



CAPTAIN'S LOG

Summer 1981





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Changes of Address:

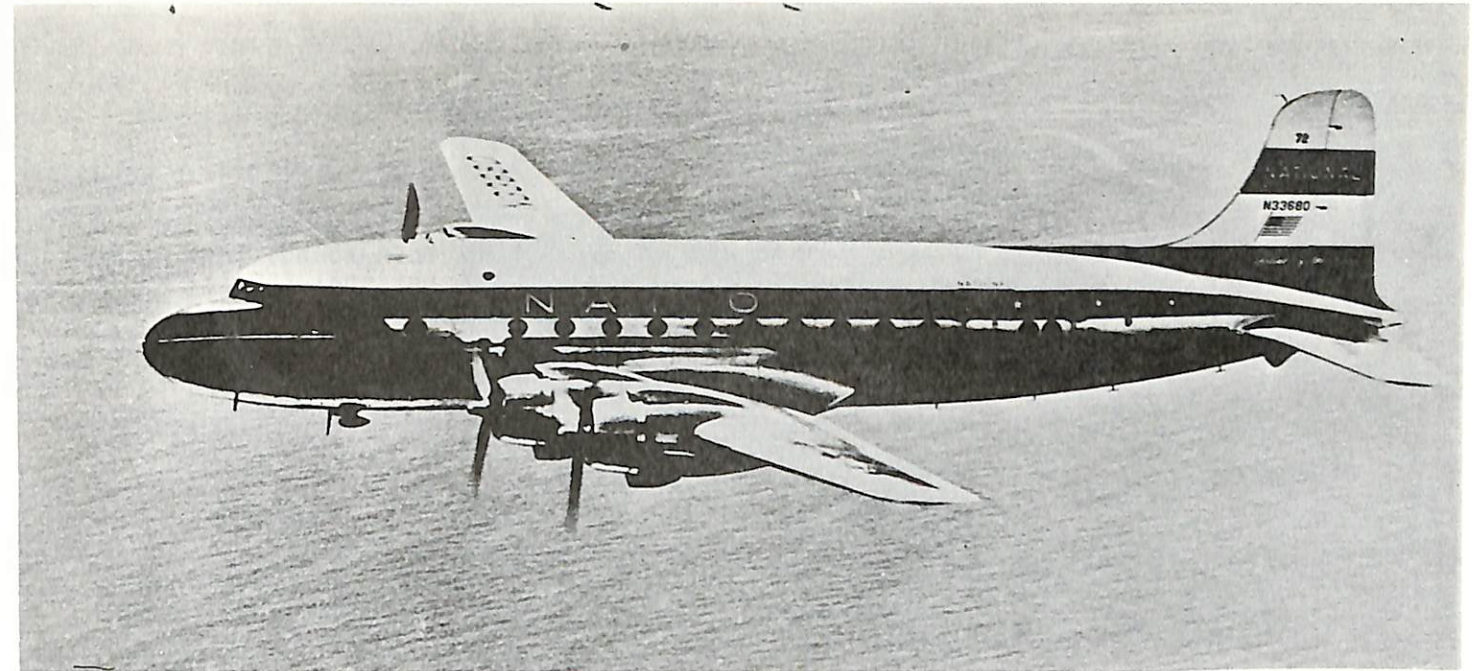
Please report any change of address promptly to the WAHC President. Improper address will result in the member not receiving a copy of the CAPTAIN'S LOG since the third class postage rate does not allow forwarding. If it is necessary to send another copy of the LOG to members who have not reported a change of address, the member will be required to pay postage costs.

Contributions Welcome:

Anyone wishing to contribute articles, photographs, or other items of interest to our membership is welcome to do so. The editor welcomes inquiries on ideas for articles.

Flight Exchange:

The CAPTAIN'S LOG will publish members' wants, trades, and offerings concerning the history of airlines and airliners. These will be published in "Flight Exchange." All material for "Flight Exchange" should be sent directly to the WAHC President.



National, which in the era of this DC-4 billed itself as the "Airline of the Stars" is featured in this issue of the CAPTAIN'S LOG. Photo courtesy Pan American.

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Cover photo: It is September 25, 1960 at New York City's Idlewild International Airport (now Kennedy), and Aerolineas Argentinas Comet 4 LV-AHU offers a beautiful sight for those on the observation deck. This aircraft ended its carrier with Britain's Dan-Air. Photo from the collection of Gary Dolzall.



National DC-10-10 N68NA taxis toward the terminal building while, in the foreground, Tampa International BAC-111 YS-01C waits to board passengers "at the gate" at New Orleans (MSY) in October 1978. Photo by Gary Dolzall.

AT THE GATE . . .

ARE YOU INTERESTED in airline post cards? Slides? Models? As editor, it's my job to try to make the CAPTAIN'S LOG content fit the interests of the WAHC membership. To get an idea just what your collective interests are, I did a little analysis of the 1981 membership, tabulating how many of you are interested in models, histories, timetables, etc. And I thought you, too, might be interested in knowing how much of the membership shares your particular interests.

It turns out that post cards are the most popular item to collect in the WAHC. 68 percent of you have an interest in post cards. Slides/Photos ranks closely behind in second place with 65 percent interest, and modeling fills out what could be considered the "big three" with 62 percent of the membership interested in that aspect of the hobby.

Fully 50 percent of you indicated an interest in miscellaneous items, proof that our club members have a wide and varied interest in the airline industry. Airline and airliner histories sprung in next, with 49 percent, and schedules followed that with 46 percent. Baggage labels intrigue 38 percent of you, technical data 37 percent, and finally, airline posters/ads interest 34 percent. The fact that the lowest category listed interests more than one-third of the total membership again reaffirms how varied our interests are.

I'm very pleased to announce two members are joining our editorial staff effectively with this issue. Thomas Dragges, an employee of Japan Air Lines, is joining us as airline playing card editor. His first column appears in this issue. And John Irby, from Orlando, Fla., joins us as publications reviewer. John, as you'll recall, actually began his reviews in the

Spring '81 issue of the LOG. Also worth mentioning in this issue (and also written by John) is the first of our feature articles on interesting airports, in this case Tampa International. If others of you are interested in doing similar articles on airports you're familiar with, I would like to hear from you. I would like to thank all those whose name appears in this issue for their help. In addition to the articles I've mentioned here, I think you'll find that your fellow members have provided a number of other interesting features for this issue of the LOG.

You'll also notice that Paul Collins name has been added to the editorial masthead as editor for "miscellaneous" material. Paul's feature, "This, That & Other Stuff" will be a regular column in the LOG, covering collectable items not reviewed in our other columns. Be certain to keep Paul in mind when you run across some new or unknown items of interest to the membership.

Finally, I'd like to mention that Republic Airlines is undertaking the task of expanding the museum located in its Minneapolis headquarters to include historic memorabilia of predecessor lines Southern and Hughes Airwest in addition to North Central. If you have useful material which you would be willing to donate to this worthy effort, I strongly urge you to contact Katie Childs, Manager-Special Events and Museum, Republic Airlines, Inc., 7500 Airline Drive, Minneapolis, Minn. 55450. Republic is searching for such items as insignia, maps, manuals, photos, posters, uniforms, and schedules for North Central, Southern and Hughes Airwest (including RW predecessors Pacific, Bonanza, and West Coast).

Gary

Gary Dolzall
Editor



Above: Extraordinary photo of Air France Comet 1A in flight in 1953. Comets served AF only from June to December 1953. Photo, "Collection Air France."

The de Havilland Comet

PETER W. BLACK

AN ERA came to an end one chilly day last fall. On the afternoon of November 9, 1980, a Dan-Air charter flight landed at London's Gatwick Airport, and discharged its full load of 119 passengers, all aviation enthusiasts. The de Havilland Comet had made its last commercial flight and the world's first jet airliner passed into history.

The story of the Comet begins in the middle of World War II when several high level executives in the British aircraft industry realized that their country had been concentrating on the production of combat aircraft for the war effort, and virtually all transport aircraft were of American design. They realized that unless decisive action was soon taken, the post-war airlines, including the British airlines, would be operating U. S. equipment. To the British, this would be an unacceptable situation. This situation was presented to the British government, and a select committee was formed under the leadership of Lord Brabazon of Tara. The mission of the committee was to define the various roles for which new aircraft

would be required after the war, and to lay down general specifications for aircraft to fill each role. From the efforts of the Brabazon Committee, several well known aircraft finally emerged. One was a jet airliner to become known as the Comet. Originally it was to be a small high speed jet mail plane capable of carrying a ton of mail and a half-dozen passengers over the "Empire Routes" to British Commonwealth, and over the "Pine Tree Route" over the North Atlantic. The selection of the company to develop and build the Comet was easy. One company had built the first operational British jet aircraft, and its engines. The aircraft was the DH100 Vampire, and the engine was the DH Goblin. The company was de Havilland, famous for military and civilian aircraft dating back to World War I. Through the Ministry of Supply the British government gave de Havilland a contract to build two prototype jet transports.

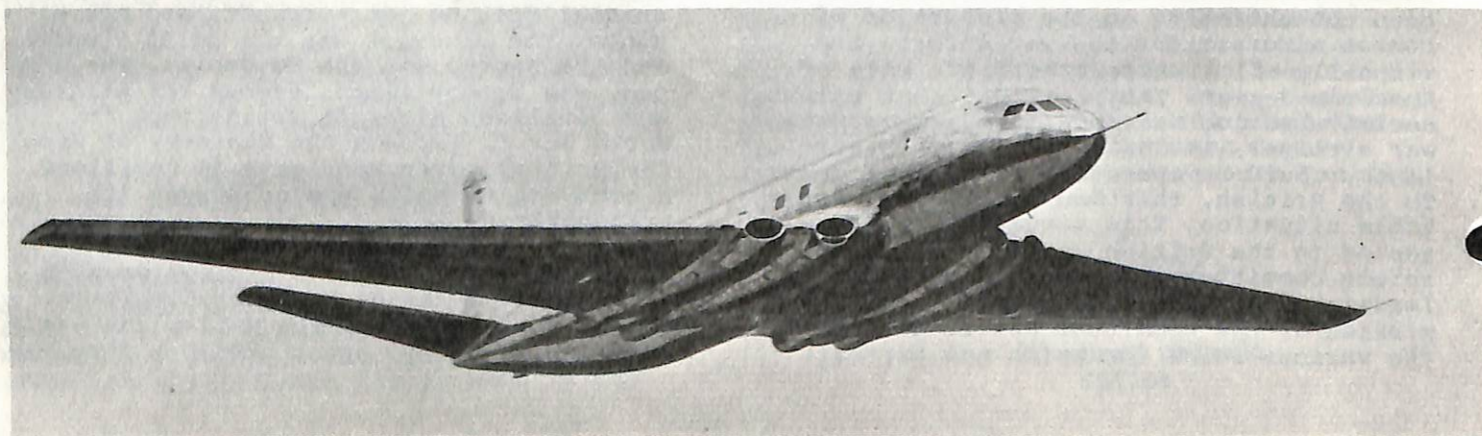
The world's airlines did not develop after the war as the Brabazon Committee had thought, so the small jet mail plane was enlarged again and again until, by the time

it rolled out of the de Havilland factory at the Hatfield Aerodrome, in the county of Hertfordshire, (North of London) it was evolved into a 36-seat airliner about the same size and weight as the Douglas DC-6. Late in the afternoon of July 27, 1949, de Havilland's chief test pilot John Cunningham and his crew took the Comet into the air for the first time. An hour later they returned to Hatfield, and the fate of the piston powered airliner was sealed. For the next year, Cunningham and his men put the Comet through the most exhaustive testing an airliner had ever known. All went far better than had been expected. A year to the day after the first ship flew, it was joined by the second prototype, carrying full BOAC livery.

While flight testing of the Comet was proceeding, the airline world stood back and smiled at the Comet. Most airline executives were of the opinion that the jet airliner was a curiosity not to be taken seriously, and that a jet transport could never make money as a working airliner. BOAC was of a different opinion. They envisioned a fleet centered on the Comet. The first version, the Comet 1, a 36-seat plane powered by de Havilland's own Ghost centrifugal flow turbojet engines was scheduled for service in 1952. The Comet 2, a 44-seater powered by four Rolls-Royce Avon axial flow turbojets, was scheduled for 1953, and the trans-Atlantic Comet, the Comet 3, also powered by Rolls-Royce Avons, was the enter service in 1955 or '56. The first of nine Comet 1 aircraft were to enter service with BOAC in May 1952, and in order to speed up the introduction of the jetliner, the second prototype was loaned to BOAC in 1951 for route proving and pilot training.

With appropriate fanfare, the world's first jet airliner route was opened on May 2, 1952, from London to Johannesburg. The first production Comet, G-ALYP, flew the 6724-mile trip with stops in Rome, Beirut, Khartoum, Entebbe, and Livingstone in an elapsed time of 23 hours and 23 minutes, and arrived three minutes early. For the next year, as de Havilland delivered more

Below: Airborne for the first time on July 27, 1949, the first Comet prototype makes a low pass over Hatfield Aerodrome. Photo courtesy Hawker Siddeley.

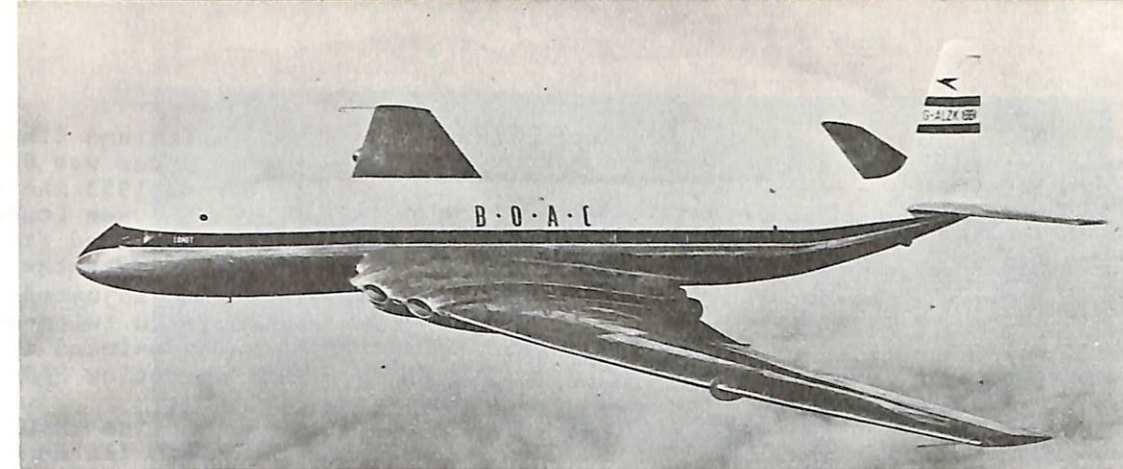


Above: History in the making as passengers board BOAC Comet 1 G-ALYP for the first commercial jet flight. Photo courtesy BOAC.

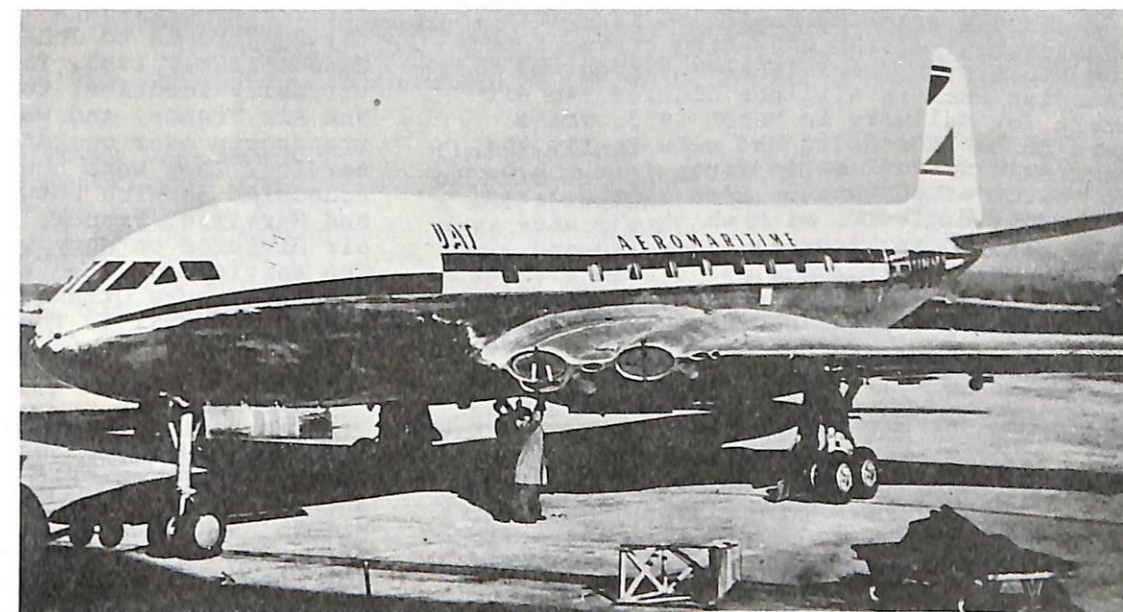
Comets to BOAC, the airline expanded its jet routes. Colombo, Ceylon was served from London starting in August 1952, with Singapore following in October. In April 1953, the Singapore route was extended to Tokyo. Enroute from London to Tokyo was only 33 hours, 15 minutes by Comet, compared to 86 hours by BOAC Argonaut. The jetliner was loved by pilots and passengers alike. For the mechanics, it was a piece of cake. Fears of economic ruin caused by the high fuel consumption of jet engines were laid to rest. In fact, the Comet rapidly became the best money maker in the BOAC fleet. Still, all did not go well.

On October 26, 1952, a BOAC Comet home-bound out of Rome, stalled on take-off, and crashed back to earth. The aircraft was damaged beyond economic repair, but there was no fire and no serious injuries. Then, on May 2, 1953, the first anniversary of BOAC's jet service, Comet G-ALYV disintegrated in mid-air while climbing out of Calcutta. This accident

The second Comet 1 prototype, outfitted in full BOAC livery, in flight on April 2, 1951. Hawker Siddeley photo.



French carrier UAT hoped the Comet 1A would be its ticket to becoming a world-class carrier. UAT's first Comet is seen here at Hatfield late in 1952. Photo courtesy UTA French Airlines.



was blamed on air turbulence caused by violent thunderstorms in the area at the time. Still, the popularity of the jet transport remained high, with load factors averaging 87 percent, and dispatch reliability at an all time high for a new aircraft.

In France, the independent airlines were having a particularly bad time in the early 1950's. Most of their aircraft dated back to WWII or before, while government-owned Air France enjoyed the latest equipment, including Lockheed Constellations, and had Super Connies and Viscounts being negotiated for future delivery. In a bold move, one of the oldest French independents, UAT-Union Aeromaritime de Transport, ordered two of a slightly heavier version of the Comet 1, the 1A with greater range than the series 1. An order for a third aircraft quickly followed. With the jet airliner, UAT saw a way to overcome its equipment problems, and to jump ahead of the competition, becoming one of the world's leading airlines in the process. Routes to Saigon and Johannesburg were planned, and consideration was given to future operation of the Comet 3 on the North Atlantic route to Montreal and New York. The first aircraft was delivered to UAT in December 1952, and following two months of training and proving flights,

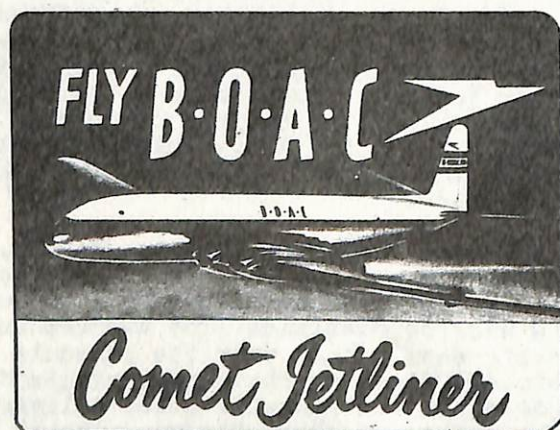
scheduled service was inaugurated on February 19, 1953 from Paris to Casablanca, and Dakar. Initially service was once a week, in each direction. A few months later this route was extended to Abidjan, capitol of the Ivory Coast, and to Brazzaville, capital of the Congo. In June 1953, another jet route was opened by UAT from Paris to Tripoli, Libya and on to Kano, Nigeria. In October 1953, this route was extended to Brazzaville, Livingstone, and Johannesburg.

UAT lost their third Comet, F-BGSC, after only a month and a half of service, in a landing accident at Dakar, in which there were no casualties. The two remaining aircraft easily took over the schedule previously flown by three aircraft, and UAT ordered three Comet 2's for delivery in the summer of 1954. UAT was finding its place in the sun.

Air France, perhaps only as a face-saving move, ordered three Comet 1A's at the end of 1952 for delivery the next summer. Air France had no firm plans for the Comet at the time it was ordered, and never showed the same enthusiasm for the jet transport as did the other airlines that operated it. The first machine was delivered to Air France on June 29, 1953, and entered service on the carrier's route

from Paris to Rome and on to Beirut on August 26, 1953, with a single weekly round-trip, supplementing their daily service with Lockheed Constellations. On September 18, 1953, two airlines met for the very first time in head-to-head competition with jet equipment. That day, Air France began weekly Comet service to Casablanca from Paris, already a Comet route for UAT for seven months. But then, for reasons never made clear, Air France terminated Comet service entirely on December 2, 1953, and did not operate jet schedules until the arrival of the Boeing 707 in 1960.

Shortly after de Havilland made formal announcement of the operating costs of the Comet based on the flight test program, Canadian Pacific Airlines ordered two aircraft for delivery in March 1953. These were to be 1A models, and were to fly the carrier's Trans-Pacific route from Tokyo to Vancouver. Comet 2's were also ordered, for later delivery, with which the airline planned services to Australia and New Zealand. On March 2, 1953, the airline's first Comet was delivered, and the following day, after being christened "Empress of Hawaii," left for demonstration flights in Australia on the way to Tokyo, there to formally inaugurate service. One of the enroute stops was Karachi, Pakistan. After being refueled, the Comet took off, only to stall back to earth, as had a BOAC Comet in Rome the previous October. Only in the case of the Canadian Pacific aircraft, it exploded in crashing, killing all on board. As virtually everybody at Canadian Pacific involved with the Comet program was onboard the ill-fated aircraft, the airline sold their second Comet to BOAC, and did not operate jets until the DC-8-43's arrived in 1961.



The fourth and final airline to offer Comet 1 services was South African Airways. On October 4, 1953 SAA began twice weekly roundtrips between London and Johannesburg using Comets rented from BOAC, but operated by SAA crews. With the start-up of SAA service, BOAC adjusted their own service on the route to twice-a-week also. The SAA insignia was painted on the nose of the aircraft operating SAA services.

Brief mention should be made of the two Comet 1A's (later modified to 1XB's) of the Royal Canadian Air Force. These aircraft were delivered early in 1953, and after training flights in England, and over the BOAC route to Johannesburg, left for Canada in May 1953. These aircraft were virtually identical to the Comets of UAT and Air France, and were the first jet transports ever operated by a military service. They were however, operated in scheduled service between Ottawa, Canada and Marville, France, to support an RCAF air division on duty with NATO in Europe. The service operated three times per month over the route Ottawa-Montreal-Gander-Keflavik-Marville. The aircraft were also used for VIP flights and other military duties.

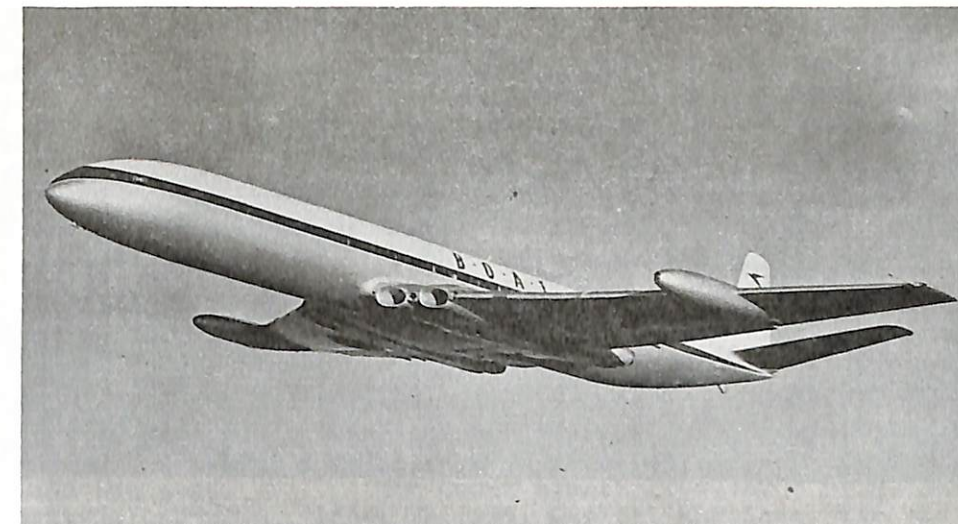
The beginning of the end for the Comet 1 came on February 10, 1954, when BOAC Comet G-ALYP, the aircraft that had inaugurated jet passenger service 21 months before, exploded in mid-air over the Mediterranean as it climbed out of Rome bound for London. Immediately, BOAC grounded its Comet fleet pending determination of the cause of the accident. A complete evaluation resulted in an extensive list of minor modifications being made to the aircraft, which returned to service several weeks later. In the meantime, the Royal Navy was assigned the task of trying to recover the wreckage of G-ALYP from the sea floor.

The end came, tragically, on April 8, 1954. SAA flight 201, operating with BOAC Comet G-ALYY, exploded over the Mediterranean while climbing out of Rome on the way to Johannesburg. Within hours, BOAC grounded the Comets again, and the French operators and the RCAF did likewise. The Comet 1 had carried its last paying passenger.

Following the loss of G-ALYY, the most extensive accident investigation in aviation

Left: These promotional stickers proclaimed the coming of the jet airliner--the Comet 1's on BOAC, Air France and French UAT. Of the three carriers, only BOAC returned to the Comet (in the form of the Comet 4) after the series of tragic crashes caused by metal fatigue. Stickers from the Don Thomas collection.

