



TO AUSTRALIA BY

The Pipers were accompanied on their transpacific ferry flight by this Twin Comanche, flown by AOPAer Walt Moody, a professional ferry pilot who has made some 90 aircraft deliveries to Australia.

Photos by the author

The Pipers pose beside the Aztec before departure on the 10,511-mile flight from Lock Haven to Australia.



■ ■ If the Pacific were always as Pacific as it turned out to be during our recent trip to Australia, and if things always went as well with the airplane and equipment as they did for us, flying across that vast "pond" would be a cinch.

The various authorities that might be involved would probably frown on making this trip sound easy, for fear of encouraging unqualified pilots to try it. So it should be understood that under different conditions, this could be a hazardous undertaking. But on this trip no bravery was required.

It has been said that if one can cope with the weather throughout the United States, he should have little trouble with weather in the rest of the world, since the weather in our country includes practically all of the bad conditions to be found anywhere.

The only moments of any concern at all during our 59-hour, 17-day jaunt to Australia came in cutting a little too close to a mammoth thunderhead over Nebraska, and in taking off in formation with a *Twin Comanche* into a 500-foot ceiling at San Francisco. The *Twin Comanche* and our *Aztec* were on a joint flight plan, and in going out through an overcast about 2,500 feet thick, it was necessary to fly a close formation to keep together. San Francisco frequently has a low overcast early in the morning, and that of June 19 was no exception.

Flying the *Twin Comanche* was a competent and experienced ferry pilot, Walt Moody (AOPA 149243) of Globe Aero, Lock Haven, Pa. Walt has now

*Silk-smooth weather
conditions and careful
preflight planning made this
transpacific ferry flight
a routine but enjoyable
venture; yet it is not a trip
recommended for the
less than thoroughly
accomplished pilot*

ment flight leaving San Francisco and a couple minutes of letdown approaching Hilo, Hawaii, perhaps a total of 10 minutes on instruments was all that was necessary for the entire trip to Australia. The rest of the flying was in clear air over a low deck of clouds or over open water. It was generally about like flying from Miami to Nassau, only a little longer.

The 2,400-statute-mile flight from San Francisco to Hilo was estimated to take 15 hours, 15 minutes, figuring on no appreciable help from the wind and a true airspeed of 160 m.p.h. Only 50% power was used to stretch the range, at an altitude of 6,000 feet. Lower altitudes are used going west to stay out of prevailing westerlies at higher flight levels. As the flight turned out, there was a plus wind component of 15 m.p.h., and with an average TAS of 165 the ground speed came up to about 180 m.p.h. and the elapsed time 13 hours, 17 minutes.

This may sound like a long time to sit in the rather cramped quarters created by having cabin fuel tanks mounted as far forward as practicable, but between eating lunches, doing paper work, monitoring radio communications, monkeying with the ADF, checking positions on the San Francisco Consolan and sleeping, the hours went quickly. Well before expected, there were the twin peaks on Hawaii, Mauna Loa and Mauna Kea, visibly projecting up through the clouds perhaps 150 miles away.

Navigating on this run is simple enough. First, an accurate magnetic heading is computed, using forecast winds. In our case, one heading could be followed all the way to the Ocean Station November, supposed to be about on our course and roughly halfway across. Then a slight change in heading took us the rest of the way. As it happened, the ocean station ship was 100 miles south of its normal position, and was used only to obtain an abeam point. Some 800 miles out of Hilo, a good aural signal was received from standard broadcast station KPUA at Hilo, and 550 miles out an accurate ADF heading was obtained. It was only

necessary then to fly the ADF indication to Hilo. At about 100 nautical miles from destination, the local omni station was received.

As far as 1,900 miles out of San Francisco the Consolan station located just north of that city was usable. Consolan sends out a series of dots and dashes every minute. By counting these and plotting on the aircraft position chart a line from the station according to the signals received, an accurate bearing can be established. Two Consolans would give a fix, but unfortunately there is only one station in this part of the world, so only bearing can be determined, not distance out.

As a safeguard, Pacific Ocean-hoppers must give a position report over high frequency radio for every 2½° of longitude they travel. This is to keep Aeronautical Radio and ATC abreast of the progress of the flight.

Since wind forecasts are only approximations and, therefore, ground speeds can only be estimated, position reports are calculated before the flight and given at the predetermined time under the assumption that the predicted speeds are correct.

Hilo was used as the destination in the Hawaiian Islands because it is some 100 miles closer than Honolulu and also an easier stop to get into and out of. Going through Customs here as well as at all of the rest of the stops en route caused no problems and no appreciable delay.

The Island of Hawaii, the largest and easternmost of the islands, is a delightful and fascinating place. Two large volcanoes in the center of the island have been active in recent decades; Mauna Loa destroyed two villages as lately as 1955. Many square miles of disintegrating black lava flows cover the center of the island, although most of the terrain has the usual lush, tropical vegetation.

