EDITOR'S NOTE: Author-editor Karant and his passenger, an FAA official, flew to Argentina in a lightplane in order to gain information on flying conditions in Latin America which would be useful at the ICAO conference they were to attend. This first part of a two-part article concerns the flight down to Buenos Aires. The second and concluding part, describing the flight back to Washington, will appear in the May issue of The PILOT.

by MAX KARANT / AOPA 18

Flying around rim of South America presents many challenges but it can be a very satisfactory experience if care is exercised. AOPA senior vice president, on 12,861 NM business trip to Buenos Aires in Twin Comanche, gets 'full treatment' from elements, rugged terrain and uncharted lands

ADVENTURE SOUTH

(PART I)

■■ Flying around the rim of South America is adventuresome, romantic, fun, and fascinating.

It can also be downright dangerous, particularly to Yankee pilots who take our 20th century way of flying around the United States blindly for granted. But once you adjust your thinking, and pull back into low gear, so to speak, visiting South America with your own plane is well worth the effort (and most, if not all, of the cost).

I flew my *Twin Comanche* from Washington National Airport south to Florida, down the Bahamas, the Turks and Caicos islands, across the Dominican Republic to the Netherlands Antilles, over to Colombia, down the west coast of South America to Santiago, Chile; across the Andes to Buenos Aires. Then back up the east coast of South America, through the West Indies, past Puerto Rico, and back up the Bahamas to Florida and Washington. From the spot in front of Hangar 9 of Page Airways at Washington National back to the same spot was 12,861 nautical miles (14,790 statute miles), and flying time was 88:16 at 65% power. I estimate I used 1,324 U.S. gallons of fuel at an average of 15 g.p.h. Of my total flying time 80:31 (91.2%) was VFR, 07:45 (8.8%) IFR.

Purpose of the trip was to participate in the South American-South Atlantic regional planning conference of ICAO (International Civil Aviation Organization, an arm of the United Nations), where I was the delegate representing IAOPA. A total of 20 countries, seven organizations and 219 people participated in the 25-day conference. The conference worked in depth on civil aviation operational matters ranging from airways through communications, navigation aids, meteorology, airports, charts—the entire fundamental gamut of civil aviation's requirements throughout the continent. It was the first time IAOPA had been officially accredited to this particular regional conference.

Because of the depth and scope of the conference, it was essential that I know as much as possible about general aviation flying conditions in the area. The only information of a first-hand nature that I had, other than from rather sparse reference books and other documents, came from members' reports to AOPA's Flight Department. I didn't feel that all of it combined was enough to qualify me to tackle such a conference by myself. So I concluded that the simplest way would be to fly my *Twin Comanche* down to the conference and back, and

The author's first sight of land after leaving U.S. mainland on Sept. 5. This is airport at Bimini; photo was taken from 7,500 feet.

see for myself. Looking back now, I feel it was a wise decision. By the time I arrived at Buenos Aires, I at least knew a little bit about most major matters affecting general aviation down there. An additional dividend proved to be very useful: once the various delegations found that I'd flown my own plane all the way to the conference from Washington, to a man they proved surprised, friendly, helpful, most considerate, and invariably respectful. That public relations proved almost as good as a second man on the IAOPA delegation.

Up to this point, I've used the term "I" very broadly. I didn't go alone. I'd thought of taking a passenger, preferably someone going to the same conference, but I didn't think about it very vigorously. Roys Jones (AOPA 34722), AOPA's air traffic control expert, was going as a member of the U.S. delegation, so I figured he'd probably want to go with me. But he was also AOPA's man on the team investigating that Asheville, N.C., midair collision between the Boeing 727 airliner and Cessna 310, so he had to stay at that task right up to the time his airliner took off for Buenos Aires. I had to go a week before the meeting started.

But one day, when Jones was down at FAA headquarters participating in the advance planning of the U.S. delegation to the conference, he mentioned my flight to Romney E. ("Pat") Pattison, who was to be the Number 2 man on the U.S. delegation. He's a former Pan American navigator and is now in FAA's Office of International Aviation Affairs. Jones told me Pat sounded interested, so I contacted him. Yes, he could get off a week early. No, he didn't smoke. Yes, he promised faithfully he would teach me to use the sextant I'd bought sometime before, but had never been able to learn to use. But even though the sextant's carrying case was never so much as opened once on the entire trip, I lucked out anyway. Pat turned out to be the nicest, most enjoyable, most helpful guy I could possibly have found. He was even lightweight, so the plane flew a little better even with all the stuff we had packed into it.

