right time, when the public was still excited about air travel and their curiosity about it was great enough for Enell to create a series of more than 50 different cards as well as other mementoes of air travel. The production of these cards was not unusual in itself, but because of the subjects and large number of cards in the series, they warrant closer examination.

George V. Enell, photographer and publisher of Aviation News, Inc., worked out of the press room at New York's International Airport at Idlewild, providing pictures for the news media. His first postcards probably appeared sometime in 1950. Although some of the images used were stock airline publicity shots, Enell did publish some of his own photos on his postcards.

It is not too surprising that he also authored a book entitled "New York Airports in Pictures and Maps," published in 1957. He also produced a small (2 1/4 x 3 1/2) photo album featuring 10 black and white photos of airliners taken from his postcard series. In the back of the album is a for sale ad offering 8" x 10" photographic prints also from his series of postcards.

The jewel in his crown is his beautiful series of real photo postcards which cover 1950s piston engine and turboprop airliners, although a couple of jet cards were also published. Even though my list of cards is incomplete, I have been able to document 52 different images and at least 15 more have yet to be accounted for. The series depicts at least 13 different types of airliners and represents more than 20 different U.S. and foreign airline companies. Enell also captured the look of Idlewild and La Guardia Airports during the 1950s with at least five different cards of the former and two of the latter.

All cards in the series, with the exception of two, have the carrier's name, type of aircraft, postcard number, and signature "by Enell" printed on the front of the card. Some carriers are grouped together to show all aircraft types that flew for that particular airline (Examples: TWA 5, 5A thru 5F; United 13, 13a & 13b). Other carriers were not grouped together but were scattered throughout the series (Examples: Eastern 12, 39, 46; BOAC 26, 35; Sabena 20, 45). Many of the cards I have seen have the Eastman Kodak stylized logo "EKC" stamp box but some cards have different backs. This leads me to conclude the series must have been printed at least twice and maybe many times. Another reason for this conclusion is the differences in Enell's signature and the card numbers in the series. Some of the same cards have both handwritten and typed descriptions.

Since the variety of aircraft shown spans several years, the series must have run into the late 50s. The latest airliner I have seen in the series is an image of a TWA Boeing 707 in 1950s era colors. Incidentally, TWA never used this livery on their 707s. Most aircraft in the series are piston-engine airliners whose U.S. manufacturers include Douglas, Boeing and Convair (and Lockheed - JG), although a few foreign designs such as a North Star, Viscount and Comet are depicted. The majority of postcards show in-flight air to air shots.

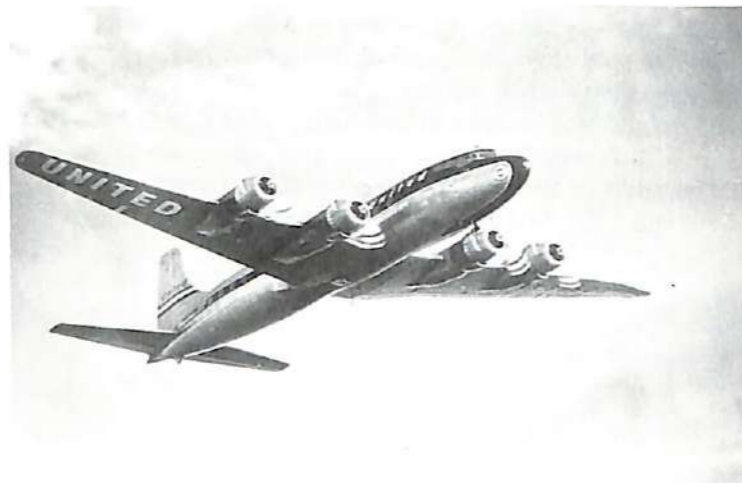


TOP to BOTTOM:  
#5A TWA Constellation.  
#5B, TWA Super Constellation.  
#10. Pan American Clipper (Lockheed) Connie.

probably stock airline photos, but others were Enell's own photos covering the local airport scene. These scenes give us a glimpse of how 1950s airports and air travel looked, before there was a terrorist threat. Back then, watching airplane movements was an enjoyable activity, not a reason to be harassed by the police."

The following are the known Enell cards:

1. Idlewild Airport apron
2. Idlewild Airport apron
3. ?
4. American Airlines Douglas DC-6
- 4A. American DC-6
- 4A. American DC-7 FL i.a. (N303AA)
- 4A. TWA L-1049G Constellation w/tip tanks
5. TWA Lockheed Constellation
- 5A. TWA Constellation
- 5B. TWA Super Constellation
- 5C. TWA Super Constellation over NYC
- 5D. TWA 707 illustration in 1950 era colors
- 5E. ?
- 5F. TWA L-1649 Constellation
- 5G. TWA Star Stream - like 5A but farther away
6. ?
7. ?
8. Scandinavian Airlines Douglas DC-4 FR over Statue of Liberty
- 8A. SAS DC-6B
9. ?
10. Pan American Clipper America (Lockheed) Connie FL i.a.
11. Air France Lockheed Constellation FL i.a. from above
12. Eastern Air Lines Lockheed Constellation
13. United Airlines Douglas DC-6 FR i.a. viewed from below
- 13A. Same as above but close-up
- 13B. United DC-7
14. LaGuardia Airport Terminal w/Finnish DC-4 climbing
15. Trans Canada-Canadair "North Star"
16. Seaboard and Western DC-4
17. Eastern Airlines Douglas DC-4
18. SAS DC-4 over Central Park
19. SAS DC-4 over George Washington Bridge, NYC
20. Sabena-Belgian Airlines (DC-6 over Idlewild Terminal)
21. LaGuardia Airport Terminal
22. American Airlines L-049 Constellation
23. Colonial DC-4 FR i.a. over NYC
24. Pan Am DC-4 FR i.a.
25. LAV L-749 Constellation - 3/4 view right side in air
26. BOAC L-049 Constellation
27. American CV-240 (mis-labelled DC-6)
28. International Terminal-LaGuardia Airport
29. Capital DC-4
30. American CV-240 flying over Washington, DC, L to R
31. Northeast CV-240 FR i.a.
32. National DC-6, 3/4 view from right, climbing, c/s livery
- 32A. National DC-6 over MIA
33. Pan American Stratocruiser, 1st livery, RtoL.
- 33A. PAA Stratocruiser
- 33B. Pan American "Super 7" Clipper from right side, level flight



**TOP to BOTTOM:**  
 #13. United Air Lines Douglas DC-6.  
 #13B. United Airlines DC-7.  
 #18. Scandinavian Airlines DC-4 (over Central Park).

34. Northwest Stratocruiser FR i.a.
- 34A. Northwest Orient Airlines DC-7C
35. BOAC Stratocruiser FL i.a
36. Swissair Douglas DC-4 FR i.a.
37. International Airport terminal entrance & control tower (untitled)
38. Untitled Idlewild Airport Observation deck
39. EAL Super Constellation
40. Capital L-049 Constellation RtoL
- 40A. Capital Viscount
- 40B. Capital Viscount flying LtoR
41. Trans-Canada North Star
- 41A. Trans-Canada Viscount FL i.a.
42. New York International Airport
- 42A. Helicopter view of N.Y. International Airport
- 42B. International Airport Aerial View
43. ?
44. British Overseas Airways 'Comet'
45. Sabena's Sikorsky S-55 Helicopter
46. Eastern Martin 4-0-4
47. La Guardia Airport Aerial View
- #?. Unnumbered, untitled National DC-6 over Miami Beach.

Please, if you can add to this list in any way, be in touch with me or with Larry Myers, 2539 Millers Woods Road, Boonville, NY 13309, USA. Ph (315) 942-2659 or fax (315) 942- 5898.



**LEFT, TOP to BOTTOM:**  
 #23. Colonial DC-4 over NYC.  
 #31. Northeast Airlines Convair 240.

**THIS COLUMN, TOP to BOTTOM:**  
 #34A. Northwest Orient Airlines DC-7C.  
 #39. EAL Super Constellation.  
 #40B. Capital Airlines Viscount.





I am starting this column with a new contributor from England, my good friend IAN MARSHALL. Twice a year Ian supplies me with a box of stickers collected during his relentless search for new postcards. Thanks again, Ian,

#1 is from Phoenix Air of Cartersville, GA. They fly Learjets although the sticker seems to have a military connection.

#2 shows a "funny face" 737-400 in the form of a manta ray or "devilfish" and was issued by JTA of Japan, the former Southwest Airlines. It has pink, purple and blue pastel colors.

#3. Great Slave Helicopters of Yellowknife, NWT, Canada, was a new company for my collection. It is in silver, white and shades of blue. It is always difficult to obtain stickers of the smaller Canadian companies, so please keep your eyes open.

#4. Lastly, from Ian, comes this sticker of Cargolux, a prolific issuer in the past and this seems to be another series showing their destinations - I have Fukuoka, Hong Kong & Kuwait to date, but I am sure there are many more.

The next group of stickers was contributed, upon a recent visit to the old country, by another good friend, CARL REESE. He has an amazing collection of safety cards but he doesn't forget friends who collect other things. Thanks again, Carl.

#5 is from another small Canadian air carrier from Yellowknife, Air Tindi. It flies Otters and Beavers, among other types.

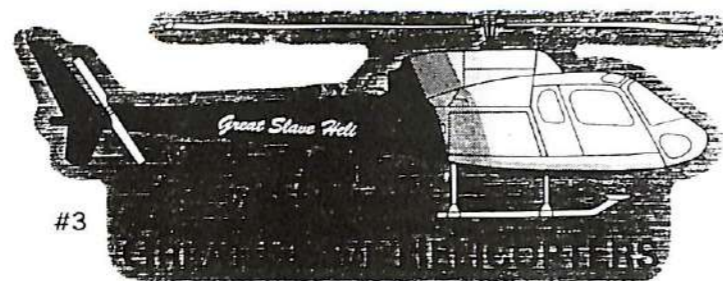
#6. Next we have National Airlines of Chili, which uses 737s out of Santiago. The colors of orange, blue and white make this a nice sticker.



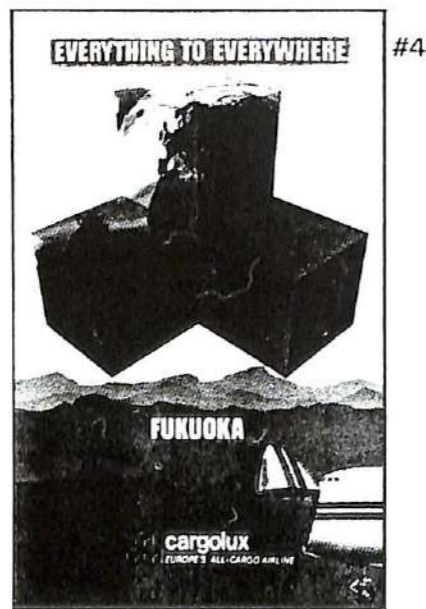
#1



#2



#3



#4



#5



#6

#7. Kuwait Airways issued this sticker in 1994 for its 40th anniversary, but it only recently came to my attention.

#8. Southern Air Transport seems to be making a specialty of advertising their many and varied activities combining with Air India - a very colorful sticker as usual, it comes in yellow, orange, green, blue and white, with black borders and black/grey "S" logo.

#9. This junior pilot wing sticker was issued by Mount Cook Airline of New Zealand. The colors are white and gold on dark blue.

#10. I don't suppose many readers have a collecting friend in Bhutan, but when I wrote to the airline there, Druk Air, I received a nice letter and goodies from a young lady who works there. Although there are no stickers or post cards available, I thought it nice to show you this cabin baggage tag in yellow, orange and black on white. Druk Air (Royal Bhutan Airlines) is the only carrier serving the country, using two BAe 146s. So, if you are an airplane spotter, it must be pretty quiet there.

FRANK LICHTANKSI continues to send interesting material - we have two new-color scheme Air Canada BILs.

#11 shows just the maple leaf logo in red on a very dark green background, and

#12 also has the carrier's name underlined, but it has a white border all around. The background color above the underline of the logo is black, and the color below it is the same dark green as in #11.

Both #11 and #12 were issued in MAR 95 (A copy of #10 was also sent in by SUSAN HARPER of Greely, Ontario, Canada, for which our thanks.)

#13. This Swissair BIL comes in black with the white-cross-on-red-flag logo. The name Swissair and text "with compliments" are in white.

All three BILs have lines for name and address on the back.



#7



#8



#9



#10



#11



#12



#13

15

#14. This double dragon from Balkan is unusual because it features only the Romanian language. I have only one other sticker like this one of more than 70 stickers from the airline and its predecessor, Tabso. The dragons are in green (front) and red, the border in green, name in red and logo in green and red separated by a narrow white band. (Could any of our readers send us the English translation of the text on this sticker? - JG)



#14



#16

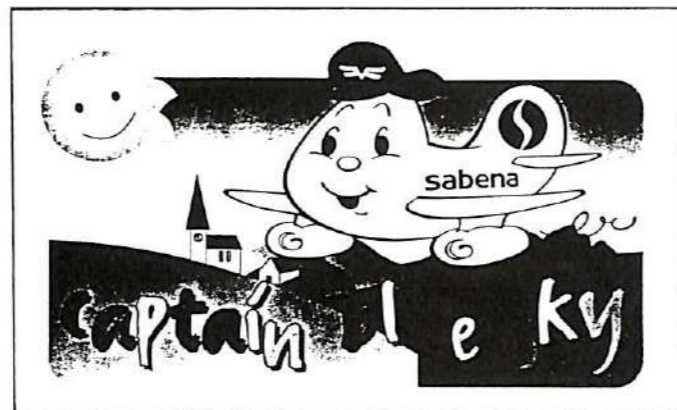
DAVE CHERKIS is also a regular contributor of mine. I only wish I could find him some junior wings in return. Still looking, Dave.

#15. Heli Air Monaco is in red on white. It shows one of the company's Eurocopter AS350B Ecureuil (squirrel) helicopters.



#15

#16. Corseair Cargo is the former Corseair International and flies 737s and 747s. Colors are aquamarine and blue with white.

