

Air Race of the Americas

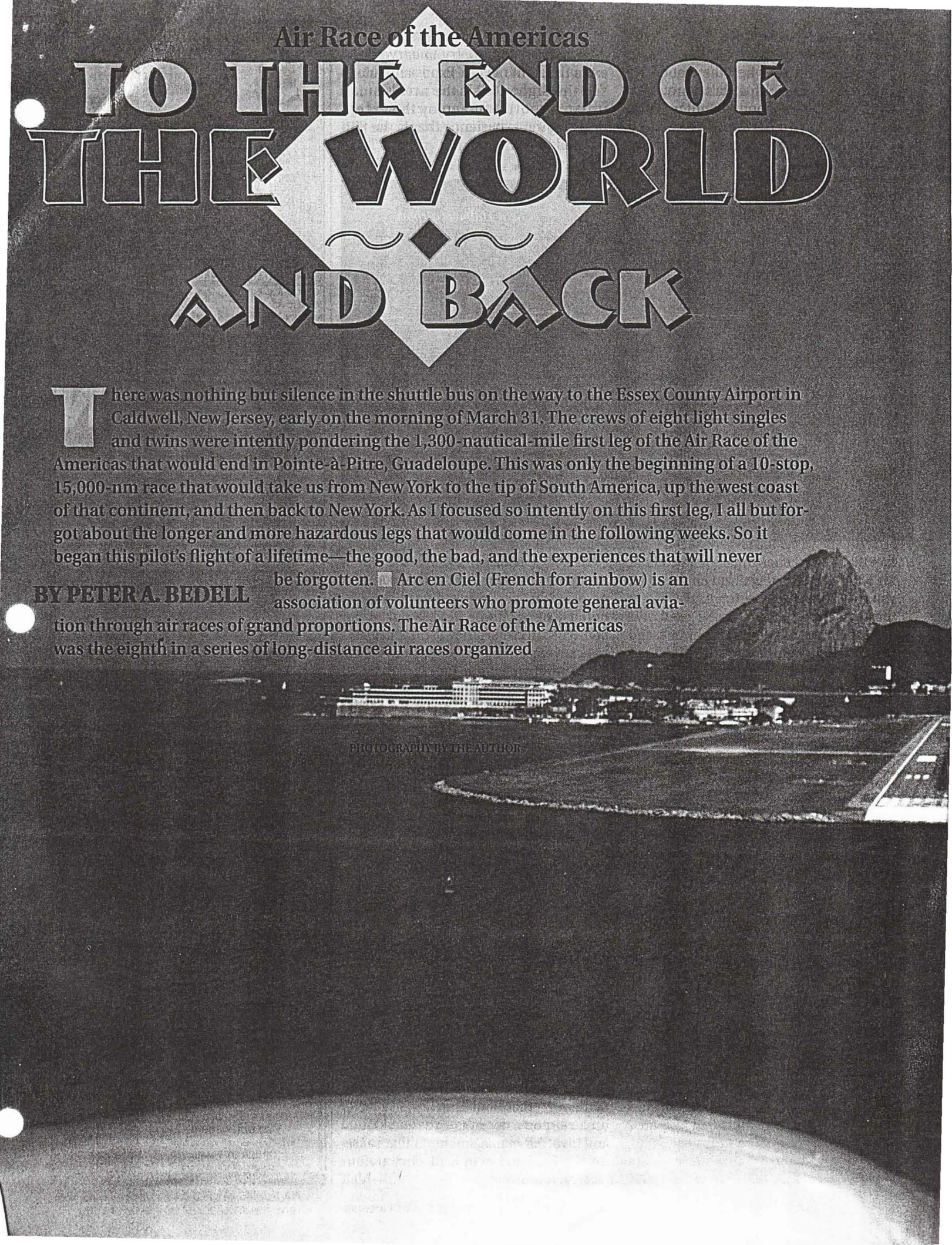
TO THE END OF THE WORLD AND BACK

There was nothing but silence in the shuttle bus on the way to the Essex County Airport in Caldwell, New Jersey, early on the morning of March 31. The crews of eight light singles and twins were intently pondering the 1,300-nautical-mile first leg of the Air Race of the Americas that would end in Pointe-à-Pitre, Guadeloupe. This was only the beginning of a 10-stop, 15,000-nm race that would take us from New York to the tip of South America, up the west coast of that continent, and then back to New York. As I focused so intently on this first leg, I all but forgot about the longer and more hazardous legs that would come in the following weeks. So it began this pilot's flight of a lifetime—the good, the bad, and the experiences that will never