Right: The sole Comet 3 in its original configuration and BOAC livery. The Comet 3 was never used commercially, but served as a test craft for the Comet 4 development. Photo courtesy Hawker Siddeley.



history took place. The Royal Navy was successful in retrieving a majority of the airframe of G-ALYP from the sea bed, but recovery of G-ALYY was out of the question due to the depth of the water in which it fell. Still, the pieces of G-ALYP were to prove sufficient. Several BOAC Comets were flown unpressurized to the Royal Aircraft Establishment at Farnborough to aid in the investigation. One Comet, G-ALYU, was placed in a giant water tank, and rigged with hydraulic jacks to bend and twist the airframe in the same way as it would in actual flight. This was done while the aircraft was submerged in water and pressurized and depressurized to simulate actual flight cycles. One three minute underwater "flight" was the equivalent of an hour in actual airborne flight. Another Comet was flown in a series of flight tests to see if slight deviations from good operating procedures could cause the break up of the aircraft. Another was rigged for vibration testing, while still another was used for fuel tests to see if the pressure refueling system used on the Comet could cause undetected structural damage. The answer to the riddle came one morning when the cabin of the aircraft in the water tank split open. Careful examination revealed the cause to be metal fatigue. The damage was repaired and the test continued. The cabin failed again, due to metal fatigue. The wreckage of G-ALYP revealed that a section of the cabin roof had blown out as the aircraft climbed, and the cabin pressure differential increased. The cause was metal fatigue in the corner of a window frame. Now that the cause was determined, the next problem was what to do with the Comet program.

At the time the Comet 1's were grounded, a number of Comet 2's were being readied for delivery. The first of these, G-AMXA destined for BOAC, flew for the first time on August 27, 1953 with John Cunningham at the controls. Another two had flown by the time the fleet was grounded, and the prototype Comet 3 was in the final stages of construction at the time. To scrap the entire program would mean

financial ruin for de Havilland, and loss of British stature in the aviation world. A modification scheme was worked out to make the Comet 1 safe to fly but it was never to see commercial service again. Several were sold to the British government as test vehicles, including all three Air France machines. The RCAF, however, returned their Comets to active service after an extensive modification program. They faithfully served for many years. The problem of what to do with the Comet 2's was solved by the Royal Air Force which agreed to take most of the aircraft for a transport squadron, after being modified. Modifications were necessary because the Comet 2 and Comet 3 were designed to the same stress formula as the Comet 1. The Comet 3 prototype was also modified, but was to be the only series 3 built.

BOAC had tasted the fruits of the jet age and wanted a new fleet of jetliners as soon as possible. They also never lost faith in de Havilland. The manufacturer advised the airline that it would be possible to build an improved version of the Comet 3, and that the new aircraft could be delivered in the later part of 1958. An order was placed for 19 Comet 4's in 1955. Later the same year, Pan American ordered both the DC-8 and 707, also for delivery in 1958. Both airlines planned the first route for their jets would be the North Atlantic. The race was on.

No prototype Comet 4 was built as the Comet 3, after suitable modification, did most of the development flying for the new model, as the size and shape of the two aircraft were identical. All of the differences between the two aircraft were internal. The first Comet 4 airframe was not a flying aircraft, but a test specimen that was placed in a water tank, in the same manner as the Comet 1 had been tested after the 1954 disasters. The first Comet 4 to fly, a machine destined for BOAC, took to the air for the first time on July 27, 1958, in the skilled hands of John Cunningham. Certification proceeded



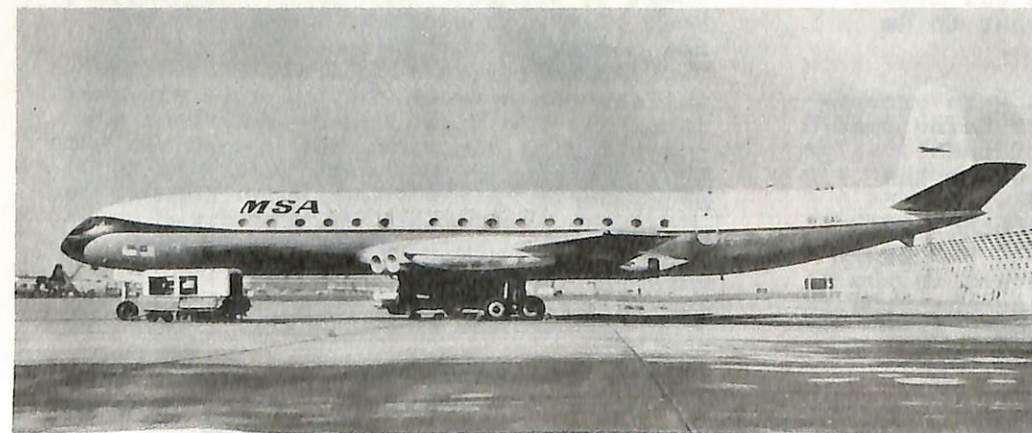
In 1960, two Comet 4's in the colors of BOAC sit side-by-side at New York. It was this combination of aircraft and airline that introduced jet service to North America in 1958. Photo: Dolzall collection.



A British European Comet 4B pulls away from the gate at Stockholm's Arlanda Airport in this 1970 photo by Roland Poehlmann.



Wearing Olympic colors, Comet 4B G-ARJL of BEA loads at Athens, Greece in September 1964 for a trip to Rome and London. OA and BEA pooled services on the route. Photo by Peter Black.



Malaysian Singapore Airlines Comet 4 9V-BAU began its career on BOAC in 1958 and was sold to MSA in 1965. Photo courtesy Terry Waddington.

very quickly, and on September 28, 1958, the Comet 4 received its type certificate of airworthiness. The very next day, de Havilland delivered two aircraft to BOAC at Hatfield, rather than the one that had been scheduled. This set the stage for the events of the next few days.

BOAC immediately qualified several crews that had been given the initial Comet training on a Comet 2 that the airline had borrowed from the government. On October 2, 1958, one of the aircraft, G-APDB, left London for New York on what had been billed as a press flight. Actually, it was a carefully disguised aircraft positioning flight, although it did take a load of correspondents to New York. The aircraft remained in New York, and the next day, the Port of New York Authority cleared the Comet 4 for regular service into Idlewild Airport, as the noise level of the British jet was deemed acceptable. Word of this was flashed to BOAC headquarters in London, and the plot was hatched.

Pan American had been spending a small fortune, estimated at over \$1,000,000, advertising that it would launch 707 service from New York to Europe on October 26, 1958, and would therefore be the first airline to fly jets over the Atlantic. BOAC had other ideas. As soon as word of the clearance was received in London, the BOAC reservations office began calling first class passengers booked on the next day's flights to New York and asking them if they would prefer to travel by jet. In New York, they did the same thing, only they waited until after the close of the regular business day, lest their rival get wind of what was happening. The next morning, October 4, 1958, BOAC inaugurated jet service. A stunned Pan American was mute. BOAC had its moment of glory, and so did the Comet 4. Pan Am began 707-121 service on schedule, on October 26, 1958, but could only bill it as the fastest jet to Europe. Actually, neither the Comet 4 or the 707-121 were suitable aircraft for the North Atlantic, for neither could carry a full load westbound, especially against winter headwinds, and both were frequent visitors to Gander for fueling.

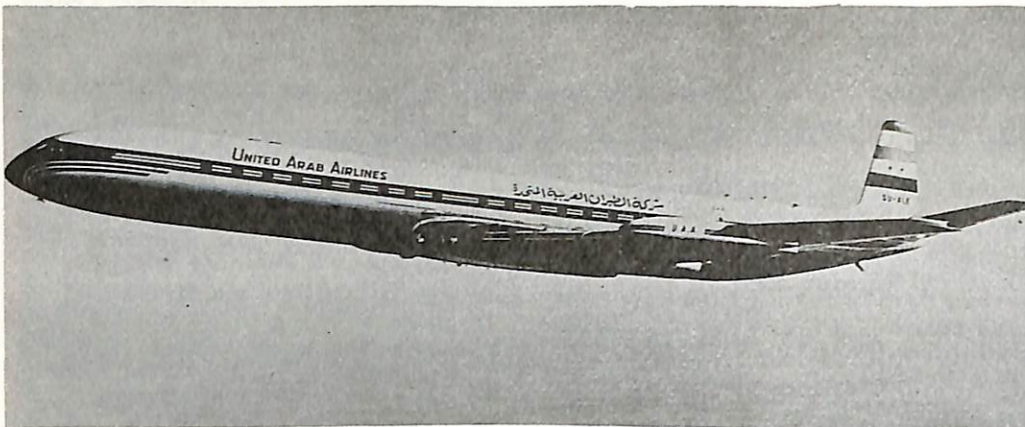
In the first year of operation, BOAC Comet 4's served routes from London to New York, Montreal, Tokyo, Sydney, Santiago and Montego Bay, as well as a host of intermediate stops along these routes. Load factors were as high as 94 percent on the Atlantic, while the other routes averaged 70 percent. The impact of the jet airliner was felt the hardest by airlines that did not have them. On the Atlantic, in the first year, BOAC traffic was up 40 percent. Pan American's was up 14 percent, while TWA, still operating the piston-powered Lockheed Starliner, suffered a 13 percent loss. In that same period, maintenance costs were 20 percent below projections, and the Comets were averaging 10 hours a day utilization, an excellent

figure, even today.

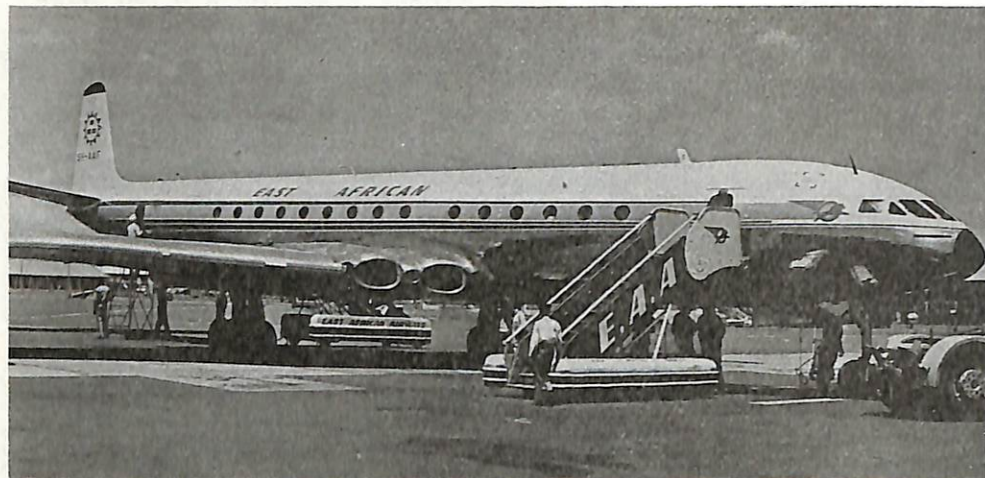
One of the advantages of the Comet over its American rivals was its ability to use existing runways, without waiting for the longer runways needed by the 707 and DC-8. This was especially important in Africa and Asia, where the Comet was the only jet able to serve many cities. The 70-seat Comet eventually saw service at almost every airport in the world served by BOAC, but had a rather short career with the British carrier as traffic soon outgrew the aircraft. Its last flight for BOAC was from Auckland, New Zealand to London on November 23, 1965. But the Comet served other airlines until 1980.

The Comet almost flew for a U. S. airline. In 1956, Capital Airlines, the first U.S. carrier to fly turboprops, ordered four Comet 4's and ten of a new version, the Comet 4A designed for short segments and lower altitudes. Capital began having financial difficulties in 1957, and the order was eventually cancelled. The development work that had been done on the Comet 4A did not go to waste. British European Airways (BEA), the government-owned airline that operated services from England to Europe, was shopping for a short range jet, and with a few changes, the Comet 4A became BEA's Comet 4B. BEA eventually operated 14 4B's. Olympic Airways of Greece ordered four, and operated them in a pool with BEA over the southern routes from London to Rome, Athens, Istanbul and Tel Aviv. The first scheduled flight of a Comet 4B was with BEA on April 1, 1960, when services were opened on the southern routes, and also to Moscow. For the next 13 years, the Comets served most of BEA's high-density routes and gave excellent service to the airline. The arrival of the Trident, the last airliner designed by de Havilland, meant the end of the Comet with BEA. It flew its last flight on October 31, 1973, a trip with the charter division of BEA, BEA Airtours, from Paris to London.

Besides BOAC, two other airlines purchased the Comet 4. The first was Aerolíneas Argentinas, which ordered a fleet of six for its routes from Argentina to the United States and Europe. The first aircraft arrived in Buenos Aires in March 1959, and went into service on the trans-Andes route to Santiago on April 16, 1959. Service to New York, via Rio de Janeiro and Trinidad followed. The South American carrier felt the tremendous impact of jet airliners as its traffic to New York climbed 84 percent over the previous year, and 85 percent of the seats on the Comets were full. All six aircraft ordered never saw service together at the same time as several were lost in accidents. Eventually, a single Comet 4C was added to replace one of the lost aircraft. By the end of 1967, passenger traffic had outgrown the Comet on most international routes, and 707-367B's were ordered. The first one arrived in early 1968, and the Comets were rele-



Comet 4C SU-ALE in flight before delivery. Aircraft crashed on take-off from Munich, Germany on February 9, 1970. There were no serious injuries but the Comet was written off. Photo courtesy of Egyptair.



Comet 4 5H-AFF of East African Airways on the ground at Nairobi. This was the second and final color scheme used by EAA. Photo from East African Airways.



Middle East Airlines Comet 4C OD-ADS on the ramp at Beirut, Lebanon. Aircraft was written off at this location in 1968. Photo courtesy John Stroud.



Relative small size of Comet compared to the U.S. jets is well depicted in this superb view of Dan-Air Comet 4C G-BDIW at Athens, Greece, October, 1977. In the background is Capitol International DC-8-61 N912CL. Dan-Air operated the final Comet commercial flight in the fall of 1980. Photo by George Hamlin.

gated to domestic services in Argentina, and on a few regional services to other South American countries. By 1971 all the Comets had been retired.

The third and last customer for the Comet 4 was East African Airways. EAA was a multinational carrier, set up along the lines of SAS, owned by three governments--Kenya, Uganda, and Tanzania. Service began with the first of three Comets on September 17, 1960, between Nairobi and London. This route was flown with only one stop, and cut the enroute time from 24 hours, 10 minutes to 11 hours, 20 minutes. Load factors more than doubled over previous piston schedules. The Comets served EAA for ten years, which saw the airline grow into a major international carrier. The Comets were finally replaced by Super VC-10's and DC-9's in 1970.

The last variant of the Comet 4 to see duty as an airliner was the Comet 4C. The 4C was similar to the basic series 4 aircraft, except it had the longer fuselage of the 4B and a greater fuel capacity, to give it a much greater flying range. Mexicana took delivery of the first 4C in June 1960, and soon started service to Chicago, Los Angeles, and Havana from Mexico City, replacing DC-7's. At the time, the Comet 4 was the only operational jet airliner suitable for service into Mexico City's high altitude airport, with a relatively short runway. Two used Comet 4's were purchased from BOAC in 1966, and together the Comets served Mexicana until being replaced by 727's in the late 1960's.

The Comet 4C saw operations with several airlines in the middle east. Kuwait Airways purchased two Comet 4C's for its routes to Europe, and for a while, operated its entire schedule with a single Comet. It is believed by some that one of the Kuwait machines (9K-ACE) was at least for a while fitted with a VIP interior and used by the ruler of Kuwait as a personal transport. Middle East Airlines of Lebanon also operated a fleet of 4C's, in addition to Caravelles in the early 1960's, but were eventually replaced by VC-10's and Convair 990A's. Sudan Airways maintained its entire international schedule for many years with two Comet 4C's, and was one of the last airlines to fly the Comet in scheduled service. They were eventually replaced by 707C's. Misrair, later the name was changed to United Arab Airlines, then to Egyptair, had the second largest fleet of Comets of any original purchaser, a total of nine. Unfortunately, the airline lost several aircraft, including two that reportedly ran out of fuel between Bangkok and Bombay. Still, they were the mainstay of the carrier's fleet for eight years, and set a record for new aircraft by flying the first five and one-half months without a single cancelled flight. Boeing 707's began taking over for the Comets in the early 1970's and soon the Comets flew only domestic services. They were finally withdrawn in the mid-1970's. One other

Comet went to the middle east--a specially-fitted aircraft was sold to Saudi Arabia as the personal transport of King Saud. The aircraft was formally registered to Saudia Arabian Airlines, but spent its short career (less than a year) as a royal transport.

Many airlines that did not actually purchase the Comet used the aircraft, and several carriers supplemented their own Comet fleets with aircraft leased from BOAC. Central African Airways chartered a Comet with full BOAC crew from the carrier for a weekly roundtrip between Salisbury, Rhodesia and London, for a number of years. Ghana Airways, Nigeria Airways, Air Ceylon, Malayan Airways, and Qantas all used BOAC Comets with "stickers" for services between their countries and London. Most such flights were staffed by BOAC cockpit crews and either full or partial cabin crews for the leasing carriers.

As the days of the Comet with major airlines came to an end in the late 1960's, the market for second-hand jetliners began to develop. BOAC's fleet found new homes with Malaysian-Singapore Airlines, Mexicana, MEA, Kuwait Airways, and a single aircraft with AREA of Ecuador. Also, Dan-Air, a charter airline owned by shipping interests in London flew their first charters with used Comet 4's purchased from BOAC. Channel Airways, an independent British airline, purchased some of the Olympic 4B fleet for tour charters, but went bankrupt after a few months.

In the end, most of the Comet 4's passed into the hands of Dan-Air. Not all actually were used for the airline's tour charters. Many were scrapped for parts to keep the others flying. One-by-one, they were finally retired for good and scrapped. Dan-Air even bought five Comet 4C's from the RAF, converting them to civilian use, and used them in regular service. These were the last to see airline service, and one, G-BDIU, flew that last charter for a group of aviation enthusiasts last fall. Some of the remaining Comets have been scrapped, but a few have been preserved for display in museums. One is already in a museum in Germany, and at least two more are now available to bona fide museums for only 8000 British Pounds. That is less than their aluminum is worth on the scrap market, and it is perhaps Dan-Air's way of saying thanks to this extraordinary aircraft in its twilight--the de Havilland Comet.



The Ryan monoplane helped usher National Airlines into existence in 1934. Photo courtesy of Pan American.

National Airlines

GEORGE CEARLEY

NATIONAL AIRLINES was the only major U. S. trunk airline whose operations began after the air mail contract disputes of 1934. However, the carrier's origins can be traced back to 1929 to the National Airlines Air Taxi System which operated air taxi service for customers from the lower Lake Michigan area primarily to Canada. The company was founded by George Theodore "Ted" Baker, the son of an English immigrant. He grew up in the Chicago area and served in World War I. After the war, Baker was hired by Louis Bower Auto Finance to repossess cars, and two years later became a partner in the firm. Baker-Bower became involved not only in financing automobiles, but also boats and ultimately airplanes--an offshoot of which was the National Airlines Air Taxi System, which, however, was owned entirely by Baker and founded shortly after the great stock market crash. The air taxi service operated with two Ryan monoplanes and a Butler monoplane. In 1934, Baker wrote to his business associate, Bower, who by this time had moved to Miami, Fla., to ask him if he could get him a job with Pan American. In May of the same year, Baker announced that the National Airlines Air Taxi System would bid on two air mail contracts: (1) Nashville-Cleveland, and (2) St. Petersburg-Daytona Beach. Baker met with Bower and the new postmaster, James Farley, at a party on a yacht, the Zenith, in Lake Michigan. Somewhat later he was awarded the Florida air mail route but lost the Cleveland-Nashville bid. In mid-July 1934, the two Ryan monoplanes were flown to Florida, one with Don Franklin at the controls. The Butler plane had been repossessed earlier for payment of debts acquired during the early depression days. The aircraft were repainted and the name on the fuselage was changed from National Airlines Air Taxi System to National Airlines System.

The first service by National Airlines System over air mail route 31 from St. Petersburg to Daytona Beach via Tampa, Lakeland, and Orlando was October 15, 1934.

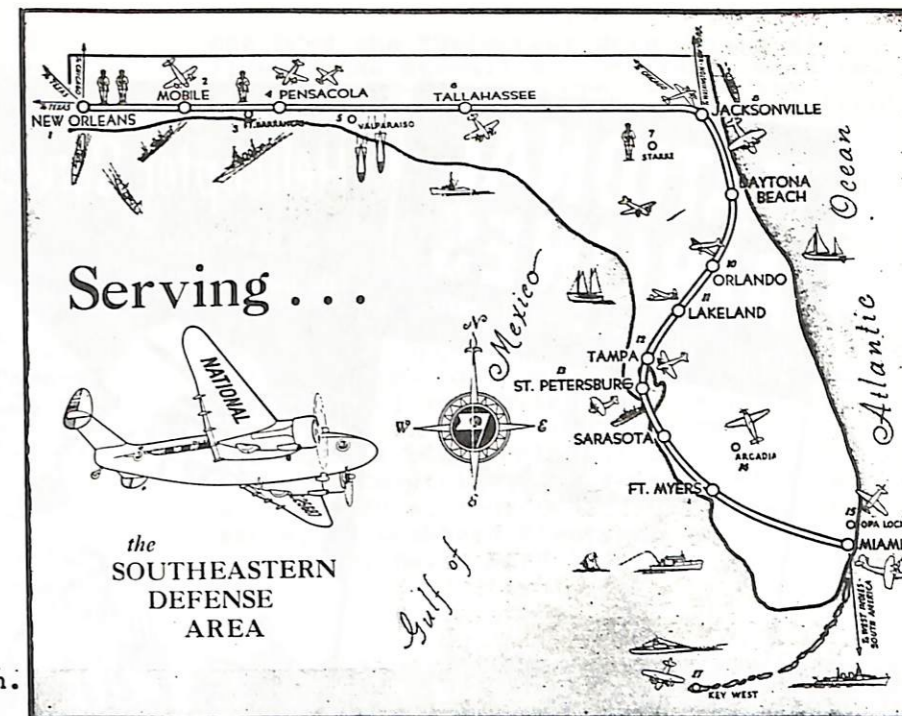
The airline at this time was also known as Franklin and Baker Airlines. In 1935, Stinson Trimotors were added to the fleet and by May 1, 1936, service had been extended from St. Petersburg to Miami. Baker decided it would be advantageous to incorporate National, and on July 8, 1937, merged with Gulf Airlines, a Florida airline which existed solely on paper, having been founded by Jerome Waterman to bid on airline routes. The new corporate name was Gulf National Airlines, Inc., but soon the Gulf name was dropped. By July 13, 1937, Sarasota and Ft. Myers had been added as stops on the St. Petersburg-Miami route and the same year Lockheed L-10A "Electras" were purchased. In 1939, service from Jacksonville, Fla., to New Orleans, La., via Tallahassee and Marianna, Fla., Mobile Ala., and Gulfport, Miss., was inaugurated. National's route structure remained fairly constant during the early 1940's and in 1942 its fleet consisted of two L-10A "Electras" and three L-18 "Lodestars," all, of course, from Lockheed.

On February 19, 1944, National was awarded a major route extension between Jacksonville, Fla., and New York City, giving the airline its first early significant expansion of service beyond the state of Florida. Service on this new route was begun in October, ending Eastern's monopoly between the New York and Florida markets. However, initial National operations were flown with Lodestars which were actually not designed nor adequate for the longer routes and larger markets served. Nonetheless, the inauguration of National service between Florida and New York marked the beginning of a strong competitive rivalry between National and Eastern.

Following World War II, Baker signed an agreement with Dennis Powelson, who had controlling interest in Caribbean Atlantic Airlines (Caribair). National would acquire Caribair's routes and assets and link its Florida service with Caribair

Schedule Effective August 15, 1937				
TAMPA - ST. PETERSBURG - MIAMI NEW YORK - WASHINGTON - CHICAGO - ATLANTA				
Read Down NORTH BOUND		Light Type A. M. Bold Type P. M.	Read Up SOUTH BOUND	
Flite 4	Flite 2		Flite 1	Flite 3
	P. M.		A. M.	
	4:30 Lv. Miami		Ar. 9:50	
	5:45 Lv. Ft. Myers		Lv. 2:35	
	6:30 Lv. Sarasota		Lv. 7:45	
	7:00 Lv. Tampa		Lv. 7:30	
A. M.	6:50 Ar. St. Petersburg		Lv. 7:15	P. M.
6:30	7:00 Lv. St. Petersburg		Ar. 6:25	5:35
6:45	7:15 Lv. Tampa		Lv. 6:25	5:25
6:10	7:40 Lv. Lakeland		Lv. 6:00	5:00
9:40	8:10 Lv. Orlando		Lv. 5:30	8:30
10:10	8:40 Ar. Daytona Beach		Lv. 5:00	8:00
11:05	10:55 Ar. Jacksonville, Via E. A. L.		Lv. 3:15	7:10
12:10	11:55 Ar. Atlanta		Lv. 12:10	4:05
1:55	2:45 Ar. Nashville		Lv. 10:00	2:15
3:05	3:30 Ar. Louisville		Lv. 8:50	1:05
4:00	4:25 Ar. Indianapolis		Lv. 7:55	12:10
5:10	5:35 Ar. Chicago		Lv. 5:45	11:00
11:05	10:55 Ar. Jacksonville, Via E. A. L.		Lv. 3:15	7:10
12:50	12:40 Ar. Charleston, S. C.		Lv. 1:45	2:55
4:10	3:40 Ar. Washington, D. C.		Lv. 10:45	11:55
5:50	5:20 Ar. New York		Lv. 9:10	10:00
P. M.	A. M.		P. M.	A. M.

Above: National schedule from the Summer 1937 edition; above right, NA's 1941 route map depicting Lockheed L-18. George Cearley collection.

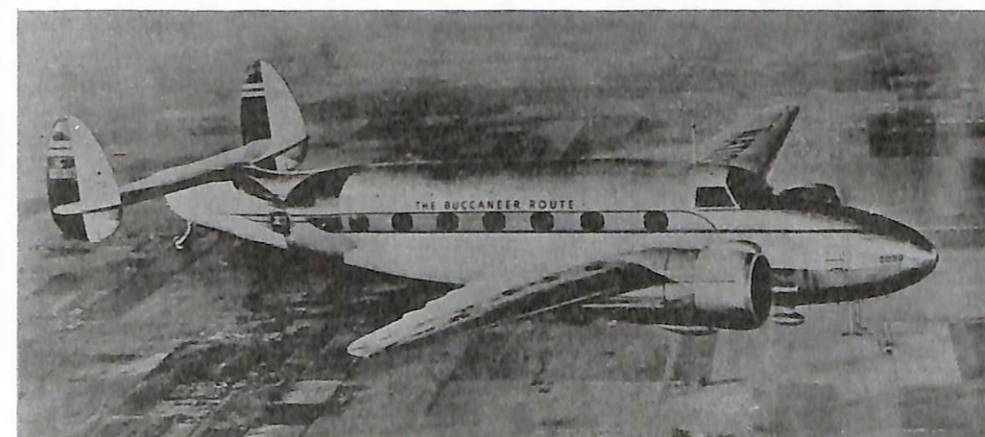


routes at San Juan; however, the CAB blocked the merger.