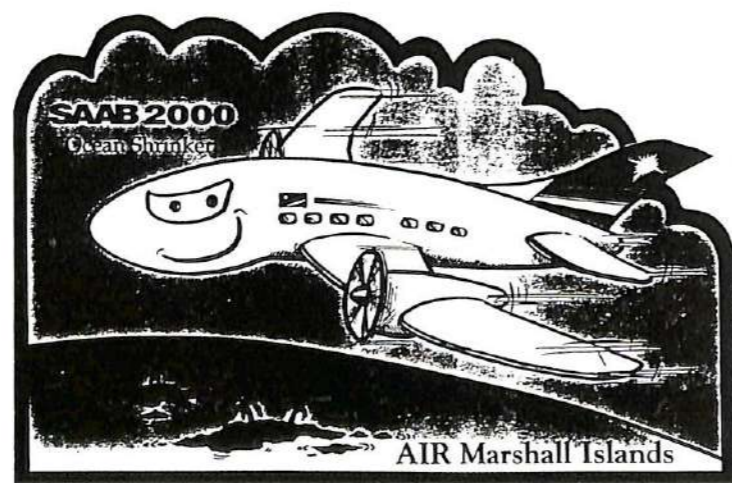


#17

#17. Captain Blue Sky from Sabena is one of a number featuring the captain. Are these stickers given to children on Sabena flights or are they general advertising? The colored part of the sticker peels off, leaving the white border behind.

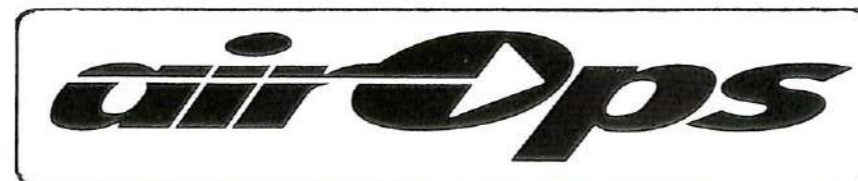
BARRIE JAMES of Switzerland contributed the next three stickers via FRED HEMS, who was so good to pass them on. Many thanks to you both.

#18 features a SAAB 2000 of Air Marshall Islands, although I wouldn't fancy flying on it as shown! It is very colorful, with two-tone blue and red, white and yellow.

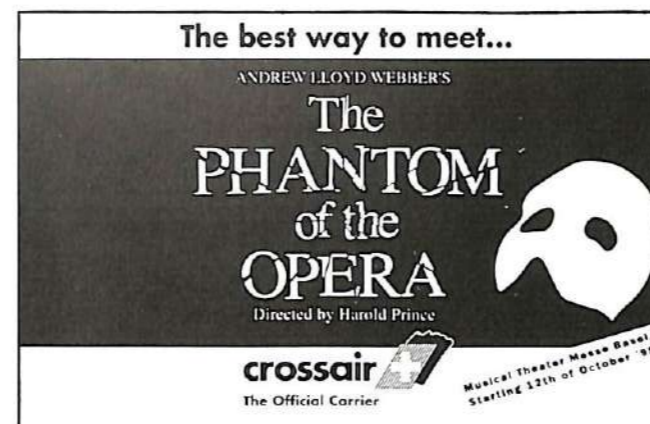


#18

#19 comes from Air Ops based in Sweden and Honduras (!). It is in cherise on white. The airline operates two TriStars.



#19



#20

#20. Crossair of Switzerland produced this special sticker in black and white to advertise "The Phantom of the Opera" which was playing in Basel in OKT 95 - a sticker that would be easy to miss and never seen again.

#21. Susan Harper, already mentioned under #10, also contributed this tag from Bearskin Lake Airlines of Sioux Lookout and Thunder Bay, Ontario, Canada. Locally the airline is better known as "the Bear." This tag is intended to be used in one of those little window pockets one finds on some suitcases and briefcases, rather than being looped around the handle with a string or an elastic band.

JERRY ELMAS of Austin, Texas is also a regular contributor. This time he sent Xerox copies of three stickers.

#22 is from Balkan and has the text in English: "Touch the sky with us." Since Jerry sent in a Xerox copy, I can only guess the main color is green.

#23. Austrian Airlines issued this "funny face" DC-9. I presume the colors are red-white-red on the tail, red logo on the forward fuselage, yellow sun and white cloud.

#24. This is a really LARGE sticker (7 x 4 1/2", 173/4 x 11.4 cm) from Finnair, urging travellers to "go west" (on the airline's route to the U.S.A. Again, this is a Xerox copy and I think the colors are the red, white and blue of the U.S. flag, with the text in the bottom bar in the light-blue Finnair colors.

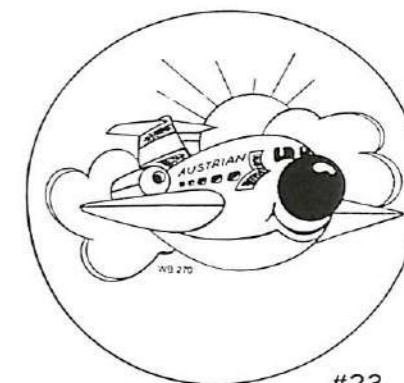
The following four BILs also came from Jerry, who picked them up during a recent trip to Europe:



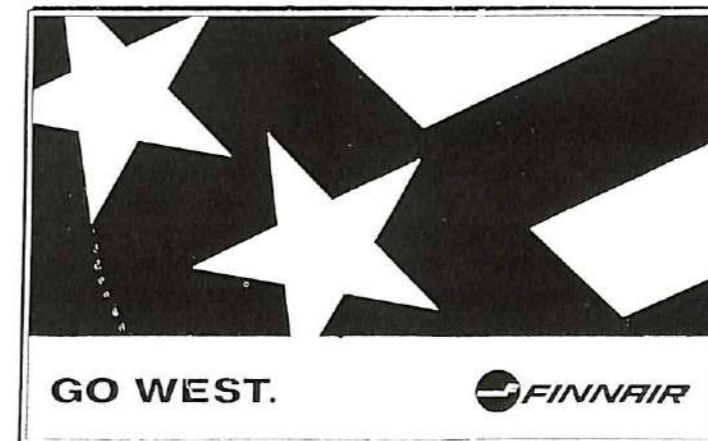
#21



#22



#23



#24



#25

#25. Jersey European Airways of Exeter, England has this BIL with dark-blue name and rainbow-colored logo on white.

#26. Croatia Airlines used this peel off, stick-on tag in matte dark blue on white.



#26

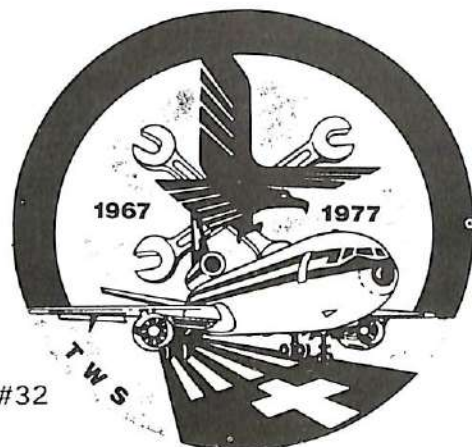
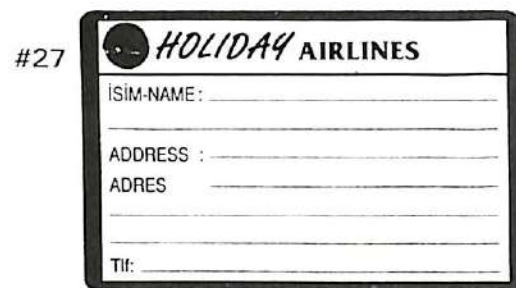
#27 shows the BIL tag of Holiday Airlines Istanbul, Turkey. It is in blue on white, with a sun logo in orange (top) and blue (bottom) in the left top corner.

#28. Onur Air is another Istanbul-based carrier. It has a fleet of MD-88, A300, A320 and A321. The tag has a red border around the top, blue around the bottom, with the logo in red and name in blue.

This is all I can feature from contributors this time, but I hope that more of you will send stickers direct to me or via Joop for future inclusion. The remaining stickers in this column were all gathered by myself.

#29 is another "Phantom of the Opera" sticker, issued by Swissotel, which is owned by Swissair, and therefore collectible as far as I am concerned at least. It is black on top with a blue motif in the white text, and has black text on white in the bottom half. The Swiss flag logo is in white on red.

#30 to #34 are all Swissair issues for various parts of their organization and difficult to find. #30 shows a nice photo of one of the airline's 1930s DC-2 aircraft. #32 is in bright red, yellow and white colors.



#35 must be the only airline sticker for a Westland Lysander (observation and utility transport aircraft) from World War 2. Does anyone know the connection with Sabena?

(Ed's note: When I received this sticker from Dave for publication, I was curious enough to write to Sabena. I received a nice letter back from the Sabena Old Timers Association, which issued the sticker. They are a group of retired Sabena technical staff who restored the aircraft for the Air & Space Museum in Brussels. The group was originally sponsored by Sabena, hence the name. But the letter says, "with the present economic problems, we don't ask money anymore. Nevertheless, we are still Sabena-minded with the result: no change in name."

Thank you very much, Mr. or Mrs. Noiset - JG).

The final group shows some gummed Golden Oldies labels from my collection and all feature aircraft not frequently seen on labels and stickers.

#36 depicts an Airspeed Envoy used by North Eastern Airways of England during 1935. It is a very attractive matte yellow and blue.

#37 is of a DH-89 flown by DHY (Devlet Hava Yollari) from 1937 on. This airline was the predecessor of the present Turkish national Airline, THY.

#38 shows the Savoia Marchetti SM 66 used by S.A.M. (Societa Aerea Mediterranea) on their early domestic services from Rome and, later, to Cagliari and Tunis across the Mediterranean. Colors are grey, beige and two-tone blue.

#39 is a very early Sabena label in many colors and shows a SABCA-built Handley Page W8b. This is one of a group of eight supplied to me some time ago by my late friend Don Thomas. In fact, he sent me two sets and I sent the other back. HENK HEIDEN, a regular contributor, was not a happy man when I told him this story recently.

#40 is definitely unique since it is the only label to show the Portsmouth Aerocar, a twin-engine, six-seat prototype shown at the Farnborough Air Shows in 1948 and 1949. It never went into production, despite a large number of orders.



# JFK, LGA & EWR photos by ARACELIO ROMAN plus shots by Jerry Elmas and Fred Del Monico



**ABOVE:** American Airlines MD-11 N1756, Msn 48491/503 waiting to roll at JFK, Fall 95. Photo by Aracelio Roman

While ago I opened my mail to the work of our featured photographer and I immediately made plans to use his shots in the CAPTAIN'S LOG. The photographer is ARACELIO ROMAN of New York City and he patrols JFK, LGA and EWR enjoying his favorite hobby.

He writes he is a fairly new member with a great interest in Latin/South American carriers and is a budding collector. I think you'll all agree Aracelio ought to keep up the good work. The Kiwi, United (front cover) and Lufthansa aircraft were shot at EWR, the AA MD-11, TWA L-1011 and AA 757 look like that is JFK in the background, and the balance originated at LGA.

Next up is JERRY ELMAS of Austin, Texas. He sent along a couple of MD-80 shots. Although he did not say where they were taken, I guess the TWA was at STL because it looks like McDonnell Douglas in the background. The AA shot looks like a DFW setting.

Jerry mentioned in his letter he is looking for Turkish Airlines stuff.

Our last but not least photographer in this issue is FRED DEL MONICO of Elizabethtown, Kentucky. Many of you will remember Fred's work that was featured in the Spring 95 issue. It appears Fred found some warmer weather for the two photos he forwarded (his Spring 95 feature was shot

in December). The AA Fokker 100 was shot at STL and the TriStar BAe 146 at Grand Canyon Airport.

Nice work from all three photographers.

That's all I have for now, except to update you on my current E-mail address. The American Online address I gave out in the previous issue is no longer valid. My new address is located on Compuserve. If you are contacting me within Compuserve, use 71602,2624. If you need to E-mail me via the Internet, I can be found at 71602.2624@compuserve.com. Please note Compuserve addresses via the 'net have a period between the fifth and sixth digits, intra-Compuserve notes use a comma.

**LEFT:** Trans World Airlines MD-83, N9406W, Msn 53126/2026 at the gate at LGA, Spring 95. Photo by Aracelio Roman



**From the Editor:**

Rich tells me he received an E-mail from a member who expressed his dissatisfaction with the reproduction of the photos in the Winter 95-96 issue (p. 27-28). And he is right. The reproductions served up by the printer were way below par. Not only that, the printer also trimmed too much off the tails of the aircraft in photos 7,8,10 and 11. The vast amount of white between the photos and the text shows I left enough space for the entire photo. It is a mystery to me why the printer trimmed these four photos back to the same with as that of photo 5. I certainly did not instruct him to do so.

In any case, our apologies - JG.



**TOP:** American Airlines 757-233 (unidentified) taxis to the gate at JFK, Fall 95.

Photo by Aracelio Roman

**CENTER:** Midway Airlines Fokker 100 (F.28-100) N103ML, Msn 11444 on the ramp at LGA, Spring 95.

Photo by Aracelio Roman



**BOTTOM:** Trans World Airlines L-1011-100 (Cvt from L1011-1) N81026, Msn 1104, f/n 31026 almost ready for push back at JFK, Spring 1995.

Photo by Aracelio Roman

**DC-4 CORRECTION**

Vol.22, No.2

The statement on p.6 of Vol.22, No.2 that Pennsylvania Central Airlines was the first airline in the world to operate the DC-4, is incorrect.

PCA began Washington - Chicago and Washington - Newark service on 15 JAN 46.

However, American Export Airlines had already started scheduled DC-4 service between New York and London on 24 OCT 45 (p 5)

As the author of the DC-4 feature, I apologize for the error. Joop Gerritsma





**RIGHT:** Trans World Airlines MD-82, N904TW, Msn 49156/1104, f/n 9004, at STL.

*Photo by Jerry Elmas*



**RIGHT:** American Airlines MD-82, N490AA, Msn 49683/1563, arriving at DFW.

*Photo by Jerry Elmas*



**RIGHT:** American Airlines Fokker 100 (F.28-100), N1466A, Msn 11480, at STL.

*Photo by Fed Del Monico*



**RIGHT:** TriStar Airlines operates out of Las Vegas/McCarran with three BAE 146. Shown at Grand Canyon Airport is 146-200A, N136TR, Msn E2136.

