

JOURNAL

AMERICAN AVIATION HISTORICAL SOCIETY



VOLUME 18 NUMBER 2

SUMMER 1973

ANTILLES AIR BOATS of the VIRGIN ISLANDS



THE COMMERCIAL FLYING BOAT THIRTY YEARS AFTER

By Dr. DOUGLAS H. ROBINSON

Nobody who has visited the Virgin Islands will ever forget them, particularly those who have been transported as if by magic from the ice, snow, fog and gloom of a northern winter to the brilliant tropic sunshine, blue seas and skies filled with tradewind clouds, and the invariably agreeable climate of these islands which are the most easterly part of the United States. Neither will one forget the incredible interisland air service unique to the Virgin Islands, Antilles Air Boats, flying thirty-year old equipment, and water borne at that.

Hours may be spent as a fascinated spectator of Antilles Air Boats' operation on the waterfront at Christiansted, St. Croix, while the family shops for silver, fabrics and souvenirs in the stores along the streets whose signs, "Kongen Gade" and "Oost Gade," recall the town's Danish background. One can reflect upon the history of the air line, its equipment, and the colorful personalities who manage it in a family type atmosphere where one might believe that they run the operation for the fun of it and because they enjoy each others' company. The enterprise has

grown steadily with no fatalities since its founding in 1964, and "the Goose" has become a household word in the Islands.*

No problems were anticipated in getting information on Antilles Air Boats, but by chance we learned of a Captain Don McDermott, who flew for Antilles Air Boats. It seemed a good place to start, and through Don acquaintances were made with Captain Albert Terwilliger, Captain Robert Laturner, and other pilots, and eventually Charles Blair, B/Gen., USAF, and his charming wife, the Miss Maureen O'Hara of motion picture fame. Blair is the founder and president of Antilles Air Boats, a military pilot of considerable fame, and author of *Red Ball In The Sky*.

Captain McDermott was due two days hence to be flying for the last time for a week, and a seat was obtained for the run to St. Thomas on his flight, and back. It was up front—by no means a unique favor, as the copilot's controls have been removed in the Grumman G-21A and the right hand seat is routinely sold to passengers—but a favor nonetheless appreciated and eagerly anticipated.

Round trip tickets were purchased for Flight 218 at the open air counter, right on the waterfront. There were the hotel and shops to the left, wharves and an old stone signalling tower on the right, and numerous sailing and auxiliary yachts moored offshore. Directly in front was a level concrete apron not more than 75 feet wide and deep, with fuel pumps and hoses to the left. At the far end the concrete sloped down to the waters of the harbor.

Soon our aircraft appeared as a speck to the north, coming from St. Thomas which it had left as Flight 217 at 8:55 A.M. Ignoring the light south-east trade wind, the pilot made a straight in on-course approach and landing, setting the Grumman on the waters of the harbor about a mile out. Once on the water, however, there was little slowing of the pace, as the boat, trailing a feather of spray behind, water-taxed in "on the step" at not less than 55 to 60 knots. Rudder and ailerons were effective at this speed and wide turns on the water were made with the boat banked as in the air. Not until within a hundred yards of the ramp was power reduced, and the boat sank down in the water, plowing through rather than skimming over it. Now the wind, blowing on the port beam, proved a little annoying, but full right rudder and power on the port engine held the boat straight.

The pilot was cranking down the wheels. As they touched the submerged ramp there was a blast of power, and streaming water from the hull, the boat heaved itself up on the concrete. With the left wheel placed against a strategically located chock, another burst of power pivoted the Grumman to face out to sea again, and the engines died. An attendant wheeled a set of stairs against the port side of the hull aft, the passengers filed down, and last of all came the pilot, Don McDermott, wearing dark slacks and a white short-sleeved shirt with captain's shoulder marks, open at the neck, to greet us warmly. A fuel attendant climbed on the wings, measured the amount in the port and starboard tanks with a stick, and topped them off with a hose.

Ten minutes later Flight 218 was called and we followed Don

*Editor's note: The author, Dr. Robinson, is best known for his book on Germany's rigid airships, *The Zeppelin in Combat*, and his *Giants in the Sky*, a study of all the airships from 1900 to 1940, is coming to print as this issue goes to press. But in a vacation trip to the Virgin Islands in 1970 Dr. Robinson decided to go for history's sake too, and in a thorough-going approach, has set forth an account of the thirty-year old (and more) flying boat in modern commercial service.