DC-4's were introduced on a direct over-water route between New York and Florida on February 19, 1946, with Eastern introducing DC-4's over the same route somewhat later. National was given the authority to serve Havana, Cuba on May 22, 1946, and inaugurated service to the Cuban city on December 15 of that year. Service to Cuba was suspended in 1961 following the takeover by the Castro regime and was never restored by National. In 1947, National became the first airline to operate out of the newly-opened New York International Airport in the township of Idlewild in southeastern Queens (now Kennedy International). Also in 1947, DC-6's were introduced between New York and Miami with six daily non-stops, with Eastern at the time operating slower-speed Constellations. National had become a pacesetter in the New York-Florida market, but this record was soon broken. In November, 1947, all DC-6's including National's fleet were grounded due to problems of fuel leakage

into the aircraft's cabin heating system. It was not until the following March that DC-6's re-entered service. In 1948 National also suffered a crippling pilot's strike which threatened its very existence for a time. On February 19, 1948, National became a competitor with Eastern in another market--between New York and Washington, D.C.

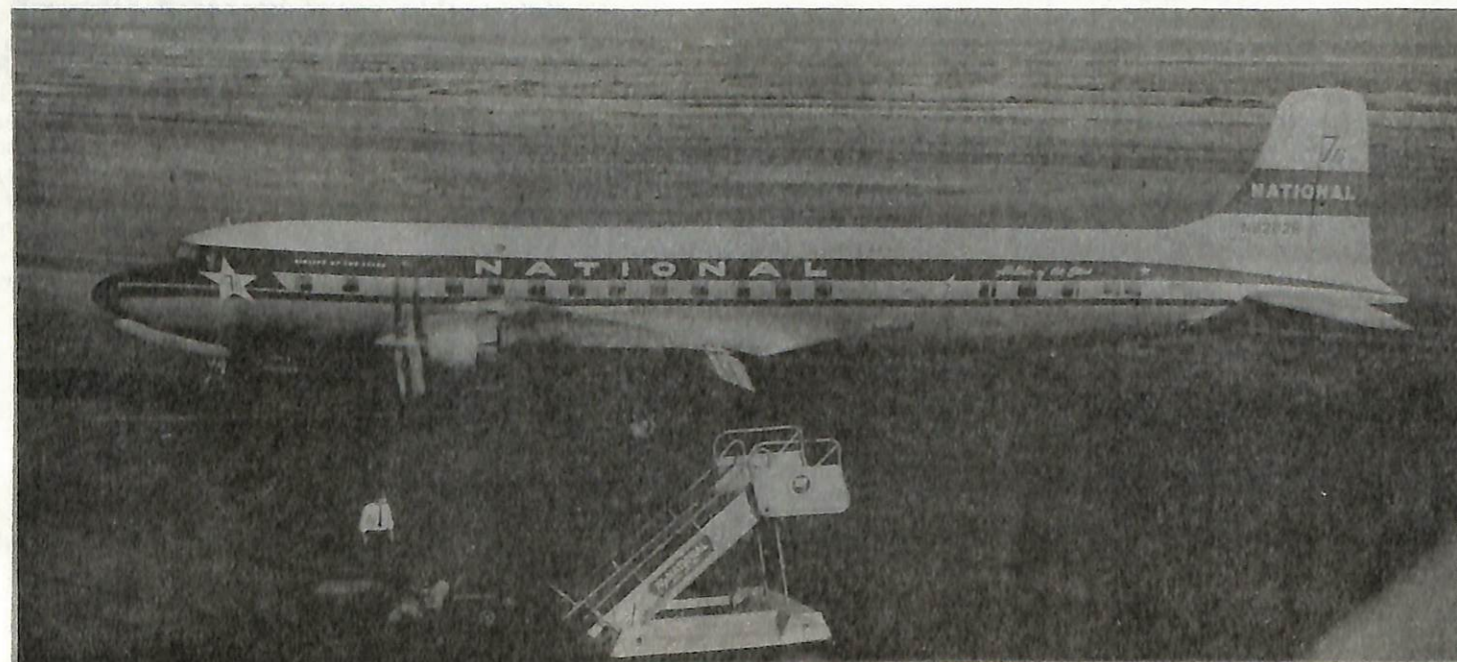
Since the late 1930's, National had used a service mark, "The Buccaneer Route." In early 1950, this was dropped and a new aircraft livery was introduced. It was also at this time that the well-known slogan of National, "Airline of the Stars," was adopted. National, as well as other carriers, entered into one-plane interchange agreements in the early 1950's. On March 16, 1951, interchange service with Capital was inaugurated between Detroit, Cleveland, Pittsburgh, and Florida with Washington as the point of interchange. Interline service with Delta and American between Florida and California was begun May 1 of the same year. National's crews operated aircraft between Florida and New Orleans, Delta's between New Orleans and Dallas, and Ameri-



National was awarded its first significant route in 1944--a link from Florida to New York. Until DC-4's were inaugurated on the route in 1946, National used Lockheed Lodestars on the long route. Photo courtesy of Pan Am.



Above, left to right: National timetable from October 1946 illustrates the airline's early "Route of the Buccaneers" slogan with DC-4 flying overhead; National operated a short-lived helicopter service in the southern Florida area, and it was featured on this February 1954 schedule cover; National's interchange service with Delta and American was advertised on its June 1, 1954 schedule cover. All from the George Cearley collection. Below: National DC-7B N6202B swings away from the boarding stairs at New York's Idlewild Airport in a scene from the late 1950's. Photo from the Gary Dolzall collection.



can's to points in Texas, Arizona, and California west of Dallas and Ft. Worth. The Capital interchange agreement was terminated December 14, 1958, when Capital was awarded Florida service in the Great Lakes-Southeast route case, while the Delta-American-National interchange service continued until 1961 when the southern transcontinental route case was finally settled.

In 1952, National's fleet consisted of 11 Lockheed Lodestars, six DC-4's and eight DC-6's. 2422 employees served the company. The 1953 fleet comprised one less DC-6 plus eight DC-6B's. The first DC-7's were introduced December 15, 1953. In 1954, National operated a short-lived helicopter service in the Miami area. For several years during the 1950's, National and Eastern both sought to acquire control of Colonial Airlines and its routes to Canada and Bermuda, but Eastern was the victor in 1956. National operated interchange routes with Pan American and Panagra to South America beginning in 1955, and with Braniff and Pan American after Braniff's takeover of Panagra on February 1, 1967. The interchange with these carriers was terminated on February 1, 1969, when Braniff was given additional non-stop South American authority from several new U. S. terminals, including New York and Washington.

National extended its routes to Houston in 1956 and also in 1956, Providence and Boston, Mass., were added to the carrier's system. National's fleet the following year, 1957, consisted of four DC-7's, eight DC-6B's, four DC-6's, 12 Convair 340's, 10 Lockheed Lodestars, and six Convair 440's. On order were four DC-7B's, six DC-8's, and 23 Lockheed Electras.

Pan American introduced transatlantic 707 jet service on October 26, 1958, between New York and Paris, but the winter months were the off-season for European travel. At the same time, this was the peak season for travel between New York and Florida. Ted Baker approached Juan Trippe of Pan American with a proposal: National would lease two 707-121 aircraft from Pan Am during their off-season for use on National's routes during periods of peak winter travel. It also would give National a decided advantage over Eastern, which introduced prop-jet service with the Electra in December 1958, but would not introduce its first pure jet service until January 24, 1960 with DC-8's from New York to Miami. Trippe accepted the proposition and National inaugurated 707 service between New York and Miami on December 10, 1958, becoming the very first airline to operate jets within the United States on a regularly scheduled basis. The leased 707's were operated between New York and Miami during winter 1958-59 and 1959-60. On April 26, 1959, Lockheed L-188A Electra service between New York and Miami was begun. National started service with its own jets, DC-8-21's, on February 18, 1960, between Idlewild and Miami. National dubbed

the DC-8 the "Brightest Star of the Airline of the Stars." At this time, both the 707's and DC-8's were operated on the New York-Florida route. The last operation with the leased 707's was April 25, 1960.

On March 11, 1961, the Southern Transcontinental route awards were granted by the CAB and National was a major recipient. Service was begun on June 11, 1961 with Houston-San Francisco, Tampa-Los Angeles, Houston-Las Vegas, Las Vegas-San Francisco, Houston-Los Angeles, Los Angeles-San Diego, and San Diego-Houston nonstops. To cover its expanded and varied route structure, National operated a wide assortment of aircraft in 1961 including four L-1049H Lockheed Constellations, nine DC-7/7B's, eight DC-6B's, four DC-6's, six Convair 440's, 23 Lockheed Electras, and three DC-8-21's. Seven DC-8-51's were on order.



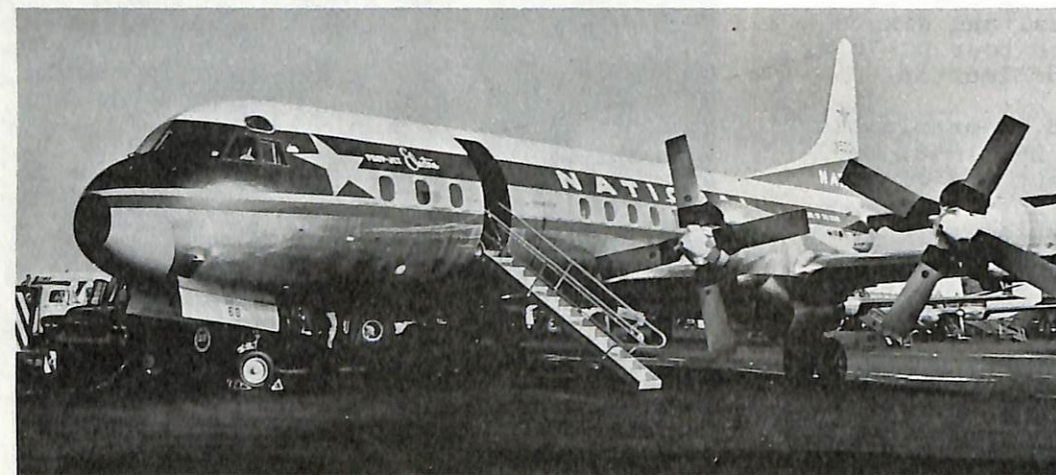
On board a National Constellation at Newark, N.J. in 1958, two National stewardesses tend to a young passenger. Stewardess on left has a stack of National timetables in hand, stewardess on right is handing boy post cards of NA DC-7B and Connie. Photo from Gary Dolzall collection.



Convair "Twins" were part of National's varied piston fleet in the 1950's. Heavily-retouched photo reveals National's "Airline of the Stars" scheme. Photo courtesy of Pan Am.



National Airlines used a variety of Lockheed aircraft, including the L-10 Electra and L-18 Lodestar, the Constellation, and the prop-jet Electra. Here is a 1958 view of Super Connie N7134C. In addition to the "Airline of the Stars" slogan, the Connie also wears "Super Club Coach" lettering. Photo from Gary Dolzall collection.



National's final propeller-driven aircraft, and its final purchase from Lockheed, was the prop-jet Electra. Here, Electra N5010K is shown at Idlewild Airport in New York on October 18, 1959. Aircraft was sold by National in mid-1960's, is no longer extant. Photo from Gary Dolzall collection.



After introducing the first U.S. domestic jet service with leased Pan Am 707's in December 1958, NA began service with its own DC-8's in 1960. DC-8-21 N6572C shown here was sold to Pegasus Travel Club in 1973. Photo from Gary Dolzall collection.

NATIONAL
AIRLINE OF THE STARS
November 1, 1957

NEW YORK * FLORIDA * WASHINGTON * CUBA * TEXAS
NEW ORLEANS * SOUTH AMERICA * CALIFORNIA * PITTSBURGH

MAKE YOUR WINTER RESERVATIONS NOW!

BOEING DC-7B
LOCKHEED SUPER * CONSTELLATION
CONVAIR 440

NATIONAL FLIES THE WORLD'S MOST MODERN AIRLINERS
RADAR EQUIPPED... OF COURSE!

SYSTEM TIMETABLE

ANOTHER NATIONAL FIRST! MIAMI 135 MINUTES

NOW - BOEING 707 JET SERVICE TO FLORIDA

NEW YORK - MIAMI (JET)

FLIGHT #	LEAVE NEW YORK (Idlewild)	ARRIVE MIAMI
1	9:25 AM (EST)	11:40 AM (EST)
5 (Fri-Sat-Sun Only)	1:55 PM	4:10 PM
3	5:25 PM	7:40 PM

MIAMI - NEW YORK (JET)

FLIGHT #	LEAVE MIAMI	ARRIVE NEW YORK (Idlewild)
2	1:25 PM (EST)	3:40 PM (EST)
6 (Fri-Sat-Sun Only)	6:25 PM	8:40 PM
4	9:25 PM	11:40 PM

Left top: National's November 1, 1957 timetable illustrated its varied prop fleet which included the DC-7B, Super Constellation, and Convair 440. Right top: "Another National First!" was how NA billed its introduction of U. S. domestic jet service. Pan Am 707 is depicted. Bottom right: Interesting period in airline history is recorded by this timetable from January 1960 showing National operating both its own DC-8's and leased Pan Am 707's in New York-Miami service. Bottom left: National introduced its DC-8's on this January 11, 1960 timetable. All illustrations this page from the collection of George Cearley.

Effective January 11, 1960

NATIONAL
AIRLINE OF THE STARS

Brightest Star
on the
Airline of the Stars

The magnificent DC-8, soon to be flying NATIONAL's routes. Watch for announcements.

SYSTEM TIMETABLE

NORTHBOUND - HAVANA - MIAMI - TAMPA - JACKSONVILLE - WASHINGTON - PHILADELPHIA - NEW YORK - BOSTON

TABLE 2

FLIGHT NUMBERS	FT DC-8 200	Super H 800	FT Electra 206 422	FT +Boeing 707 2	FT +Boeing 707 2	Douglas DC-8 6	FT DC-7B 600	FT DC-7B 600	FT +Boeing 707 4	FT +Boeing 707 4	ALL FLIGHTS CARRY AIR FREIGHT
HAVANA (EST) Lx											
KEY WEST											
MARATHON											
MIAMI (EST) Lx											
MIAMI (EST) Lx											
PORT LAUDERDALE											
WEST PALM BEACH											
MELBOURNE											
FORT MYERS											
FORT MYERS											
SARASOTA/BRADENTON											
SARASOTA/BRADENTON											
ST. PETERSBURG											
CLEARWATER											
TAMPA											
JACKSONVILLE											
JACKSONVILLE											
SAVANNAH											
SAVANNAH											
CHARLESTON											
WILMINGTON											
FAYETTEVILLE											
FAYETTEVILLE											
NEW BERN											
NEW BERN											
NORFOLK PORTSMOUTH											
NORFOLK PORTSMOUTH											
NEWPORT NEWS/HAMPTON											
WILLIAMSBURG											
RICHMOND											
RICHMOND											
WASHINGTON											
WASHINGTON											
BALTIMORE											
BALTIMORE											
PHILADELPHIA											
PHILADELPHIA											
NEW YORK (Newark)											
NEW YORK (Newark)											
NEW YORK (Idlewild)											
NEW YORK (Idlewild)											
PROVIDENCE											
PROVIDENCE											
BOSTON (EST) Lx											

In early 1962, a merger between National and Continental was proposed by NA's Ted Baker and Robert Six of Continental. However, in April 1962, Baker sold his interest in National for \$6 million to L. B. "Bud" Maytag, who had owned Frontier. Soon after, Baker went on a vacation and died of a heart attack in late summer. Following the management change, in late summer or early fall 1962, the "Airline of the Stars" slogan was dropped, but the star itself was retained on schedules, brochures, and aircraft. DC-8-51 "fan jets" were also introduced in 1962. Four DC-8-32's were acquired from Northwest between October 1963 and July 1964. Also in 1964, a two-tone "N" logo was adopted and the star was dropped. By February 15, 1965, National had introduced the 727, and in 1966 the fleet comprised 10 727-35's, three DC-8-21's, four DC-8-32's, six DC-8-51's, and 17 Lockheed Electras, with three 727-35's and 25 727-235's on order.

On July 1, 1967, National inaugurated service with the DC-8-61 and in December the "Sun King" logo was adopted along with a slight variation of the airline's final paint scheme. By 1969 the airline was operating 13 727-35's, 21 727-235's, 14 standard length DC-8's and two DC-8-61's. Boeing 747 service was introduced on National on October 25, 1970 on the Florida routes. However the 747 proved too large

for National's needs, and the 747's reversed the path of the earlier DC-8-32's going to Northwest. National introduced its final new aircraft type on December 15, 1971 in the McDonnell Douglas DC-10.

National entered the transatlantic market with a Miami-London route on May 27, 1970, using DC-8's and later, DC-10's. Further international route extensions followed seven years later, with Miami-Paris service added on June 22, 1977, and Florida-Amsterdam and Frankfurt services added in 1978. New York-Amsterdam non-stop services began on December 14, 1978. Domestically, new routes involving Miami-San Juan and Houston-Seattle nonstops were inaugurated in the late winter of 1979. And nonstop service from Seattle to Los Angeles was added in the Spring of 1979.

As it turned out, spring of 1979 would be the final one for National as a completely separate airline. Following announcement of plans to merge with Pan American, National was the focus of a bidding war between Pan Am, Eastern, and Texas International. Nonetheless, a merger approval for National and Pan Am was granted by the CAB in October 1979 and was approved by President Jimmy Carter on December 22, 1979. On January 7, 1980 National joined the Pan American system.

Below, clockwise: NA introduced DC-8-61 service in 1967. DC-8-61 N45090 depicted here was sold to Capitol International in 1975. Photo courtesy Pan Am. DC-8's were used on National's new Miami-London route which this timetable of July 15, 1970 introduced. Timetable from George Cearley collection. Two 747-135's, such as N77772 shown here, joined the NA fleet in 1970. Both were sold to Northwest Orient in 1976 (and now serve as N620US and N621US). Photo courtesy Pan American.



EFFECTIVE JULY 15, 1970

National Airlines



The new
"convenient" way
Nonstop to
LONDON
daily from
Miami
6-30 pm

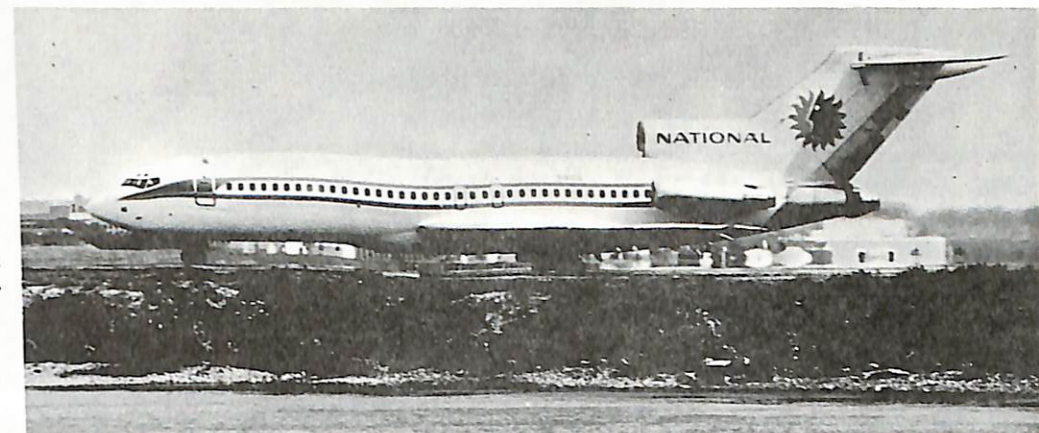


Avoid Congestion of
Northern Airports

See schedules pages 7 & 8

System Timetable

Boeing 727-35 N4616, shown departing Washington National Airport (DCA) illustrates the "Sun King" color scheme NA used in its final years. This same aircraft is illustrated in full Pan Am colors in our feature on Tampa International Airport. Photo by Gary Dolzall.



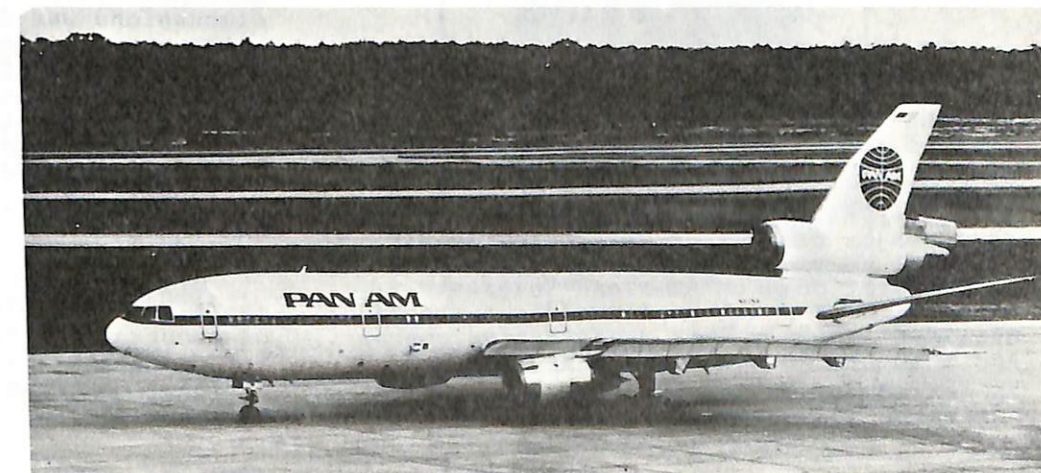
Shortly before the Pan Am merger, NA accepted 727's from Northwest. N3606 was painted in a unique scheme with short stripes and silver bottom in anticipation of the PA merger. Photo at Houston by George Hamlin.



After sale of the 747's, National's "big ship" was the DC-10. NA used DC-10-10 aircraft on domestic routes and DC-10-30's on its intercontinental routes. Here, NA DC-10-10 N63NA prepares to depart from Miami, Fla. Photo by Gary Dolzall.



Transition: Sister ship of N63NA above, ex-National DC-10-10 N62NA shows the colors of her new owner, Pan Am, in a scene at Houston, Tex. Photo by George Hamlin.





Thai International's first jet fleet consisted of six Caravelles. HS-TGH was leased from SAS for five years. Photo courtesy Thai International via the author.

Thai International

JOHN CHIVERS

AVIATION was already an active force in Thailand when the elephant and paddle-boat were still major means of transportation on the ground.

In 1918, a corps of 300 Thais went to France as part of the Thai military force involved in World War I. Following instructions from King Rama VI, the Thai aviators learned from their French instructors not only how to fly aircraft, but how to build them as well. On their return to Thailand, aviation was introduced. Initially, flying was the sport of the wealthy, but early experiments in commercial services resulted in the launching of the first regular air service in Southeast Asia. Begun in 1922, a mail service was operated by the Royal Aeronautical Service of Thailand for several years between Korat Nakhon Ratchasima and Ubon Ratchathani.

By 1929, the growing interest in flying resulted in the formation of the Aerial Transport Company of Siam (ATCS). After the interruption of World War II, ATCS evolved into Siam Airways Company. Both Siam Airways and ATCS had been concerned primarily with domestic operations. The first major attempt at developing international services from Thailand was made in cooperation with American interests, through the formation of Pacific Overseas Airlines in 1947. This organization operated a number of trunk and charter services as far as the United States and Europe, but never on a regularly scheduled basis.

In 1949, Siam Airways and Pacific Overseas Airlines amalgamated into Thai Airways Co., Ltd.--one of the parent companies of what is today Thai International. By 1958, Thai Airways had launched international services by using three Lockheed Constellation aircraft which had been purchased from Pan American. Unfortunately, the depressed economic conditions and lack of marketing and operational expertise in the new company took its toll, resulting in heavy losses on international services. Alternatives were sought for Thailand to successfully develop its aviation industry into the international market.

THE DEVELOPMENT OF THAI INTERNATIONAL

In the spring of 1959, discussions between Thai Airways and the Scandinavian Airlines System (SAS) began. From these discussions was developed a partnership which resulted in the creation of Thai International. After negotiations, Thai Airways invited SAS to participate as a minority shareholder in a joint company. With an initial capital investment of \$2 million U.S. dollars, Thai Airways would hold 70 percent of the new carrier, SAS the other 30 percent.

By the end of 1959 all necessary agreements had been signed for a ten-year period of cooperation. SAS would provide technical and operational management, develop international marketing, arrange the lease of suitable aircraft, and assist with the

Below: Pacific Overseas Airlines, a Thai International predecessor, was formed in 1947. Sticker from Don Thomas collection.



training of Thai staff to eventually take over full operations of the airline. In 1971, the contract was extended for seven additional years. This agreement formed the basis for the successful development of Thai International. SAS assumed all financial and operational responsibility for the first five years (gaining access to such important locations as Hong Kong). During the early years, losses were experienced, but once firmly established, Thai International quickly became profitable.

As Thai executives and staff gained experience the percentage of foreign employees declined rapidly to the point where, in 1974, less than two percent of the staff working in Thailand was from outside Thailand. The rapid growth of the airline had resulted from the balance maintained between service and demand, plus the correct assessment of the market by Thai International and SAS management. For over a decade, the airline's planners have accurately forecast the potential business, and have purchased aircraft well-suited to the task.

ROUTES

In 1959, before Thai International operations had begun, several far-reaching decisions were formulated. It was agreed that Thai International should aim for an all-jet fleet, and limit its routes to those within Asia. The market Thai International aimed at was largely tourist traffic, and the key to reaching this market was close cooperation with the travel trade, tour operators, and other airlines.