Having flown planes in various other countries outside the United States, I was particularly sensitive to the fact that there were sure to be many pitfalls on this flight, inconveniences and hazards that a general aviation pilot normally wouldn't encounter in the United States. Because there are only a few VOR's in South America, no DME's, a transponder is useless, and so on, I knew that I first had to focus on the plane's equipment that I would be using throughout the trip. It was elementary: the engines, gear and flaps, spare supply of Aeroshell W oil (which I never had to use), spare spark plugs, a double check on the SG-100 slaved gyro for heading accuracy, a thorough and careful checkout of the Brittain B-4 autopilot, and—above all—a full-blown checkout of the ADF-31. The two Mark 12's were in excellent condition, even though all I'd be able to use them for most of the time was VHF communications. One piece of equipment I tried hard to rent or borrow was an HF set for long-range communications. Neither SunAir nor Pantronics could spare one, something I regretted a number of times during the trip.

To fly a modern airplane around South America the way I did is like drifting out of the 20th century into the 19th. Even the most economically equipped cross-country general aviation plane here has hundreds of VOR's available to him throughout the country, hundreds of VHF communications stations, hundreds of outlets for instant weather information, a vast network of radars, and thousands of airports. In South America you dare not take any of this for granted. Nor must you take for granted that even the sparse low-frequency homing beacons will even be on the air when you get in the vicinity. Or that a communications station will answer you, whether you're IFR or not. The charts may be wrong or out of date. The airport you're headed for might not even be there any longer. Or, if it is there, they may have run completely out of fuel (as happened to me once).

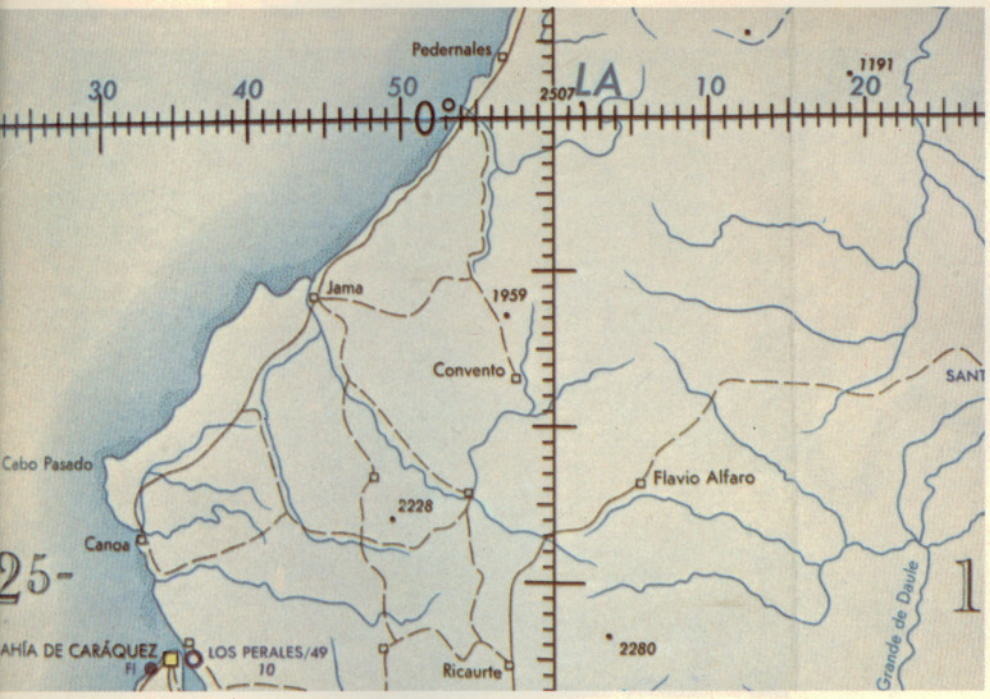
Sensing all this before even gathering the preliminary charts, I went to work on a detailed list of "outs." This is the only way a U.S. pilot can actually protect himself. Here are some of my outs:

In the first place (and second and third), above all else, you should have an instrument rating, and you should know how to use it under a wide variety of unexpected circumstances. It's not that there's more IFR weather down there; it's because, once you get in the air, you're all alone. From the moment your wheels leave the ground you must be able to rely on your own wits, ingenuity and experience, because—with few exceptions—there's nobody on the ground to help you, like the FAA here at

South Caicos, 547 NM from Fort Lauderdale, first RON stop out of Washington for N13K and "crew."