*Photo by Fred Del Monico*



**LEFT:** Kiwi International Air Lines 727-276 Adv, N908PG, Msn 20951/1101 docked at EWR, Fall 95, for a night's rest.

*Photo by Aracelio Roman*



**RIGHT:** Air Canada 767-233(ER), C-FBEG, Msn 24324/252, ready for takeoff at LGA, Spring 95.

*Photo by Aracelio Roman*



**LEFT:** Air Canada A320-211, C-FKOJ, Msn 330, f/n 226, at the gate at EWR, Spring 1995.

*Photo by Aracelio Roman*



**RIGHT:** Lufthansa A340-211, D-AIBC, Msn 11, "Leverkusen" arriving at EWR, Fall 95.

*Photo by Aracelio Roman*

# Up close with a centerfold

BY WAY OF INTRODUCTION

Greetings to all. A few weeks before writing this, I received a call from Dick and Diane Koran in Florida, asking me if I'd be willing to take over the WINGS & THINGS column from Dick. As most of you know, I have thrown my two cents worth in on several occasions in the past by generally giving my impressions and recollections of convention activities, but to be asked to take over completely is pretty humbling.

It was through Dick that I heard of the club (it wasn't yet a society) and he was a great help in getting my collection up and running. He is always the first one to consult when a question of authenticity or time frame of an insignia arises.

I hope I can be of some interest and help to the members in the future. I don't expect that I will ever come close to Dick's expertise of crew insignia. All I can say is that what I'll pass along will be fact and if I have to guess or suppose about a statement or caption, it will be clearly stated as such.

I began collecting wings in 1982, just after Braniff International ceased operations (the first time). I joined the club in 1983 and have traded with many members over the years. I have been to the AI conventions in Orlando, Orange County, Washington, Phoenix and Minneapolis. My wife Karen joined me in Orange County, just in time for our first (and hopefully last) earthquake, Phoenix (for our first DC-3 ride) and Minneapolis, where she let me ride the Ford Tri-motor "with the guys." Washington didn't count because it is just down the road and I was able to commute. I did have a large part of my collection displayed there. I also attend the mini-conventions in Washington and Newark.

Four years ago we celebrated our 25th anniversary by taking a cruise to Bermuda. I was the one who didn't want to "waste a day and a half down and a day and half back" and the same one who was ready to book the next cruise before we returned to the dock in New York. We completed our fourth cruise on 03 JUL when we arrived back at BWI after a trip through Germany, Russia and the Scandinavian capitals aboard the "Norwegian Crown." I guess I'm a cruise junkie. We took along our daughter Julia, and she's already looking forward to next year's trip. Son Charles F. (the Chuck stops here!) Dolan IV was married on 15 SEP, so things were busy this summer for a moment.

Between the Airliners International conventions and globetrotting, my earliest hobby of restoring and driving a 1922 Ford station wagon, has been put "upon blocks" literally and figuratively. With luck I'll be eligible to retire in three and a half years and then might have time to get the old iron running a bit more. I hope to get a part-time position with one of the BWI carriers to keep near an airport and on the prowl for "brass" as it passes through.



Gear retracted, nose door open and loading ramp in place: the AN-124-100 is ready to swallow its load.

(All photos by Charles F. Dolan)

## YOU CALL, THEY HAUL

### The Antonov AN-124-100 visits BWI

How often do you get a chance to see a centerfold model up close? Well, on 01 AUG I was able to see one, walk around and touch one, and take lots of close-up photos. "She" was smooth, sleek, cool and BIG.

The centerfold in question is the Antonov AN-124-100, seen in the SEP/OCT 96 issue of "Airways" magazine. The photo, taken near the town of Ulyanovsk, Russia (home base of VolgaDnepr Airlines) shows the registration as CCCP-82045, indicating the picture was snapped before the break-up of the Soviet Union. By the time AUG 96 rolled around, the aircraft's registration had been changed to RA-82045.

This is the third AN-124-100 that I have seen operate through BWI in the past year and a half. This aircraft, like one other, is operated by the consortium of HeavyLift - VolgaDnepr airlines. The third was operated by Air Foyle - Antonov. The AN-124, originally designed as a military transport, is now helping to bring hard currency to the newly-independent states of the former Soviet Union.

The military heritage of the "Ruslan" is easy to discern. It has the high wing, multi-wheel (24) landing gear and both nose and tail ramps to facilitate operations on minimally or unimproved fields to deliver tanks, trucks or supplies to troops in support of military operations. It is the second-largest airplane in the world, bowing out only to the An-225, which has six engines, and leaves the Lockheed C-5B in third place.

Now, with capitalism replacing communism, the Antonov Design Bureau is teaming up with Western carriers to provide specialized service for oversized or overweight loads. The flight on 01 AUG (HLA572/01) was to carry an ocean container from Baltimore, MD (BWI) to Santiago de Chile (SCL). The load was light enough to be carried in the 747F (26,572 kg, 58,580 lb) and the dimensions of the box would have fit inside the cargo compartment, but the floor of the 747 would have collapsed or its back broken because of the concentration of the weight in a small area. The container was lined with lead to safely transport spent nuclear fuel from a Chilean reactor back to the U.S. The container would travel south by air and return by ship. Because no U.S. carrier has aircraft with enough floor-loading strength to accommodate the load, route authorization was granted by the FAA. Also, because the former military design had been sufficiently "civilianized" or "demilitarized" that the special licences required by the Department of State were not required.

Because I saw my flight instructors praying fervently before going up with me, I knew that religion and aviation are closely connected. The An-124 "Ruslan" must be religious because it genuflects. Once the aircraft is positioned and cocked, the nose gear is retracted. This drops the front of the airplane about 4 to 5 feet (1.20 to 1.50 m). Special support pads mounted to ribs on each side of the fuselage take the weight from the gear as it goes up and then an integral loading ramp is deployed to the front. The last 20 feet of the ramp must be assembled from stowage positions by hand. This helps account for the large crew required to support the operation of the An-124. There are eight flight personnel and 11 support staff, primarily doing the work of riggers and loadmasters.

The space inside the fuselage is, in a word, MASSIVE! There are two cranes mounted on tracks at the top of the cargo hold, each rated at 10 tons. Some engineer in Russia really earned his rubles when he designed a structure able to support that weight. There are two compartments above the cargo hold dedicated to seating/sleeping and dining activities for the large crew, in this case 18 Russians and one Briton. One compartment is at the front of the airplane, just aft of the cockpit, the other area, which is the larger of the two, is located forward of the vertical stabilizer. The area between these two lounges is probably taken up by the main spar of the massive wing assembly. Access to the rear lounge and forward lounge/cockpit is by retractable ladders mounted in the cargo compartment roof on the left side, facing either forward or aft.

I was at the airplane as the load was lifted aboard and positioned on the floor by the Russian crew. The lead-lined shipping container and its support equipment were chained down and the riggers restowed the truss-style forward ramps. A ground power unit gave enough juice to fold and stow the forward-mounted ramp, but the APU had to be started to extend the nose gear. The process is accomplished by operating two large-diameter screwjacks that pivot the strut and force the nose up. The stress on the pivot point must be phenomenal. As the gear extends, the strut compresses in stages as the weight is taken up by the nose gear. All in all, it is an impressive operation.

Some of the ground support equipment would represent full loads for many aircraft. The tow bar alone has to be a thousand pounds



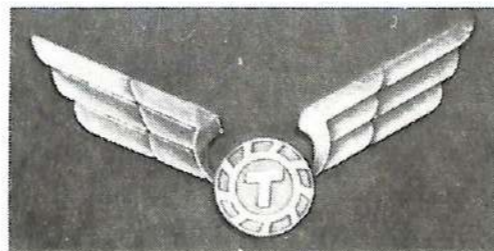
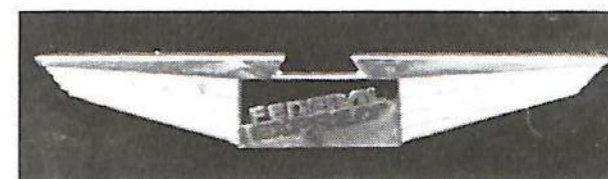
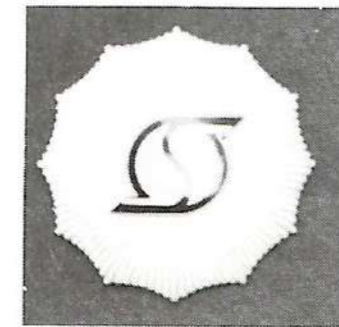
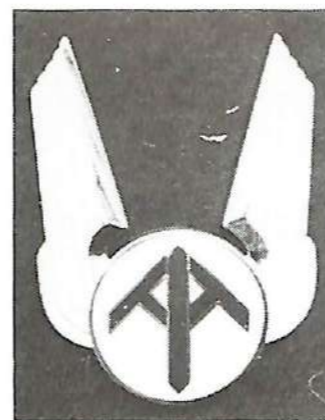
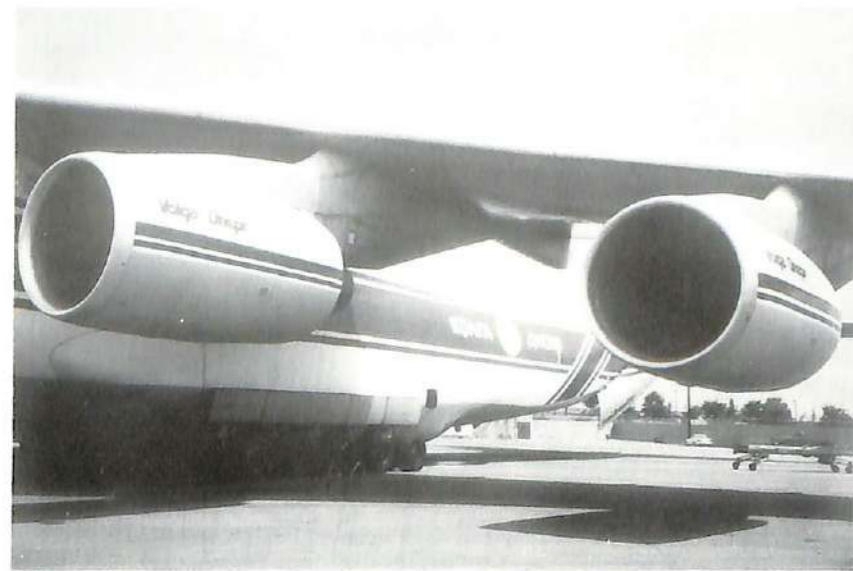
Yes, those little windows in the middle of the picture, to the right, are those of the cockpit. That is how far the AN-124 can open its beak.

(450 kg). Riggers and technicians have a wheeled ladder of about 15 feet (4.12 m) to check oil levels in the engines and place and remove pitot tube covers. There was constant activity around and about the aircraft all the time I was near it. Unfortunately I was unable to capture the takeoff on film or video tape because I had to attend a meeting which lasted through engine start, taxi and takeoff. The next time one of these giants comes to call, I plan to be there from touchdown to takeoff and someone else can take notes at the meeting.



Large plates on either side support the front of the aircraft when the nose is down for loading. The nosewheel is almost completely buried in this retracted position.

I hope you'll find the column interesting and informative and that you'll help me from time to time with news of new insignia, carriers and other items of interest.



Changing gears now to talk about wings, I am presenting a selection of wings and cap badges of cargo and small parcel airlines.

#### Interstate Airlines

Silver wing and cap badge with white disc. A red "I" and blue "A". I obtained the wing while I was assigned to Montreal's Dorval Airport and picked up the cap badge at one of the AI conventions. Interstate is not in operation at this time.

#### Southern Air Transport

This wing and cap badge are in silver with a stylized "S" in black on a disc of light and dark gray. The Miami, Florida-based carrier flies 747, DC-8 and Hercules.

#### Federal Express

Another small-package carrier, FedEx has this finely-detailed insignia in silver. "FEDERAL" in polished silver, and "EXPRESS" in red stand on a deep purple background. The carrier's large and varied fleet includes 727, 747, Airbus A300, DC-10F, MD-11F, Canadair CL-601 jets, Fokker F.27 and Cessna 208B Caravan in package express service.

#### United Parcel Service

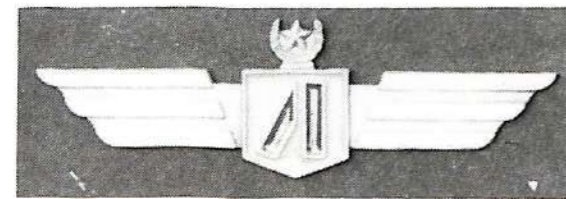
UPS uses these wings and cap badge in polished gold. The background behind the "UPS" and the package string design at the top is in brown. This set shows very fine detailing of the feathers in both the cap badge and the wing. UPS uses 727, 747, 757, 767, DC-8 and SA227AT in package express service based on Louisville, Kentucky.

#### Flying Tigers

Flying Tigers, or The Flying Tiger Line, was formed in 1945 and by 1988 had grown to one of the largest all-cargo airlines in the world, operating a fleet of 727s, 747s and DC-8-73CF aircraft. This badge and wing are in gold with the characteristic "T" logo in the center. Flying Tigers was taken over by Federal Express in 1988.



HeavyLift



Airborne



Arrow Air



Challenge Air Cargo

This is an attractive set of wings and badge from the Miami-based carrier. The "feathers" are brushed gold and half the disc and the letters are in polished gold. 707 and 757 make up the airline's fleet.



Evergreen International Airlines

Wins and cap badge are in pewter color overall with a white disc surrounded by a green ring and with a green "G" in the center. The carrier operates 727, 747, DC-8 and DC-9 out of Marana, Arizona.

### HeavyLift Cargo Airlines

Based at London Stanstead Airport, U.K., the airline uses this wing of gold tread, a light-blue globe and a white equator line. "HEAVY" is in blue, "LIFT" in red thread. The cap badge is on black felt, with a wreath in gold thread, shield in blue and red, "H" in white. The shadow effect is in blue. HeavyLift operates 707, Shorts Belfast and AN-124-100 on the spot charter market.

### Airborne Express

Based at Wilmington, Ohio, Airborne Express crews used to wear this wing and cap badge in pewter finish with gray shield and a red "A" and slash. The background behind "AIRBORNE" on the cap is also in red. I found these insignia at a flea market at the Antique Automobile Club of America's fall meet at Hershey, PA five years ago. I have recently seen Airborne crews wearing all-silver insignia. DC-8, DC-9 and NAMC YS-11A aircraft make up the airline's fleet. Ex-All Nippon 767s are on order for delivery in 1997 and 1998.