Within its first year of operation, Thai International served 11 cities--Hong Kong, Taipei, Tokyo, Manila, Kuala Lumpur,

Singapore, Jakarta, Saigon, Phompenh, Rangoon, and Calcutta. Over the years, other key destinations have been added--Osaka and Dacca were added in 1964, Penang in 1966, Denpasar (Bali) in 1967, and Seoul, Delhi, and Kathmandu (Nepal) in 1968. The addition of Bali and Nepal to the network were two of the major triumphs of Thai International's expansion. Both of these locations were pioneered by the airline and much of their success as tourist attractions have been due to the promotional activities undertaken by Thai International.

In April 1971, Thai International launched its first intercontinental service--to Sydney, Australia via Singapore. In June 1972, the highly successful Australia-Thailand route was extended to Europe with Copenhagen added. Services to Europe were further expanded with the inauguration of flights to Frankfurt and London in November 1973, to Rome in April 1974, to Amsterdam in April 1975, and to Athens and Paris in November 1975. Thai International took a huge step towards being a worldwide carrier in 1980, with the inauguration of Boeing 747 service from Thailand to the west coast of the United States. Thai International achieved its major objective--of offering more international destinations within Asia than any other airline--back in 1968, and has since set out to develop services to other major international sources of tourist traffic. There will be further developments in the future, to both major destinations and to as yet undeveloped new tourist attractions within Asia and the Pacific. Thai International has expanded its route network rapidly and successfully without overextending its resources.



Above: Thai Airways was formed in 1949 from Siam Airways and Pacific Overseas. Sticker from Don Thomas collection.

AIRCRAFT

During its formative years, Thai International leased aircraft from SAS rather than purchase its own. This gave the airline greater flexibility in route development, and insured maximum utilization of equipment while staying in line with Thai International's limited resources.

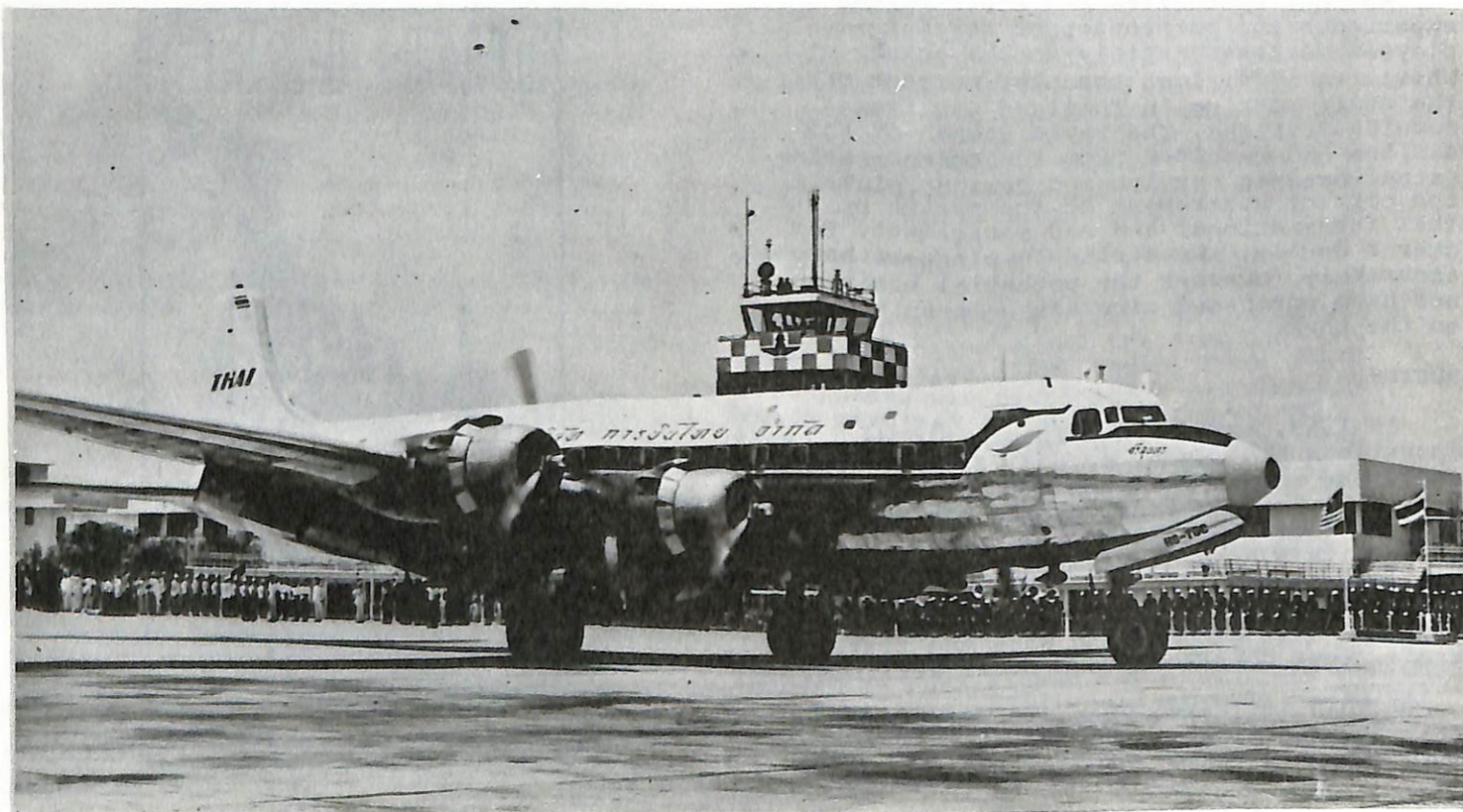
After predecessor Thai Airways had unsuccessfully begun service with three Lockheed Constellations, the newly formed Thai International began operations in 1960 with a fleet of three Douglas DC-6B aircraft. Eventually, Thai International used six different DC-6B's. These veteran Douglas aircraft were regarded by Thai International's management solely as an interim stage to the development of an all-jet fleet.

The first Thai International jet was a Convair CV-990 (HS-TGE) leased from SAS in 1962. However, it was not until 1963--when Thai International introduced the Sud Caravelle--that the carrier developed a standardized jet fleet. Six SAS Caravelles were used by Thai International, of which two were written off before Thai retired the type from its roster in the early 1970's. Nonetheless, it was on the beautiful Cara-

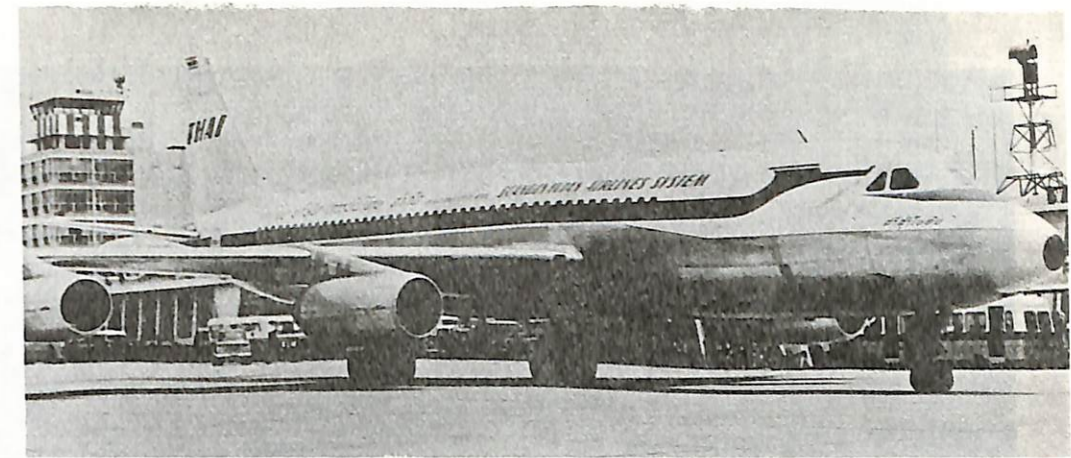
velle that Thai International's high reputation for in-flight passenger services was developed. With a two-abreast seating configuration and lavish food and beverage service, Thai International's "Royal Orchid Service" soon attracted worldwide attention.

Thai International soon felt the need for larger aircraft and began a move toward a standardized DC-8 fleet, first with Series 30 aircraft and later with Series 60 DC-8's. As an interim step in the early 1970's Thai International also used a pair of 99-seat leased SAS DC-9-41 aircraft for a period of about one year. Thai International entered into the wide-body era in 1975, taking delivery of a pair of McDonnell Douglas DC-10-30's, and this fleet eventually grew to five different aircraft. The next step in Thai International's fleet growth also was a wide-body purchase, this time the Airbus A-300B-4 which began service on Thai International in 1977. And as a fitting tribute to Thai International's rapid growth, the carrier entered its name in the Boeing 747 order book with an order for three of the giants, deliveries beginning in 1979. Thus, in 20 short years Thai International had gone from the pangs of formation to a well-respected, truly international carrier operating Boeing's biggest as its flagship.

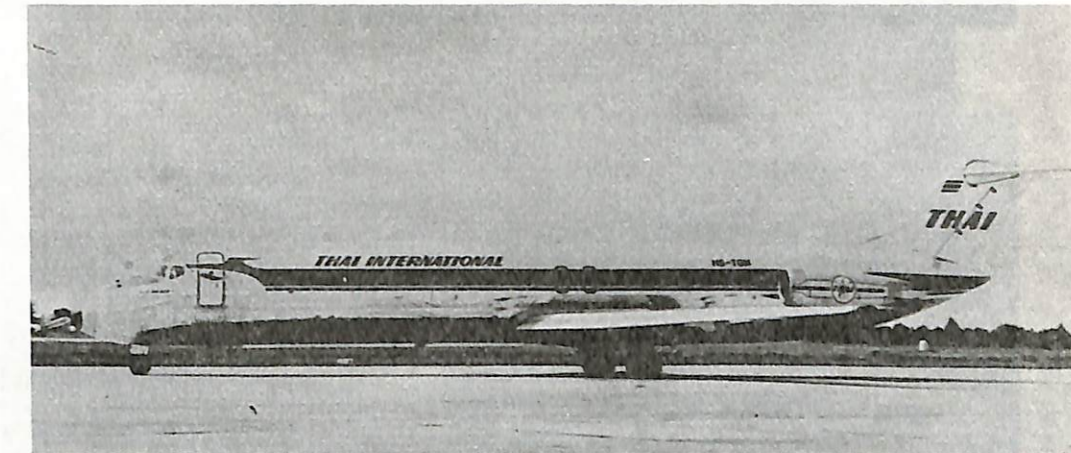
Below: Thai International's first aircraft after its formation in 1959 were a trio of Douglas DC-6B's such as HS-TGC. The piston-engine DC-6B's were considered by Thai International's management solely as interim equipment until jets could be put into service. Before and after its service with Thai International, this aircraft was SAS SE-BTT. Photo courtesy Thai International via the author.



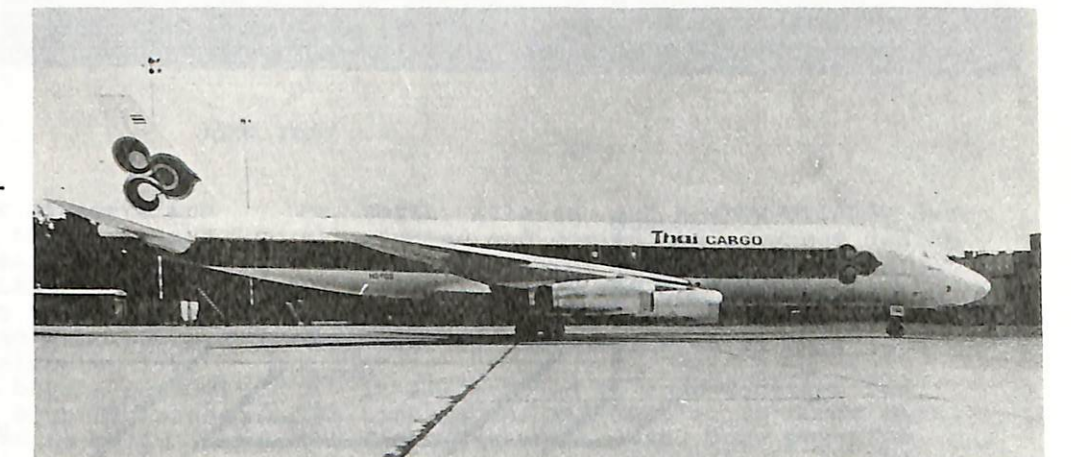
Thai International introduced jet service with a single CV-990, HS-TGE. In this photo, the CV-990 wears dual Thai and SAS titles. Aircraft was well-traveled, after SAS and Thai service it flew for Swissair, Balair, El Al, Air Ceylon, and Spantax. Photo courtesy Thai International via the author.



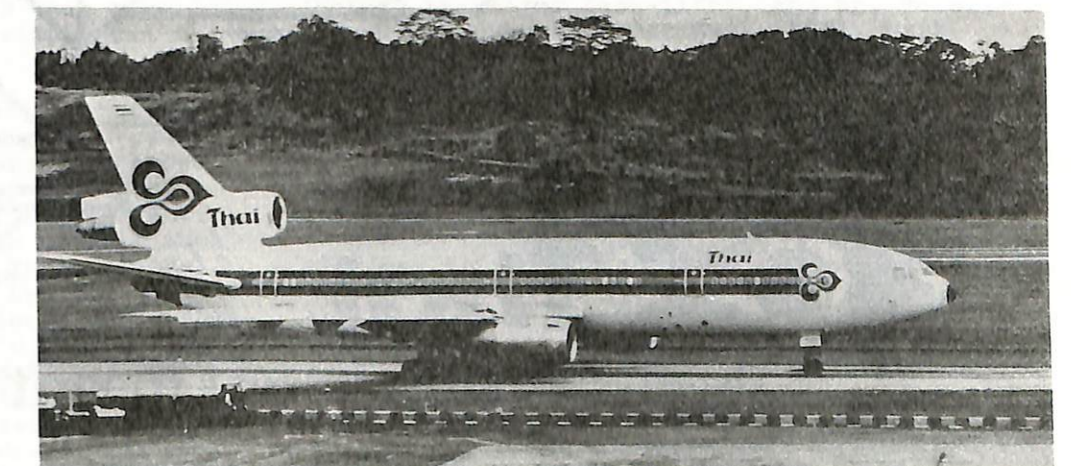
Thai International operated a pair of DC-9-41's leased from SAS in 1970 and 1971. Photo courtesy Thai International via the author.



DC-8's became a mainstay on Thai International before the wide-body jets began their arrival. DC-8-32 HS-TGS, a Thai Cargo freighter, came from SAS in 1970. Photo from the Gary Dolzall collection.

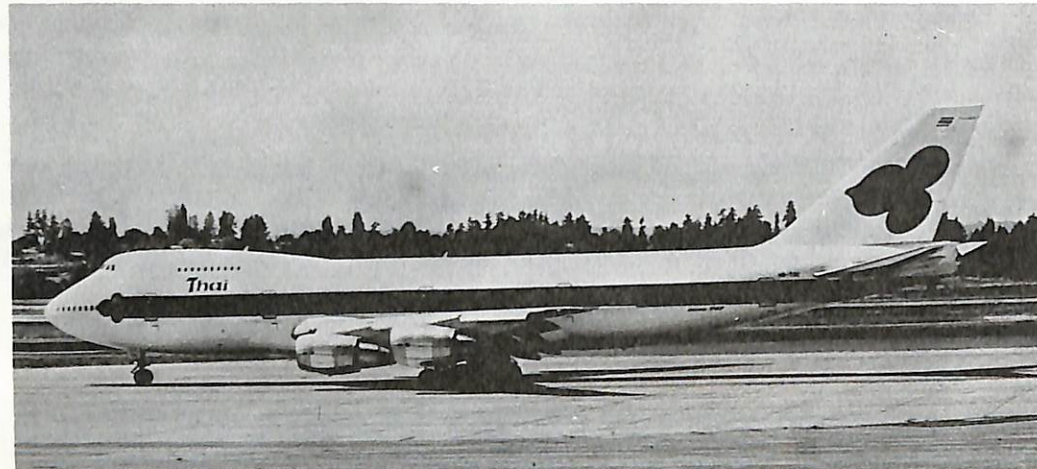


Thai International introduced the DC-10 in 1975. Here, HS-TGD shows off Thai's beautiful "Royal Orchid" color scheme as it taxis at Singapore. Photo by Gordon Glattenberg; Dolzall collection.





With the hills and towering buildings of Hong Kong in the background, Thai A-300 HS-TGO keeps company with a pair of Cathay Pacific L-1011's. A-300's joined the Thai fleet in 1977. Photo by Gordon Glattenberg: Dolzall collection.



Latest and biggest addition to the Thai International fleet is Boeing's giant, the 747. Aircraft were first used on routes to North America, now are also used on European routes. Photo: Gary Dolzall collection.



Tampa, a port of call for 747's and DC-10's, is also visited by aircraft such as PBA DC-3 N136PB. This photo by John Irby was taken at airside terminal B.

Tampa International Airport

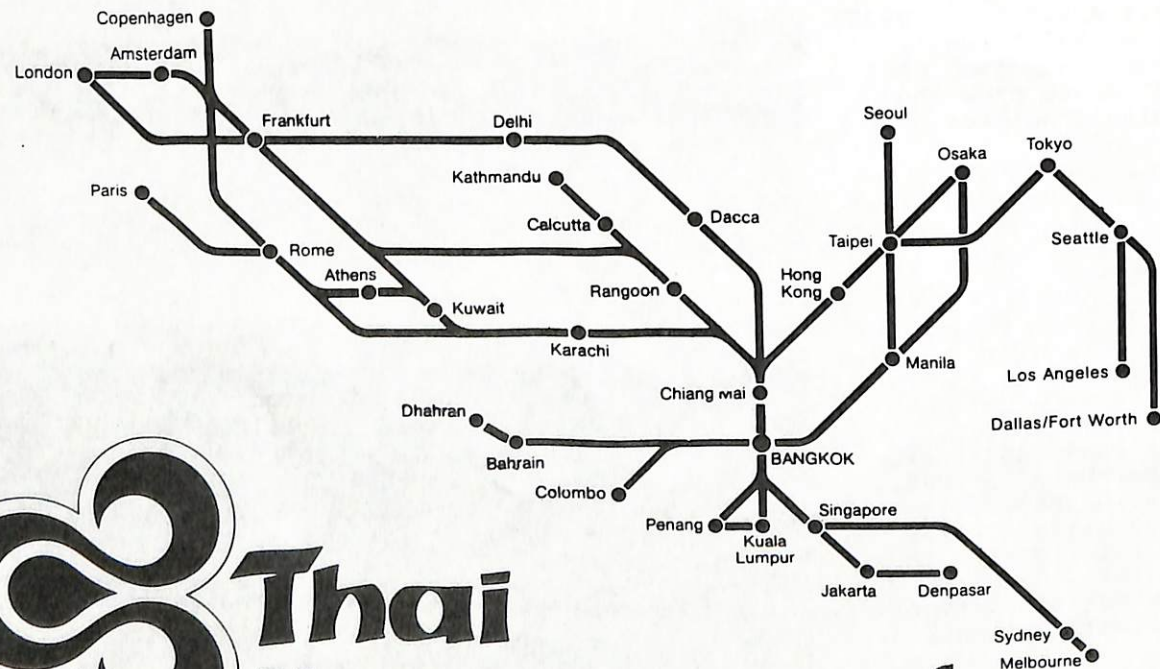
JOHN IRBY

LET'S FACE IT: Most major airports are looked-upon with contempt by the residents of their attending communities. It is easy to see why airports such as LAX and DCA are so unpopular when viewing their respective noisy and over-crowded atmospheres. Even such jet-age "planned" airports like Dulles and Indianapolis have become economic "white elephants" due to the high expenses that their communities incurred to build and maintain them, this in light of currently declining airline service at these terminals. It sometimes seems that airport designers and planners simply can't win--or can they?

Ask anyone in Tampa, Florida what they think of their ultra-modern, yet 10-year-old, airport and they will probably answer "It's the world's finest airport" without batting an eye. There is not another airport in North America that is held in such high public esteem as Tampa International Airport (TPA). For the past two years, the Airline Passengers Association's membership, has voted TPA to be America's best airport, and even Howard Cosell, on a Monday Night Football telecast, stated his approval of TPA to millions of ABC-TV viewers one night last fall. Cosell is not alone in his admiration of TPA, airport planners in Dallas-

Ft. Worth, Atlanta, and nearby Orlando have all studied and copied the advanced design features of TPA for use in their own airport facilities. What, you may ask, is so special about TPA that would bring about such wide-spread admiration as this?

It all started to come together for TPA back in the mid-1960's. In those days, the Tampa Bay area, like many bay-side metropolitan areas, was serviced by two old-fashioned airports, Tampa International (before the major face-lift), and St. Petersburg-Clearwater International (PIE), with the two airports being just five air miles across the bay from each other. The airlines were providing duplicated services to the two airports as a result of the old, regulated air-mail contract routes that were established back in the 1930's. With the coming of the jet age, however, it was becoming increasingly expensive for the airlines to provide services to both TPA and PIE and they begged the local and federal government agencies involved to rectify the situation. With the mid-1960's construction of the I-275, Howard Franklin Bridge, across the bay near the two airports, it became obvious to all of the federal and local planners that major airline services could be incorporated into



Thai
How man was meant to fly.

one of the two airports, providing the chosen airport was expanded substantially. Soon, it was decided to pursue that plan with each of the two airport authorities submitting their proposals for expansion to the airlines.

The airlines laid down their specifications which centered on (1) their need for an airport that could handle the then-proposed wide-bodied and even supersonic jet transports, (2) the airlines calculated that the new airport should be able to handle 8,000,000 passenger movements by 1975 and 12,000,000 passenger movements by 1985 (per year). When these specifications were presented to the two airport authorities, the St. Petersburg-Clearwater proponents had to bow-out, since their airport was much smaller than TPA's in land area. This left the Hillsborough County Aviation Authority, governing body of TPA, the tall-task of building the "airport of the future."

The HCAA did a marvelous job of developing their "super airport." By conspiring with the Hillsborough and Tampa City/County zoning boards, the HCAA was able to purchase the needed land for TPA's expansion and rezone surrounding land near TPA's proposed flight patterns to prevent residential con-

struction and the complaints against the airport that it would bring. To get the \$38 million construction bond issue off to a good start, the HCAA convinced the Hillsborough County Commission to gamble \$10 million as "seed" money, money temporarily diverted from the county's general funds and paid back with interest during the 1970's. Then the HCAA let the mammoth construction contract to H. L. Greiner Engineering Contractors to bring the advanced, 40-gate, five terminal, and three runway international airport to life. During April 1971, the new Tampa International Airport terminal and runway complex opened for business and all major airline services were incorporated at TPA soon afterward.

TPA's terminal complex was and is the most advanced and efficient design of its type. A six-floor landside terminal houses all ticketing, check-in, major shops and restaurants, and most all of the airport's operations offices. A nine-story Host International Hotel is attached to the terminal's north face and features a revolving restaurant and bar complex on top of its ninth floor. Four airside terminals, each with a capacity of 10 jetway-equipped boarding gates are, Airside B (housing Eastern and Naples/PBA) on the southeast corner of the

terminal complex, Airside C (housing Delta, Air Canada, TWA, Laker, and all international arrivals) is on the northeast sector, Airside D (housing Northwest Orient, United, Air Florida, Piedmont, Red Carpet, Wardair Canada, and Ozark) lies on the northwest of the landside terminal, and Airside E (housing Pan Am, Braniff, American, Republic, and USAir) is located to the landside terminal's southwest. Each of the four airside terminals are connected to the landside terminal's second floor by two 100-passenger Westinghouse AGT "People Mover" shuttle cars that are computer-programmed to provide services to and from the respective airside on a 24-hour basis, every two minutes. The eight "People Movers" reach speeds of up to 30 mph and have logged an impressive reliability record over their 10-years in operation.

From the pilot's viewpoint, TPA looks pretty good as well. Ample ramp area and wide taxiways allow easy maneuvering for even the behemoth 747. The two main parallel runways are amply separated by the terminal complex and taxiways to allow simultaneous operations with minimal ground delays. In 1980, the west parallel runway 18R/36L, was lengthened from 8700 feet to 11,000 feet to accommodate long-haul jet service. This runway is also equipped with category II ILS equipment on the 36L approach. The east parallel runway, 18L/36R, is currently 8300 feet in length, however the land is available to extend this runway to 10,000 feet if needed and it is equipped with an ILS approach on 18L. The cross-wind runway, 9/27, is 7000 feet in length and is designed to divert low-performance aircraft away from the main runways. Consequently, this runway is adjacent to TPA's general aviation operations on the airport's east side. The 226 foot FAA control tower is equipped with the new ARTS-III computer-controlled ATC radar and also monitors reports from TPA's low-level wind shear detection system, located on the airport's boundaries. TPA is due to become a Class II Terminal Control Area during 1981 to restrict low-altitude transitions by non-radio and/or transponder equipped aircraft in its crowded airspace.

Airline services at TPA are excellent for a metropolitan area of only 1.5 million residents. Extensive domestic services are provided by Eastern, Delta, Pan Am, United, Northwest Orient, TWA, America, USAir, Braniff, Republic, Piedmont, Ozark, and Air Florida. Air Canada, Laker, Pan Am, Delta, Eastern, and Red Carpet Airways combine to fly international services to such cities as London, Mexico City, Frankfurt, Paris, Toronto, Montreal, and Grand Cayman. A strong commuter market exists at TPA with Naples/PBA, Air Miami, Ocean Reef Airways, and Marco Island Airways together hauling over 200,000 passengers in and out of TPA last year. Supplemental and charter airlines include Wardair Canada, Capitol, Federal Express, Emery Express, Airborne Freight, and Courier Wings. In all, over 7.5 million passengers and over 101 million

tons of air freight passed through TPA during 1980--truly a major airline market!

The future looks bright for TPA. During its 10th Anniversary month of April 1981, Tampa saw the beginning of Laker Airways' three-times-weekly "Skytrain" DC-10 services, non-stop to London's Gatwick Airport. Other prestige routes beginning or resuming for TPA include Pan Am's services to Paris, Frankfurt, and Mexico City. Many other international carriers have their eye on the TPA market for possible future expansion into Central and South America. With an \$80 million improvement project underway, TPA will enhance its claim as "the world's finest airport" even more. New air cargo terminal facilities, and improved taxiways have advanced beyond the planning stages and the taxiway improvements have, in fact, already begun. As the airline recession of 1980 hopefully wears off and air travel growth resumes, the HCAA is considering another bond issue to add two more Airside terminals and extend the east parallel runway to 10,000 feet, since TPA has already reached its design capacity in the original 40-gate form. All in all, Tampa International Airport is the prototype airport by which all others will be judged in the future.