FAA's Pat Pattison, the author's passenger on the 12,861 NM flight to south and back to Washington, is unloading their baggage at Curaçao, Netherlands West Indies.

Color photos by the author



TOP: Medellin, Colombia, from 9,500 feet. N13K had been weaving back and forth through high buildups and mountains since leaving Barranquilla, which is flat jungle country. Now in the Andes, Karant couldn't stay low. Just to the left in the picture is a 9,100-foot mountain on top of which sits the city's omni station. This country is so rough that you have to go in VFR; there is no IFR approach.

MIDDLE: Here is where Karant crossed the equator along the west coast. Weather was bad and N13K was on top of a solid overcast. Actual crossing of the equator occurred at 1555Z, Sept. 8, at 10,500 feet, with the pilot using 275° radial from the Quito VOR for fix.

BOTTOM: Pat Pattison checks up on mileage at Talara, Peru. At this point, Sept. 8, he and the author were 3,433 NM from Washington (23:28 flying time). Buenos Aires is still farther away than flying distance between New York and Los Angeles.

home. Yet, instrument rating and all, you should fly VFR as much as you possibly can with safety.

The *Twin Comanche* itself has a set of welcome outs. Normal endurance for the 90 gallons of fuel at 65% power is just over 06:00, so I planned each leg accordingly. I not only had reasonable assurance that my destination was attainable, but I also had a couple of other places I could go, just in case. When IFR, I had to be reasonably certain of being able to get to some kind of alternate and with some reserve on top of that.

Kitty Howser, head of AOPA's Flight Department, got me every kind of map or chart that pertained in any way to flying down there. The basic navigation chart proved to be the U.S. Air Force's ONC series, which were half again the width of the cabin; the only way Pat and I could open one up for use in the air was to turn the plane over to the autopilot, then both of us unfold and refold it. For the routine navigation we used the USAF radio facilities charts for the entire area.

Then there were the previously mentioned outs involving the oil and spark plugs. We also had a few tools, although I can barely tell the front of the engine from the back. Kitty sent all sorts of precautionary paper work ahead, to each of the countries on my itinerary. Every leg was plotted out in advance, plus some alternates, complete with a check on all radio aids. Then I had instrument approach plates (again, USAF) for just about every equipped airport on the whole continent. I even did a little practicing on ADF approaches.

Some of the most important outs you carry in your head, such as, if a tower clears you to land or take off, don't instinctively believe it, as you do in the States. Look around, carefully. If the traffic control system in any country clears you IFR at some altitude, and you're actually on instruments, keep your eyes and ears open at all times, and stay alert. You're liable to hear someone else call in at your altitude. Or, if they're talking Spanish or Portuguese, listen closely for some key word you

Available aeronautical charts are one of many aids to the pilot flying to South America that should be used with great care. This is typical. It's the latest USAF ONC chart, the most accurate available and is still incomplete. Even though this particular chart shows area around Quito, Ecuador, note that only part of the rough country—containing mountain peaks over 20,000 feet—is completely charted.

During a substantial part of the year heavy low clouds often form at sea, along Peru's Pacific coast, and roll in to shore where they hang (upper right). The author measured them a few times and found that they were approximately 2,000 feet thick, with 3,000-foot tops and 1,000-foot bases. This low cloud cover was shot Sept. 9 at 1643Z in the vicinity of Ocona, Peru, from 9,000 feet. Picture below shows how the clouds look from 500 feet while following the coast. Dropping below the overcast and flying VFR out to sea in search of a hole is the procedure frequently employed to get to an airport that is under the clouds. Airline pilots told Karant that this procedure often was employed to reach Lima in the old days before ILS and the big airport.

understand, then call the other pilot in English; very often he speaks it, while the man on the ground doesn't (despite the fact that English is supposed to be the international traffic control language).

Do your best to learn a little basic Spanish (you can also get along with it in Brazil). But if you're stuck with English, be very careful. Many English-speaking controllers say what sounds to you like the right things, but often don't understand what they're saying themselves.