### Arrow Air

Gold wing and cap badge with a red enamel "A" on both. I have had these insignia since the mid-1980s. There is a newer insignia which has a red disc with a white "A" in the center. I am not sure when the transition took place. Arrow operates 727 and DC-8 out of Miami.

## AIRLINE HAPPY HOUR

Al S. Tasca

In this issue I am covering some of the new (to me anyway) sticks I have received from some of our members, and an addition to the TWA "Connie" sticks. Many thanks to all involved. Also, before I continue, let me say again that anyone who has written to me, or sent me anything, and hasn't heard from me, PLEASE let me know. I seem to have a tendency to misplace correspondence and I don't want anyone to think I am ignoring them. With that said .....

### TWA CONNIE UPDATE.

Thanks to RANDY WEIRATHER of Utah, we can add one stick with "Hotel Claridge" on one side and "Fly the Jetstream" on the other side.

Fig. 1 and 2 are from Eva Air and were sent to me by JAY PRALL of Washington State. Eva Air is from Taiwan and is the country (island)'s second-largest airline. The stick and pick combo have two identical sides and come in green and orange. Both have a round shank and raised outer ridge with the text on top. The stick is 5 1/4" (13.3 cm) long with a bubble end. The pick measures 3 3/4" (9 1/2 cm) and has a spear end. Neither shows a manufacturer's name.

Fig. 3 thru 5 came from VERNON COOPER of England. He also sent me an "Excalibur" stick, but this appeared in my first "Please Help" column and was identified in Vol. 21, No. 2, p.37 of the CAPTAIN'S LOG. Incidentally, this stick is 4 1/2" (11.4 cm) long and Vernon says the airline did charter flights with Airbus 320s, but these have now been replaced by DC-10s. Excalibur Airways is based at Manchester and London Gatwick, England.

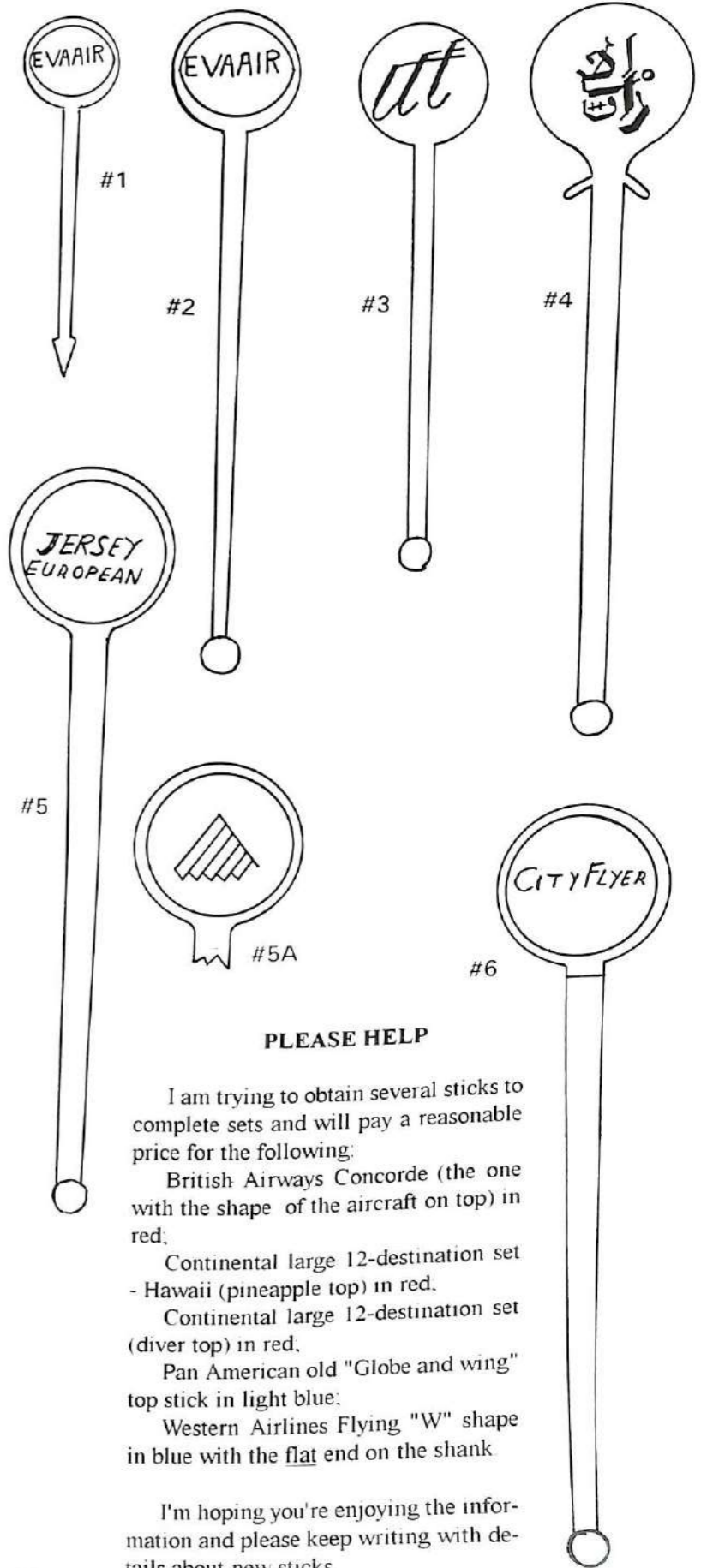
Fig. 3 shows an one-sided stick with a round shank and ball bottom from All Leisure Airlines of London-Gatwick. It is 4 1/2" (11.4 cm) long. The hot-stamped

"a" on the top is in gold and the "l" in dark blue. No manufacturer's name is shown. Vernon said the airline leased Airbus 320s from Translift.

Fig. 4 is from Emirates Airlines. It has two identical sides with hot-stamped Arabic text in gold. Emirates flies scheduled services from the United Arab Emirates to London Gatwick. This 6" (15 1/4 cm) stick is flat with a bubble end. No manufacturer's name is shown.

Fig. 5. This flat, 6" (15 1/4 cm) long, two-sided transparent gray stick with a bubble end is from Jersey European, which operates scheduled services from the Island of Jersey with BAe 146s, F-27s and Shorts 360s. The name on one side, the logo on the other side and the ridges on both sides are raised. No manufacturer shown.

Fig. 6 is flat and brown with a bubble end. It is 6" (15 1/4 cm) long and has two identical sides. "City Flyer" and the ridge around the top are raised on both sides and the stick has no manufacturer's name. City Flyer Express flies regional and domestic services from London/Gatwick. It also operates as British Airways Express, with a fleet of ATR42 and 72. Services are flown to the Netherlands, Belgium, Germany, Ireland, Channel Islands and within England.



### PLEASE HELP

I am trying to obtain several sticks to complete sets and will pay a reasonable price for the following:

British Airways Concorde (the one with the shape of the aircraft on top) in red.

Continental large 12-destination set - Hawaii (pineapple top) in red.

Continental large 12-destination set (diver top) in red.

Pan American old "Globe and wing" top stick in light blue.

Western Airlines Flying "W" shape in blue with the flat end on the shank.

I'm hoping you're enjoying the information and please keep writing with details about new sticks.



# AROUND THE WORLD

## of Airline Schedules

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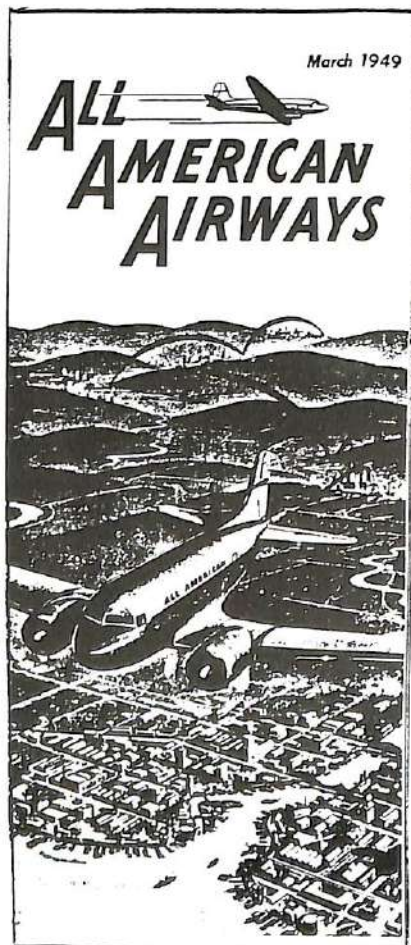
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The schedule article in this issue of the Captain's Log covers early or initial operations of U.S. Air predecessors (All-American, Turner, Piedmont, Robinson, and Mohawk); as well as Ozark Air Lines.



March 1949



Washington - Baltimore - Frederick - Hagerstown - Martinsburg  
Cumberland - Conneville/Uniontown - Pittsburgh  
(Effective March 7, 1949)

Flight #	Day	Time	From	To	Frequency
105	DAILY	0700	Lv Washington	Ar Baltimore	EST
1702	DAILY	0722	Ar Baltimore	Lv Washington	EST
1704	DAILY	0724	Lv Baltimore	Ar Washington	EST
1729	DAILY	0749	Ar Frederick	Lv Baltimore	EST
1731	DAILY	0751	Lv Frederick	Ar Baltimore	EST
1749	DAILY	0829	Ar Hagerstown	Lv Baltimore	EST
1751	DAILY	0831	Lv Hagerstown	Ar Baltimore	EST
1807	DAILY	0827	Ar Martinsburg	Lv Baltimore	EST
1815	DAILY	0835	Lv Martinsburg	Ar Baltimore	EST
1840	DAILY	0909	Ar Cumberland	Lv Baltimore	EST
1842	DAILY	0902	Lv Cumberland	Ar Baltimore	EST
1909	DAILY	0929	Ar Conneville/Uniontown	Lv Baltimore	EST
1911	DAILY	0931	Lv Conneville/Uniontown	Ar Baltimore	EST
1932	DAILY	0952	Ar Pittsburgh	Lv Baltimore	EST

Atlantic City - Philadelphia/Camden - Wilmington - Lancaster  
Harrisburg - Altoona - Johnstown - Pittsburgh  
(Effective March 28, 1949)

Flight #	Day	Time	From	To	Frequency
204	DAILY	1519	Lv Atlantic City	Ar Philadelphia/Camden	EST
2223	DAILY	1519	Lv Philadelphia/Camden	Ar Atlantic City	EST
2249	DAILY	1545	Ar Philadelphia/Camden	Lv Atlantic City	EST
1615	DAILY	1410	Lv Philadelphia/Camden	Ar Wilmington	EST
1631	DAILY	1425	Ar Wilmington	Lv Philadelphia/Camden	EST
1640	DAILY	1435	Lv Wilmington	Ar Philadelphia/Camden	EST
1706	DAILY	1501	Ar Lancaster	Lv Philadelphia/Camden	EST
1708	DAILY	1503	Lv Lancaster	Ar Philadelphia/Camden	EST
1727	DAILY	1522	Ar Harrisburg	Lv Philadelphia/Camden	EST
1729	DAILY	1524	Lv Harrisburg	Ar Philadelphia/Camden	EST
1805	DAILY	1600	Ar Altoona	Lv Philadelphia/Camden	EST
1807	DAILY	1602	Lv Altoona	Ar Philadelphia/Camden	EST
1824	DAILY	1619	Ar Johnstown	Lv Philadelphia/Camden	EST
1825	DAILY	1621	Lv Johnstown	Ar Philadelphia/Camden	EST
1856	DAILY	1651	Ar Pittsburgh	Lv Philadelphia/Camden	EST

NOW—A New Air Service Covering the Industrial Heart of America

Fly at 3 miles a minute in modern twin-engine airliners — only two minutes station time at each stop. Initial schedules effective as shown above; opening dates of other route segments announced soon.

All-American Airways (founded as All-American Aviation in 1937) inaugurated its first scheduled local service trips in March 1949 over the routes shown above. All-American changed its name to Allegheny Airlines on January 1, 1953.

### FLY TURNER Lake Central Route

DAILY SERVICE, PASSENGER, AIR MAIL and AIR EXPRESS  
DAILY COMMUTER and SPECIAL CHARTER SERVICE  
Effective April 1, 1950

## Lake Central Route

LINKING CITIES IN INDIANA • KENTUCKY • ILLINOIS • MICHIGAN • OHIO

SERVING CHICAGO • LAFAYETTE • INDIANAPOLIS  
GRAND RAPIDS • KALAMAZOO • SOUTH BEND • KOKOMO • INDIANAPOLIS  
INDIANAPOLIS • CONNERSVILLE • CINCINNATI  
INDIANAPOLIS • BLOOMINGTON • LOUISVILLE

ALL FLIGHTS DAILY Effective April 1, 1950

City	15	11	7	5	3	23	21	17	15	11	7	5	3	23	21	17	15	11	7	5	3	23	21	17	15
CHICAGO	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
LAFAYETTE																									
INDIANAPOLIS																									
CONNERSVILLE																									
CINCINNATI																									
BLOOMINGTON																									
BEDFORD																									
LOUISVILLE																									

AIR MAIL—AIR PARCEL POST—AIR EXPRESS on all flights  
Fly the Lake Central Route to Michigan this summer for your family's vacation

TICKET OFFICES

CITY	OFFICE	TELEPHONE
BLOOMINGTON	Municipal Airport	Chicago 11 1000
CHICAGO	Chicago Midway Airport	Chicago 11 1000
CINCINNATI	Municipal Airport	East 102
CONNERSVILLE	Municipal Airport	102
GRAND RAPIDS, Mich.	West City Airport	Grand Rapids 2428
INDIANAPOLIS, Ind.	West Loop Airport	Indianapolis 1022
KALAMAZOO, Mich.	Municipal Airport	1121
KOKOMO, Ind.	Municipal Airport	1121
LAFAYETTE	Plankton Drive Airport	1121
LOUISVILLE	Stanhurst Airport	Atlanta 121
SOUTH BEND, Ind.	St. Joseph County Airport	1121

Turner Airlines (above) changed its name to Lake Central in December 1950. It had been founded in 1947 as Roscoe Turner Aeronautical Corp. Turner had begun operations (then as Turner Airlines) November 12, 1949 with two DC-3's and 15 employees, over its routes to eleven cities, radiating from Indianapolis.