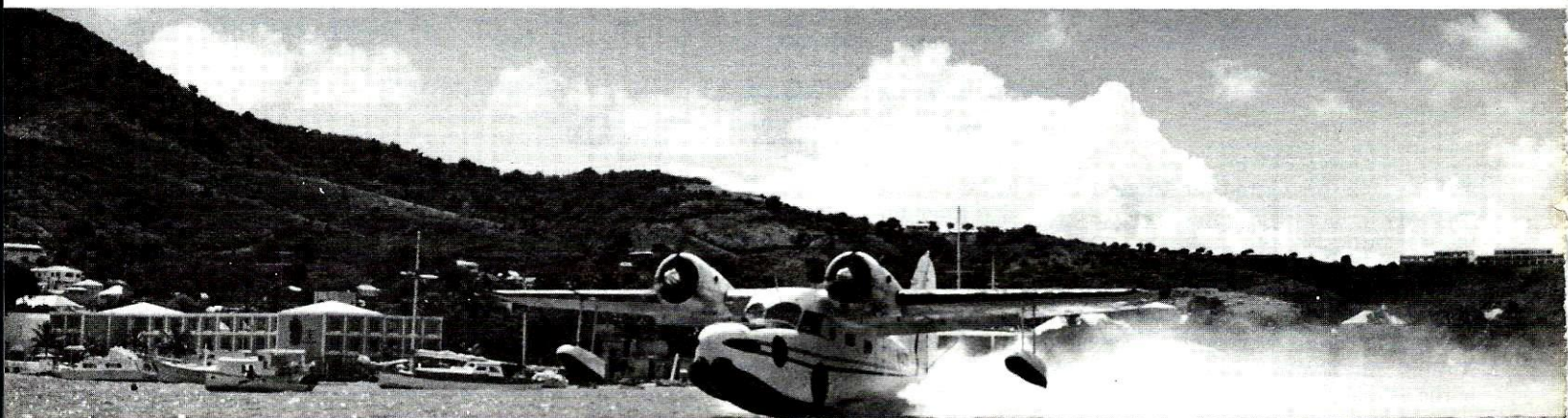
If this reads like a travel magazine story it is no doubt caused by the irresistible atmosphere of the superb vacationland, but underneath all that glamour are the solid, no-nonsense facts of commercial air operations. It may prove to be only a preliminary chapter in the history of "Antilles Air Boats."

aboard to the front office. The other seven or eight passengers arranged themselves on the seats and benches in the cabin to the rear, and a few suitcases, wheeled out on "the green cart", followed them in. The ramp attendant closed the door aft, signaling that all was clear. McDermott reached up to the overhead throttles, primed the engines and pressed one starter button, then the other. We moved down the ramp and taxied slowly ahead, ready for our first seaplane experience.

Antilles Air Boats captains cannot complain of lack of exercise; it takes forty-one turns of the handcrank to raise or lower the wheels. The G-21A's came with power-operated retraction mechanisms, but these proved such a maintenance headache that they were removed; the weight saved was an additional consideration in favor.

Mag checks were made as we moved slowly out a short distance to the ship channel and there turned into the wind, to be inducted into the mysteries of the water takeoff! The problems of "breaking the suction" and "getting on the step" came back to mind, but in the sturdy Goose there is no difficulty. With flaps lowered to 30 degrees, wheel all the way back, and power advanced to 37 inches and 2300 rpm, there was a brief shower of water against the windshield and then the Grumman was up on the step, skimming along easily and building up speed. It was simply flown off at 65 mph after a run of not much more than 1000 feet.

McDermott reduced power and began a wide left turn to the course for St. Thomas. Navigation was no problem, for even on climbout the hills of St. Thomas were easily visible 45 miles away in the bright, clear sunshine. St. John lay on the starboard bow, Vieques Island on the port bow, and beyond and more dimly seen was Puerto Rico. A few puffy cumuli—trade wind clouds—hurried by overhead. Cruise speed was supposed to be 140 mph, but looked more like 120, but then our N79901 was reputedly one of the slower craft of AAB. The air was very smooth and literally there was nothing to do but enjoy the marvelous sights and colors of the tropical islands from our vantage point 1500 feet above the calm sea.



Five miles out power was reduced for a straight-in approach and landing in Charlotte Amalie Harbor. Another Air Boat, climbing out on an opposite heading for St. Croix, passed on the left. At this point McDermott made the only use of the Genave Alpha/200 radio, tuned to the St. Thomas VOR, when he called the tower at Harry Truman Airport to announce the approach to Charlotte Amalie. With flaps lowered to 60 degrees he landed straight ahead in the harbor, water-taxied in, cranked down the wheels and climbed out on the ramp, little more than 20 minutes after departure from Christiansted. There were no special problems in landing in a light cross-wind in the protected harbor, though Don observed that swells over four feet could be difficult to handle.