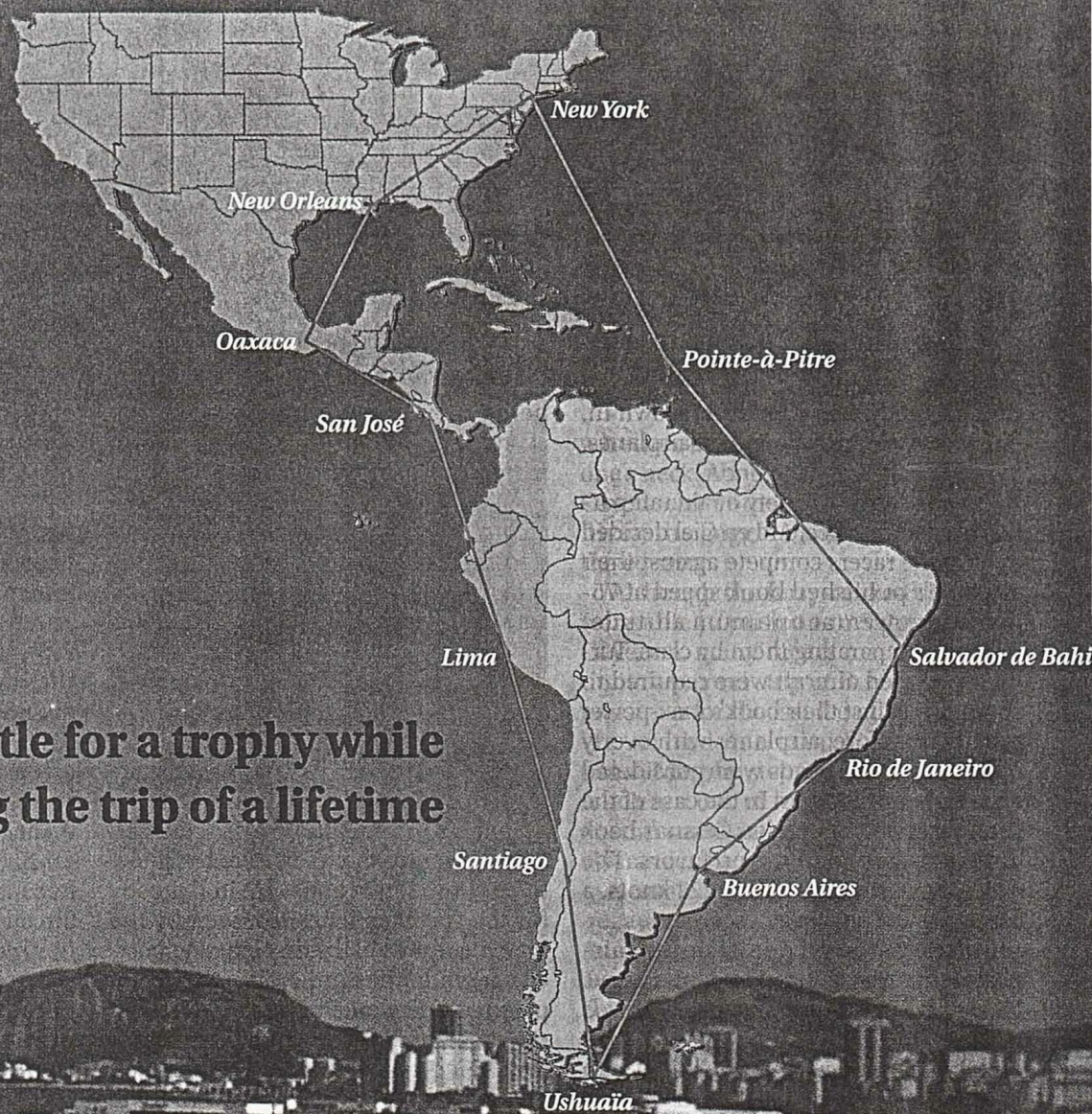
be forgotten. ■ Arc en Ciel (French for rainbow) is an association of volunteers who promote general aviation through air races of grand proportions. The Air Race of the Americas was the eighth in a series of long-distance air races organized

BY PETER A. BEDELL

PHOTOGRAPHY BY THE AUTHOR



**Eight crews battle for a trophy while
enjoying the trip of a lifetime**



*The view from Cessna 414 Canuk on final
approach to Rio de Janeiro's Santos-
Dumont Airport, the third stop of the Air
Race of the Americas.*

by Bernard and Maryse Lamy of Paris.

Air racing with Arc en Ciel is nothing like what you might see in Reno. The Lamys choose long routes that are challenging, intriguing, and scenic. It's more like an aviation experience of a lifetime with a luxury vacation thrown in. Plus, the races are open to all airplanes, big and small.