## PIEDMONT Airlines

NEW DIRECT SERVICE NORTH CAROLINA TO OHIO RIVER VALLEY

ONE OF AMERICA'S CERTIFICATED AIRLINES

PIEDMONT Airlines DOUGLAS DC-3 TYPE EQUIPMENT

WILMINGTON-CINCINNATI

Flight #	Day	Time	From	To	Frequency
101	DAILY	0700	Lv Wilmington	Ar Cincinnati	EST
102	DAILY	0722	Ar Cincinnati	Lv Wilmington	EST

NEW BERN-LOUISVILLE

Flight #	Day	Time	From	To	Frequency
103	DAILY	0700	Lv New Bern	Ar Louisville	EST
104	DAILY	0722	Ar Louisville	Lv New Bern	EST

Piedmont Aviation, Inc. (oper. as Piedmont Airlines) inaugurated local service routes February 20, 1948, over the routes shown on the inaugural timetable (above), using DC-3's. The company was founded in 1940 as an FBO, general aviation sales co., and charter operation. It was originally a Piper & Stinson aircraft distributor.



# A new "oldest" NW wing is found

Illustrations © 1996 by Herman van Dyk

As I am writing this, I am still recovering from the Airliners International convention at Minneapolis. Those long days and short nights are taking its toll on me. And for the life of me, I can't remember how I put up with those international flights before I retired. Must be getting old.

Finding new wings is a great thrill and you can always find something new at our international show. This time was no exception. But first I have to report on the "find of the year."

#1. BOB BULLERS found a "new" Northwest Airlines wing. It will require the renumbering of all the NWA wings in my Junior Wing Book since this is without question the first issue by NWA (at least unless someone comes up with something else).

My previous listing for NWA #1 was a half wing made of metal in a bronze color and is a Jr. Stewardess wing. The wing Bob found is the same except that is the Jr. Captain and is a full wing. A truly great find!

I knew about it before the show and I called the person who owned it. After he described it to me over the telephone, I said I definitely was interested in buying or trading. However, by the time I got to his table on the Thursday of the show, Bob had scooped it up.

But there were many other wings available:

#2 is from COPA Panama (Compania Panamena de Aviacion). According to the 1996/97 edition of JP airline fleets, they fly eight 737-200 Advanceds in passenger service and one 737-200 freighter.

This junior wing is a plastic pin-back with red as the dominant color, with white lettering and trim.

#3. Air Canada has come out with a new wing. If you have to go with the vinyl stick-on type, this one certainly looks good enough to be included in any collection. The dominant color is gold with dark green and red used for lettering and trim. Note the bilingual text at the bottom: "Skyriders -

Aeronautes." Made in Taiwan, it certainly is a change from the older style vinyl wings.

#4. Then I was able to pick up a new issue of the Finnair Junior Club. This pin-back plastic wing is made by Stoffel Seals of Nyack, N.Y. and it shows they will do custom work if you want it. This attractive wing is in white and blue with the airplane in black.

#5. My good friend DAVE PRINS found some German European Airline junior wings for me. German European is an airline that never really got up and running. BARRIE JAMES told me they also put out postcards and he has a bunch so it seems the name will be around but nobody actually flew on the airline.

#6-7. Also at the show I picked up the new issues of Reeve Aleutian Airways. There are two issues here. The Cabin Pilot wing is given out on the airplane, the other one, without the bar at the bottom, is used mainly for promotional work by the airline, but is still a give away.

#8. Another acquisition at the show was a Mahalo Air junior wing. The airline operates inter-island services out of Honolulu with ATR42-300 and F-27-500. This pin-back Stoffel S-6 style wing is in silver and gray with blue lettering.

#9. In my Junior Wing book I show an American Airlines gift shop item that is green in color and has an eagle separating the "AA," all on top of a stylized jet aircraft. At the show I found this same item, but in brown and this has the tab attached. Similar to the other junior wings, the tab is to be broken off and to be plugged into the rear of the wing so it stays on a shirt.



# Wings from the new republics in the former USSR

Before I pose a new series of questions and provide you with the answers to some old ones, I like to show you a few more badges and wings from the new republics of the former Soviet Union. Decent pictures and reliable information are, for me, difficult to obtain. However, my correspondent in Latvia has supplied several for this issue.

A. This large red, white and black cap badge is of a new "airline" in Latvia. Concors was formed in 1995. Their explanation of the name is that it comes from the English word "concourse," meaning a place where several streets come together. Concorde Aircompany offers transportation to countries and regions within the Baltic area with one 14-seat LET L-410 twin-engine prop-jet.

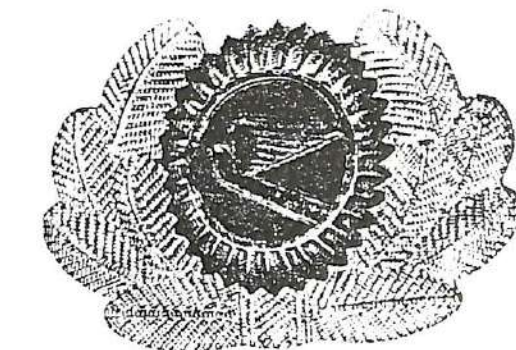
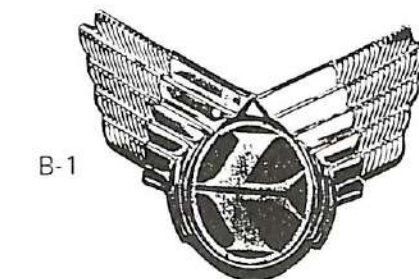
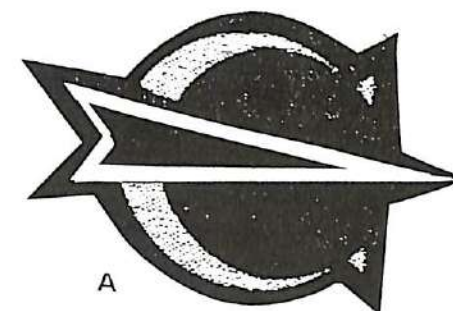
B. These are the cap badge and jacked wings of Lithuanian Airlines of Vilnius, Lithuania. Born in 1992, LAL is now using a second wing type (B-3). These Lithuanian badges are of a gold-color metal. The larger wings show the letters LAL at the bottom center. The smaller wing, or Type 2 (B-3) has the wing portion colored, from the top, in yellow, green and red, and the letters LAL are missing.

C. Cap badge of IMAIR from the Republic of Azerbaijan.

D. These badges are used by Kyrgystan Air. This airline, born in 1984, is the national air carrier of the new Republic of Kyrgystan.

E. Turkmenistan Airlines, founded in 1984, is based in the city of Ashkhabad. These insignia are made of aluminum.

F. This large cap badge (3.34", 9.12 cm across, 3", 7.6 cm deep!) is from Orient Avia of the city of Vladivostok. The airline provides service between Moscow and Vladivostok (Is there a hint of the Lufthansa logo here?)



G. Another large cap badge (3 1/2", 9 cm, across, 2 3/4", 7 cm deep). It comes from AJT Air International (Asian Joint Transport) which was formed in 1993 and uses two Ilyushin IL-86 freighters.



G

H. The last in this series, for a while, is this cap badge of black paint on gold-color aluminum of Orel Avia. The airline was founded in 1993 and is based in the city of Orel, Russia. The 1996/97 JP airline fleets says they operate eight aircraft, including one Yakovlev YAK-40, four YAK-42D, all for passenger service, and three Tupolev TU-204C freighters.



H

I. This cap badge is from the Civil Aviation Administration of China (CAAC). Dating back to 1988, it is made of gold-colored aluminum and features a red star on a light-blue background.



Thanks, Igors. This is nice stuff.

Now to the regular Q & A material. There have been a considerable number of letters with your answers. One identification was made by no fewer than five people. Several letters contained copies of World Airline Fleet lists and, in some letters, there were more questions.

**ANSWERS:**

The people who contacted me this time were Dave McCurry, Stan Baumwald, Phil Martin, Dr. David Bradford, Jim Burton, Stephen Emmins, Randy Basso, Tom Malloy, Ian Campbell, Anne Malm, Bruce Shuey, Charlie Dolan, Derek Hughey, Bill Sohmer and Dr. Charles Quarles. I should also include Frank Waldorf and Igors Krivcovs.

Now for some answers:

#163. These gold and silver bullion badges with blue coloring are from Florida Caribbean Airways. Dr. Quarles writes the manufacturer of these badges produced an order of 12 hat insignia and jacket wings in gold bullion. The airline went out of business and the new owners, Red Aviation of Ft. Lauderdale, did not honor the contract.



#163



#165

#165 is a flight attendant cap badge of Iran Air. It was in use in 1984.



#167



#170



#172



#173



#167. There were several notes about this badge. SAM is from Colombia in South America. The airline's official name is Sociedad Aeronautica de Medellin Consolidad S.A. It started as a cargo airline with its first flight to Miami on 01 SEP 46. Passenger service was added in JAN 55. On 30 AUG 62 SAM became a subsidiary of Avianca and was reorganized under the present title.

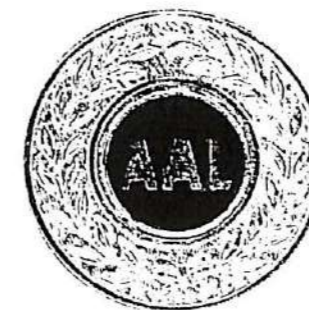
#170 is from "Bell South," a corporate wing.

#172. This badge reads "bra" and is the cap insignia of Brymon Airways of England. "bra" is now lost into British Airways.

#173. This cap badge and wings are from Atlantis Airlines. Atlantis was claimed to be the first airline formed after the Deregulation Act in the U.S. It originally operated from Myrtle Beach, South Carolina, then moved operations to Florence, SC, in 1980. The airline was acquired by Eastern Express in 1989.



#215



#216



#217



#218

**NEW QUESTIONS:**

#215. Who was U.S. Airlines. Inc. ?

#216. Who is or was AAL?

#217. Who is REAL? Is this the Brazilian airline of the 1960s? Why the crown at the bottom of the shield?

#218. Who is "GM" These badges are in Sterling silver and the center is in blue enamel.

#219. Is this Bahamasair? When?

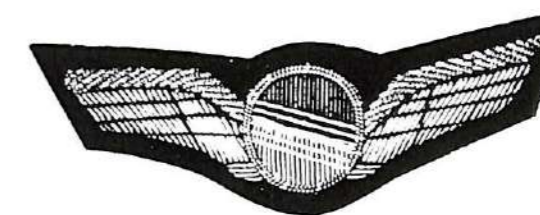
#220. Who uses this wing?

#221. Who is CAA? When?

#222. Is this AeroPeru or not, asks Igors Krivcovs.

#223. This cloth (worsted) wing appears to be from United Air Lines, but is it? It is a gold-thread wing with red, white and blue in the center shield. Any ideas anyone?

Do any of you collectors have surplus Canadian airline badges or wings? Do you have a question, a comment or an answer? Please write! My address is on the inside front cover and my phone number is (403) 936-5454. I'd love to hear from you.



#219



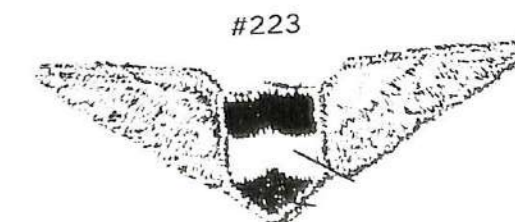
#220



#221



#222



#223

# The DC-2 and DC-3 on decks of cards

Welcome again to the Play Card Corner. In this issue of the CAPTAIN'S LOG, I will feature cards that have illustrated the DC-3 (and a couple that show the DC-2).

#1. This Braniff Airways "Great Lakes to the Gulf" card shows the DC-2 and was issued as a bridge set, I believe. One card has a black outer and silver inner border, a white background and red logo in the center (shown here). The mate to this card has a red outer border and a black logo in the center. The rest is the same. I don't know when this set was issued, but Braniff acquired the DC-2 in 1936 and operated them until 1942.

#2. The next card is from Transcontinental & Western Air (TWA) and shows the DC-2 flying left to right, but coming at you at about 45 degrees. The outer border is white and the inner one is in gold with the text "The Lindbergh Line" at the top and "Shortest - Fastest - Coast to Coast" at the bottom, both in black. The TWA logo in the top left is in red. The mate to this card has a silver inner border. The color picture is a drawing, not a photo.

#3. Another TWA card, with a black outer border and silver inner. It shows a B&W photo of the DC-3 and all printing is in black.

#4. This card is from TWA's collector's series issued in the 1970s. The cards picture all the various aircraft types the airline had operated to that time. There were a total of 16 decks to the set. The card has a color photo of the DC-3.

#5. There are two decks to this Eastern Airlines set. One has a silver outer border, with white, red, white and blue inner borders and red triangles in the right upper and left bottom corners. The logo in the bottom left is in red, white and blue. The mate has a dark outer border. I have only a photocopy of this card. I hope it reproduces well.

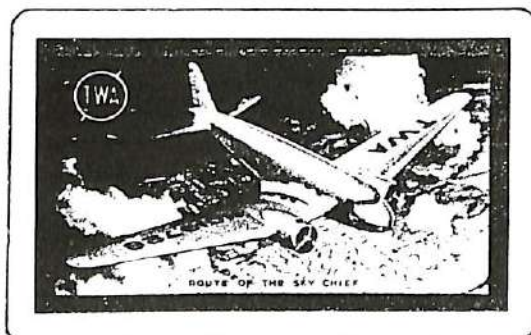
#6. United Air Lines issued this card of their DC-3 Mainliner. The photograph is in B&W and the card has a red outer and silver inner border. "United Air Lines" at the bottom of the photograph is in black.

#7. Frontier Airlines was a more-recent DC-3 operator than the airlines in the previous six cards. Borders on this card are green, gold and white, and the DC-3 photo is reproduced with a light brown tint.

This is all for this time. Until the next time, and Happy Collecting!