The terminal in St. Thomas, larger than at St. Croix, is the center of the Antilles Air Boats system, and provides storage and overhaul facilities. Several Grumman G-21A's were standing about on the concrete. In one corner was the last of the three Sikorsky VA-44A's, built in 1941-42 for American Export Airlines to fly the Atlantic in competition with Pan American. Purchased in 1968, the big four-engined craft had made more than a thousand flights for Antilles Air Boats in that year, but now required much work. Later the company laid up the hull and wings on a quayside lot to eventually deteriorate.

There was time to explore Charlotte Amalie before departing at 2:35 P.M., this time to the south-east across the harbor, then accommodating four big cruise ships. We undoubtedly provided a thrill for the passengers of the liner *Hamburg* as we lifted off on her starboard beam. Altitude for the 20 minutes' return flight to St. Croix was only 1000 feet, a company rule to ensure 500 foot altitude separation between north and southbound flights. At Christiansted the pilot circled a few times at low speed off the ramp until a departing Grumman vacated the parking area. With 33 flights each weekday in each direction between St. Croix and St. Thomas, and ten others in each direction from St. Croix to the other islands, the line obviously needed the large new facility due to open in the spring of 1971 a few hundred yards to the west on the water front.

Referring to its antique aircraft, the *Wall Street Journal* stated, "on paper, the little airline looks like a hopeless proposition. It flies World War II planes. On its major run, it competes with three big lines that fly the latest equipment—Pan Am, Caribair and Trans Caribbean. And it charges more than the competition."¹ But the article hastened to pronounce the air line a success, carrying 93,093 revenue paying passengers in 1967, 157,000 in 1968, 173,000 in 1969, and 200,000 in 1970, during which year its gross income was \$2,150,000. This came about through the vision and determination of Blair, who combined what others considered an outmoded and useless transportation vehicle—the amphibious flying boat—with a concept frantically sought after by all big airlines—center city to center city air travel.

Best known in flying circles for his skillfully navigated 1951 solo flight from Bardufoss in Norway to Fairbanks, Alaska, via the North Pole in a modified P-51 Mustang, Blair had been flying

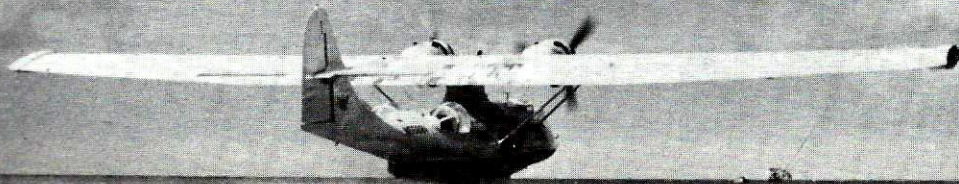
since 1928, and had extensive experience in flying boats. In the year 1940, when American Export Lines decided to go into competition with Pan American on the transatlantic route, he became their chief pilot. Three 4-engined Sikorsky VS-44A flying boats were ordered for the line, and Blair flighttested all of them, the first being completed in January, 1942.