Because a wide variety of aircraft participated in the race, Arc en Ciel decided to have the racers compete against their airplane's published book speed at 75-percent power (at optimum altitude) instead of separating them by class. Turbine-powered aircraft were required to compete against their book's max-power speed. Therefore, airplanes with overly optimistic book speeds were considered a major bane to racers. In the case of the 414A that I flew as copilot, Cessna's book did my partner and me no favors. The 414A's reference speed was 223 knots, a speed we saw only in a descent.

To add to the race spirit, every airplane/crew was required to have a name. I was flying in the right seat of *Canuk*, the 414A owned by Kildair Service Ltée and flown by company President Jean Delangis, a French Canadian from Joliette, Quebec. What makes a mild-man-



nered 54-year-old businessman drop everything for more than three weeks to participate in an event like this?

"The challenge of the race, the chance to compete with other pilots and to compete against the airplane's book," said Delangis. Other racers, such as the Hawaiian team *Kona Wind*—consisting of race veterans Gordon and Dawn Bartsch, and Willie Tashima—mostly wanted to see South America from the perch of their Cessna 421B. Robert and Marcy Garriott, the husband-and-wife team from Austin, Texas, flying *¡Cielos!*—a Beech King Air C90A—proclaimed before the race that they were not going to be competitive and were in it mostly for the travel aspect. However, by the time the results of the first leg were posted at Pointe-à-Pitre, the Garriotts' third-place performance proved to even the most serious racers that the rookies were going to be tough competition.

I was glad to be flying a twin en route to Pointe-à-Pitre from New York because

ping for nothing. Two of those, Mooney *Silver Bullet* and Piper Lance *Knight Flight*, were piston singles.

One out, six to beat

Eight airplanes were to land at Pointe-à-Pitre the evening of March 31—but only seven actually made it. *Ameriquest*, a Piper Twin Comanche piloted by race veteran Faith Hillman and copilot Connie Schurr, took off from Caldwell but diverted to Manteo, North Carolina, after realizing that their ferry tank would not properly transfer fuel. The team planned to catch up with the race on the following day; however, problems persisted and the flight was again forced down in Nassau, Bahamas.

Ameriquest was not the only crew to experience fuel transfer problems. Karole Jensen of Myrtle Beach, South Carolina, and Merce Marti of Barcelona, Spain, flying *Silver Bullet*, a Rocket-converted Mooney, experienced fuel transfer problems while hundreds of miles

Racers from five countries ranged in age from 25 to 71. Here competitors are gathered for a barbecue at an ultralight airport near Rio de Janeiro.



out over the ocean. After experiencing moments of partial power loss, the crew discovered that the only way to transfer fuel from their ferry tank was to descend to lower altitudes.

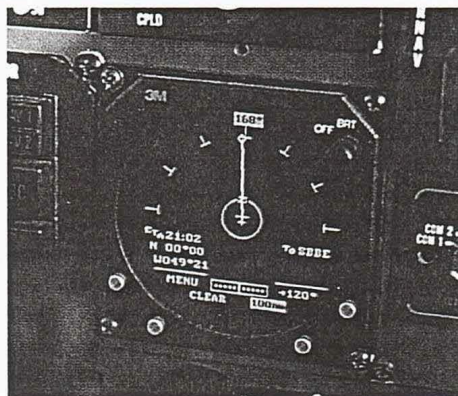
Despite the problems, the crews of the ill-fated aircraft were not alone. Since all of the racers were monitoring a designated race frequency, help could be obtained by keying a mic. From my seat at Flight Level 230, I was amazed by the camaraderie and helpfulness of these "competitors" who were duking it out over the Atlantic at all altitudes.

Bermuda was a tempting spot for all racers to stop, given that it's only a slight detour off the direct line to Pointe-à-Pitre. But there is no avgas available there. Delangis, who is in the business of importing and exporting oil, arranged to have four 55-gallon drums of 100LL shipped to an FBO on Bermuda. (Some lucky recip pilot who strands himself on Bermuda without enough fuel may find the one full drum we left at Mid Atlantic Aviation.) Participants were allowed to stop as many times as they wished en route to the compulsory stops, but the clock kept running until the wheels chirped on the runway at the required points.

Expectedly, the airplanes that went directly to Pointe-à-Pitre (Mooney *Silver Bullet*, Lance *Knight Flight*, and King Air *¡Cielos!*) enjoyed the leg's best times. Paul Carr of Chaumont, New York, and race coordinator/competitor Marc Mosier of Troy, Virginia—flying the Lance equipped with a 185-gallon ferry tank—made the most of their engine's performance by flying at the lowest possible altitudes (500 to 1,000 feet agl). Several airliners relaying position reports for the Lance inquired at least twice to confirm the airplane's altitude. On race frequency as well, the two were the butt of many "are the waves keeping your belly clean?" jokes.