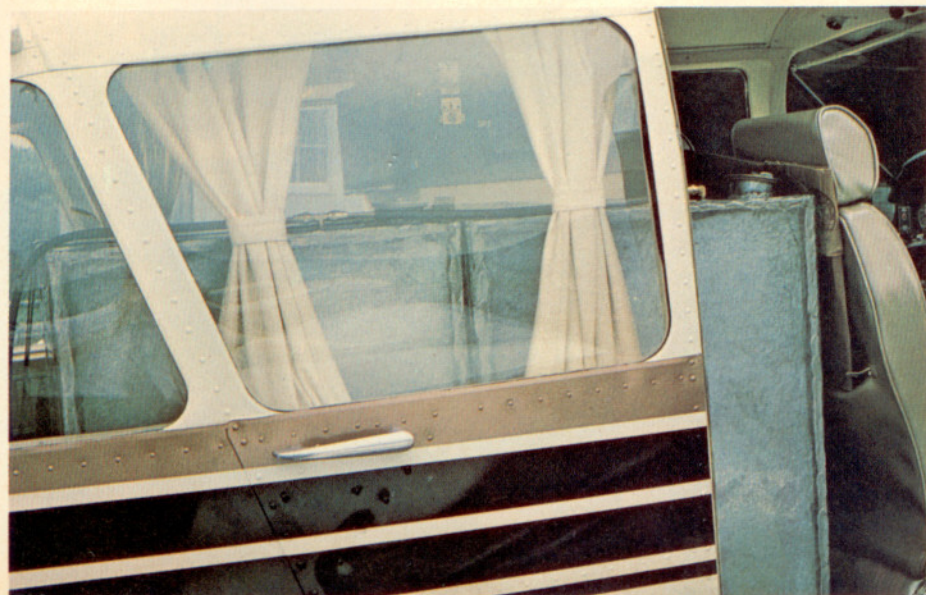
From Hilo to Honolulu is 200 miles up the island chain, a beautiful, scenic and easy flight. From Honolulu to Canton is the second longest leg of the flight, 1,925 statute miles, covered in 10.7 hours. [After this article was written, Canton was closed. It is necessary for ferry pilots going to Australia to fly nonstop from Hawaii to Samoa, a distance of about 2,700 statute miles.—Author] Canton is 3° south of the equator, and an equatorial front almost always lies across the course. On this trip, the front was there at about 5° north, but it was very weak and resulted only in a few minutes of dodging or flying through clouds. The winds aloft are usually east-northeast and the course is about 200°, so there is a small helping wind.

The Aztec was fitted with two extra tanks of 105 gallons each, giving a total fuel capacity of about 354 gallons. Cruising at 50% power burned about

by HOWARD PIPER / AOPA 97315
Vice President, Piper Aircraft Corporation

made some 90 trips to Australia, as well as about 200 other ocean crossings in almost every direction, in all types of aircraft from *Cherokees* to DC-6's. His experience starts with the Air Force in World War II and includes flying B-17's out of high airports in South America with loads of tropical fish. Now he ferries most of the Piper aircraft flown from U.S. factories to Australia, for delivery to Ansett General Aviation, Piper distributor in Australia. Usually only the twins are flown over, the rest being crated and shipped, but occasionally a single-engine plane needed in a hurry will be ferried. One of the new *Arrows* recently was delivered by Globe Aero.

Including the five minutes of instru-



With auxiliary cockpit fuel tanks installed for their lengthy overwater flight, Howard and Helen Piper found their Aztec quarters limited but still comfortable.



On Samoa, the Pipers lingered long enough to visit this native village.

18 gallons an hour, so with full cabin tanks the range was about 20 hours or 3,400 to 3,600 statute miles. The landing at Hilo was made with about seven hours of fuel remaining. With full fuel, gross weight was close to 5,700 pounds—500 pounds over normal gross and just within the 10% overload allowable for ferry flights.

It wasn't necessary to carry so much fuel on the shorter flights beyond Canton, so cabin tanks were left partly empty. From Canton to Samoa is 800 statute miles, from Samoa to Fiji 686, from Fiji to New Caledonia 950, and from there to Sydney 1,230 miles.

It would be rather difficult to miss, because of radio failure or some other emergency, any of our island stops below the equator except Canton. The rest are parts of groups of islands presenting wide targets. Canton is all by itself, however, and loss of radio aids along with a minute error in navigation could leave one searching around in a mighty big pond for an insignificantly small piece of coral. With two aircraft, the chances of losing all radio navigation were negligible.

A 2° error in navigation would place an aircraft about 70 miles off course at a destination as far away as Canton. We were surprised to find on a couple of our longer legs that we seemed to be dead reckoning almost exactly on course, as determined by flying over coral atolls that happened to lie precisely on the course line.

Canton has a powerful low frequency beacon, which was picked up one hour, 45 minutes out of Honolulu, but was really usable six hours out, or 885 miles from Canton.