Get and have handy all the conversion tables you'll be using frequently, such as those having to do with millibars, meters, kilometers, and so on. If you can't get the tables themselves, get the conversion formulas so you can convert most of these things with your computer. Then practice—before you even leave home. You have no business trying to figure out where you start looking for the conversion from millibars to inches of mercury when you're on instruments, in heavy rain, icing up, trying to pick up the only low-frequency homer in the area on your ADF through all the rain and snow static, especially when you're in a valley of the Andes as I was, trying to make an instrument approach into Santiago, Chile.

Whatever you do, don't be indifferent about any of these things. You must be as self-sufficient as possible. Never can you rely on the same level of safety that you automatically take for granted at home. Don't lend or give any of your charts to anyone; they're all you have, and there's no place within thousands of miles to get replacements. Be persistent about getting *any* weather information you can get; if you can't ask the right questions yourself, find someone who can. But see that they're asked and answered; once your wheels leave the ground you're on your own. If one of the few ground stations doesn't answer your calls, try to raise a pilot in the air; most of the airline pilots speak English. Remember: nearly all airliners down there carry HF radio and can get weather from distant stations.

In many ways, the airliners are in the same boat you're in. Yes, they have deicers and HF radio, and usually can get above a lot of the weather you're liable to have to fly in. But it's common for Boeing 707 and Douglas DC-8 jet airliners to make instrument approaches to airports all over South America, using nothing but an ADF—just the way all

instrument approaches were made in the United States 20 years ago with the small, slow airliners of those days.

What with our baggage, camera equipment, tape recorder and all the assorted outs for the plane (the charts themselves must have weighed 10 pounds), *Twin Comanche* N13K was pretty full when Pat and I fired up the engines on the morning of Sept. 5 at Washington. The weather was good, so we flew VFR to Jacksonville, Fla., for gas. Then on to Red Aircraft at Ft. Lauderdale for more fuel, a couple of life vests and a two-man dinghy. Then nonstop to South Caicos, where we landed for the night, 09:19 out of Washington.

Next morning off for Curaçao, Netherlands West Indies. Flew out to sea from South Caicos, across the Dominican Republic at 7,500 feet among beautiful billowy clouds in a deep blue sky, then out to sea direct to Curaçao where we landed 04:03 out of South Caicos. We'd decided to stop there for the night so we could spend the rest of that day sight-seeing and looking around the bountiful free-port shops of Willemstad. We rented a VW for $8 a day flat, no limit on miles. The airport is named after a Dr. Plesman, and everything is typically Dutch; neat, clean and efficient.

Though there wasn't a cloud in the sky the next morning, visibility was 100 miles, and there wasn't a moving airplane to be seen anywhere, I got what would amount to a full-fledged IFR clearance before I could take off. "Climb after takeoff on a heading of 340 to FL 40 (4,000 feet; every altitude in South America is a flight level. FL 5 is 500 feet), proceed unrestricted to FL 85, then proceed on course." Out of curiosity, I asked the tower why the elaborate clearance. They apparently always give some such clearance to everyone, and in this case there was a single airplane on its way in from the nearby island of Aruba. This is typical everywhere in South America. All the aviation facilities play this supersafe game to the hilt—while you're on the ground. Once you're airborne you've got nothing left but those outs I mentioned earlier. But all the aviation authorities throughout South America talk a great game of safety.

Next stop Barranquilla, Colombia, for gas. It was hot and sticky; everyone connected with the airport seemed to be carrying some kind of gun. Even though I had only landed for fuel, I had to give them four completed general declaration forms and pay them $6 for having landed there at all.

Only after I'd been in the air for a while out of Barranquilla did I find I'd made my first mistake: I'd left the filling of the tanks to the swarm of men who came with the gas truck and surrounded the plane. They neglected to fill one main tank, and I neglected to either stay

At right is the pass between Santiago and Mendoza, Argentina, where the the author had to turn back because it was blocked by a blizzard. He climbed to 14,500 feet "to take a look," but turned back to Santiago when the plane flew into the first snow. The picture below was made the next day, just as N13K turned east from the radio beacon north of Santiago and headed into the Andes. Highest mountain in the area is Mt. Aconcagua. The 23,035-foot peak doesn't look so high here because N13K was flying at 14,700 feet when the picture was made. Down below, practically everything on the ground was buried —railroad, highway and even a resort building.