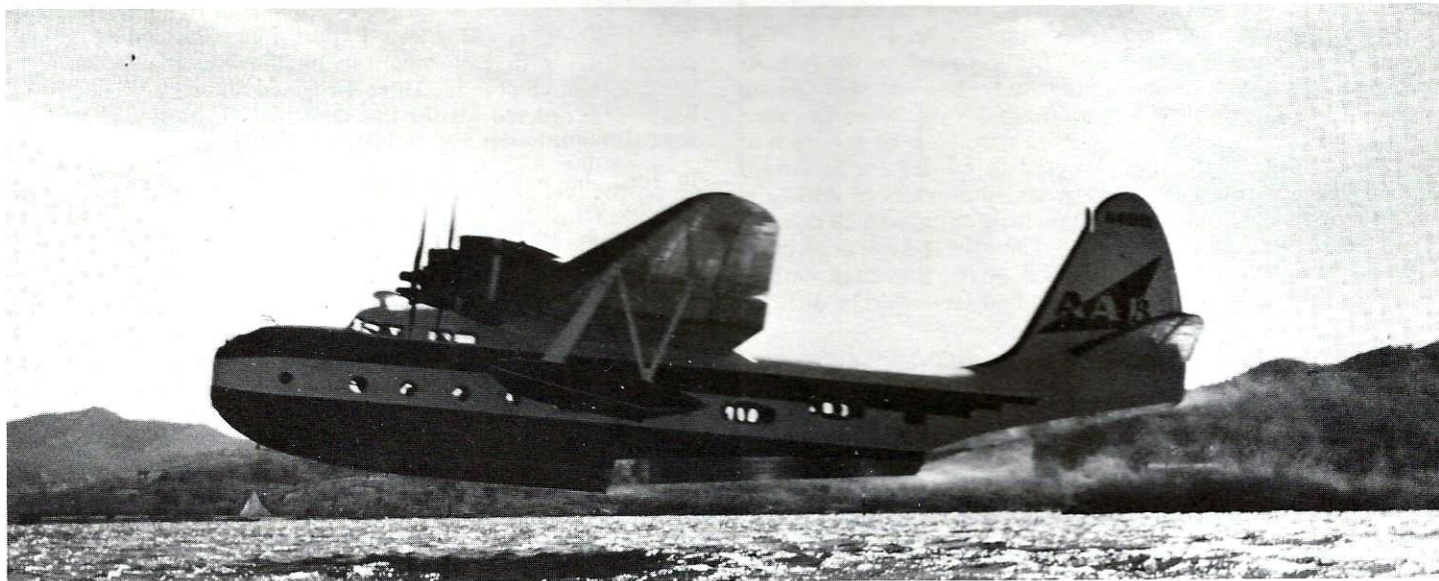
In June, he was in command on the first Transatlantic flight, making the first non-stop airliner crossing with passengers and mail from Foynes, Ireland, to New York (the Sikorsky having greater range than Pan Am's Boeing 314). Through the war years Blair continued as Chief Pilot while the line expanded to at least 15 flying boats. In 1947 he flew the last surviving VS-44A in charter work between Minneapolis and Iceland, while continuing as captain with American Overseas Airlines. When A.O.A. merged with Pan American in 1950 he went along. Later, as founder, President and General Manager of Antilles Air Boats he still put in 300 hours per year at the controls of the fleet, filling in when needed.

Having moved to St. Croix in the early 1960s, Blair wondered why it took a whole day to make the round trip between St. Croix and St. Thomas, only 50 miles away. The answers included infrequent schedules of the large airlines flying in and out of the island airports, and the remoteness of the airports from the main population centers on the islands, Christiansted and Charlotte Amalie. Each town, on the other hand, has a large sheltered harbor, and it was only natural to think of the flying boat which Blair knew so well. The helicopter was considered, but ruled out, not only because of expense but also because of the greater safety of the flying boat in a forced landing.

Taking two months' leave from Pan American, Blair went looking for a Grumman G-21A "Goose" and found his first one, N 95467, in Texas. After reconditioning, the Goose was ferried to St. Croix, and on February 1, 1964, it made the line's first flight with paying passengers, St. Croix to St. Thomas and return. In the beginning there were no shore facilities, simply mooring buoys to which the Grumman made fast, and two 16-foot "Boston whalers" to carry passengers between the Goose and the shore. This feature was not too popular, but passenger acceptance of AAB increased rapidly soon after the provision of concrete aprons on the waterfront from which passengers could board the flying boat dry-shod.

Having used up his two months' leave, Blair hired a pilot and returned to Transatlantic flying. For ten months there was only the one airplane, making 5 round trips per day. Then a second G-21A joined late in 1964, followed by a third in 1965. The number of aircraft on the roster steadily increased, Blair giving much of his time seeking G-21A's in out of the way places. By March 1971 there were fourteen 10-passenger Grummans on the list, two 28-passenger PBY "Super Catalinas", and a 20-passenger PBY-5, with one more to come from Alaska Airlines. There was also the 47-passenger Sikorsky VS-44A. The Catalinas, though able to carry more passengers, were not as popular as the Grummans, principally because the terminal at St. Croix was too





The Sikorsky VS-44A, last of the large, luxury-class pre-WWII flying boat airliners, made over 1,000 flights with Antilles Air Boats, was ultimately laid up for repairs. These proved too expensive, and the flying boat languished for many months. (Photo above and on Pages 73, 74 and 75 by Fritz Henle, courtesy of Gen. Blair).

small for them to taxi up on the ramp. Also, more sound-proofing and air-conditioning was needed for the Catalinas.