Pan Am 727-35 N4616, an ex-National aircraft, is tucked into Gate 68 at airside terminal E in this scene captured by the author. Notice the National "Sun King" logo still affixed to the next gate's jetway.



Air Florida's attractive green, blue, and white 737's are regular visitors to TPA. Here, in action near Gate 55 at airside terminal D, 737 N42AF pulls in on arrival. John Irby photo.



Above: In a panoramic scene by John Irby, TWA 707-131B N748TW rests at the gate at airside terminal C. Below: TPA shows its flair for activity in this scene with a PBA Bandeirante and DC-3, Naples Martin 404, and Eastern 727 all included. Photo by John Irby.



Plane-Spotting at TPA

JOHN IRBY

TAMPA INTERNATIONAL, like many modern airports, is not really designed with the aviation enthusiast and photographer in mind. The best potential spotting locations, such as the easements along the spine expressway that leads into the terminal complex, are off-limits. Anyone who is unfortunate enough to get caught by the airport police, and is parked in these areas, will be faced with a fine or worse--a towing charge. In light of these facts, it takes a good bit of cleverness to find suitable aircraft viewing locations at TPA.

The short term parking garage that is atop the landside terminal building, offers the best (and only official) location for the aircraft spotter. At a parking charge of 50¢ for the first half-hour and 25¢ for each half-hour afterwards, the roof-top floor of the short-term garage affords a panoramic viewing area for the spotter. However, the photographer will need to bring along his long telephoto lenses (200 mm and up) and perhaps a tripod to enjoy successful shooting at this location.

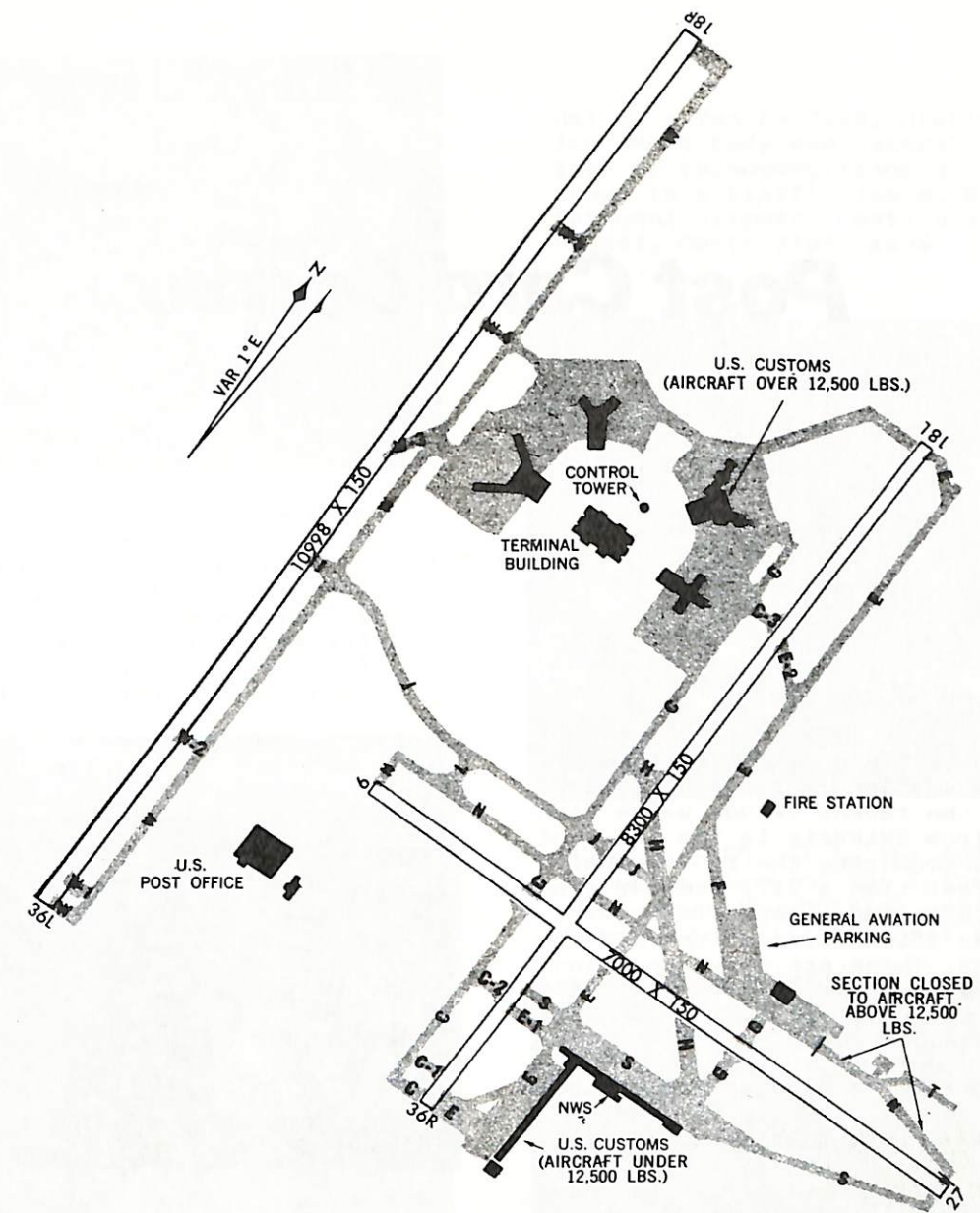
To get the best close-up photographs of the ramp action around the airside terminals, you need to get down along the employee walkway that parallels the airside service and landside access roads. Please note that parking in the many tempting spots along the service road or parking in either of the employee parking lots will almost guarantee your car and ticket and a tow! You can still gain access to this area by either parking your car in the short term lot and taking the elevators to the second-floor ticketing and check-in area, go outside like you are going to head for the long-term parking lot that is to the south of the landside terminal, then divert to the employee walkway that leads to their parking lots and the airside--quite a hoof! The other alternative is to have someone drive you to the service road and drop you off by the airside, take your photographs quickly, then have your driver pick you up before the airport police get too curious. The police will tolerate you being in this area briefly, but long photo sessions are discouraged.

Good photo and viewing areas for the runways are almost non-existent. The only passable area is located on the east side of the airport property along the east parallel runway 18L/36R and near the fire

and rescue station. To get to this area requires a maze-like path to be followed from the main terminal complex: Leaving the airport's terminal on its expressway, you come to a cloverleaf exit at the south end of the airport property. There are two ramps to be aware of, the first ramp you come upon is to be passed, but the second ramp, the Boy Scout Blvd. ramp, is to be taken and you should be heading to the east after doubling-back on this ramp (as many cloverleaves do). Heading east on a four-lane, divided highway, you continue until reaching the third traffic light intersection, Dale Mabry Highway, where you turn left and head north. After heading north on Dale Mabry, you turn left at the next traffic light and continue on that road until you come to a stop sign. Making a right turn at the stop sign, you are again heading north. Shortly after making your way up this street, you will see a cleared area to your left and the airport terminal complex past the fence. Turn left on one of the seemingly abandoned streets that bisect this open area and head for the airport's fence and your parking place--got all of this? This area is a popular parking place for spotters and people taking lunch and it provides a reasonable telephoto view (again for lenses of 200mm and up) of the east parallel runways and taxiways.

Although each of the airside lounge areas that are set aside for viewing airport activity, they are surrounded by Polaroid-tinted glass walls that make for difficult photography. When the rash of skyjackings occurred last summer, TPA's airside were temporarily closed to all but airport employees and ticketed airline passengers. Thankfully, Naples PBA Airlines kicked up such a fuss against this program that the HCAA recinded and again allowed sightseers to the airside. It seems that Naples/PBA's guaranteed seating and at-gate ticketing was greatly hampered by this restriction. As usual, all persons entering the airside are required to submit to search by detectors and all carry on luggage is X-rayed.

So there you have it. TPA may be "the world's finest airport," but not necessarily for those of us who are sometimes called "airport bums." However, with a bit of effort, you can net some good photos, so it's worth the trip.



TAMPA INTERNATIONAL AIRBAND FREQUENCIES

TOWER	119.5 and 119.05
GROUND CONTROL	121.7 and 121.6
ATIS	126.45
UNICOM	122.95
APP. CONTROL	126.0, 118.8 (final approach)
CLNC. DELIVERY	120.9
DEP. CONTROL	126.0 and 118.8
STAGE III APP	119.9

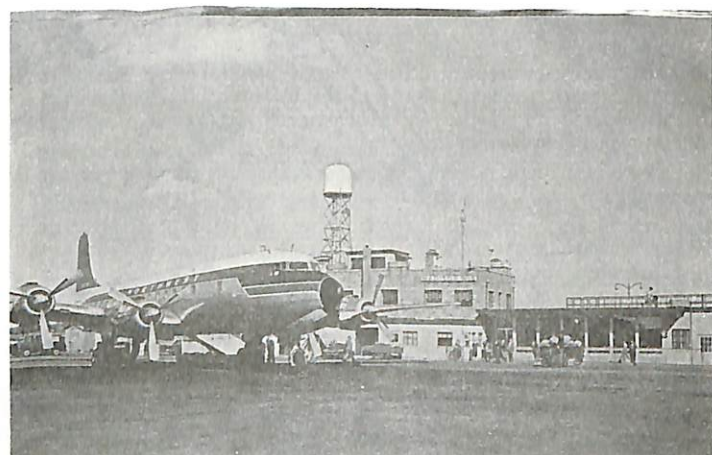
Post Card Corner

JON PROCTOR

JUST A FEW bits and pieces to report about new issues this time; not much when compared with the recent deluge we've seen. A nice treat from Swissair is the issue of two cards to commemorate their 50th anniversary; one featuring a 747, and the other a DC-9-81, both in the latest livery. The cards double as stickers, and peel off the post card backs. These are very appealing collectables, and were received from the New York City office of Swissair, 608 Fifth Avenue, New York, NY 10020.

Sterling Airways of Sweden has released a new card of their 727-200, this one in continental size, rather than the larger cards they've done in the past. LTU, the German charter carrier has a nice climbout shot of their L-1011-500 available. A few new non-airline issues just appearing include a JAL 747 and South African Airways 747SP, both in landing configurations, by E. Baumann of Switzerland. The 747SP is especially interesting, in dual markings with Luxair, featuring the Luxair color scheme with "SAL" titles. Two excellent historical cards have been added to the Aviation Hobby Shop series; a lovely shot of a Cunard Eagle 707, and an Iberia Super G Connie in original colors. All four of these cards are available from Aviation World on their latest sales sheet, just released. Forty new cards are featured.

In view of the relatively few new issues, I thought it might be fun to show a few of my favorite cards from what I would like to call the "rare birds" series in this column. You know--those odd-balls you never expected to see on a card, or the ones which avoided post card fame for unknown reasons. If anyone has a card that fits this category, send it along for a future issue of the LOG. A few candidates: Transocean Stratocruiser, Lufthansa DC-8, PSA DC-6B, and the like. Good luck, and good collecting!



Above: A Northwest DC-6A, which the carrier only operated for two years. Shown at Madison, Wis. Fagan Publishing Co.

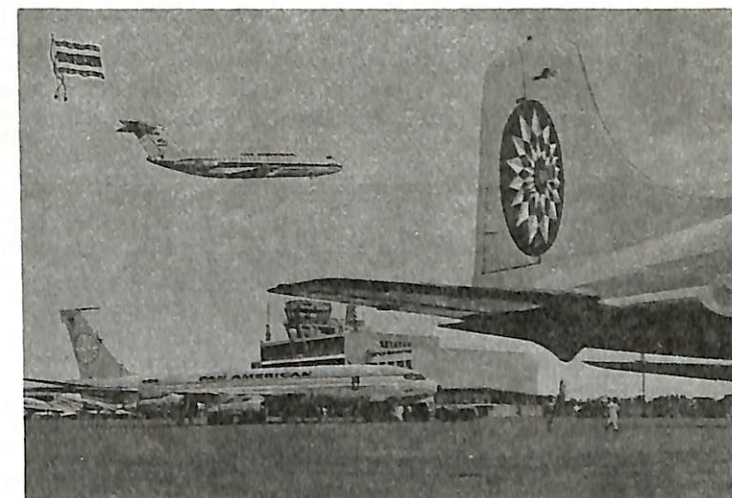


The only American DC-6B this writer has seen on a post card. Issued as a single card, and also part of a multi-pack, by Dexter Press. Scene is at Detroit Metro.



Below: A Pan Am 720B, distinguished by its short body and ventral fin, plus the lack of turbocompressor on #4 engine. Shown in a traffic jam at El Coco International Airport, Costa Rica. Libreria Loopez, Costa Rica issue.

Above: All of TWA's Martin 202A's were delivered in all silver colors and only later were given the livery with white crown skin and tail, to match the 404 fleet. Distinguished by its eyebrow windows above the cockpit, this white 202A is shown on the ramp at Ft. Wayne, Ind., a former TWA city. Curteichcolor issue.



Below: A BAC-111 in the colors of SAS, while on lease to the Scandinavian carrier. Note the British registration. Plane Fotos International issue.



Above: An elusive Boeing 720-027 of Braniff. Often mistaken for a 707, this example reflects its delivery color scheme. Braniff issue.



Left: Swissair's new livery is featured on this combination post card and sticker, issued by the carrier for its 50th anniversary. A similar issue shows a DC-9-81.

Model Shop

DAVID MINTON

INTERESTED in modeling the de Havilland DH. 106, better known as the Comet? You will be pleased to learn that there are a very large number of choices. Listed below, in the usual format, are those known to me, including availability.

The Airfix kits, except for Dan-Air, came in more than one box, but the basic drawings on the boxes were the same. Additional markings for the 1/144th Comet can be obtained from Micro-Scale sheet 44-16. This sheet provides full markings, including cheat lines, for Mexicana XA-NAS, and Middle East Airlines OD-ADQ. Further markings, minus cheat lines, are given for BOAC (white speedbird) G-APDA and Olympic Airways SX-DAK. To correctly model any of these aircraft, except for SX-DAK, it is necessary to convert the Airfix 4B to a 4C--more on this conversion later.

The Frog/Novo kit comes in about 36 semi-hard gray plastic parts. Clear parts are provided for the front windscreen only. Scalewise, the model comes out reasonably close, with a span of 117 ft. (35.64 m) and length of 122 ft. (31.18 m). These compare very well with the values from Green and Swanborough of 115 ft. (35.05 m) for the span and 118 ft. (35.97 m) for the length. In appearance, there are some

problems: (1) the vertical tail is too large as given and is incorrectly shaped at the top; (2) the horizontal tail is represented too high on the fuselage and it is difficult to fit with a correct dihedral; (3) the shape of the engine pods is incorrect; (4) and the taper of the fuselage is pretty bulky at either end, especially the front. One of the most bothersome problems is that the cabin windows are represented as part of the BOAC cheat line. If you want to model some different markings, you will have to come up with some oval-shaped windows or drill out the model. (A possibility which comes to mind might be the windows from the Scalemaster Capital Viscount sheet, used sideways. If you do decide to use the decals, you will have problems of dealing with thick, shiny, brittle decals. Neither is a very satisfactory choice, but the model does make up very nicely.

The Airfix kit offers a somewhat more flexible alternative with respect to the markings. There are 47 gray plastic parts, including some clear parts for both the front windscreen and the cabin windows. This also includes a three-piece boarding ramp and a two-piece stand. The span scales to 108 ft, 6 inches (33.07 m), and the length to 117 ft. (35.66 m), which compares

well with P. J. Britles value of 107 ft., 1.5 inches (32.65 m) and 118 ft. (35.96 m). The fit of the parts can give you some problems, particularly fitting the wing and lower fuselage assembly into the rest of the fuselage. Proceed carefully here and pre-fit as best you can. The slot for the horizontal tail also benefits from clean-up before fitting. There are a couple of problems with the outline: (1) the horizontal tail is wide and (2) the skid is much too heavy. But by comparison to the Frog kit, the outline is more acceptable.

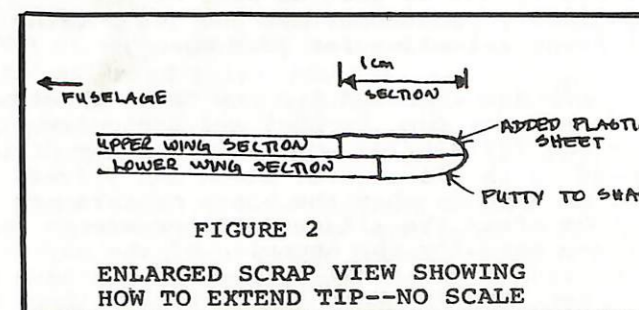
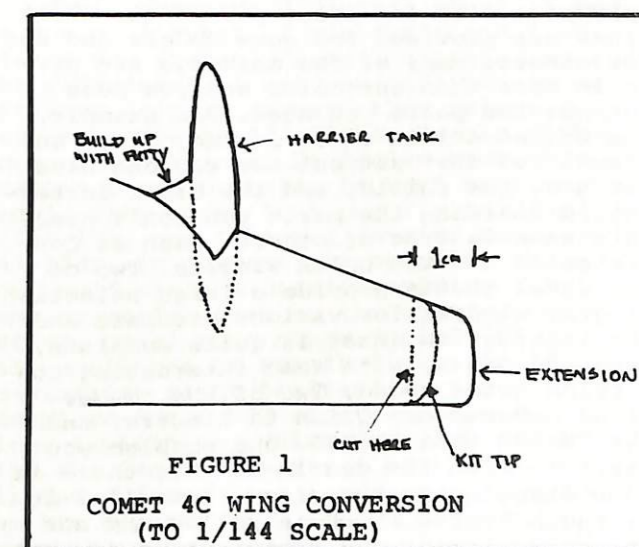
The Lindberg kit is molded in 19 white parts, with no windows. The cabin window outlines appear in the decal sheet, but only a faint impression on the model gives any help for the front windscreen. The outline is bad, especially for the nose and engine nacelles. The fit is poor. It is quite comparable to other kits in this Lindberg series.

If you want to convert the Comet kits, you will generally have to stay in the same series. This is primarily because of the tail pipes, which were swept outward after the Comet fatigue fix, in order to help reduce buffeting. Thus, you could convert the Airfix kit to a 3B or a 4C, but it would be very difficult to make it into a 1 or 2. To convert the Airfix 4B into a 4C, the big change is the wings. There are a couple of ways to do this: (1) use the Scratchbuilt kit no. 6, or (2) scratchbuild your own. The Scratchbuilt kit no. 6 is hard to complete because it is so bad, but I have done a couple of them, including the model pictured, and here are a few tips to make it easier. If you look at the two parts in the kit, you will notice that the one on top is merely bad and the one on the bottom is abysmal. At this point you may be tempted to throw the bottom part out and reduce yourself to one pair of conversion tips. Don't do this, instead use the top piece, which gives the best impressions for the



Above: G-BDIW model in colors of its last flight. These are not the same as the kit supplied decal markings, the difference being how the cheat line wraps around the tail and nose.

upper part of your conversion; and use the bottom, which has the worst impressions, for the lower piece. The next major problem with the things is that they are made from some unusual, for modeling, type of plastic. It may be a type of polyethyl. In any event, it is totally resistant to most modeling glues. So to solve this problem, use epoxy. The easiest procedure here is to cut out the best of the sets for the top half of the tips, getting the best representation you can. Fill this with epoxy. Then cut out the lower parts from a pair of the worst impression. Cut these out only well enough that they cover the bottom of the tip, but do not increase the width. Using a thin layer of epoxy, glue this part to the other. Finally, fill anywhere necessary with epoxy, putty over, and sand to shape. I found it helpful to put a piece of a coffee stirrer in the upper part when I filled it with epoxy, so that it would glue easier to the wing. I have suggested this method only for those of you who happen to have the conversion kit and wish to use it. I would not suggest purchasing one if you are fortunate enough to have missed it. Instead, it is not at all difficult to make this conversion from scratch. All you must do is extend the wing tips and put on slipper tanks from some other source, such as the Airfix 1/72nd Harrier drop tank. See Figure 1 for details. In extending the wing tip, you will get better strength if you cut off only the upper wing tip and build the extension out on the lower one, as illustrated in Figure 2.



Manufacturer	Model	Kit no.	Scale	Decals	Value	Availability
Aeros	IV	-	1/265	-	\$10	-
Airfix	IVB	5-89	1/144	BOAC blue	\$12	-
Airfix	IVB	SK500	1/144	BEA	\$10	-
Airfix	IVB	03170	1/144	Dan-Air	\$ 5	+
Atma	IVB	3218	1/150	-	\$17	-
Charmore	I	P-443	1/126	BOAC	\$12	-
Frog	IVC	W43	1/96	RAF	\$12	-
Frog	IVC	356	1/96	BOAC white	\$14	-
Lindberg	III	455	1/180	BOAC blue	\$ 5	-
Kadar	IV	3916	1/140	BOAC	\$ 5	-
Novo	IVC	F356	1/96	BOAC white	\$ 8	+
Swana/TP	IV	155	1/175	BOAC	\$12	-

The color note behind BOAC listings gives color of speedbird, when known.

Below: Models made using the Hooker decals. Besides the various markings suggested by the manufacturer, there are many more possible aircraft which can be made with little extra effort.



Ethiopian sheet is very fine, considering especially the level of complication of the colors. Full markings, including the cheat line are given. The colors are custom matched, the registration is excellent, and the decals go on as easily as usual. The 720 conversion, seen in the accompanying photo, was done using a Revell/Lodola AA model, which comes with the high tail. The model is correctly marked with no overwing escape routes or door outlines showing. New announcements from ATP include EAL and NW Regal Eagle markings for the 1/144th L-188 Electra. Review samples of decals courtesy ATP Inc.



Above: Conversion of the Revell Boeing 707 to its smaller sister, the 720, with the excellent new ATP Ethiopian decals. These new decals allow you to model either a Boeing 707 or the new 727, any one aircraft, in the later-style markings. All photos in "Model Shop" by David Minton.

Speaking of Revell/Lodola, they have issued several markings for the Revell airliners. These include the DC-8-61 in both Aero Mexico and Flying Tigers markings (the Flying Tigers markings are both the new and old colors), the 727 in Mexicana, here depicted with the new Fowler National decals on it, and the DC-8-11 in Aero Mexico. Also just released is the DC-9 in pre-1978 Ozark markings. Announced for the coming year are an Aero Peru 727, the DC-8-61 in UAL, Delta, and Viasa, the DC-10 in Viasa and Mexicana, the Connie in EAL and Aeronaves, the L-1011 in Aero Peru, the CV-990 in AA, the DC-9 in Bonanza, and the little DC-8 also in Viasa. And if this schedule were not ambitious enough, also announced is a Mexicana DC-3 from the Monogram molds, and from the Lindberg molds, a CV-440 in EAL and Delta and a SE-210 in UAL. Review sample of the Mexicana 727 courtesy RFV Imports.

Jet Set and Mach 1 have released some new decals. The Mach 1 issues provide

enough decals to do practically any aircraft in the Singapore fleet. All of the decals are on blue paper and the clear is very transparent. Mach 1 sheet no. 01 gives markings for the 737 and A-300 and sheet no. 02 covers the DC-10 and the Concorde, with extra fuselage titles provided for the 707 and 727. In each sheet, a complete set of markings, including the cheat line, is provided for one aircraft. The 737 decal cheat line will fit the Airfix kit (there are no 737-200's in the Singapore fleet) if you don't wish to convert, but should you decide to convert, the instructions show where to cut the decal sheet down. From Jet Set comes two new decals as well: Air Nauru, which covers the entire jet fleet, for any one aircraft; and Air France for the Concorde. The Air Nauru sheet provides a cheat line manufactured to fit the 727-100, but as with the Singapore instructions, information is given on how to cut it down to fit the 737. The Air France markings are for the prototype, as seen in the photo, and contain the only noticeable color error, which is in the flag on the tail. All of these decals go on easily and the registration is very nice.

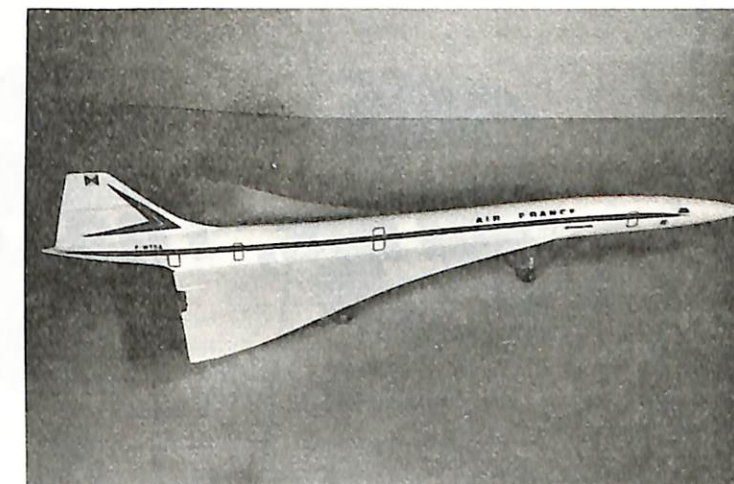
I have just received four new decals from Jet Set and these should be available very soon. These are Panagra DC-8-31, TMA of Lebanon 747, PIA Trident, and an Air Malawi VC-10. All of these samples look very good and will be reviewed in more depth in the next issue. Review samples of Jet Set and Mach 1 decals courtesy of Jet Set.

As promised, Bob Keller has re-issued the EKO 1/150th DC-3. The kit comes with very nice TWA "Lindberg Line" markings by Scalemaster. The main problem with the kit are as noted in my earlier review, especially with the wings. A good source of markings for the model, by the way, is the Micro-Scale Comet sheet. I did mine in MEA.



New Revell/Lodola 1/144th Boeing 727 re-issued from the old Revell kit. The model seen here, N4613, is decaled using the new Fowler National decals.

Airfix Concorde with the new Jet Set Air France prototype decals. This picture was taken before completion of the front windscreen details.



The Rareplanes kit is every bit as good as the photograph suggested. There are 72 vacuum-formed shiny black parts, 2 clear pieces, and 24 injection-molded parts. The injection moldings cover the gear (not the wheels) and props. There is a dark blue USAF decal sheet also. As usual, Gordon Stevens has exceeded himself. I got my copy direct from him for \$23 by surface mail.