there and watch, or check everything afterward. Figured out we were about 14 gallons short, but still had enough to make Cali if all went well. By now it was midday and, as is always true over jungle, clouds built up to tremendous heights. We climbed to FL 105 and the tops were high above us. At FL 130 we still were far from the tops. So back down underneath where we hedgehopped VFR at FL 90. We finally went over the VOR at Medellin at FL 91, down into the Andes valley in which it lies (it's so rugged there's no instrument approach to the field), then back up again, picking our way down to Cali. I was tempted to turn back to Medellin a couple of times, but finally ended up in clear sky with heavy haze, in the valley to Cali. I kept going because I managed to get a Cali weather report from the Medellin station, although I had to insist they give me the weather instead of continually badgering me for position reports, some of them only 10 or 15 miles apart. Spent the night at Cali, 05:50 out of Curaçao. Got our first of several fleecings: the cab driver charged us $10 U.S.; the standard price, we found later, was $1.25.

We got our first true IFR out of Cali, to FL 105 in heavy rain over to the Pacific coast at Buenaventura, then south toward Ecuador. Then, after 01:30 of pounding rain, we suddenly broke out into the sunshine and clear weather. Even though I was still IFR, when I called two consecutive ground stations on their appropriate frequencies, I got no answer. After a while, we were on top of a solid overcast in sunshine. I did some careful figuring and plotted our crossing of the equator at 1555Z at FL 105. We went over Guayaquil without seeing it. Before long, the undercast dissipated and we were flying over the Peruvian desert. We landed at Talara, Peru, 04:16 out of Cali. Excellent airport, modern facilities, and the country here, and for many miles south, looks very much like the desert of California, New Mexico and Arizona—except that it's cool and right on the Pacific Ocean.

For one of the many times throughout the trip, we were reminded here that we were second-class citizens. We'd landed and parked at the Esso pumps (the majority through the entire trip were Esso), had already told the man in charge what we needed, and that we were in a hurry. He shook his head and pointed. Out on final approach was a Faucett Airlines DC-7. He wouldn't touch my plane until he was finished with the DC-7. That cost me the better part of a wasted hour. After my return to Washington, I went through my detailed notes and made a list of all places in South America which did that and reported them in detail to both Esso and Shell headquarters. All they did was thank me politely. Only other brand name I saw at an airport on the trip was Texaco at São Luis, Brazil; that's where they'd run out, and there wasn't a drop for any airplane.

Incidentally, among the most useful documents you can have on such a trip are the Esso and Shell international (not domestic U.S.) credit cards. I didn't pay one cent of cash for normal refueling on the entire trip.

The Peruvians were slow with their refueling all the time we were in the country, but they were fast as lightning at collecting a variety of fees. Just to touch the ground at Talara cost $13.69 U.S. Then there was another $5 for "reception," which consisted almost entirely of being ignored, so I never figured out what it meant. Then, of course, the gas was extra.

We cruised at FL 95 from Talara to Lima, because Lima has a low ceiling about eight months out of the year—usually about 2,000 feet overcast, with frequent drizzle. So we stayed on top of the overcast (top was 2,800 feet) in the sunshine. Lima has one of the few ILS's we used on the trip so, as soon as I could receive it, I switched the autopilot's heading lock to it, got a clearance from the tower, let the autopilot take it down to VFR conditions underneath, then landed.

We parked at the Piper facility far from Lima's modernistic terminal building, after being ordered to first taxi to the operations office under the tower. It's a Peruvian government company (CORPAC) that runs the airports. They have employees all over the place, with only a handful of airplanes to serve. But they've developed their whole program of red tape and charges; if FAA were permitted to operate that way, they'd probably have a million employees. About five otherwise idling employees gathered around to watch the Yankee fill in the voluminous paper work.

At the Piper place I asked that the plane be refueled immediately. Foolishly, I took their word that it would be. Next morning we were at the airport early and sure enough: the plane wasn't gassed. They'd phoned the main Esso facility (no one else can sell fuel, as U.S. fixed-base operators do), and the Esso people ignored them. So we called again, and again they were too busy with a couple of airliners. So we got into N13K, started the engines, taxied over to the big Esso facility, and parked right at the trucks' entranceway to the airport ramp. Then we got out and flagged down the first truck that had 100 octane painted on the side. That truck gassed us in six minutes flat; we'd been phoning nearly an hour.