With more airplanes, services expanded to 33 flights on the weekdays each way between St. Thomas and St. Croix, all of this being limited to daytime and VFR flying, because very few islanders need to fly after sunset. Antilles AB was also conscious of "Noise pollution" in the nocturnal hours. There were two flights daily each way between St. Croix and unspoiled St. John, though AAB was not trying to compete with water craft on the short run from St. Thomas to St. John. However, Blair was especially interested in developing traffic between the Virgin Islands and the large nearby neighbor to the north-west, Puerto Rico. In October 1967 the line opened a service from St. Thomas to Fajardo on the east end of Puerto Rico, followed by St. Croix-Fajardo in May 1968. In November 1969, Antilles Air Boats opened a downtown line from St. Croix to San Juan, and in February 1970, from St. Thomas into San Juan. Compared to Puerto Rico International Airport, the AAB destination and turnaround at Isla Grande Airport is practically down town in San Juan. There the AAB amphibians waddled out of the water at what had been a World War II U.S. Navy base.

Puerto Rico and the Virgin Islands comprise only a small proportion of the islands of the West Indies. Antilles Air Boats' efforts to expand further involved the need for agreements with foreign governments. Routes were arranged for the Grummans to fly

from West End (on Tortola, a British possession) one flight each day to St. Thomas, and to St. Croix. January 1970 saw flights initiated from St. Thomas to Roadtown (capital of Tortola), but these were discontinued temporarily pending construction of a seaplane ramp in downtown Roadtown; the "ship to shore" Boston-whaler service proved too troublesome.

Blair visited St. Kitts in December 1969 to negotiate with officials of the independent state of St. Kitts-Nevis-Anguilla for landing rights at Basseterre, the capital. Despite a warm reception, in the end the line was refused permission to open an office, sell tickets or advertise flights, and had to abandon its plans at least temporarily. More recently the St. Kitts Government reversed its decision and invited Antilles Air Boats to make scheduled flights not only to St. Kitts, but to Nevis as well.

St. Martin, a natural destination for the flying boat air line, is jointly held by the French and the Dutch, thus negotiations were even more delicate and difficult. Eventually, should "the street car line of the Virgin Islands" become the Virgin Islands flag line with the government as an active partner, its political future would be assured.

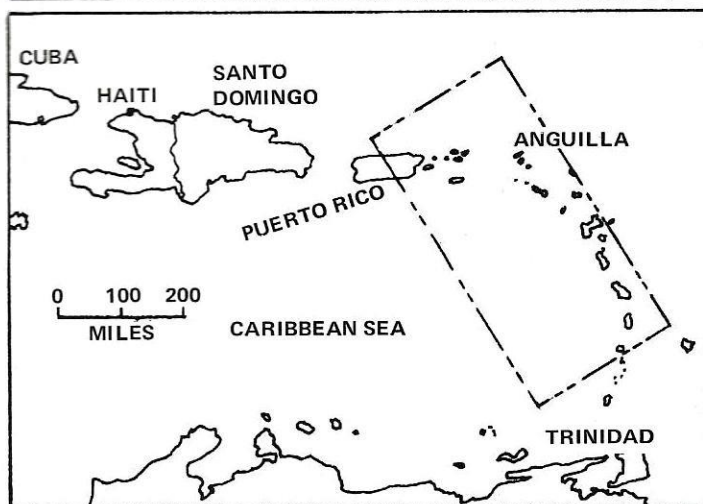
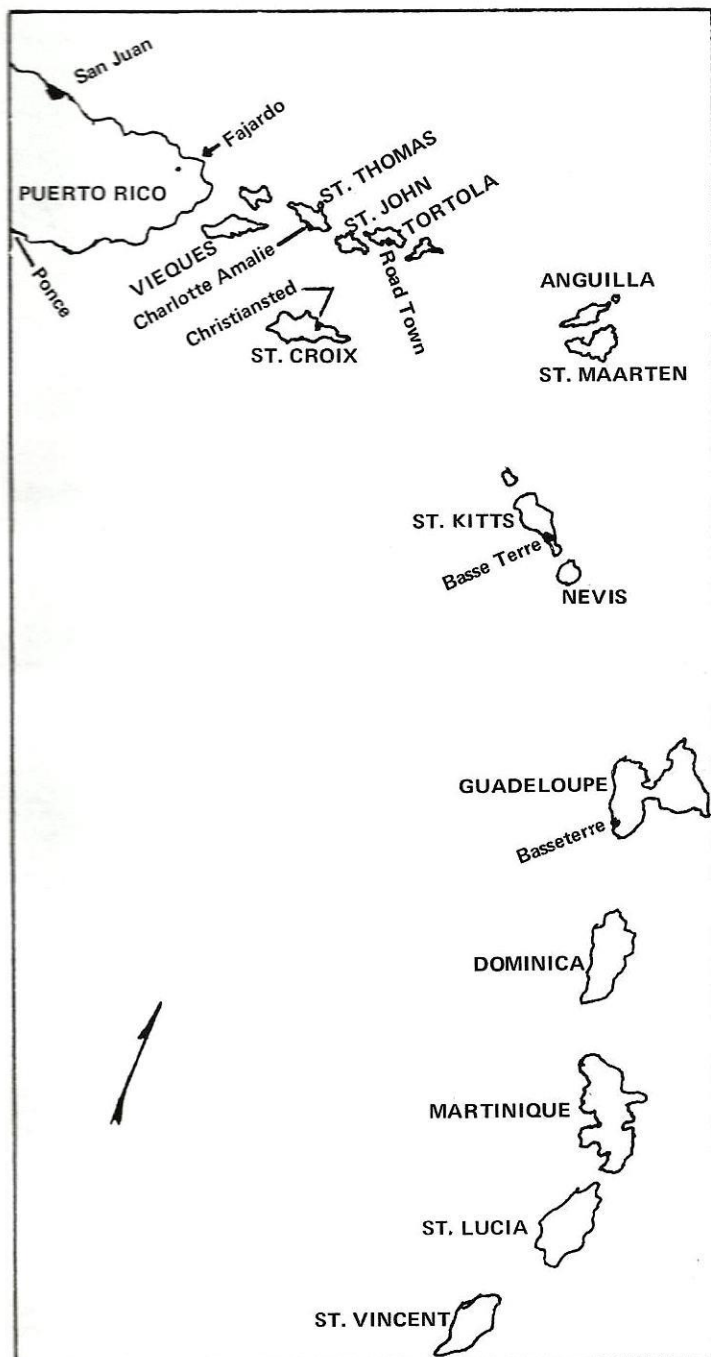
Antilles Air Boats has been fortunate, from the safety point of view; there was but one "write-off" crash in St. Thomas Harbor in February, 1970, which resulted only in cuts and bruises of the face for the pilot. Having lost an engine on takeoff, the pilot violated a company rule requiring that he land straight ahead, and