It's too bad that Canton can't be reached in some practical way other

than by a ferry flight through the area. It is now only a tracking station for satellites, an emergency airstrip, and a weather station. There are 40 to 50 men stationed there, most of whom are to be transferred to more active stations. An FAA contingent will evidently remain.

Canton is a wonderful stop; it's just a 10-mile-wide atoll, perhaps 15 feet high in places, surrounded mostly by fish. The climate is constant and pleasant, quarters are comfortable, food is excellent, and the inhabitants seem to be pleased to see new faces. It is probably the fishiest place we've ever visited, being extremely isolated and in a natural marine reserve.

Sharks of all sizes and types are so common that swimming or even wading is done with caution. In catching tuna or other game fish, it is necessary to pull in the catch quickly by hand line in order to avoid having it chomped off by a shark. Bonefish can be caught most any time with a minimum of ef-

fort, and grouper up to 300 pounds are underneath one of the docks.

American Samoa and Fiji, while reasonably interesting, were not nearly as appealing to us as Canton and the last island stop, New Caledonia. The former was fascinating mainly because of its fish, and the latter presented the South Sea opulence of tropical vegetation, climate, native culture, and scenery in greater degree than the previous stops.

Australia makes a great impression. It seems much more Americanized, for better or for worse, than almost any other part of the world not directly related to our country. The Australians align themselves more with our policies and ways of doing things than with those of England. An American, therefore, feels quite at home in Australia.

With only about 12,000,000 people in a country as large as the United States proper, Australia obviously presents a tremendous potential. It is a progressive, aggressive country. The climate seems better than ours, in general. Since the Australian continent stretches from 39° south of the equator to 10° south, compared to 49° to 25° north for the United States, the winter climate is much more temperate.

Sydney, the largest city, is about at the latitude of Los Angeles or Charleston, S.C.; and Melbourne, the southernmost large city, is about as far from the equator as Washington, D.C., but in the opposite direction. July temperatures in southern Australia may get down into the 30's or 40's, but there is almost never any snow except in the mountains.

Australia, like many other less-developed countries, has an acute need for aircraft and apparently a great interest among its people in learning to fly. Large aero clubs and flying schools flourish at the major cities, and aircraft are used extensively as a primary means of transportation throughout the country. Australia, therefore, proves to be an important market for imported aircraft. About 140 Piper airplanes were delivered there in 1966, and in 1967 Australia is second only to our Euro-



Continuing their journey from Australia to New Guinea in a NavaJo, the Pipers landed on this mountain-rimmed airstrip.



Among the many scenic beauties experienced by the Pipers during their Aztec flight from Lock Haven, Pa., to Australia was this coral atoll between New Caledonia and Australia.

Flight Log—Lock Haven, Pa., to Sydney, Australia

Leg	Miles		Hours	Statute m.p.h.	Gals. Fuel U.S.	Fuel Cost
	Nautical	Statute				
Lock Haven—Omaha	807	930	5.5	168	95	\$ 41.59 @ 44¢/gal.
Omaha—Salt Lake City	755	870	4.9	178	86	42.14 @ 49¢
Salt Lake City— San Francisco	538	620	3.3	188	190	95.95 @ 50.5¢
San Francisco—Hilo	2,083	2,400	13.3	180	—	—
Hilo—Honolulu	174	200	1.3	150	220	108.14 @ 46¢
Honolulu—Canton	1,671	1,925	10.6	180	121	44.29 @ 36.6¢
Canton—Samoa	694	800	4.5	177	—	—
Samoa—Fiji	595	686	4.0	177	101	36.36 @ 36¢
Fiji—Caledonia	738	850	4.5	188	179	64.44 @ 36¢
New Caledonia— Sydney	1,067	1,230	7.3	178	—	—
Total	9,122	10,511	59.2	—	992	\$432.91

Average speed: 178 statute m.p.h. Average fuel consumption: approximately 18.5

pean office in number of aircraft sold.

After delivering the Aztec at Sydney and being cordially received by many members of the aviation community there, we toured some of the major cities in Australia by *Navajo*, then spent several days in the Australian territories of Papua and New Guinea, on the Island of New Guinea, a few hundred miles off the north coast of Australia. For the most part, this is a primitive part of the world and as such holds more interest for the tourist than other areas. Some of the betel-nut-chewing natives must be among the world's most repulsive people.

New Guinea is largely volcanic mountain, up to 13,000 feet. Since road or rail travel is next to impossible, it is covered with small missionary or community airstrips, frequently short and at high elevations. It was gratifying to find that the *Navajo* would go into and out of many of these fields without strain. Several *Navajos* will soon be operating in New Guinea, in the hands of a remarkable local airline, Patair of Port Moresby, Papua.

The return trip from Sydney to Florida via Tahiti and Mexico in an almost empty Boeing 707 (21 flight hours) provided a sharp contrast to the Aztec flight out. Still, given the choice, on the way out we would take the *Aztec*—or perhaps a *Navajo* or *Twin Comanche*—every time. There is still plenty of opportunity for adventure if one really goes after it. □