Then taxi back to the CORPAC office, fill out seven more long sheets (even the headman couldn't tell me what they did with all the paper), then one of those huge ICAO flight plans, pay some more money, and we were finally on our way to Arica, our first stop in Chile. A brief IFR climb through the overcast and we were back in the sunshine.

Don Torcuato Airport, Buenos Aires, which was reached on Sept. 13 after 41:40 hours' flying time and 6,102 NM from Washington. The airport is not an official government field—it's operated by the Piper dealer—but Customs and Immigration services are available there. Karant and Pattison arrived for the opening session of the ICAO conference but were a couple of hours late.

While I was in VHF range of Lima, they kept asking me for estimates, usually for fixes a very few miles apart. They seem to do this everywhere in South America; I finally began telling them I was busy flying the airplane and would give them estimates as soon as I could. I concluded they were not handling traffic but were just "playing the game." Rarely was there another airplane anywhere around.

Soon the undercast disappeared and the mountains and desert stretched for miles. As we approached Arica, Chile, we let down under some scattered clouds and hedgehopped the last few miles to the airport. I'd tried for some time to contact a Peruvian ground station, with no luck, even though I was IFR. Not only couldn't I report to ATC, I couldn't get any weather ahead. Fortunately, the weather was excellent at Arica, where they advised me that the Peruvian ATC

had given them no notice of my IFR flight or of me at all. This happened several times throughout the trip. One reason is that controlled airways frequently stop being controlled at some point and from there on your IFR flight is based entirely on your wits, alertness and the law of averages.

Our first introduction to Chile was beautiful to the eye; the weather was delightfully cool, with excellent airport facilities. It cost $6 for the use of the Arica airport. Customs inspected us once and cleared us. Then the Customs man's boss decided he wanted to look too, so he inspected everything all over again, then charged me $5 for the service. All South American Customs officers are quite sensitive about general aviation planes crossing borders, I found out at the conference in Buenos Aires. Officials from most of the countries told me the basic problem is smuggling; a tremendous amount is being done with general aviation planes.

From Arica to Antofagasta we flew right along the coastline at FL 5 (500 feet), sight-seeing and taking pictures. Most of the time we were in the clear. Other times there was an overcast about 1,000 feet above us. If it had lowered, my out was to turn 45° out to sea, and climb to VFR on top. If I were caught on top under the same conditions, I'd turn out to sea, pick one of the holes over the ocean, let down, then come back ashore skimming the water. A veteran Braniff airline captain in Lima told me that's the way they flew their airline flights in the old days, before true instrument approaches and ILS.

Next leg—Antofagasta to Santiago—next morning was to be the worst leg of the entire trip. No one had weather information. So I took off, stayed right on the beach in the sunshine, taking pictures. Soon I could see a solid low deck ahead, so I climbed to FL 90 and started calling for an IFR clearance. No answers of any kind. As we approached the Santiago area, it was obvious we were going to have to go in IFR. So I got out the approach plates and chose the ILS approach to Pudahuel, Santiago's big new "jet-age" airport. Now I was actually on instruments, the air was cold (our summer is their winter), and I was beginning to get ice. I kept calling. No answer from any ground station, but suddenly an English-speaking Chilean airline pilot answered. I told him my circumstances: that I was IFR at FL 90 and that I wanted a clearance to make that ILS approach. First thing he answered was that there's no such ILS operating (I was looking at the USAF approach plate). Quickly I chose a VOR approach to the older airline airport, Los Cerrillos. The ground station immediately answered my airline pilot friend, and he gave me the clearance back in English—with the additional tidbit that that VOR was out of service. Now I really began to worry. I was on instruments and icing. The rain and snow static made the ADF useless. I was more than 04:00 out of Antofagasta with nowhere else to go—and Santiago lies in a valley in the Andes. Meanwhile, I had tuned in the Los Cerrillos VOR sometime earlier, and now I suddenly noticed the needle and to-from indicator working. I centered it on the proper approach track, locked the autopilot to it, and told ATC (with whom I now was talking). The controller replied by saying okay, go ahead and use it if you want to! I went back to the ADF, tuned to the nearby beacon's frequency in all the static, and saw the needle point steadily. So I flew the inbound approach heading until the needle was 90° to me, and ATC cleared me to FL 50. Just as I reached that altitude in the valley, a hole opened in the rain and snow and there was the end of a runway on the ground. I banked steeply to stay in the hole, put the wheels down, told ATC, who switched me to Los Cerrillos tower who turned on the strobe lights—and told me he could only see the end of his Runway 3 (the one I was looking at) but not 21. So I stayed in that hole, in a steep spiral descent with my eyes on that runway end, leveled out over the lights, and quickly landed in heavy rain. I thought I saw Pat's hair gradually settle back. We were 04:22 out of Antofagasta.