Well, Hasegawa/Minicraft stuck it to us again. I guess if you don't model warplanes you probably aren't supposed to know the difference. I mean an airliner is an airliner, right? Anyway, they released a very nice Boeing 747-200 in Pan Am markings. The markings, by Scalemaster, are great and can probably be used on some model. They cover "Clipper Flying Cloud," a 747-121, and "Clipper Carrier Dove," a 747-123F. To convert the model so that you could use the decals would require some extensive work on the upper fuselage. Better, model some other Series 200 or wait until Pan Am starts flying it. One possibility might be Iraqi Airways, using the Micro-Scale 707 sheet. Except for this minor irritation, which does not occur with the Japanese version of the model as Air India decals are correctly provided, the kit appears very nice. Again, I'll cover it in more depth in the next issue.

Runway 30 has announced the following, some of which should be available by the time you read this: TWA 727, Air Europe 737, Tunis Air 727, Phillipine 747, Sudan 707, Singapore Concorde, BWIA L-1011 and DC-9, Aer Lingus o/c 747, and a Saudia L-1011.

And finally, Drew Eubanks assures me that the conversion kits announced earlier are still coming. These include such things as engines and pylons for the DC-8-63 and 707-120 and a complete DC-9-80 conversion.

This, That & Other Stuff

PAUL COLLINS

BY THE TIME you read this column, the 1981 convention will be history. I hope that each and every one of you who were able to attend added "goodies" to your collection. In the next issue of the LOG, I will be featuring airline flight bags, so if you have a spare one that is just laying around collecting dust, please send it in so that it can be included in the article. I will also purchase it from you for the club collection if you wish to part with it. I am also looking for the small packets that are given to those traveling in first class on long international flights. If you have any of these, please send them in so they may be included in the article.

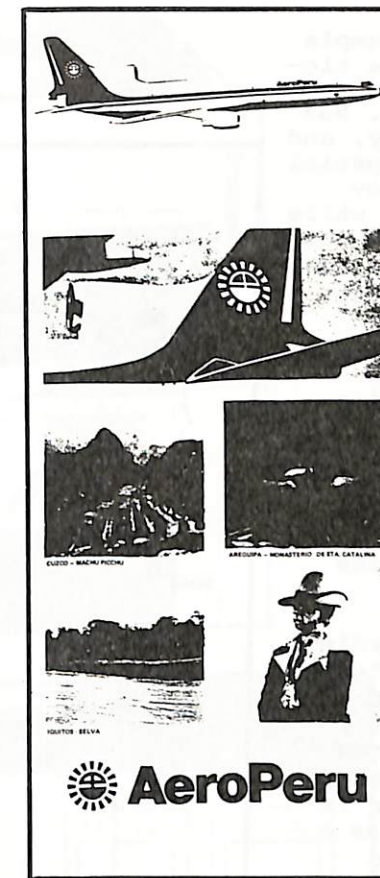
This time around, we are going to look at ticket envelopes and boarding passes. Aero Peru published a very nice envelope featuring its L-1011 TriStar. The inside of the envelope contains important information, while the back includes several advertisements. Most of the ticket jackets featured in this article will contain vital information on the airline and its policies on what can and can not be taken aboard the aircraft. The back of the jacket usually is filled by one or several ads. The next jacket I'll mention belongs to Alitalia, showing the old logo of Italy's flag carrier as well as some engine nacelles. Altair Airlines features its logo on the cover of its ticket jacket. The "fun-birds" of Aloha Airlines of Hawaii are featured on the cover of their ticket jacket. Cute little fellows, aren't they? The British Airways item is very stately, showing the airline's name and the carrier's color scheme on the bottom. Continental publi-

cizes their "Golden Dragon Service" on the envelope depicted from the late 1970's. Very nice. The Delta jacket is interesting in that it features the bicentennial logo of five years ago.

The Mississippi Valley Airlines item features a map of the area served by the midwest commuter operator. The SAS envelope is just what one would expect from a top carrier like SAS--a very nice jacket. SAS-operated hotels are listed on the reverse side. Rounding out the ticket envelope section we find jackets for World Airways and Zambia Airways. The World item leaves nothing to chance, featuring a box for just about every bit of information you would need to get on the right flight. The Zambia jacket is very colorful. The design is red-orange, green, and black. The airline's flight network is featured on the inside of the jacket.

The boarding pass items are all extremely nice. From single, relatively plain items like the Alia boarding pass to the informative Aerolineas Argentinas type, these papers make a nice addition to your collection. It seems that most airlines feature the color of red on their first class boarding passes and various other shades take care of economy and other type services.

Some of the most interesting items include the Gulf Air "wallet" which features the carrier's logo and all information on the flight. There are a number of carriers that use this wallet-type boarding pass as opposed to the straight ticket type. Pakistan International features a ticket-type



The "flavor" of an airline can often be captured from the ticket envelopes it issues, such as the traditional look of the British Airways envelope below, the flair for the dramatic from Continental, or the modern motif of Hawaiian carrier Aloha Airlines' envelope, also depicted below.



boarding pass. This economy class example is outlined in green. The first class ticket is outlined in red. Alia features three colors on its boarding tickets. Red is for first class, green for economy, and white for infants. Air India has a special ticket for its 747 passengers. Economy sections gets a pass in light brown, while the first class passenger gets one in rose color. Thai International has two different styles of boarding passes. Thai's passes also come in a variety of colors--all very attractive.

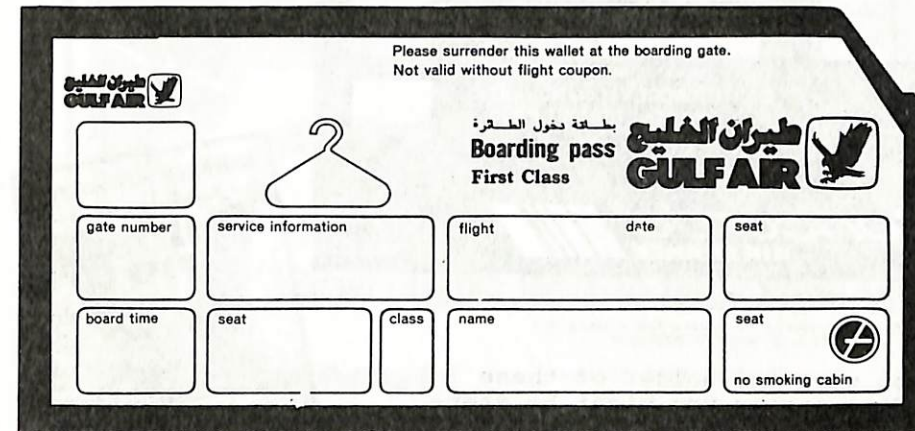
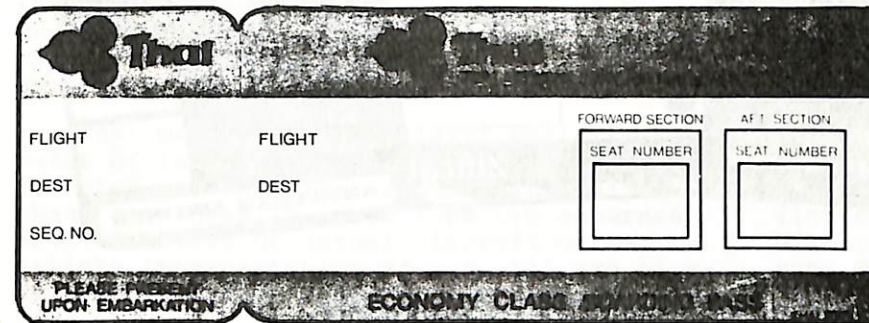
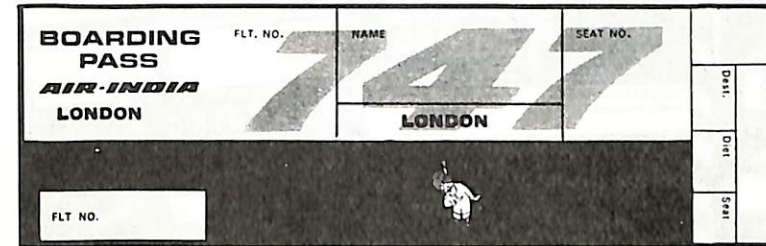
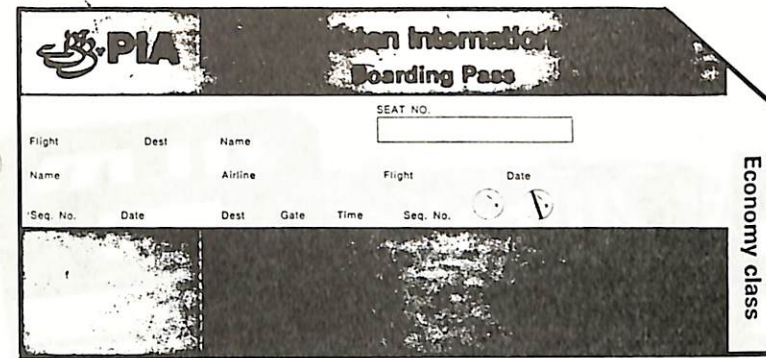
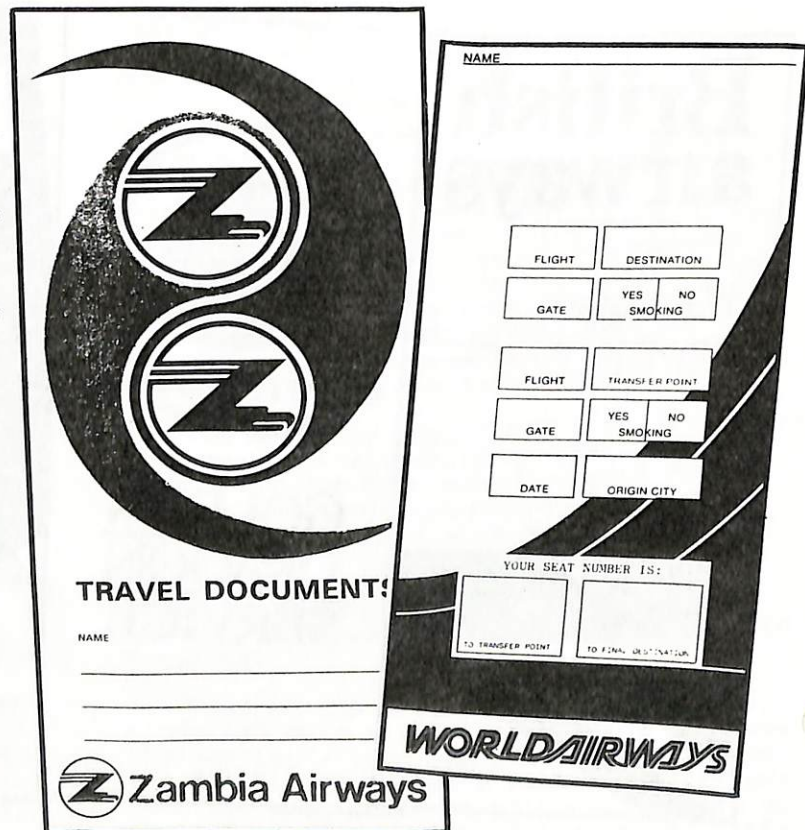
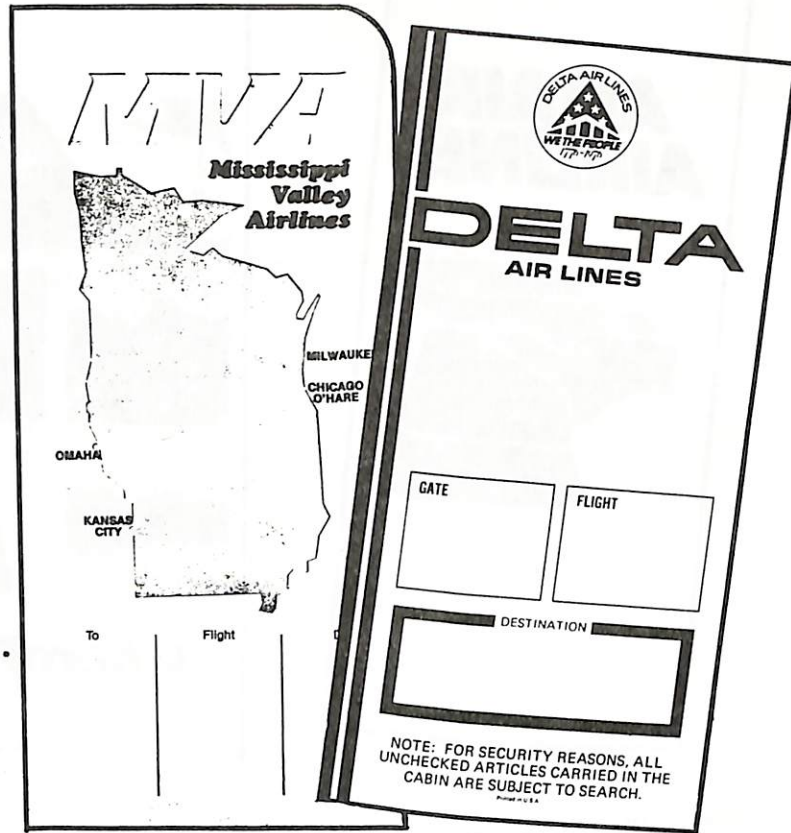
The Libyan Arab Airlines, Tunis Air, Iran Air, and Kuwait Airways passes all feature the logo of the airline, along with both English and Arabic on the boarding pass. The first two items mentioned are on red stock, while the Iran Air pass is on yellow stock, and the Kuwait pass is on green stock.

Finishing up this section on boarding passes, we feature a sample from Alitalia. The pass depicted is first class, and is red in color, other class passes come in green and white. The Antillean Airlines item featured is again the F-class red pass. Y-class is green, and the infant pass is blue. The Air France Concorde pass has a blue background, and the reverse side features a seating diagram of the aircraft.

There are many more types of boarding passes in the WAHC collection. However, we would appreciate receiving additional items. If you have any extra boarding passes or ticket envelopes, please send them to the editor so we can do another feature on these items in the future.

As I mentioned at the start of this article, in the next issue of the LOG we will feature airline flight bags in this column. I would like to hear from any members who have such items for sale. Please write to me, Paul Collins, 3381 Apple Tree, Erlanger, KY 41018. Donations to the club collection will also be accepted. And don't forget the small first class packets! Finally, a reminder: This column is for you, drop me a line and let me know what you would like to see featured. I will do my best to present items that you are interested in. Happy collecting until next issue!

Illustrations, clockwise from top: MVA's envelope is yellow and light blue, features their expanding route network; Delta's 1976 Bicentennial logo is depicted on this envelope; Zambia Airways uses a colorful red-orange, and green envelope; and World Airways' envelope features the airline's colors of red, gold, and white.



AEROLINEAS ARGENTINAS

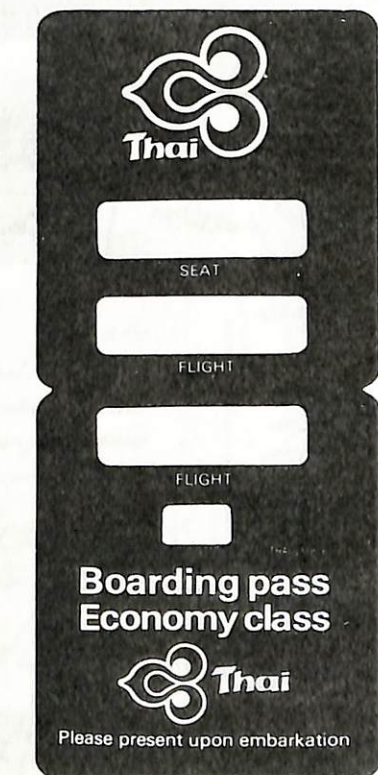
Travel unencumbered and Shop Duty Free on arrival at Buenos Aires (Ezeiza) International Airport. Make use of this facility exclusively provided for passengers of Aerolineas Argentinas.

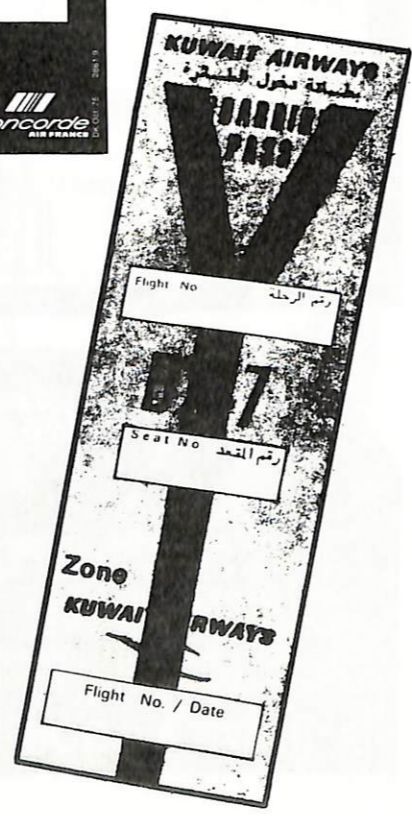
Viaje comodo y haga sus compras Libre de Impuestos a su llegada a Buenos Aires (Aeropuerto de Ezeiza). Disfrute del privilegio ofrecido exclusivamente a los Sres. pasajeros de Aerolineas Argentinas.

HAVE A GOOD TRIP! BUEN VIAJE!



A variety of shapes and colors are illustrated in these boarding passes from carriers in South America, the middle east, and southern Asia.





If you were the holder of these boarding passes you might be stepping on board aircraft ranging from a Libyan Arab Airlines 727 to an Iran Air 747SP to the supersonic Air France Concorde. All first (F) class passes illustrated on this page are red in color, an apparent standard in the industry.

Airline Stocks and Bonds

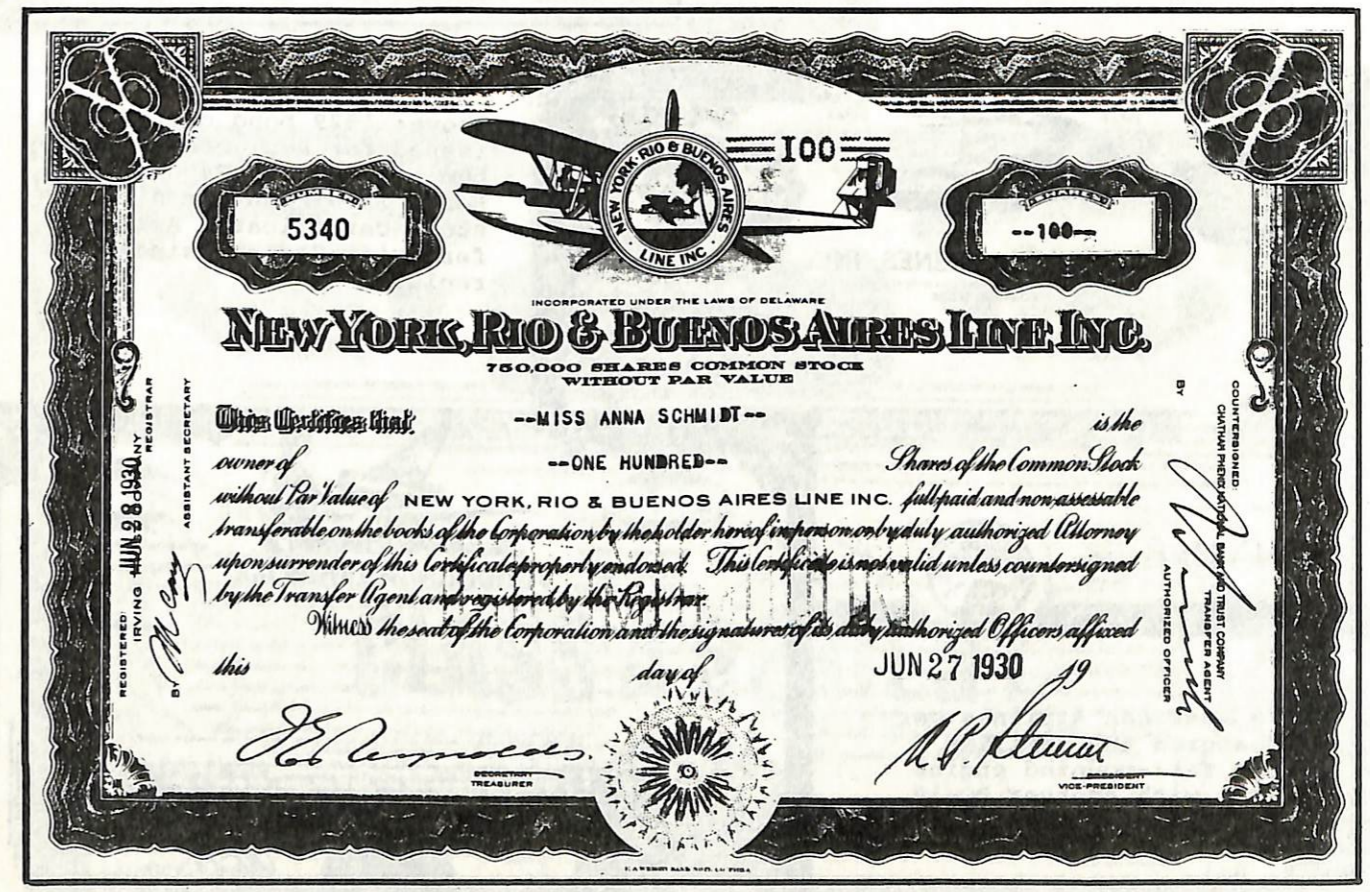
JACK R. BOL

WHAT PART OF AN AIRLINE or aviation company can a collector come across today? Not many of us can actually own an example of the Sikorski S-38 flown by NYRBA Lines or one of the Great Lakes aircraft, but in addition to the baggage labels, timetables and wings, it is possible to collect stock certificates and bonds issued by these companies.

What makes the "worthless" certificates of interest? These certificates represented, at one time, actual ownership in these companies. Many of them are adorned with vignettes of actual aircraft or an artist's interpretation of one. All are signed, with either autographs or facsimile

signatures, by company officers, often representing an aviation great or near great.

During the 1920's many aviation related companies went public, issuing stock to generate needed capital to support their fledging operations. Some went broke, while others became the nucleus of the airlines and aircraft manufacturers of today. Others may have been issued to do nothing more than raise funds for the founders own interest. Even current certificates reflect the changes in aviation. With the merger of North Central and Southern, Republic Airlines has issued its own certificate. Frontier has taken the pic-



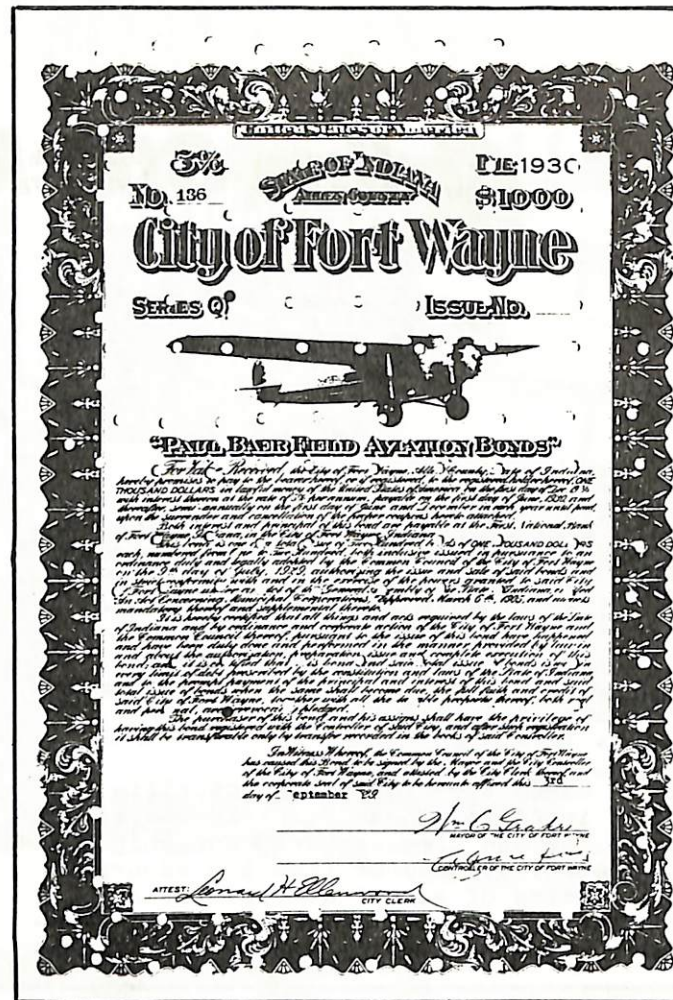
Above: Stock certificate of New York, Rio & Buenos Aires Line, issued in 1930.

ture of the 737 off their stock and replaced it with a more "modern" engraving.

Various cities, seeing the potential of aviation, issued bonds to raise money for new or additions to current airports. Fort Wayne, Indiana, issued \$100,000 in bonds in 1928 and \$200,000 in 1929 for Paul Baer Field. San Francisco did the same in 1945.

Aviation related stocks and bonds can usually be obtained from dealers and collectors in stock certificates, although they can at times be found in local coin and stamp shops and the "flea" markets. Quite often the airlines and aviation companies will send you a sample of their stock on request, as they do with post cards and timetables. When purchased, stocks start at \$5 and go to \$100-plus depending on rarity and collector interest. Most fall in the \$15-\$40 range. Better yet, find an understanding broker and buy one share in the airline of your choice.

I would be very interested in corresponding with other WAHC members who are interested in collecting this type of material. Jack R. Bol, 2802 S. Roslyn St., Denver, Colorado 80231.