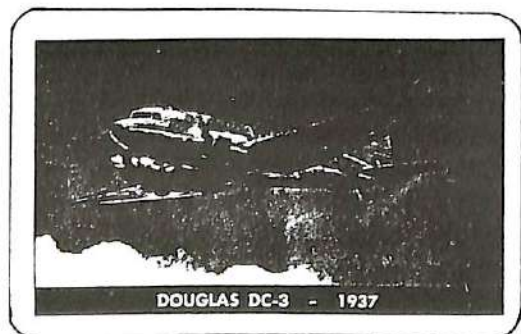
#1



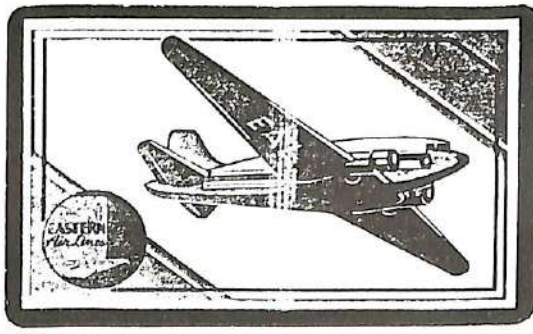
#2



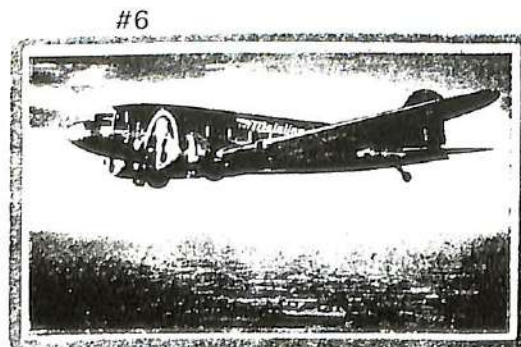
#3



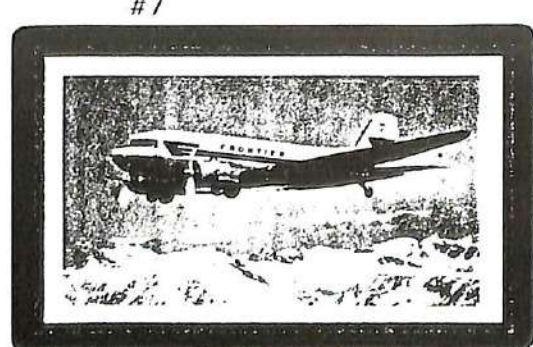
#4



#5



#6



#7

## NEW IN THE BOOKCASE

### CONVAIR 880 & 990

Great Airliner series #1.

Jon Proctor

World Transport Press, P.O. Box 521238, Miami, FL 33152-1238  
Softcover, 128 pages  
124 color & 133 B&W photos  
Year of Publication: 1996  
ISBN 0-9626730-4-8

World Transport Press and Jon Proctor have raised aviation book publishing to a higher level with this magnificent book about one of the first-generation U.S. jetliners.

It is trite to say the author discusses the development, construction and airline operations of these



two aircraft models. Of course he does, but this well-researched work goes into greater detail than most books about airliners do. It also includes a description of the Model 600 Skylark and the Golden Arrow predecessor projects, and the "Hughes Factor" and its negative impact on the aircraft. The author also describes how Convair failed to properly plan and execute the production process, which resulted in long delays in deliveries and service entry.

There are chapters about the operations by the initial operators, and by subsequent ones. The chapter on cargo conversions includes a stunning photo of a Monarch CV-880 landing at Miami with its forward cargo door wide open! It was shot by Larry Potoski, and was frame #38 on a 36-exposure roll of film! Elvis Presley's *Lisa Marie* private CV-880 is described and illustrated (exterior and interior), as is the UC-880 in-flight refueling tanker of the US Navy and also

used for Tomahawk cruise missile operational testing.

There also is a photo (in B&W) of Modern Air's *Busenvogel* with a female cabin crew that was sure to attract the attention of male passengers.

A separate chapter deals with the safety aspects of the CV-880 and CV-990 and list crashes and other hull losses.

After that we come to what to this reviewer is the most-remarkable part of Jon's book: a complete production list of both models with a photo of each individual aircraft. These photos are all in B&W, but most of the liveries are illustrated in color in the first three parts of the book.

The final pages of this great airliner book contain indices by airline and by registrations for both the 880 and 990, as well as a useful bibliography.

I do not hesitate to say that this book belongs in the library of every airliner enthusiast. And this includes every WAHS member.

(Review by J.G.)

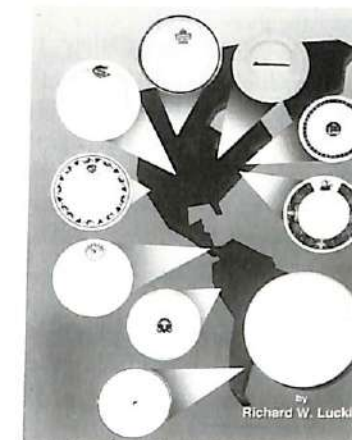
### BUTTER PAT WORLD

Richard W. Luckin

RK Publishing  
621 Cascade Court  
Golden, CO 80403-1581  
Hardbound, 256 pages,  
600 B&W photos  
Year of Publication: 1996.

If you've ever been to any of the fast-growing number of airline collectible shows, you can't help but notice the increasing interest in airline dining ware. But until now collectors have been unable to communicate accurately among themselves when referring to pattern names and descriptions.

Richard Luckin, the author of several railroad chinaware books, has put together an interesting volume featuring the butter pats of the airlines, railroads and ship lines. Butter pats have become a popular segment of the china collector hobby, in much part due to their small size and ease of display. Many of them are simply a tiny



Richard W. Luckin

representation of the dinner plate of the same pattern.

This book devotes about 70 pages to airline subjects, 72 to railroads and 42 to ship lines. Each pattern is clearly illustrated, named and given a rarity rating. In addition, the size, manufacturer and service (first or business class) is noted. A brief history of each transportation company is also given.

The book illustrates the process of manufacturing butter pats, lists manufacturers and gives collecting tips. One can hope that this is just the first of several volumes to chronicle the interesting history of airline dining ware items.

Even if you are not (yet) a china collector, you can't help but enjoy this fascinating volume, and you'll be amazed by the fine china used by many small and obscure airlines.

(Review by Dick Wallin)

### ANYTHING, ANYTIME, ANYWHERE

The Legacy of The Flying Tiger Line 1945-89

Art Chin

### THE SEABOARD SAGA

The History of Seaboard World Airlines, 1946-80

Art Chin

*Fl. Tigers*: 295 pages, 3 color & 72 B&W photos  
Year of Publication: 1993  
ISBN 0-9637826-8-1.  
*Seaboard*: 197 pages, 3 color & 90 B&W photos.  
Year of Publication: 1996  
ISBN 0-9637826-0-6.  
Both titles also have many maps, diagrams and other illustrations

If intercontinental passenger carriers are the prima donnas of the airline industry, the cargo carriers are the stepchildren. As a result, books about them are few.

These two volumes by Art Chin are therefore so welcome. They cast an entirely new light on the subject of air transportation.

Flying Tigers was incorporated in 1945 as National Skyway Freight Corporation. Having been founded mainly by AVG "Flying Tigers" veterans, the unofficial name was "The Flying Tiger Line."

Operations started in 1945, with with one of the orphan aircraft of its day, the Budd Conestoga, an all-stainless steel, rear-loading twin prop freighter that, says the author, was "mechanically precarious" at best. They were soon replaced by Dakotas and Skymasters. Later, Commandos, Super Constellations, the swing tail Canadair CL-44D and Douglas and Boeing jets followed.

The Vietnam War had a tremendous impact on the airline and its fortunes, as did domestic deregulation of the industry.

ANYTHING, ANYTIME, ANYWHERE  
The Legacy of The Flying Tiger Line  
1945-89



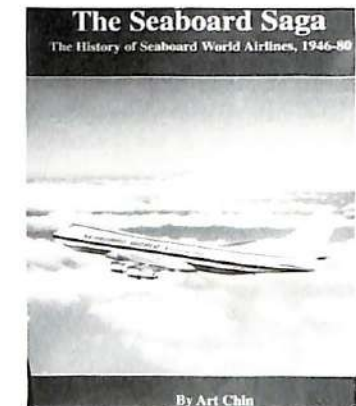
Art Chin

Tassels & Wings Publishing,  
6208 S. Bangor St, Seattle,  
Washington 98178  
Softcover

By 1970, Flying Tigers was the largest all-cargo charter airline in the world. Its strength was in the domestic and Pacific markets, and in 1980 it took over Seaboard World Airlines, a major player in the Atlantic cargo market.

The author details Metro International, a short-lived (1981-83) scheduled-passenger carrying offshoot of Flying Tigers, and the emergence of Flying Tigers as America's first scheduled around-the-world air cargo carrier.

Flying Tigers was taken over by Federal Express in 1988.



The Seaboard Saga follows the same pattern. The beginning came in 1946 as Seaboard & Western with Skymasters. Super Constellations were ordered in 1955 when SW received domestic and trans-Atlantic scheduled route authority.

Little known is that Seaboard also operated scheduled passenger services, using 16 seats on the upper decks of its 747 freighters under the name "The Captain's Deck," to Europe and between New York and Los Angeles.

Interesting is the chapter about the interception of a Seaboard DC-8-63F by Soviet MIGs during the Vietnam Airlift. The aircraft was forced to land on Iturup Island in the Kuril Archipelago, where the crew and 214 U.S. servicemen were held for two days before they were released and continued to Tokyo. Included are dramatic pictures of the intercept, taken from the DC-8 by stewardess Nancy Jacquier with an instamatic camera. She hid the camera in an oxygen mask and the Russians missed it when they searched the aircraft.

Also included are photos and short biographies of several key Seaboard personnel during the years.

Both books contain extensive bibliographies for those who are thirsty for more details.

For everyone with an interest in the airline industry, these are books well-worth having.

(Reviews by J.G.)

**BOEING 727**

Modern Civil Aircraft: 13  
Peter Gilchrist

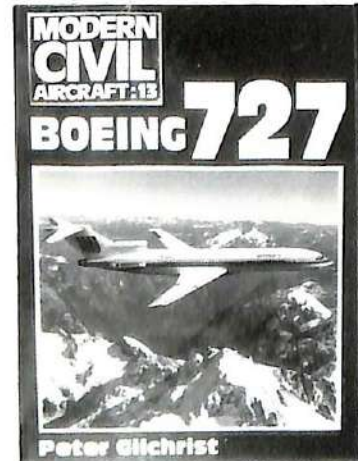
Ian Alan Publishing, Terminal House, Shepperton, Surrey, England, KT15 1HY  
Softcover, 96 pages.  
72 B&W and 3 color photos, many diagrams.  
Year of Publication: 1996.  
ISBN 0-7110-2081-7

The Modern Civil Aircraft titles from Ian Allan hardly need an introduction. From the first one in 1982 (about the VC-10), they have gained a reputation for thorough research and concise presentation of their subject matter.

The latest title is no exception as the author delves into the origin of the 727, its development, production and airline service. Diagrams show early layouts. (One was for a tri-jet with a V-tail and one engine on top of the fuselage in the bottom of the V.)

A detailed technical description is illustrated with photographs and diagrams, and there are details about the major variants.

A listing of casualties provides details about the circumstances under which the losses took place. A production list gives the delivery customer and registration of each individual aircraft.



Thankfully, many of the photos are by the author and by Hugh Newell, rather than being PR shots.

I can think of only one thing that could make future Modern Civil Airliner titles even more valuable: put some color photo pages inside, rather than having color only on the cover. But this is more a suggestion than a criticism.

(Reviewed by J.G.)



**CANADAIR**  
The First 50 Years  
Ron Pickler & Larry Milberry

CANAV Books, 51 Balsam Ave., Toronto, Ont., Canada M4E 3B6  
Hardcover, 392 pages  
Many color and hundreds of B&W photos  
Year of Publication: 1995  
ISBN 0-921022-07-7

This is a great book about the history of Canadaair, one of the world's foremost manufacturers of commuter aircraft, from 1944-1994. But the authors also cast a look back over the years 1920 to 1944 when the company was known as Canadian Vickers and built military flying boats under licence, culminating with the production of the Catalina for the RCAF and the US Navy in WW2.

There is much post-WW2 military material in this book (licence production of the T-33, F-5, F-86, F-104, and Canadaair's own projects and so on).

The value of this book for airline buffs lies in the chapters about and excellent photo coverage of the conversion of surplus military Da-

kotas into civil passenger DC-3s after the war; the development and production of the DC-4M (C-54GM) for TCA and BOAC; the licence production of the Convair Twin as the CV-540; the production of the CL-44, an enlarged Bristol Britannia; and the development and production of the Challenger business jet and the RJ regional jet for commuter services.

Recommended!  
(Review by J.G.)

**THE IMMORTAL TWIN BEECH**  
Larry A. Ball

Ball Publications, 7517 Palais Ct, Indianapolis, Indiana 46278.  
Hardcover, 239 pages.  
187 B&W and 16 color photos.  
Year of Publication: 1995.  
ISBN 0-9641514-2-1.

The "Twin Beech" has never received the recognition it is due for the big roles it played in the early post-WW2 commuter and the overnight small package and mail delivery. Larry Ball, who worked for nearly 40 years at Beech, doesn't do it either. The author in fact barely acknowledges the post-war civil career of the 18. He dwells long on how Beech organized WW-2 production of thousands of -18s for the military, while also doing sub-contract work for other manufacturers, but there is little on the differences between the many sub-models. A table in the back doesn't even come close to offering enough details, but an interesting chapter is that about the various Twin Beech modifications and engine test beds.

There are terrific B&W photos, but many suffer from too much ink on the presses and are too dark.

To aircraft enthusiasts there is only one "Twin Beech" - the Model 18 and no other. So, why drag the Queen Air and King Air biz planes into this book? Or the war-time B-26 wing construction? Or the Bonanza, Mentor, Jet Mentor and Paris?

Sorry, but I am still waiting for the definitive book on the "immortal Twin Beech." Are you listening, Bob Parmenter?

(Reviewed by J.G.)

**HAVE YOUR SAY:**

**MORE ON THE FRONTIER POSTCARD**

From:  
**KEN SCHULTZ, DENVER, CO**

I am writing in response to your enquiry in the Fall 1995 issue of the CAPTAIN'S LOG, p.38, with the Frontier Airlines postcard.