Next day was Sept. 11, and the conference in Buenos Aires started the morning of the 13th. At that point I was right on the schedule I'd laid out in Washington, and I had two days in which to make the final 678 NM to Buenos Aires. We were presently 37:28 and 5,424 NM from Washington. However, the toughest hurdle of all (in my mind, at least) lay ahead: the flight through an Andes pass from Santiago to Mendoza, Argentina, at the beginning of the pampas on the east slope of that towering range. So, first thing the next morning I called Braniff's weather office, which was recommended to me. Personnel told me the morning meat plane from Mendoza had just turned back and landed and that there was a heavy blizzard all along the range. A cold front had moved in from the Antarctic, was up against the towering range, tops were FL 330, and to just forget it. So we spent most of the day with Raul Fabres, Piper distributor for Chile. Flew my ship across town to Tobalaba, the busy general aviation field, where they checked the plugs and made sketches of my inverted flow dividers (my engines were the first to be modified by Lycoming), and the little battery pack I'd had made for the ADF-31 in case of power failure in the plane; the small batteries would operate the ADF for more than 50 hours.

The following day (Sept. 12) we were at the airport early, and the weatherman thought the pass might be open. I hastened to file a flight plan. Sorry, that's only the beginning. You must take the completed form downstairs to Customs, then the police. Each stamped it, then we dashed for the plane, which Pat had loaded. We taxied out to the end of the runway when, oops. Tower told me we'd have to come back. We hadn't paid some money, and the Customs-police stamped form had to go back to operations. Then the man demanded $39 U.S.—the bulk of it for those radio aids with which I had so much trouble getting into Santiago. I angrily gave him traveler's checks, he made change, and we left. Again, we taxied to the end of the runway. Again, the tower called. By now even he was apologetic. The man had figured out the rate of exchange incorrectly, I still owed him some money, but he was coming out to me in a jeep. All this took well over an hour. The flight plan was simply VFR to Buenos Aires.

Finally off the ground and climbing out of Santiago's badly polluted air into the clear, the Andes looked like they were covered with clouds. But I decided to fly to the pass and take a look. I leveled off at FL 145; N13K, with just standard engines, had climbed to FL 140 in 24 minutes. We had neither turbochargers nor oxygen; I'd debated taking along an entire oxygen system back in Washington, then decided we wouldn't need it for that one hour in the pass.

Making sure I always had an out behind me, I flew right into the pass. There were steep mountains above us on both sides. As the visibility ahead dropped and we began to get into the edge of the snowfall itself, I turned back to Santiago. It was an awesome, spectacular and frightening sight. Later, Fabres told me a sailplane pilot had made that flight to Mendoza sometime earlier, and here I was worrying with two engines!

We returned to Los Cerrillos. This time Fabres sent an English-speaking pilot from his company out to pick us up at the airport; Pat and I were both thankful.

Now we were off schedule for the first time. The conference started in the morning, so we sent word ahead. Next morning we hurried back to the airport. This time Hugo Hurtada Tapia, former Chilean Air Force helicopter pilot now working for Fabres, had seen to it that yesterday's bureaucracy episode wouldn't be repeated. Within minutes we were in the air. The morning was bright and clear, and we could easily see that highest peak—Mt. Aconcagua, 23,035 feet high—alongside the pass. We reached FL 147 in 28½ minutes and stayed at that altitude. The air was crystal clear, visibility over 100 miles from our lofty perch, and the air was smooth (which it usually is in early morning). The steep slopes of the dozens of mountains that make up the pass were heavily laden with snow. The blizzard had obliterated the one road and railroad. I shot pictures as fast as I could.

Once through the pass, the snow quickly disappeared and the mountain range itself disappeared behind us. Ahead lay flat prairie, like Oklahoma and Kansas, all the way to Buenos Aires. We were over Mendoza exactly one hour after takeoff, and I descended to FL 75. We landed at Don Torcuato airport, outside of Buenos Aires, 04:12 out of Santiago.

Washington National Airport was 41:40 and 6,102 NM behind us. □

(To be concluded next month.)