Unloading baggage and mail from cargo hold of N777 at Charlotte Amalie, St. Thomas, V.I. (Photo - Frank Strnad)



Grumman flying boats taxi directly onto concrete apron near center of downtown Charlotte Amalie. (Strnad)





instead attempted to turn back with full power on the good engine. He lost directional control, hooked a wing-tip float and cartwheeled spectacularly into the water. This G-21A, with a broken nose, lay alongside the Sikorsky VS-44A at the Charlotte Amalie facility.

Several months later the company suffered slight embarrassment when another G-21A aborted a takeoff at Christiansted; it wound up on the reef with its bottom holed. Blair went out to the reef and sized up the situation. Starting the engines, he drove the Goose back across the reef, managed to get it on the step for a high-speed dash across the harbor, then lowered the wheels and climbed up on the ramp. The boat was repaired and soon flying again.

The pilot roster of Antilles Air Boats included 19 captains by 1971, including Don McDermott. Most of the others were flyers retired from the Air Force and Navy who have found the Virgin Islands and flying boats an irresistible combination. Several were ex-fighter pilots, including Colonels Robert Scott and George Ruddell. Only the PBY's carry copilots.

It seemed remarkable that flying boats thirty years old could be kept in first class flying condition when parts were becoming difficult if not impossible to find. Antilles personnel were understandably proud of their ability to keep them going, "until the year 2000" if need be, "making our own parts if necessary." They could not imagine the extinction of the air line due to its equipment wearing out. The Pratt & Whitney Wasp Jr. R-985 engines of the G-21A's were much praised, often running 1200 to 1400 hours between overhauls.

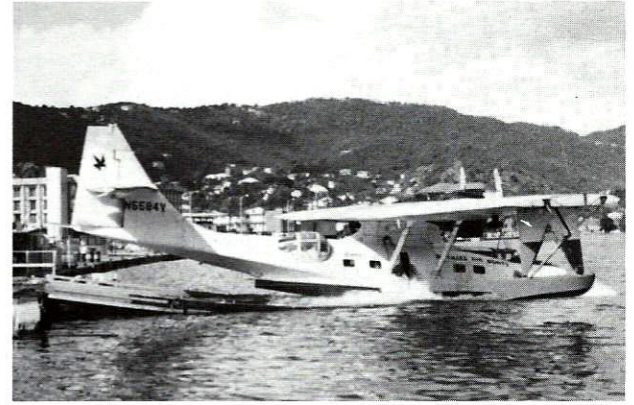
The Grumman G-21A's, with one exception, were as delivered from the factory in 1940-45 with two 450 hp R-985 engines. The exception was the recently acquired N 8229 which had, while in the hands of the Canadian Boylen Engineering Company, experienced a McKinnon conversion with retractable wing-tip floats mounted on a single strut. This increased the air speed 7 to 8 mph, and better yet, the permissible gross takeoff weight to 9200 lb. (from 8000). Blair considered similar conversions for those on the San Juan route, despite a cost of \$10,000 each.