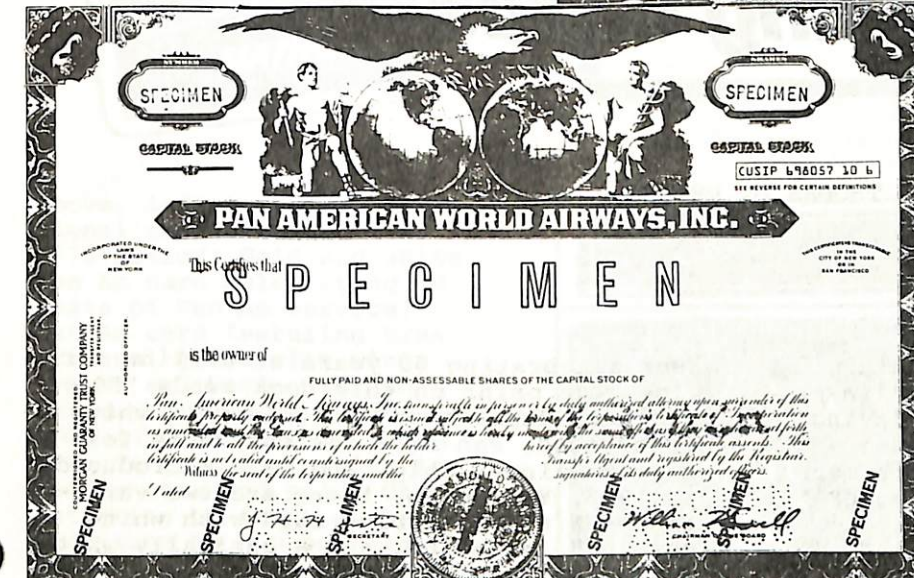


Above: 1929 bond certificate issued for Paul Baer Field by the city of Ft. Wayne, Ind. Left: 1979 Frontier Airlines stock certificate. Artwork featuring 737 has since been replaced.

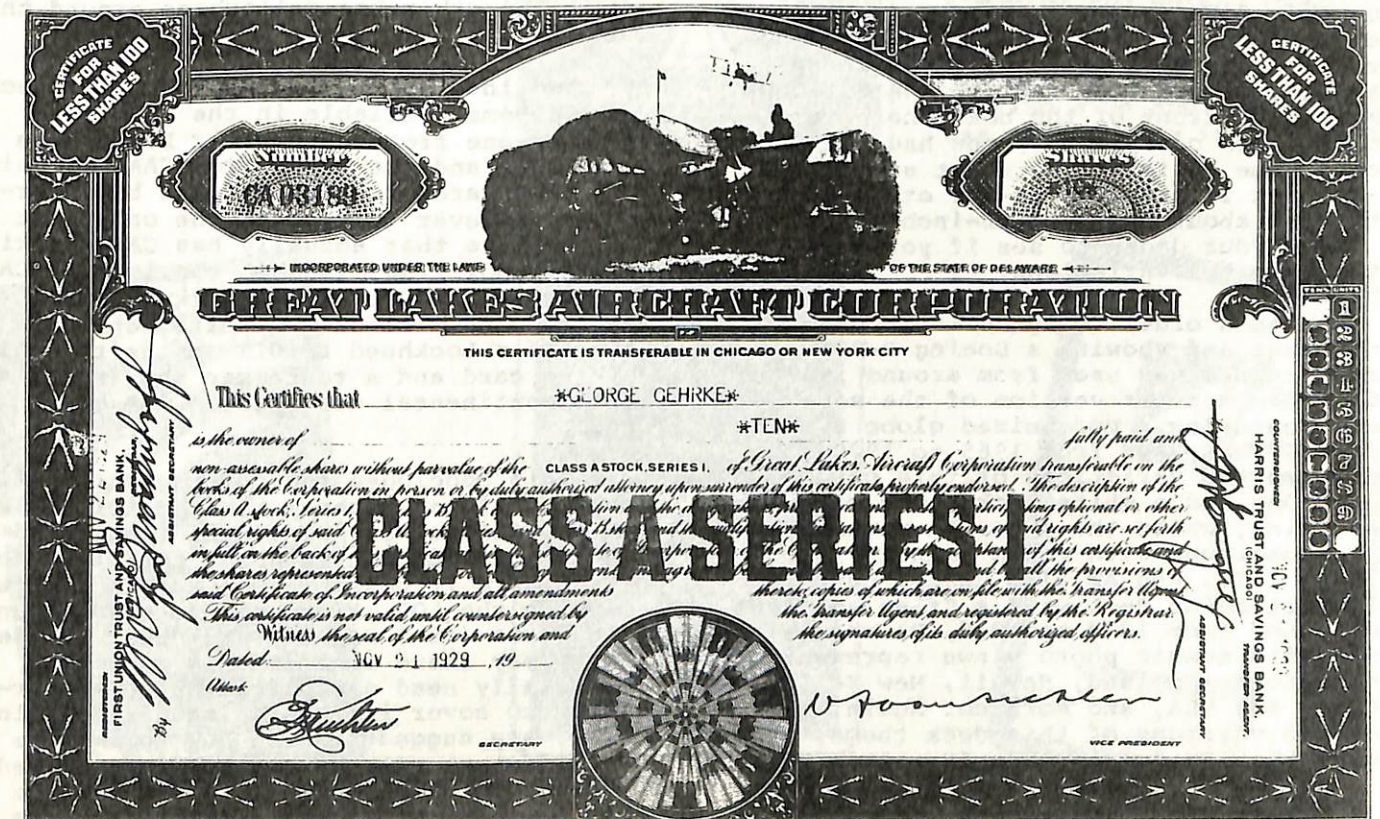


Right: 1979 American Airlines certificate features the familiar shape of the tail-mounted engine of the DC-10, with another DC-10 in the background. All illustrations these two pages courtesy of Jack R. Bol.

Right: New airline Republic chose a vintage-looking illustration for its 1980 certificate, along with the familiar "Herman" the Mallard silhouette.



Left: 1980 Pan American certificate. Below: Aircraft manufacturer Great Lakes Aircraft Corp. issued this certificate in 1929. All illustrations this page courtesy of Jack R. Bol.



Airline Playing Cards

THOMAS G. DRAGGES

IN KEEPING with the National feature of this issue of the LOG, this first installment of my column on airline playing cards will cover some jet-era National cards, and I'll also touch upon their merger partner, Pan Am. Finally, I'll cover some new airline playing cards, too.

The "Jet National" cards depicted on the facing page were used from approximately 1965 to 1970, then were replaced by cards depicting the familiar National "Sun King." These remained in use until the NA-PA merger. The boxes the "Sun King" cards came in were like the cards in appearance, except they carried the National name on the front of the box. There were two versions of this box, one had the National name in lettering about an eighth-of-an-inch in size, while the other had lettering about one-quarter-inch in size. So check your decks to see if you have both these box variations.

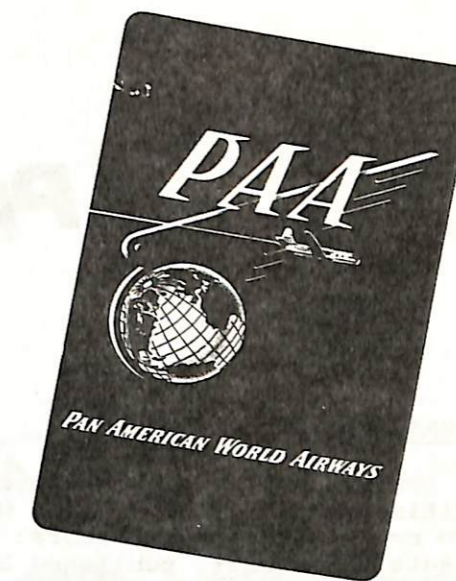
Pan Am's older design using a globe with wings and showing a Boeing B-377 Stratocruiser was used from around 1957 to 1961. Then a newer version of the same theme featuring a modernized globe symbol and a 707 was used from 1965 to 1970. There are two variations of this card style. One had a white background with blue print, while the other is reversed--blue background with white print. From 1970 to 1972, Pan Am also used a patterned, multi-color deck with a "flag service" theme. And from 1972 to 1976, PA used six decks with scenic photo views representing six regions--England, Hawaii, New Zealand, Africa, the USA, and Morocco. Again, there were two versions of this deck theme, one saying "Pan Am," the other "Pan Am's World."

In 1976, Pan Am issued a commemorative

deck celebrating 50 years of airline service. The print on this deck reads "50 years of experience" in gold on a white background. Pan Am's current decks feature a Clipper Ship, and were introduced in 1977. Yet again, there are two variations--a two-tone blue card with white ship and lettering, and a basically white card with blue trim and lettering. There are also two variations in the way the boxes of these cards are sealed. One has the manufacturers' stamp sealing the deck, while the other has cellophane around the box.

Two interesting new playing card decks have become available in the past few months--one from Eastern Air Lines here in the U.S., and the other from CAAC of China. The CAAC cards come in red and blue versions, however the box is the only part of the package that actually has CAAC markings. The top box flap also has the logo of CAAC. Eastern's new deck has a dark blue background with a black and white reproduction of a Lockheed L-1011 on the top half of the card and a route map showing EA's transcontinental services on the lower half.

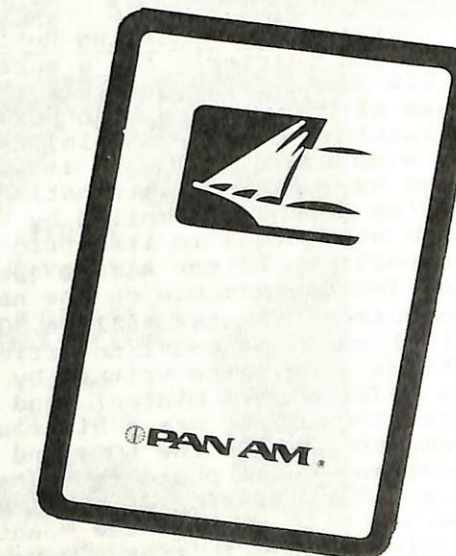
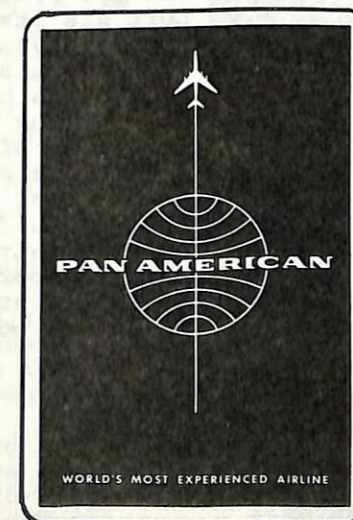
This concludes the coverage of my first column. If any members have additional Pan Am or National cards, I'd be interested in receiving information about them, or the joker card if possible for future illustration in the LOG. Also, please send me any new decks (or a sample card) that you see so we may share them in this column. I especially need decks from European airlines to cover in future issues. And finally, any suggestions on how to improve this feature will be greatly appreciated. Contact me at my address listed on page 2, and I will look forward to hearing from you.



Above, left to right: National card from the 1965 to 1970 period; Gold and white Pan Am card celebrating 50 years of Pan Am service; Pan Am card featuring traditional globe with wings symbol and Boeing Stratocruiser in flight. Left: CAAC of China issued cards come in this box, which is red, white, and gold. CAAC lettering on front and airline logo on top box flap are only markings. All cards from the collection of Thomas Dragges.



Below: left to right: Recent Eastern-issued cards depict L-1011 in flight on top half of card with EA's transcontinental route structure shown on the bottom half of the card; Pan Am card from the 1965-1970 period depicts modern globe and 707 in flight. Colors are blue and white, card came in two variations; Current Pan Am card style depicts Clipper Ship. Card is also blue and white, and has appeared in two versions.



Printed Matters

JOHN IRBY

MAGAZINES

WE LOG CONTRIBUTORS had better keep our writing skills sharp because we now have two new friendly competitors: Airline Fleets & Aircraft, published by Flight Line News, P. O. Box 17341, Dulles International Airport, Washington, D.C. 22041, Richard J. Hurley, editor, and Airline and Modelling Review (AMR), P. O. Box 69, Downtown Station, Ponce P.R. 00731, R. Alsina, editor.

Airline Fleets & Aircraft, published four times a year for a subscription price of \$12 (U.S.), is the more polished of these two new magazines due to AF&A's excellent black and white photo reproductions and a more professional-looking layout. The issue I received included an excellent mini-history of the Martin 202/404 series by Editor Hurley, featuring 14 rare photographs, two reproductions of original Martin advertising, reproductions of Martin's blueprints for the 202 and 404, and a complete user list that included c/ns and registration numbers of every 202/404 ship ever built and operated. The magazine also had a nice airline review of Air Virginia, telling its history, listing its current and future equipment, and including CE's logo and current route map. Other columns include book reviews, a mini-history of Pan Am's DC-8 fleet, an airline news and events section, and a classified ad section--all equally well-done.

Airline and Modelling Review (AMR), published quarterly for a subscription price of \$10 (U.S.), is (naturally) aimed at those of you who are into building and collecting airliner models, but it does not stop there. AMR also included (in my issue at least) an interesting "Caribbean Airline Report," compiled by Editor Alsina which was unique in its strictly-regional perspective. Editor Alsina also wrote a fine feature article on the new Puerto Rico-based commuter airline, Oceanair, for this issue. The modeling articles were excellent (one being written by LOG contributing editor Dave Minton), and very instructive. The layout was a bit rough when compared to AF&A or the LOG, and some of the black and white photographs came out a bit murky. The magazine is still young and will improve with age. In the meantime, AMR shows promise enough to risk \$10 on an annual subscription in this reviewer's opinion.

BOOKS

"Delta, The History of an Airline," by W. David Lewis and Wesley P. Newton, 503 pages, illustrated, published by The University of Georgia Press, Athens, Ga. 30602. Price: \$12.95.

It's big, it's detailed, and it's official! Lewis and Newton left no pro-Delta newspaper clipping and no Delta publicity release out of the pages of this mammoth history of America's most profitable airline. From the '20's crop-dusting beginnings to their Tristar service to London in 1978, this book has every detail of Delta's existence down in print--up to and including several hundred footnotes at the end of the book! "Delta" is modestly-priced for a hard-cover of these dimensions and is available at any of the major book chains--a rarity in airline-specialty books. "Delta" should be in every enthusiast's bookcase.

"Major Airports of the World," by Roy Allen, 128 pages, illustrated, published by Charles Scribner's & Sons, New York, N.Y. Price: \$10.95.

Roy Allen must have had great fun in compiling his 1979 research book, "Major Airports of the World," and it shows. This labor of love was the result of Mr. Allen visiting over 150 of the world's major airports and including 67 of them in this survey. Profusely illustrated, each airport has its history summarized and a listing is given for all of each airport's vital statistics such as runway length, passengers handled, and cargo tonnage flow. The opening sections of "Airports" delves into some of the basic theory and problems of airport design and how the typical international airport is run. If only the author would have included some more major American airports such as MIA, DEN, and ATL, then "Airports" would be perfect. Although \$10.95 is steep for a 123-page book, "Airports" is worth its price.

Sticker Chatter

DON THOMAS

THE BAGGAGE and propaganda labels of National Airlines have varied throughout the years since the airline was founded in St. Petersburg, Fla., by Ted Baker in 1934. National's first design, illustrated here, featured a white flying gull. This label (USN-12) is now scarce.

In 1938, the "Buccaneer Route" was featured on labels and timetables. This route was Miami-St. Petersburg-Jacksonville-New Orleans via cities in between. The second label design (USN-13) showed an Electra above a map of the route (not illustrated). By 1945, both labels and timetables showed a buccaneer in full regalia, cutlass and all (USN-16).

The next change in labels was to a round one showing the NAL houseflag. The label was red and blue on silver foil (USN-17). This round logo was reproduced on NAL timetables from 1937 right up to the jet age when National received its leased 707's in 1958. It also was used on a blue background with "Airline of the Stars" below (USN-26). A freight propaganda label with a big star was also used (USN-37).

With the coming of the jet age in the early 1960's, a new logo was used on labels and timetables. Perhaps it was a deco art representation of N for National. The label (USN-19) is rare. Being silver foil is difficult to photograph or copy.

Finally, in the 1970's, National adopted its familiar yellow and orange "Sun King" logo, seen on most National labels, timetables, and other publicity until the merger with Pan Am. The round one (USN-28) was replaced by a rectangular one (USN-86) about two years ago. The DC-10 label made by McDonnell Douglas (USN-37, see last issue's column) also shows the "Sun King."

National was awarded routes to Europe before its merger with Pan Am. The Amsterdam route was well-advertised with labels. First out was a small round one (USN-85), New York to Amsterdam, but available in Miami. In New York, the larger round one



(USN-91) was used, and the other two (USN-90 and USN-93) were no doubt used in Holland.

The final label of National was printed by Pan Am and showed National's "Sun King" superimposed on Pan Am's globe (USP-522). "Pan Am goes National" ends this story.

One of the joys of collecting labels or stickers is that you never know when or where you will see a new one, but airports of course are the most likely spots. But would you believe a supermarket parking lot? A big oval "Paris nonstop from Miami" by National was seen on a car bumper. After bugging National, they couldn't locate even one of the Paris labels. So weeks passed and no sign of one, even though I checked the supermarket parking lots every day with labelnapping in mind (mind you, this is not recommended as standard procedure). Then one day a car parked ahead of me in downtown Miami, and on its bumper was one of these Paris gems. It took but a minute to liberate it, merely for cataloging purposes, of course. It now may be the only one in the world--does anyone have another? If not, it rates RRR in the label catalog, "unique."

While we are featuring National Airlines, we show three airmail labels of National, a cargo advertising label, and a small sticker promoting National's jet service to Florida. The BIL's of National were plain black and white and basically never changed (USN-51).

Regarding the National labels we've covered, anyone sending a self-stamped and addressed envelope will receive USN-16, USN-17, USN-85, USN-86, USN-51, and USP-522 as long as they last. My address is listed on page 2 of this issue.

You label and sticker collectors--do you watch for travel shows in your area? These are good places to pick up new labels and bumper stickers. Most of the airlines have booths at these shows. Shown here (Lacsa and Avianca) are a few types picked up at a recent travel show. VASP also had more of their "Get to Know" labels of various cities of Brazil. The Baron label of Lufthansa (Dallas-Ft. Worth-Atlanta-Frankfurt) is similar to the Miami-Frankfurt label previously issued. They come also in large size.

Addenda #6 to the Air Transport Label Catalog should be in print soon. It lists 42 pages of new U. S. and foreign labels from the past several years.



BAGGAGE IDENTIFICATION

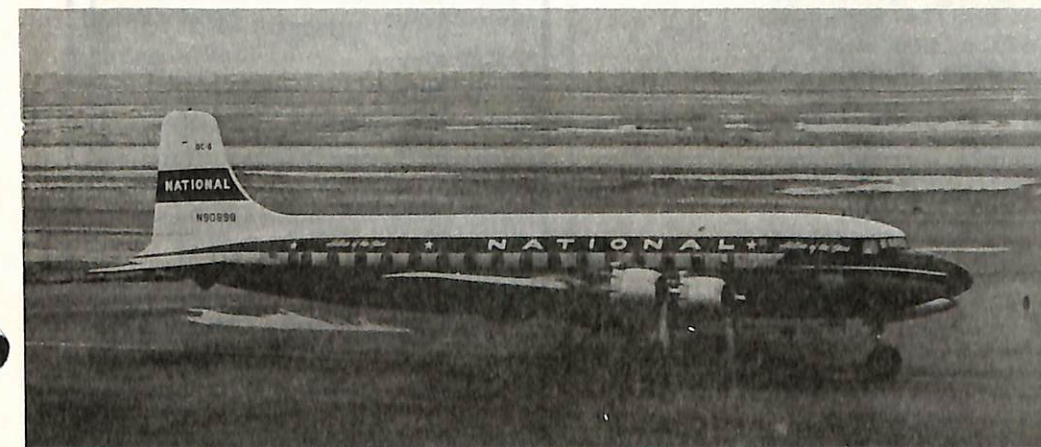
NAME _____
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 CITY-STATE-ZIP _____

National Airlines

BAGGAGE IDENTIFICATION

NAME _____
 ADDRESS _____
 CITY-STATE-ZIP _____

National Airlines



Douglas DC-6's, such as N90898 shown here at New York in the mid-1950's, were a mainstay of National Airlines' fleet when the air mail stickers above were issued. Photo from the Gary Dolzall collection.

plan. "It's relatively centralized," says Koerver, "and we can react quickly because there's basically just one decision-making process."

The trick is trying to foresee the future: Every year, a single "central program" is developed, into which are fed external and internal data on expected demand, "product" availability, fleet routes, revenues, costs, cost efficiency, investments and financing. Out of this evolves the five-year projection, providing the current status of the entire corporation's development potential. Each central department--and there are 11--has a planning officer who participates in this process.

The planners are perpetually faced with these questions: what does tomorrow's market look like, and that of the day after tomorrow? What about demand? Are there any political changes in the offing that might have economic repercussions? In which direction is long-distance tourism headed?

There is always a need for much finely tuned intelligence in order to prognosticate on the future of commercial aviation. Statistical market data and masses of expert analyses flow into Central Planning: these are reinforced by original research, and by querying government officials, chambers of commerce, and various corporations and other organizations. All this helps to create "ideal" programs for various target areas, such as the North Atlantic, South Atlantic, Far East, Europe, and--not least--West Germany itself. What does it mean for Lufthansa, in order to cope with anticipated demand, to be present with the right aircraft at the right time, at acceptable fares?

Computers help but planning is also partly based on instinct: Computers are of only marginal value in this kind of product improvement work. "Automated data processing models do not yield much when dealing with such vital information," says chief planner Koerver. "The ability to react to fresh events," he says, "is best left to human flexibility." What is needed in this "evolutionary" planning process, explains Koerver, is "bio-computer," with man the primary component, backed up by data processing.

In this changing world, preliminary evaluations are adapted to the evolving situation, on the basis of semi-annual "optimizing steps." Studies are honed and shaped into draft detailed evaluations. "You develop, as times goes by, a feeling for where a certain aircraft fits in, or doesn't," says one of the planners (most of whom have business school training).

By the time a proposal is at the draft stage, it is already quite detailed: it includes accurate information on aircraft rotation schedules by aircraft type, as well as maintenance and overhaul requirements, and standby equipment. Projections

of flight times even take into account seasonal wind variations: in winter for example, a Chicago-bound 707 takes 15 minutes longer to fly from Frankfurt.

In the final stages of determining a schedule, as the finishing touches are applied, so to speak, contributions are not confined only to Lufthansa personnel. The timetable has to be coordinated with pool partners--of whom there are 35 at present--and, at IATA conferences, with other airlines, too. Ever more worrisome are the "slots" for touchdown and takeoff at major airports, where peak-time traffic handling limits already have been reached.

Airline planners, who generally are credited with high powers of abstract analysis and sensitivity to the implications of seemingly unrelated circumstances, calculate their flight schedules on the basis of G. M. T.--Greenwich Mean Time, or "Zulu" time. The yellow, pocket-size timetable made available to the public converts "Zulu" time into local times--a lot simpler that way!

The "international main edition" of the timetable is printed in German, English and Spanish. It is an indispensable source of information for the person who must travel frequently, for it contains not only departure and arrival times, but also flight duration, meals provided, Lufthansa check-in times, minimum transfer times, telephone numbers for reservations, airport bus services, airport taxes, duty-free shops, and so on.

But that's not all: in addition to the international edition, there are 13 regional timetables for Lufthansa services originating in certain areas, such as Scandinavia, Italy and Brazil. Each appears in the language of the region. Moreover, there are 40 local schedules, with connections to and from destinations such as Hong Kong, Bangkok, Rio de Janeiro, and Budapest. These include particulars on transfers; in this context, Lufthansa relies on the data amassed by the Official Airline Guide company in Oak Brook, U. S. A. Magnetic tapes from this firm are reprocessed through Lufthansa's own data equipment. On top of this, there is the Working Timetable, which, with a print run of 17,000 copies, appears six times a year, and is distributed to sales offices, Lufthansa stations, travel agencies, cargo agents, and corporate travel departments. In addition, the Cargo Services Timetable appears three times a year, and contains full route information, complete with all intermediate stopovers.

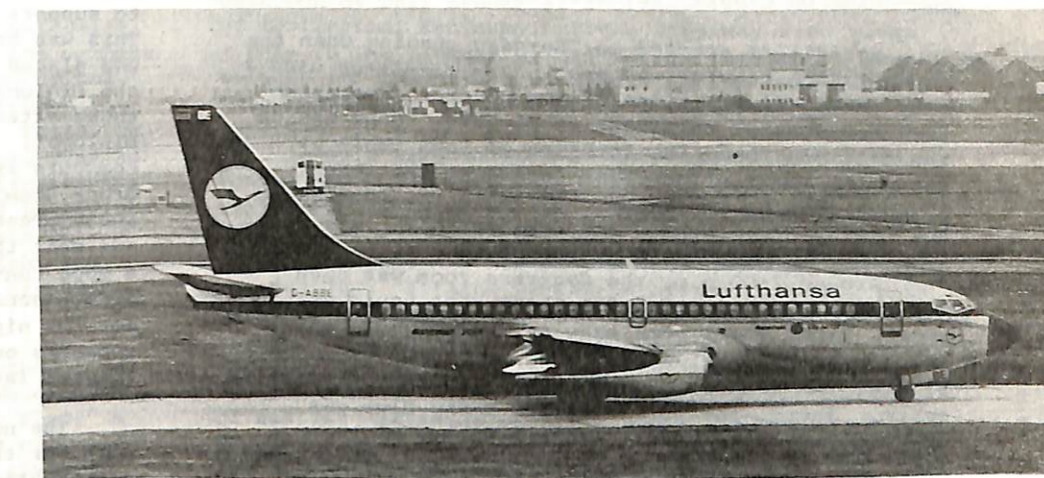
Long-term planning has become a difficult cult job. Gone are the halcyon days of the 1960's, when growth prognoses were easily met, or even exceeded. Dramatic increases in fuel prices, growing environmental awareness, and deregulation, with all its pitfalls, demand far greater flexibility from planners.

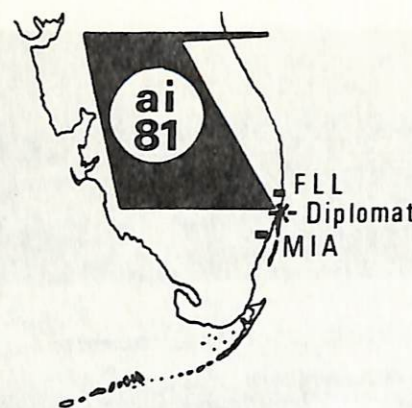
In preparing Lufthansa's massive timetable, planners must consider the varied requirements for the aircraft fleet, which ranges in size from the Boeing 737 to the 747. Lufthansa's intercontinental aircraft, such as the 707 and 747 or McDonnell Douglas DC-10, require up to 19 pilots to keep each aircraft busy. Lufthansa's domestic and European fleet of 737's, 727's, and A-300's need only as many as 13 pilots per plane. Photos, top to bottom: Lufthansa DC-10-30 D-ADAO is shown arriving Athens, Greece airport, situated along the shore of the Saronic Gulf; On a foggy morning, Lufthansa 737-230C D-ABBE arrives London Heathrow Airport; Lufthansa 747 D-ABYQ touches down on snowy runway 27R at Chicago O'Hare (ORD), completing its non-stop flight from Frankfurt, West Germany. Three photos by Gary Dolzall.