The question under the postcard of the Frontier Airlines DC-3 in the foreground, a UAL DC-6, a CAL CV-240, and the passenger terminal in the background, is "Can anyone tell us when this photo might have been taken, and where?"

The "where" is Stapleton Airfield, Denver, Colorado, and the "when" is NOV-DEC 52. I have enclosed a Xerox copy of

**NOT IN SUPPORT OF LOWER PRICES (1)**

(1): From:  
**BRUCE A. CHARKOW, THORNHILL, ONT, CANADA.**

I do not agree with your use of the CAPTAIN'S LOG as your personal forum to complain about the high prices of airline memorabilia, especially postcards. I think your shortcomings on the subject have to do with the laws of economics, or more plainly, the principles of supply and demand.

I have been a postcard collector and a member of the WAHS for many years. I thoroughly enjoy my hobby and it is true that I paid very little for postcards some 15 years ago - just as did anyone when buying a collectible.

However, in my area of postcard collecting there still remain today many thousands of cards in the \$1 to \$5 range, some being 10 to 15 years old. There are even 20-year old postcards for under \$10 for those who will search them out.

But when you begin to talk about postcards from the 1930s and 1940s, you may be expected to pay higher prices for rare, hard-to-find cards.

Don't you think that a postcard of a commercial airliner that is almost as old as the industry itself can increase in value by as little as \$1 per year?

You will never again pay \$5 or \$10 for those cards, just as you will never pay double or triple face value for the \$1.65 Graf

Zeppelin stamp that was issued in the 1930s - at virtually the same time as many of the high-priced cards were printed.

As long as there are those willing to pay for rare, hard-to-find cards, just as I will, prices will not fall - and why should they for the exceptional cards?

Whether it are stamps, postcards, time-tables, or barf bags for that matter, the good material will command prices that will continue to climb - therefore of course increasing the value of the collection. Is that end result really so bad?

Finally, just because this is a hobby, where does it say that prices should be low? Where is the logic?

Just as there are those who want the return of low prices, I am one of many who understand that cards will be sold to collectors, based on their desire for that particular card. Again, it is simply a matter of supply and demand - nothing more, nothing less.

If I see a card that I want and I have the money, I will buy it.

(2): From: **WILLIAM GAWCHIK TRI-STATE AIRLINE HISTORICAL SOCIETY, YONKERS, NY.**

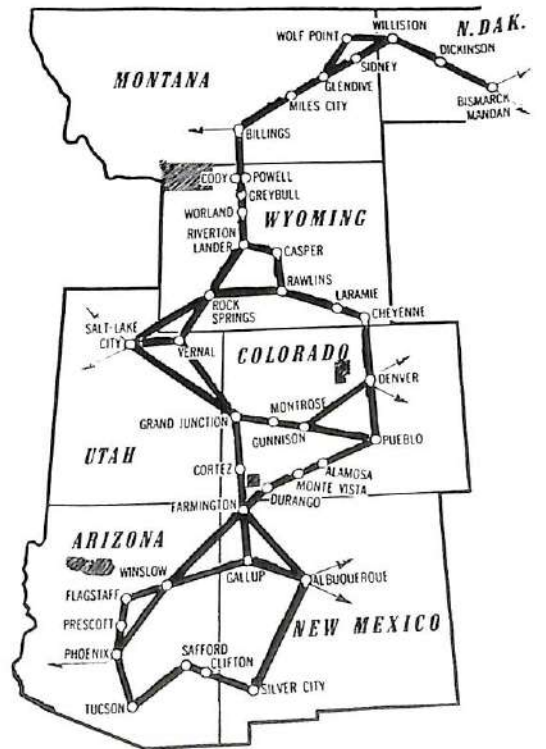
I have been the promoter of the Newark Airlines Collectibles Show for the past eight years (as well as having been a collector for the past 20 years). On 05 JUN 96, I received my issue (Winter 1995-96, Ed.) of the CAPTAIN'S LOG. I would like to comment about the letter written by Mr. Katkowski concern-



**FRONTIER connects with ALL transcontinental airlines**

Map 1

Map 2



ing "sky high" prices at my show.

Mr. Katkowski has attended my show as a collector and has on several occasions also set up as a dealer. I suggest that "The Editor" and Mr. Katkowski stop complaining about the prices. You have not defined what you consider to be a "sky high" price. Both of you, as well as all who read this letter, have choices; you can negotiate or bargain with the dealer or you can pass the item by.

You can also stop attending any shows. You can instead spend days walking through antique markets, yard sales, flea markets or other events and if you are really lucky you can find that rare plastic Delta wing for only \$25.00 (only slightly melted by the sun). Everything is expensive today. There are few bargains at rail shows, flea markets, antique shows or swap meets. Yes, there are overpriced items at all of the airline shows on the circuit, but there are also bargains. It is your job to ferret out the bargains.

**(3): From: TONY TRAPP  
AIRLINES COLLECTIBLES SHOWS  
NAPLES, FL.**

Enough is enough, is enough, is enough regarding the high prices charged at airline collectibles shows. It is easy for those who attend one, maybe two shows a year, to criticize others. They just don't see the big picture. I pulled a flyer from my files dated 1985. Back then a vendor table cost \$15.00, a hotel room \$29.95, and admission was \$2.50. You people must remember these costs, and how about the price of a loaf of bread ... 11 cents, a gallon of gasoline ... 29 cents.

Just take a look at the cost of a dealer attending Airliners International 1996: hotel room, 3 days @ \$88 = \$264; registration \$35.00, one table \$40.00. That is \$339.00 just for the bare essentials.

Now, if you people think we can charge \$10 for a pilot wing, \$5 for a 1933 timetable, or 25 cents for a postcard, you are living in a fantasy world. Unlike you fellows,

the goods we sell are not given to us free. The days of the good ole boys in the backroom of the old hangar at Prarie Dog, Texas, near Sky King's ranch, trading treasures Aunt Martha gave you, are long gone.

Welcome to the 1990s, guys.

Unfortunately there are a few unscrupulous individuals who are greedy and feel they must overcharge. When I encounter these S.O.Bs, I raise my eyebrows and move on. I don't let it upset me to the point that I dwell on it a year later. Let's face it, the U.S. Civil War ended well over a hundred years ago. So, I say again ... enough is enough!

P.S. If Greg Katkowski can buy things at antique and railroad shows at reasonable prices, I'd like to know where these shows are.

*Ed's note: We thank all writers on this issue for their letters. But with both sides having had ample opportunity to air their views, this subject is now closed.*

...from the left hand seat...

by Paul F. Collins



With this issue of the LOG, you will be receiving your registration information for AI '97. Roy Thompson, your host for this year's affair, is planning a number of activities that will keep you busy during your stay in Colorado Springs. Be sure to get your registration information back to Roy by March 1 so you will be entered in the drawing for 3 nights accommodations at the Sheraton Hotel.

I would like to thank all of you who have taken the time to fill out and return the new membership form. While a number of you have taken the opportunity to renew your subscription, the main purpose of sending the form was to obtain your current correct address, areas of collecting, and the +4 numbers of your ZIP code. A number of you faltered in this last category. If you would, please send in your +4 ZIP number to HQ as soon as possible. This information is needed to do our bar coding for our bulk mailing. Your help in this project will be appreciated.

As mentioned in the last issue, there will be a new membership roster printed this year. Our target date at this time is now April. Enclosed with this issue of the LOG will be another copy of the new membership form. If it is not your time to renew, please fill out the form and return it so your membership information can be included in the new roster. The cost for the 97/98 roster will be \$10 plus an additional charge of \$5 for those living outside the U.S. who require air mail delivery. Thanks to all who have preordered the roster. Your support is appreciated.

There have been a few people who we

have failed to thank for helping at AI '96. Jay Prell sent in a large number of postcards that were included in the goodie bag. Helen McLaughlin donated a copy of her Footsteps In The Sky book as a door prize, as well as giving a short talk to the members of the Minnesota CAP on work opportunities in the airline business. Talks were also given by Jon Proctor and Tom Livesey. Last but not least, Brian Draggas helped at the registration desk and was very helpful in running down "lost adults!" If there is anyone else that I have forgotten to thank, please accept my thanks now. We could not have done it without the help of all the great volunteers that made up the staff of AI '96!

WAHS will be accepting presentations for those interested in hosting AI '99. If you're interested in hosting a future Airliners International convention, there are a few steps that you need to take. First, you should write Society HQ for a current copy of the AI Rules and Regulations. Second, you must contact the AI '97 host and advise him you are interested in making a presentation at the business meeting for AI '99. Third, you must have some type of committee set up by the time you come to the business meeting with at least one member of the committee a member in good standing in the WAHS. Fourth, you should have an idea of where and when the convention will be held. If you are interested in hosting a future AI convention, please contact Society HQ and we will be happy to help you.

Until the next issue, which should be out in May, happy collecting!

*Paul*

**NEW IN THE BOOKCASE**

Great  
Airliners  
Volume Two  
**Douglas  
DC-8**



**DOUGLAS DC-8**

Great Airliner series #2

Terry Waddington

World Transport Press, P.O.Box 521238, Miami, FL 33152-1238  
Softcover, 144 pages  
218 color & 38 B&W photos and many diagrams and three-views  
Year of Publication: 1996  
ISBN 0-9626730-5-6

The first DC-8 was a 1946 project for a 48-passenger aircraft based on the XB-42 bomber. Its two engines were installed parallel in the lower fuselage just behind the cockpit. They drove two contra-rotating propellers in the tail cone by a series of five shafts. However, the airlines were not impressed and bought the Convair 240 and Martin 2-O-2 instead.

From this project, the author goes on to describe in detail the emergence of the DC-8 as we know it today.

Terry Waddington worked at Douglas in Toronto and McDonnell Douglas at Long Beach in engineering and commercial marketing for several years. His intimate knowledge of the DC-8 and of the inner workings at Douglas in bringing the aircraft to production, shows in this excellent second volume in the new Great Airliners

series.

After losing the USAF jet tanker contract, Donald Douglas and his chief DC-8 engineer, Ed Burton, were determined to forge ahead with the four-engined jet transport for commercial service only. Manufacturing, flight testing and introduction into service around the world are covered in detail, as is the development of the different variants from the Series 11 to the stretched DC-6-63, the largest commercial jetliner in the world until the 747. Flying Tigers called it the "Jumbo Jet." A total of 294 "standard" DC-8 Series 11 to 55 were built and another 262 Series 60 for a total of 48 airlines.

The author explains why Douglas faced bankruptcy in 1966 despite the sales success of the DC-8-60 and the DC-9 (the DC-9 alone had an order backlog of 500 by the end of 1966). A merger partner was sought and on 13 JAN 67 it was announced that McDonnell Aircraft would acquire the company and McDonnell Douglas came into being.

DC-8 conversions, including the very successful Series 70, are

included, as are non-airline operations. "DC-8s That Might Have Been" is about projects such as the DC-8-83 (longer still than the -63/-73) and about 1991 discussions by several U.S. operators and Douglas to extend the life of the remaining Series 60s by replacing the four JT3B engines by two de-rated P&W 2000 series engines.

Appendices carry details of DC-8 write-offs by date; tie ups between Douglas test registrations and the msn, models, customers and customer registration as well as technical specifications, and a production list by line number (not by msn) for first customer delivery only.

While only 48 airlines bought the DC-8 new from Douglas, the type has been operated by 350 different carriers through ownership or lease at the time the book was written and Douglas was still getting monthly flight/cycle reports for more than 235 aircraft of the 556 built. Another 75 are listed "in storage." The DC-8 will be flying well into the 21st Century.

*(Review by J.G.)*

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## FLIGHT EXCHANGE cont...

IRA S. KUPERSTEIN, 22 Brush Hill Terrace, Kinnelon, NJ 07405 (201-283-2420) FAX (201-283-2426), is looking for older travel agency and manufacturers' models and will pay premium prices. Of special interest are a sheet aluminum Lockheed Constellation and a Calder designed Braniff 727. For sale or trade he has several large metal and resin models. Write, FAX, or phone.

JOHN WITTMAN, 7004 15th Avenue South, Minneapolis, MN 55423 (612-866-6035), is interested in finding any nice color photo of an American Airlines 747 (red, white, blue stripe/silver body paint scheme—nothing before that) with detail. He specifically wants the color photo of an American plane landing at L.A. Int'l that appeared on the cover of Airline Quarterly, Vol. 1, No. 1, in the summer of 1977.

HARRIS LEFKON, 51 Kristin Lane, Hauppauge, NY 11788, is buying aviation, ZEP, balloon, and space related coins, tokens, medals, and paperweights. Send him your price, metal type, and grading with a Xerox copy or rubbing.

BOB FELD, 7961 Lions Rock Way, #201, Las Vegas, NV 89128 (702-242-5652), is selling his collection of airline memorabilia. He has 62 different U.S./foreign stewardess/flight attendant wings, and 13 different flight attendant name badges for \$3,000.00, 41 different airline pins for \$100.00, 11 airline/aircraft manufacturing service pins for \$220.00, a collection of 154 different junior wings from U.S./foreign airlines for \$650.00, a collection of 70 unattended minor badges for \$200.00, and 31 different pieces of airline china for \$250.00. If interested write or call between 9 a.m. and 9 p.m. PCT.

DAVID LEE WILCOX, 465 Ashley Lane, Roanoke, TX 76262, has for sale two airline history books: Vintage Glory, 112 pages, a pictorial history of early jets and turboprops for \$18.00 and The Sky's the Limit, 342 pages, 18 pages of photos, a history of U.S. airlines to 1971 for \$15.00.

LEONARD WALLIS, 38 Linlake Drive, St. Catherines, Ontario, Canada, L2N 2M3, wants to trade plastic mini (2 inch) Air Canada DC-8 in red, a rare DC-8 in white, and has limited quantities of AC DC-9 in blue, for similar aircraft from other airlines or airline issue postcards. He wants business cards from airlines, FBO, charter companies, and aircraft manufacturers. He will trade lapel pins, Niagara Helicopters, Jet Ranger over Niagara Falls for ??? No phone calls please.

JAMES BURTON, 1811 Santa Fe Avenue, Torrance, CA 90501-4751 (310-618-1542), has the old style North Cen-

tral junior stewardess wings with metal pin backs, foil seal center for \$25.00 each. Please send P.P.D.U.S. Postal Money Orders Only. He is interested in trading or purchasing pilot, flight attendant, and service cap pieces, etc.