Instruments in the Grummans were simple, as befits a daytime VFR operation: ASI, gyro horizon and compass, magnetic compass, altimeter, bank and turn, oil pressure, oil temperature, manifold pressure, RPM and EGT for each engine, glass sight-gauges in the rear corners of the cockpit for the two fuel tanks in the wing roots, and a Narco Mark XII or Genave Alpha/200 nav/com radio.

The PBY Catalina aircraft were of two types, the 20-passenger PBY-5A having standard 1200 hp R-1830 engines, and the two 28-passenger "Cats", Convair CV285ACF's with 1700 hp R-2600 engines.

As to plans for the future, General Blair anticipated becoming the certified regional air carrier and flag line of the Virgin Islands, but also as serving the local area with water-borne equipment. The city of Ponce, on the south coast of Puerto Rico, with nearly 300,000 inhabitants, was an immediate goal, and Antilles AB intended flying into there at first via Fajardo, later directly. As for expanding in the opposite direction, down the Leeward Islands, the amount of traffic would not compare with that between St. Thomas and St. Croix, or the U.S. Virgins and Puerto Rico, thus "Antigua is the farthest we would think of going".

Could the Antilles Air Boats success formula of downtown to downtown, city to city, waterfront to waterfront, with seaplane equipment be exported from the tropical paradise of the Virgin Islands to colder climes? General Blair felt that such a service would be the answer to the short-haul air traffic problems of the Northeast Corridor of the United States, with routes serving Boston, New York, Philadelphia and Washington, landing in Boston and New York Harbors, and on the Delaware and



Potomac Rivers. IFR operations would be necessary in this less friendly climate, but on the other hand the "boats" would be operating at low altitude, below the jet traffic and would avoid the large land terminals. Though in winter the water runways might occasionally freeze or be cluttered with ice, Blair did not consider the ice problem of great significance. Within his own experience, American Export flew into New York regularly for the five year period 1940-45 without a diversion.

ACKNOWLEDGEMENTS:

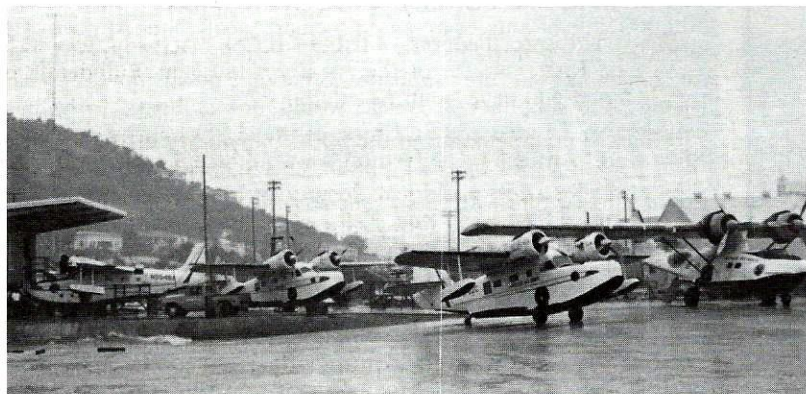
Especial thanks are due to General Blair, who ensured full information on the history, organization and operation of Antilles Air Boats; to Captains Albert Terwilliger, Robert Laturner, and Don McDermott, and to Fran Smith and Mary Simpson, the secretaries of the Company. We are indebted to Kurt Miska for factory data on the Grumman G-21A, and to Frank Strnad for much time and effort in obtaining additional photographs.

NOTES AND REFERENCES:

1. *Wall Street Journal*, March 5, 1969.