Planners need to grasp the consequences of unrelated events: Anyone indulging in long-term projections these days must invoke, to a certain degree, the "privilege of fools." It is necessary to violate certain taboos, and to forego many comfortable, or convenient conventions. It is necessary to ponder the implications of new communications devices and alternative modes of transport; changes in leisure time likewise must be considered, as well as the restructuring of private incomes, new

distribution of labor and the tendency to growing global economic interdependencies.

Lufthansa's planners enjoy puzzling over these permutations. Says a self-confident Hans Koerver: "We don't have to shy away from anyone or anything." Symbolically, perhaps, his office provides a view of the Rhine, the river which continues to flow as it did a thousand years ago. There is, despite everything, continuity--Joachim Wachtel.





5th Annual

AIRLINERS INTERNATIONAL 1981

by
PAUL COLLINS

The 1981 version of "Airliners International" was held in the luxurious surroundings of the Diplomat Hotel and Resort in Hollywood, Florida. Over four hundred airline enthusiasts spent the better part of two days watching slides and trading various items of airline memorabilia. If you attended the meeting and could not find any new items for your collection, then you were not trying very hard since there was something on display for everyone.

Activities started on Thursday evening when the registration counter was open. The committee used a very imaginative airline ticket counter from which they distributed registration packets. Once inside the hall you found the location of your table by following the airline signs posted at the corner of each section of tables. My table was located at the corner of Allegheny and Continental.

Around 7:00 p.m. the Congress room was open and slide shows started for those that could not wait. Since there were many early arrivals, the shows were well attended. When you tired of watching slides, the next stop would have been the hospitality suite. There, the World Airline Hobby Club was hosting a welcome party. After getting off to a late start, the party was quickly in full swing and everyone seemed to have a very enjoyable evening.

At 9:00 a.m. Friday morning the Regency Room was opened and the wheeling and dealing began in earnest. Over one hundred tables had been set up for those wishing to display the items that they had for sale and trade. Very few of the tables remained empty very long. Available to the collector were plates, silverware, schedules, models, slides, photographs, flight bags, post cards, cameras, paper labels, books, first flight covers and just about anything else you might want to add to your collection.

As usual, the slide boys and post card dealers were doing just great. There was also a table devoted entirely to National Airlines material, which was doing some good business doing most of the meeting. The folks from Orange Blossom Hobbies were selling models and decals as fast as they could get them out of the box. Those arriving early could not make up their minds as to what table to go to next. To use the old phrase, we were all like kids in a candy store with the money we had burning holes in our pockets!

Around noon the slide shows resumed in the Congress Room with various groups and individuals showing slides of their particular interest. The shows would continue until about 6 p.m. when the rooms were closed so we could have a little time for dinner and prepare for the business meeting at 7:30 in the Congress Room.

The business meeting started on time with yours truly as chairperson. For those attending their first convention business meeting a brief review of previous meetings was given. Some of the items that had been voted on were also reviewed.

Following these opening statements a plea was made by the chairperson for those attending the present convention and for those attending future conventions to support the efforts of those hosting the meeting. This was brought about because the Miami committee was placed in the position of possibly having to pay the Diplomat \$1500 due to the fact not enough of those attending the convention were staying at the Diplomat. Considerable discussion followed with comments from previous convention hosts, myself and Bruce Drum. A number of points were presented to those present on how the convention committee works and what they must do and go through to give us a good convention. The discussion had a very positive effect because the committee did get their 100 rooms for the night in question. There will be additional comments on operations of the convention in the next several issues of the LOG.

The next item on the agenda was nominating a site for the 1982 convention. Terry Waddington, representing Southern California, made the only bid for the 1982 affair. By unanimous vote, the California committee was awarded "Airliners International 82." Terry Waddington then made a slide presentation of what was to be offered to those attending the meeting in 1982. It was quite an impressive presentation.

After a short question and answer period directed at the California committee, the room was turned over to the World Airline Hobby Club for a short business meeting. At this meeting, the new Club magazine editor was introduced. Mr. Dolzall came to the front and made a short statement on the Spring issue of the LOG and on what he hoped to accomplish in the future. A few other items were covered including comments on the proposed Club constitution. It has been decided to hold off on such a constitution until additional study can be given to it. Following this discussion several comments were made by those present on Club activities and then the meeting was closed.

Following the business meetings, a party was held near the beach. Quite a number of those in attendance at the convention took advantage of this get together to talk about the days activities and have some "plane" old fashion conversation. I don't need to mention, at least for those that attended the party, not very much drinking was done! After several hours the party ended and everyone headed back to their rooms to rest up for Saturday's activities.

The display room was opened at 9:00 a.m. on Saturday morning and again trading and selling began in earnest. One thing that I like about the yearly convention is the opportunity to meet old friends made at previous meetings and the making of new friends. It also allows you the chance to meet the people that you have corresponded with and you get to meet them face to face. I was happy to see quite a number of young collectors at this years convention. I hope we are able to attract additional young people to our hobby in the future.

Trading and selling and slide shows continued until the room closed around five o'clock. Plans for the remainder of the evening included a cocktail hour beginning at 6:15 p.m. and the annual awards banquet to start at 7:30.

The cocktail hour was well attended and I must say that when all of our "characters" dress up, we look quite impressive! I must compliment all the ladies that were present--all very attractive. The banquet hall opened right on schedule.

Bruce Drum began the proceedings by welcoming those in attendance and then introducing the members of the convention committee. Also introduced was the guest speaker for the evening, Mr. Richard L. Kruse, retired Captain for Pan American. Following these introductions, the meeting was turned over to Pete Black and Jon Proctor for the now "traditional" airline quiz. Pete and Jon really outdid themselves this year. Getting the most correct answers this year was George Cearley. Getting NONE right and missing the tie breaker by 3000 days was Kiyoshi Sato, Japan's greatest photographer.

The airline quiz was followed by another quiz, this one being presented by Terry Waddington and John Mechat. This quiz was "Name the Plane" a contest with Terry showing various slides of different parts of an aircraft with John giving a running commentary on the slides. The idea was to recognize a DC-10 by seeing a section of the wing tip. Three of those in attendance tied for first place. I think the rest of those at the banquet destroyed their answer sheets! I look for this contest to become a banquet tradition also.

The place settings at the banquet this year consisted of a very nice menu and for the second year, a folder featuring Douglas aircraft provided by the Travel Industry Affairs section of McDonnell Douglas. The menu for the banquet was a gourmet's delight. Starting off with melon and prosciutto and iced relishes followed by Salade Quimperlaise which lead up to the main dish of chicken Kiev. The dessert was a Fruit Tart Romanoff, which was very good. The Diplomat staff did a very efficient job in serving the banquet.

After the dinner dishes were cleared away, Bruce introduced the guest speaker, Captain Richard L. Kruse, retired Pan American pilot. Captain Kruse flew just about every type aircraft that Pan Am has used since 1945. His presentation for this particular evening, however, focused on the early "Flying Boat" era. Captain Kruse used slides to illustrate his speech and what historical photos they were! He had many slides of the early Sikorsky and Martin flying boats, personalities such as Charles Lindbergh and Juan Trippe and many pictures of the early places to and from which Pan Am flew.

Captain Kruse's presentation was well received by those present and on conclusion of his program was given a standing ovation for his efforts. During the awards portion of the program the convention committee presented Captain Kruse with a silver plate in appreciation of his participating in Airliners International 81.

The awarding of contest prizes was the next item on the program. Awards were given in the following categories: Best photograph; best slide; best general display; best models in several different scales and a final award for best of show. Congratulations to all winners and those that placed second and third. A big thank you to all those that entered the various contests. A list of winners will be printed in the next issue of the LOG.

Next on the program was the drawing for door prizes. A goodly number of items were obtained by the convention committee to be given as prizes including flight bags, models and other miscellaneous items. The committee also came up with two "super" prizes--two trips on Air Florida to Montigo Bay. These prizes were won by Phil Brooks of Indianapolis and Ray Mattox of Burlington, Kentucky. Bruce Drum was also given a trip to the Bahamas by his fellow convention committee members for the hard work he did on the convention. This closed the convention for the year 1981!

I would like to make a few comments on the 1981 convention. The attendance was way above what was expected. Myself and the convention committee did expect that we would draw more people from Europe than what showed up. We had people from Germany, Holland and England. I think we can do better. I will work with the California committee on this during the coming year. The site selection was perfect for those wanting to take photos. The Diplomat was located close to Ft. Lauderdale, Miami Int'l., Opa-locka and a number of smaller airfields within a short driving distance. Hopefully we will be seeing a lot of those slides at the convention next year! For the families, the ocean was right at our doorstep as well as the Diplomat's pool--super big. The staff at the Diplomat, for the most part, did all they could to help those attending the convention. The display room was super, no one was crowded and there was plenty of space between tables.

The only sour notes were with regards to parking, how expensive the hotel was and "this place is to big" was a comment heard on several occasions. Folks, you better get used to being in expensive places and big places. As the Club grows and the convention grows, we will be needing larger and more expensive sites at which to hold our annual affair. I will be having additional comments on this in future issues of the LOG.

I would say overall that the 1981 convention committee performed an outstanding job. From the time you received your ticket envelope (registration information) at the ticket counter until the last door prize was given out, committee members were available to handle any problems that came up. On behalf of those attending the 1981 Airliners International I would like to thank Bruce and the committee that he assembled for giving us a super convention.

THANK YOU!

SEE YOU IN CALIFORNIA IN 1982

Flight Exchange

The FLIGHT EXCHANGE section of the LOG is provided to give you, the Club member, a place to buy, sell and trade your duplicate items and find the items that you have been looking for. Send in your list of material that you have been looking for or trying to dispose of. Please keep your request short and to the point. The Editor reserves the right to limit the size of any request.

Bill Moore, 836 Kodak Drive, Los Angeles, California 90026 is looking for 1/144 scale support vehicles for his "airport" in miniature. He needs gas trucks, catering trucks, baggage carts, etc. Anyone knowing where such items can be found write him at the above address or call him at 213-666-1002.

Jack Roderick, 361 Forest Meadows Drive, Medina, Ohio 44256 has the following books for sale: Janes Pocket Book of Commercial Transport Aircraft, 1974, 263 pp. \$3.00; Gann, Fate is the Hunter, \$6.00; Flying Magazine 50th Anniv. issue 1977, \$5.00; Greif, The Airport Book, 1979, \$10.00 (contains great photos of airports/aircraft of the 1920's to present).

Armen Avakian, 2308 Curtis Ave. Apt. A, Redondo Beach, California 90278 wants any post cards or photos/phamphlets depicting Boston's Logan Int'l Airpot as it appeared in the early 1960's. He is especially interested in views of the terminal fingers from the ramp side showing old props and early jets. Also interested in any aerial photos showing the runway layout as it appeared during the same period.

George Farinas, 962 N.W. 106th Ave. Circle, Miami, Florida 33172 is willing to purchase or trade for the following kits: Hawk CV-880 Delta c/s, Frog Viscount 800, Aurora CV-880 Delta c/s, Faller Viscount 814, Airfix Heron Jersey or Shell c/s, Marusan or Frog Britannias.

Royce Barron, 5011 Windy Meadow Drive, Plano, Texas 75023 has all kinds of Thai material available for trade or sale, including a limited number of beautiful continental-size postcards of a Thai 747-200B. Send a SASE for list of materials.

Samuel Hunter, 1270 Grove Street, #303, San Francisco, California 94117 would like to trade (not sell) a Monogram/Mattel 1/400 scale model kit (1968) of the legendary Boeing SST Supersonic Transport with pre-current United Airlines decal markings. I am looking for pop-art airplane graphics and unusual curios. Write or call 415-346-7041.

Cooper Weeks, 3635 Belevue, Kansas City, Missouri 64111 has early era TWA BRASS PILOT BUTTONS for sale. These buttons have the raised TWA letterw with circle and hash marks at the 1 o'clock and 7 o'clock area. Buttons are in mint condition (manufactured by Superior) and sell for \$3.00 (large) and \$2.00 (small). Checks O.K. with postage paid. Will trade for TWA items only. (Tele: 816-931-6230)

Paul Grosscup, 305 Gailridge Road, Timonium, Maryland 21093 would like to purchase the following two books: A History of the World's Airlines and Airlines of the United States Since 1914. Both books were written by R. E. G. Davies. Also looking for Adventures of a Yellowbird by Robert E. Mudge.

Jack R. Bol, 2802 S. Roslyn Street, Denver, Colorado 80231 would like to purchase or trade airline or aviation related stock certificates. Would also be interested in obtaining copies of certificates that you may have in your collection. Also wants to purchase copy of Airlines of the U.S. Since 1914 by R. E. G. Davies.

Thomas G. Dragges, 526 Ventura Avenue, San Mateo, California 94403 wants airline playing cards for future articles in the CAPTAIN'S LOG. Especially wanted are decks from Air California, Air France, B.O.A.C., Allegheny, Mohawk, North Central, and many foreign carriers. Will buy or trade so send for my trade list. Will trade for jokers only if necessary.

Brian H. Williams, 2432 W. Pacific Coast Hwy., #237, Lomita, California 90717 has four page disposal list of kits, airline decals and miscellaneous items. SASE for list or your list for mine. Want: Frog Viscount, Convair 880 Hawk kits, and McDonnell-Douglas company produced decals or rare, unusual decals, any scale.

Larry Williams, 30105 Windsor, Gibraltar, Michigan 48173 has for sale promotional desk models of the following: Electra Air California c/s; Boeing 737 Frontier c/s; DC-8 Douglas c/s. Also have many military desk models. If interested write or call 313-671-2241.

Henry Tenby, 1226 W. 27th Avenue, Vancouver, British Columbia Y6H 2B9 Canada is seeking ANY material on P.W.A., Air Canada (TCA), CP Air and Wardair. He is looking for photos, slides, advertisements, movies--ANYTHING. He is also looking for pictures/slides of Air Canada Viscounts and Vangards. Send list. All letters will be answered.

AIRCRAFT RESEARCH INTERNATIONAL, c/o John E. Chivers, 9 Chatley Road, Great Leighs, Chelmsford, Essex, England wants prints, slides and postcards of the Comet, Viscount and BAC 1-11 aircraft. Good prices paid for good prints, slides and cards. Please give details of the one's you wish to sell. Registration, c/n, airline or private owner and where possible the aircraft's last owner. All letters will be answered.

Paul Collins, 3381 Apple Tree Lane, Erlanger, Kentucky 41018 is seeking airline flight bags for an article he is going to do in the FALL issue of the LOG. He will purchase any bag (\$10.00 maximum) or will borrow for 1 year. He will pay mailing charges both ways on bags borrowed. Please write or send to the above address any information you might have. WANTED--GULF AIR bags of any kind.

The first release of eight postcards by MANCHE POST CARD of Brazil is now available. These are super cards and represent several South American carriers. Included in the set is a Cruzeiro 727, VASP 737, VOTEC DC-3, Aero Uruguay 707, TAR 707 and three Bandierante, TABA, Brit Air and PBA. You can obtain a set by writing: J.J. Daileda, 4314 West 238th Street, Torrance, California 90505. Send check or M.O. for all eight cards. \$3.20 plus 65¢ postage for set. If you want your cards in plastic sleeves price is \$3.50 plus 85¢ postage. Make checks payable to J.J. Daileda the U.S. rep for Manche Post Cards. (Individual cards \$.40 each.)

BAY AREA AIRLINE HOBBY CLUB

Presents

The First Convention in San Francisco Bay Area

Date: September 19, 1981
Time: 10:00 a.m. to 4:00 p.m.
Place: Plaza Airport Inn (Adjacent to SFO)
401 East Millbrae Avenue
Millbrae, California 94403
Transportation: Free shuttle service to hotel from SFO available.

Tables available but limited

For additional information contact:

Thomas Dragges
P.O. Box 3212
San Mateo, California 94403
Tele: (415) 574-8111

OKI AIRLINER ENTHUSIASTS

Present

1st Annual Photo Show

Date: August 15, 1981
Time: 10:00 a.m. until Jim Thompson goes home!
Place: Terminal A (USAir special service room)
Greater Cincinnati Int'l (?) Airport
Erlanger, Kentucky

Transportation: Easy to get to from I-75/I-275
Short walking distance from
Delta-American-TWA-United-Piedmont
Republic gates.

Table available, but get your name in early!

For additional information contact:

Paul Collins
3381 Apple Tree Lane
Erlanger, Kentucky 41018
Tele: 606-342-9039

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DELETED
DUE TO PRIVACY
CONCERNS



AIRLINER PHOTOGRAPHS

AIRLINER PHOTOGRAPHS provides a wide range of excellent quality 5 x 7 or 8 x 10 inch original photographs of individual aircraft. Numerous airline, air freight, charter, and travel club photographs printed by a professional photo lab. Send a SASE for listing to Jordan Airliner Photographs, 610 Reno Street, Lewisville, Texas 75067.

"LAAS INTERNATIONAL" was formed as the London Amateur Aviation Society in 1961 by a small group of enthusiasts and historians. The group has now grown into the largest society of its type in Europe with world-wide membership now touching 5,000 members.

The Society's main interest is the current events of today's aviation plus publishing aircraft monographs as well as Civil Aircraft Registers of various countries. Current membership fee is \$12.00 per year, includes 12 issues of the monthly magazine "Aviation News and Review." (Sample \$1.00) For additional information contact Mr. A.B. Eastwood, 59 Briar Way, West Drayton, Middx UB79AS, England

AVIATION POSTCARD COLLECTOR

Here is a NEW publication from England for the serious postcard collector. This quarterly magazine will list postcard publishers, airline postcard lists, cards for sale and will have available space where you can list cards you have for sale or trade.

This new quarterly publication represents the first serious attempt to record the aviation postcards published since 1909! It is intended that the editions of AVIATION POSTCARD COLLECTOR will build into a comprehensive catalog of postcard Publishers list. In addition postcards representing aircraft of a particular Airline will also be listed.

The quarterly magazine sells for 1.00 (or \$2.50 US). Write: Fred Hems, 74 St. Leonards Gardens, Heston, Hounslow, Middlesex TW5 9DH England.

SOUTH AMERICAN AVIATION NEWS

The sole Brazilian magazine published by enthusiasts for enthusiasts dedicated exclusively to the coverage of historical as well as current aspects of commercial and military aviation of this part of the world. Packed with news, articles, photos, registers, inquires and answers sections, etc., it keeps you fully informed on what's going on in the aviation field in this corner of the globe. A must for ANY enthusiast and serious researcher of South American aviation. Subscribe to it right now! Sample copies \$2.00 (US) obtainable directly from the editor. Annual subscription rate is only \$15.00 (US), world-wide delivery included, payable to the editor. For sample copy or yearly subscription:

Mario B. De M. Vinagre
South American Aviation News
Caixa Postal 5216
09720 Rudge Ramos,
Sao Paulo, Brazil

Send fees in either US dollars or Int'l. Postal Money Order. No checks, please.

Watch for new series of postcards, now on the market, featuring South American civil, commercial and military aircraft.

NORTH AMERICAN AVIATION NEWS

Looking for a good airline news magazine? If so, NAAN may be the answer. In over a year, NAAN has become one of the fastest growing all-volunteer aviation enthusiast magazine. We specialize in the airlines of North American, about North American, by North Americans. We keep you informed on the latest news concerning US and Canadian airlines with airline and route news, fleets, changes and updates, profile articles on airlines and airport movements. \$14.00 yearly for the US and Canada (12 issues) from: NAAN, Box 72, Malton P.O., Mississauga, Ontario L4T 3B5 Canada. DDM Photos/Slide catalogs and the latest in books are sent to regular NAAN subscribers.

**Classic Air Line Logos \$20
from Gene Hooker**



1,000 square inches of decals- for 32 airlines, 54 aircraft, 130 models.
SIDE 11"x14" decal sheets

Austrian	Caravelle 1/96, 1/144	Viscount 1/96, 1/200	DC-9 1/144
Aeroflot	1/100 IL-62, Tu 134, Tu 154		
Autair International	1/144, 1/100 BAC-111		
Air Inter	Caravelle 1/96, 1/144	(Model 12,6)	
Air Florida	Electra 1/72, 1/110, 1/144, 230 2 a/c; 1/100, 1/144 707		
Air Pacific	BAC 111 1/100, 1/144		
Air Canada	1/100, 1/144 Vanguard, 1/100, 200 DC-9, 1/100, 1/144, 200 DC-8		
British Midland	Viscount 1/72, 96, 120, DC-9 (1/72, 100, 120, 144, 200)		
British Eagle	BAC 111 1/100, 1/144		
Capital	Viscount (1/96, 1/200; 1/72 partial)		
Capital	DC-8-30, 61- 1/100, 1/144 1/200 (2 a/c) (2 paint schemes)		
Continental	Viscount 1/72, 1/96, 1/120 CV 240 1/128, 1/100 DC7 1/72, 122, 230		
Canadian Pacific	DC-8 1/100, 1/144		
Delta	DC-9 1/120 CV 880 1/134, 1/144 DC-8 1/100, 1/144		
Dutch Royal Navy	Fokker F-27 1/72, 1/96, 1/120		
Germanair	BAC -111 1/144		
Karair Finland	DC-8 1/100, 1/144		
Lot	IL-62 1/100		
Laker	BAC 111 1/144		
National	Electra 1/72, 110, 144, 230		
Northeast	Convair 880 1/134, 1/144		
Northwest	Stratocruiser 1/72, 1/144	Electra 1/72, 110, 144, 230	
Pan American	Stratocruiser 1/72, 1/144 (partial), 1/230 DC-7		
Pearl de Brazil	DC-7 1/72, 1/122		
Sata	Caravelle 1/96, 1/144		
Swissair	DC-9 1/100, 120, 144, 200 DC-8 1/100, 144 DC7 72, 120 CV990 1/134		
Sterling	Caravelle 1/96, 1/144	Caravelle 1/96, 1/144	
Trans Canada Airlines	Vanguard 1/100, 1/144, Viscount 1/72, 96, 120 DC-8 1/100, 144	logs	
Transavia	Caravelle 1/96, 1/144		
Trans World Airlines	Constellation (partial conversion of Revell kit)		
United	Viscount 1/96, 1/120, Caravelle 1/96		
Eastern	Electra (hobby stick) 1/72, 110, 144, 230		

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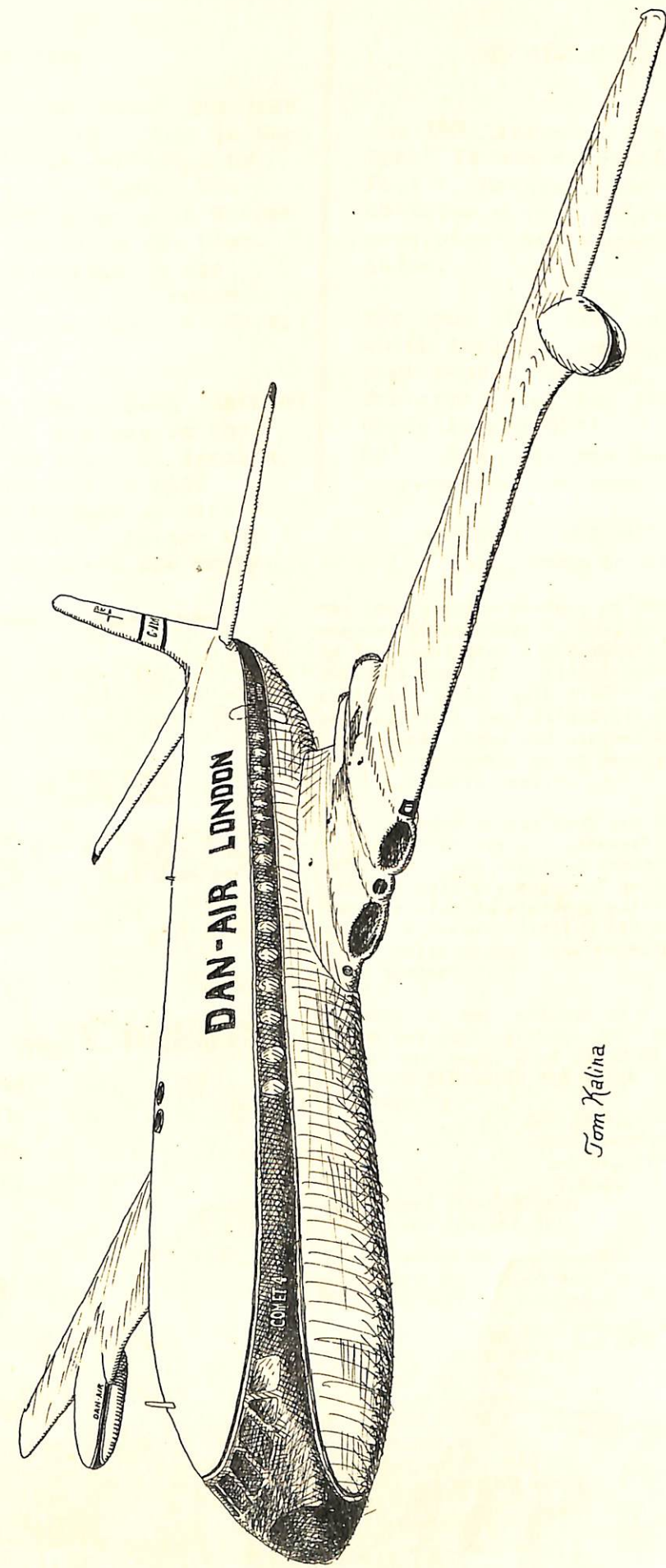
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Tom Malina

europa news

The second issue of "europa news" has just arrived at Club headquarters. This is the quarterly newsletter being published by the European Section of the WAHC. The publication goes to WAHC members in Europe along with their membership in the Club. If you would like to subscribe to the "news" please send \$15.00 to the editor, W. T. Richards, 41 Devereux Road, Windsor, Berks. SL4 1JJ England.

The "europa news" this time around featured a number of nice labels, a story on the Supersonic Transports by Brian L. Asquith, and quite a bit on postcards by Bill Richards. If you want to keep up with happenings in Europe, a subscription to the "news" would be well worth the money.

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(The "I" mentioned above is Paul Collins)

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