PAUL M. GREENE, 125 Gladstone Avenue, West Islip, NY 11795 (516-661-8487), is looking for the book Pictorial History of Pan American World Airways by P. St. John Turner, published in the UK by Ian Allan Ltd., 1973.

AUGIE, P.O. BOX 1293, Bayonne, NJ 07002 (201-339-8375), is looking for posters and advertising signs (from airlines, travel agencies, the fairs themselves, etc.) connected to the New York World's Fairs of 1939 and 1964. He is also looking for items unique to the fairs.

AIRLINERS INTERNATIONAL '96, 13739 Picarsa Drive, Jacksonville, FL 32225, has a limited number of AL '96 souvenir bags for sale. These bags are available for \$10.00 including shipping. Make checks payable to WAHS.

PAUL COLLINS, 13739 Picarsa Drive, Jacksonville, FL 32225, has for sale the following choice items: Northeast Airlines, June/September 1955 schedule for \$20.00; United Airlines December, 1952 schedule for \$20.00; American Airlines 1964 flight information folder for \$14.00; American Airlines mid-1950's system map for \$18.00; and United Airlines/New Yorker Hotel travel folder for \$2.00. He is looking for promotional folders from hot air balloon companies. Send him one of each in your area, and he will send you an airline postcard in return.

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## SHOW TIME!

For those hosting mini-conventions, the CAPTAIN'S LOG will maintain a listing of such shows at no charge to the host/promotor. Please send your information to this publication as soon as you have set your show date. We will do our best to get your show listed in the first available issue of the LOG. If attending, always check with the show host before traveling to a show to make sure it is still going to take place.

March 1-2, 1997 PHOENIX, AZ Chapman Air Museum, Mesa, AZ Contact Al Merkle, 107 E. St. John, Phoenix, AZ 85022 (602-993-8276)

March 1-2, 1997 CHARLOTTE, NC Charlotte Hornets Training Center, I-77, Exit 88 Contact Carolina Hobby Expo (704-786-8373) after 4 p.m.

March 23, 1997 LOS ANGELES, CA Proud Bird Restaurant, Aviation Blvd./LAX Contact John Dekker, 20212 Sealargo LN, #204, Hunt Beach, CA 92646 (714-536-3858) FAX (714-898-5774)

April 5, 1997 DALLAS, TX Holiday Inn/DFW Airport North Contact Tony Trapp, 5343 First Avenue, N.W., Naples, FL 34119 (941-352-0216)

April 12, 1997 CHICAGO, IL Holiday Inn, 1000 Busse Rd., Elk Grove Village Contact Steve Mazanek, Box 31344, Chicago, IL 60631 (773-775-5623)

April 13, 1997 CRAWLEY, WEST SUSSEX (8th GATWICK INTERNATIONAL AIRCRAFT ENTHUSIASTS FAIR) Crawley Leisure Centre, Haslett Avenue, Crawley, West Sussex Contact Tom Singfield, 25 Chennells Way, Horsham, West Sussex RH12 5TW, England

April 19, 1997 SAN FRANCISCO Grosvenor Airport Inn Contact Tom or Sue Draggas, 526 Ventura, San Mateo, CA 94403 (415-574-8111)

May 3, 1997 WASHINGTON, D.C. Howard Johnson National Airport Hotel Contact Tony Trapp, 6017 Pine Ridge Rd., Suite 150, Naples, FL 33999 (914-352-0216)

May 3, 1997 SEATTLE Museum of Flight, Seattle/Boeing Field Contact Fred Chan, Box 2744, Sequim, WA 98382 (360-681-4671) Phone and FAX

May 10, 1997 KANSAS CITY Holiday Inn Airport Contact Art Weiss, 10408 Dedham Ct., Austin, TX 78739 (512-301-3945)

June 8, 1997 CHICAGO Kane County Fairgrounds, St. Charles, IL (35 miles west of Chicago) Contact Bev Birk, Box 158, Middle Amana, IA 52307 (319-622-3864)

June 14, 1997 NEWARK, NJ Newark Airport Holiday Inn North Contact Larry McLaughlin (516-265-9224) or G. R. Webster (203-629-5270)

**JUNE 17-21, 1997 AIRLINERS INTERNATIONAL '97 COLORADO SPRINGS SHERATON HOTEL Contact Roy Thompson, 1923 Payton Circle, Colorado Springs, CO 80915 (719-574-4383) FAX (719-596-8698)**

July 26, 1997 LOS ANGELES Continental Plaza Hotel, LAX Airport Contact Phil Martin, P.O. Box 91051, Long Beach, CA 90809-1051 (310-434-6701) or Dave Cherkis (702-360-3615)

August 23, 1997 ATLANTA Georgia International Convention Center/Sheraton Gateway Hotel Contact Tony Trapp, 5343 First Avenue, N.W., Naples, FL 34119 (941-352-0216)

September 6, 1997 NEWARK, NJ Holiday Inn Jetport Newark Airport Contact Bill Gawchik, 88 Claredon, Yonkers, NY 10701 (914-965-3010) FAX (914-966-1055) Wait list for tables.

September 20, 1997 ST. LOUIS Holiday Inn Airport North Contact Art Weiss, 10408 Dedham Ct., Austin, TX 78739 (512-301-3945)

September 21, 1997 LOS ANGELES Proud Bird Restaurant, Aviation Blvd./LAX Contact John Dekker, 20212 Sealargo LN, #204, Hunt Beach, CA 92646 (714-536-3858) FAX (714-898-5774)

September 27, 1997 COLUMBUS, OHIO History of Flight Museum, near Columbus Airport Contact History of Flight Museum, 4275 Sawyer, Columbus, OH 43219 (614-231-1300)

October 4, 1997 SEATTLE Museum of Flight, Seattle/Boeing Field Contact Fred Chan, P.O. Box 2744, Sequim, WA 98382 (360-681-4671) Phone or FAX

November 2, 1997 GAITHERSBURG, MD, near Washington, D.C. Montgomery County Fairgrounds Contact Golden Spike Ent., 3106 N. Rochester, Arlington, VA 22213 or Charles Miller (703-536-2954)



CONTENT  
DELETED DUE  
TO PRIVACY  
CONCERNS

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## SHOW TIME! cont...

November 15, 1997 HOUSTON Clarion Inn Intercontinental Airport Contact Teresa or Duane Young, Box 101, Covington, LA 70434 (504-892-3297)

## LOOKING FORWARD...

February 3, 1998 LOS ANGELES  
**JUNE 25-27, 1998 SEATTLE AI '98**  
April 11, 1998 SEATTLE  
October 17, 1998 SEATTLE

## FOR THE GOOD OF THE SOCIETY

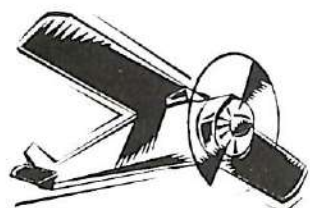
SOCIETY member David Lee Wilcox is planning to do a pictorial history of Trans Texas Airways and Texas International Airlines. David needs help with historical information on TTA/TI from 1947 to 1982, in the form of photographs, inaugurals, labels, aircraft data, etc. He is also interested in marketing campaigns, airport scenes, and photos of uniforms and information on in-flight meal service. Photocopied history information is all right. David can be contacted at 465 Ashley Lane, Roanoke, TX 76262. All help will be greatly appreciated.

While Mary Jayne's Railroad Specialties has, for the time being, stopped producing airline postcards, they do continue their line of great train cards. The latest offering from MJRS has just arrived at SOCIETY HQ and I must report the color on these cards is superior. Three of the cards in the set are of the original Freedom Train that traveled across the country shortly after WW II. For more information on these cards and others, write Mary Jayne's Railroad Specialties, 1905 Dressler Dr., Covington, VA 24426-9805.

This is just a public note to the Colorado Airliners International group currently headed by Al Minich. I have really enjoyed reading all the newsletters about your meetings which I have received over the last several years. I wish that I had been in a position to attend. I hope the group is able to pick up some more members and volunteers to give their help when and where needed. I look forward to seeing all of you at AI '97.

You may or may not realize that this year is the 70th anniversary of Lindbergh's famous transatlantic flight. I have received information from SOCIETY member Rosemary Zuern about a planned reenactment of the flight by

Bill Signs of Dallas, TX. Mr. Signs will lift off from San Diego, CA, at 4:55 P.M. (PDT) on May 10, 1997, and he will follow Lindbergh's itinerary by first stopping in St. Louis, MO. He will depart St. Louis on May 12, 1997, at 9:13 A.M. (CDT) and arrive at Republic Airport in Farmingdale, NY, just 29 miles east of the Statue of Liberty. Republic Airport is the closest airport to Lindbergh's original departure point of Roosevelt Field on Long Island, NY. For additional information, contact Mr. Signs at "Friendship Flight '97," 3607 Garden Brook Drive, Dallas, TX 75234 or FAX 972-241-7856.



## Announcing.....

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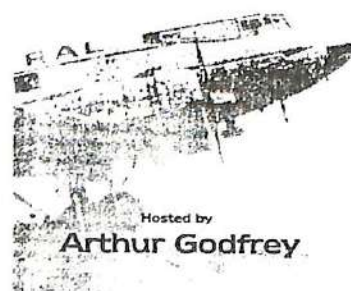
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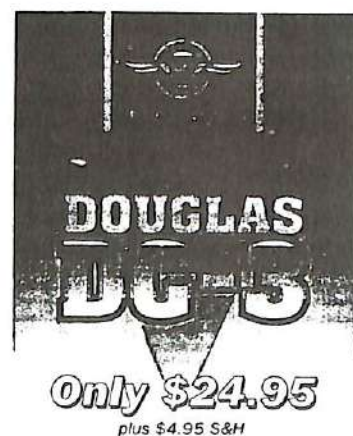
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## AI '97 UPDATE, NO. 1

Accommodations in Colorado Springs during the month of June become very tight because it is the middle of the tourist season. The area quickly books up. Reserve your accommodations now, and if necessary, you can always cancel up to two weeks before the show. The room rate is \$92.00 plus tax for single/double/triple occupancy. BOOK NOW and get your room confirmed. Call the Sheraton Hotel at 719-576-5900 or 1-800-325-3535 and mention Airliners International.

Registration is \$40.00 until April 1, 1997 when the rate increases to \$50.00. Why the increase? The later you register, the more work you impose on the host committee. On the other hand, the earlier you register, the easier it is to plan.

Over 50 per cent of the tables available are already sold. Several people have called and assume they have a table. You only have a table if you have paid for it. A table cannot be held in your name unless it is paid for. This is the only fair way to deal with booking tables. The tables are priced at \$40.00 each. BOOK your table now.

Authors and book sellers will have an area set aside to display their books. Each author will be asked to display a sign beside his/her book giving details about the book and where the book can be purchased at the show. The authors will be asked to donate the displayed books as prizes at AI '97 or as additions to the local aviation museum. A tax certificate will be provided. Contact Roy Thompson for more information.

AI '97 plans a large display area to showcase aviation collectibles as a hobby. Space in this area will be free to those bringing a display. Security will be provided. Two wing displays with several hundred wings and a china collection have already been committed. If you have an interesting collection of aviation memorabilia, consider displaying it at AI '97. These displays will be in the model/photo contest area.

Five tours have been organized for your additional enjoyment while in Colorado. Information on the tours can be obtained in the registration packet.

The host committee is trying to find vintage or airline aircraft for passenger flights. The success of this effort needs your support. This is a very expensive endeavor since seats must be sold at a price to support the expenses of the aircraft and crew, as well as ground transportation to the airport. For 1997 we have two aircraft at this point—a C-47 converted into an executive aircraft, and a C-45 Air Corps/USAF light transport. The proposed cost will be \$40.00 per person for a half hour flight. We are still trying to find additional aircraft.

## AI'97 Patch



Above is the AI '97 logo and patch. The triangular shape is to indicate a modern aircraft with a connection to the space activity at Colorado Springs. The background is sky blue and the wing is silver with the Colorado State Flag in the center. The Rocky Mountains and Pikes Peak form a dark blue background for the city in silver. This beautiful patch is available in silver wire for \$8.00 each as a convention special. Please add \$1.50 for postage. You may also order a patch and pay \$8.00 at the registration desk when you get to the show.

If you register for AI '97 and pay your registration fee and book accommodations at the Sheraton Hotel prior to March 1, 1997, your name will be entered in a drawing for three nights accommodations at the Sheraton Hotel. This is a \$300+ value. Remember, to be eligible to win, you must pay your registration fee and book accommodations at the Sheraton Hotel by March 1, 1997.

AI '97 will continue to utilize this space in the **CAPTAIN'S LOG** to offer updates in all issues printed before June 1997.

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**BACK ISSUES STILL AVAILABLE**

We still have a number of back issues of the LOG available. Most of the previous three or four volumes are still in stock along with a number of the older issues. In the next several weeks I will do an inventory of just what is still available. If you're interested in back issues, drop a line and I should have a list available. All issues are \$4.00 each which includes postage. If you would like to receive the list, send your request to: WAHS LOG BI, 13739 Picarsa Dr., Jacksonville, FL 32225-3265

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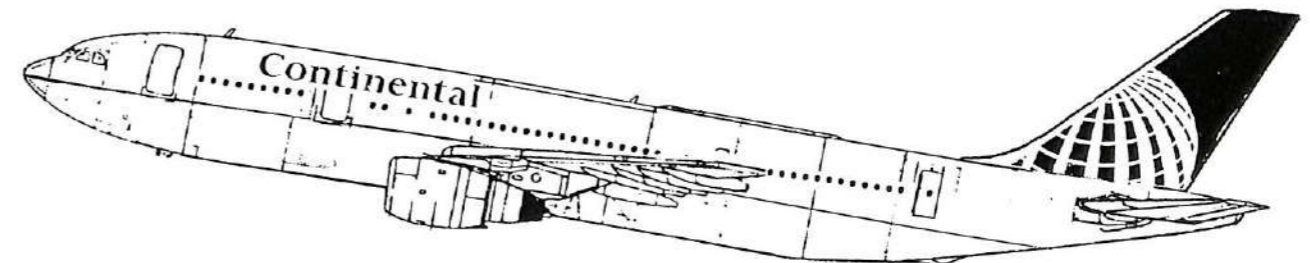
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