Above left, the "Standard" 21 passenger Catalina, N5588V on the "PBV" ramp at Charlotte Amalie, and on the right, at another time, the "Super" Catalina has just launched. (Frank Strnad)
 Below left, the main AAB overhaul facility at Charlotte Amalie on a rainy day, At right, Grumman Goose N2003, leaving the dock. (Strnad)

Opposite page:
 N7777V, ex-EX-URF, typical of the 10 passenger flying boats, returning to main base. At right, the "Super", N2763A. Center left—the passenger entry is through the former waist gun position on Catalinas. (Strnad) Center right—By March 1972, as reported by Photographer Frank Strnad, the VS-44A was being painted, mounted on a concrete base, and in process of being converted to a hot-dog stand. (Dr. Robinson)



The origins of Antilles' fleet aircraft were quite diverse. Grumman shop numbers indicated that at least one G-21A was built as one of 184 U.S. Navy JRF-5's, another as one of 50 JRF-6B's. They were procured from points literally all over the world; the company's roster, revised in December 1970, showed the following:

Reg. No.	Ser. No.	Procured
Grumman G-21A		
N 5548A	75-7661	Found in Florida, South East Airlines.
N 2003	B-141	Found in Florida, Dean Franklin
N 777V	B-111	Used by a Canadian Catholic priest on mission work in the Amazon basin; Antilles Air Boats took delivery in Canada.
N 8777A	7752	Spotted by General Blair while on a Pan Am flight through Tahiti, flying Tahiti to Moorea with Air Polynesia. From Alaska Coastal Airlines.
N 4762C	B-60	Same
N 79901	B-88	Same
N 79914	B-88	Same
N 328	L42-122839	Catalina Airlines.
N 48550	---	Alaska Coastal Airlines.
N 4005	B-11	Found in Florida at Ft. Lauderdale.
N 703A	1141	Florida, South East Airlines.
N 3283	B-29	From Argentine Air Force.
N 3284	B-53	From Paraguayan Air Force.
N 8229	1178	Private aircraft of Cuban dictator Gen. Fulgencio Batista to 1959, then Boylen Engineering Co. of Canada (CF-1FN). McKinnon conversion.

CONSOLIDATED/V PBV5-A

N 5588V	08101	Bird Aircraft, Palm Springs, CA.
---------	-------	----------------------------------

CONVAIR CV285ACF

N 5584V	46482	Alaska Air Lines.
N 2763A	21232	Alaska Air Lines.

SIKORSKY VS-44A

N 41881	4402	Catalina Air Lines.
---------	------	---------------------



ABOUT THE AUTHOR

Dr. Douglas H. Robinson, an M.D. of Pennington, New Jersey, has been a consistent contributor to the Journal since Volume 4 (1959), usually with LTA subjects, but ranging widely in many others. Since his first article, "The Loss of the German Naval Airship L 62 on May 10, 1918" in Vol. 4, he has become the foremost expert on dirigibles, with a new book, *Giants in the Sky* now at the press. Vol. 5 included a precise analysis of the loss of the HINDENBURG which has not been overturned yet even in the "popular press". Vol. 15 brought his "Old Ithaca Airport", a description of the early home of the Thomas Brothers, and the place where he learned to fly gliders and soloed in powered flight.

This year will also see his history of Aviation Medicine, entitled *The Dangerous Sky* which has now been galley-proofed at the printer's.

HISTORIC T-2 FLIGHT COMMEMORATIVE MEDAL AND SPECIAL BOOK READY

The historic transcontinental flight in 1923 by Lts. John A. Macready and Oakley G. Kelley was commemorated on 27 April 1973 by the presentation of a medal to Col. Macready. The presentation was made by Lt. Gen. James H. Doolittle at a banquet in Los Angeles, attended by many famous aviation personalities and friends of Col. Macready. In addition, letters of congratulation to Macready were read before the assembled guests, including those from President Richard M. Nixon, Governor Ronald Reagan, Michael Collins, Louis S. Casey, Donald Douglas, Sr., and John K. Northrop. Col. Macready attended the banquet accompanied by Mrs. Macready and their daughter, Mrs. Sally Macready Liston.

Congratulatory addresses were given in person by James G. Haizlip, by representatives of the U.S. Air Force, and many

airlines. The special address, a tribute to Col. Macready, was given by Royal Frey, Curator of the Air Force Museum. Full details of the banquet will be given in *Newsletter 27*.

The medal commemorating the 50th Anniversary of the Flight of the T-2 was struck by the Franklin Mint in collaboration with the American Aviation Historical Society in both silver and bronze. The faces of Macready and Kelly are in relief on the face, with the Fokker T-2 airplane depicted on the obverse.

A special, limited edition of 496 copies of the book, *The First Non-stop Coast-to-Coast Flight and the Historic T-2 Airplane* by Louis S. Casey, long out of print, was bound in hard cover with gold finish for the occasion. Both medal and book are available through the A.A.H.S. Book Service.