The longest day

After two days of relaxing and touring in and around Guadeloupe, we departed on the longest leg of the race—the 2,230 miles to Salvador de Bahia on Brazil's northeastern coast. As suggested by race director Bernard Lamy, all airplanes landed in Cayenne, French Guiana, for fuel. Since the race had left French soil in Guadeloupe, customs would be unnecessary in Cayenne, shaving precious



Hand-refueling from barrels in Bermuda (top). Stormscope displays equator (above). Delangis relaxes in the 414's cabin (bottom).

minutes from the en route stop.

Often during the race, whether by luck or Murphy's Law, three or four race aircraft would arrive at a refueling stop within minutes of each other. First-come, first-served being the rule, many crews (especially ours, it seemed) would spend several minutes of foot tapping and watch glancing while other aircraft were fueled. Often the tiny (1,500-liter/396-gallon) fuel trucks ran out of fuel before getting to us. It seems the tag-team refuelings overwhelmed many FBOs on airports where little airplanes are not often



seen. For that slow service we paid a wallet-crippling \$3 to \$4 per gallon—cash only.

From Cayenne to Salvador, the terrain took on a whole new shape. Instead of miles and miles of water, we were flying over dense jungle. I often thought of Carr and Mosier scooting over the tree-tops at 1,000 feet with no chance of an uneventful landing if their engine quit. The terrain appeared unforgiving, and I often questioned

whether a trophy was worth risking one's neck. About 400 miles southeast of Cayenne, over the mouth of the Amazon River, the gaggle of airplanes crossed the equator.

Although the ferry-tanked airplanes were able to push on to Salvador from Cayenne, many racers made a precautionary second stop at Belem, Brazil, to tanker up for the last leg of the long day. We arrived in a rainy Belem and, as usual, Murphy stepped in when our fuel truck ran out of fuel. After we cleared customs and attempted to pick up our clearance, the ground controller dutifully informed us that we could not depart because Salvador's airport was closed. As we found out later, an Embraer Tucano had collapsed its nose gear on Salvador's runway. After pleading to the English-challenged controller that we would arrive long after the accident would be cleared, we were released.

Soon after departure from Belem, we were greeted by a line of thunderstorms that are common in the intertropical convergence zone (the area between the trade wind systems of the Northern and Southern hemispheres). Crews flying airplanes equipped with weather radar and Stormscopes were busy relaying weather information to those not equipped, and—of all the airplanes—the organization's Cessna Citation chase plane was the only one to get a wild ride. After passing the storms, we were treated to a beautifully clear night that presented us with a total lunar eclipse followed by a full moon so bright that I could see to write in the cockpit. That 15-hour day has gone into my logbook as one of the most challenging, yet rewarding, flights ever.

Like most of the stops, Salvador was a two-night stay in which the racers spent the intervening day touring the city or taking care of any airplane squawks. Because of a small exhaust leak that we were concerned might get bigger,

Delangis and I took the 414 to Atlanta Aéro, an air-taxi service that operates a fleet of twin Cessnas at Salvador. Communicating with Portuguese mechanics was a real task; we would've paid a lot of money for a Portuguese-English dictionary that included an Aviation Mechanical section.

Salvador to Rio de Janeiro (660 nm) was the shortest leg of the race and provided a pleasant change for many racers—a daylight arrival at Rio's Santos Dumont Airport. In fact, the short leg allowed enough time for some racers to swim along the famous Copacabana Beach.

The leg to Buenos Aires, Argentina, was marred by headwinds that seemed to affect all airplanes equally, regardless of altitude. Murphy, of course, couldn't leave our *Canuk* alone, and the 414's left vacuum pump sheared its shaft. Delangis had brought an extra pump, so it was a simple fix for the FBO.

Our briefing for the next leg was filled with talk of the weather to expect as we neared Ushuaia on the province of Tierra del Fuego (land of fire) at the tip of South America. As was the case with most stops, the weather briefings were vague and the information was often outdated, compared to what I was used to in the States. Since many of the legs were 1,100 to 1,300 miles, which was about the range of the 414 with its wing-locker tanks full, it was difficult for us to determine whether we would have to stop, given the wind conditions.

Strategic planning

Forecast winds were blowing hard out of the west-southwest that day, and all the crews were planning to fly low except for Delangis and me. We elected to climb to FL240 after painstakingly running the 414's numbers and being scoffed at by race director Lamy. We realized that our gamble was paying off when we arrived at Comodoro Rivadavia, Argentina, for our fuel stop. *Kona Wind*, the 421, departed some 30 minutes ahead of us at Buenos Aires but landed only 10 minutes ahead of us at Comodoro. Unfortunately, we had to wait for the 421 and the Piper Navajo *Silver Wings* to get topped off, negating our speedy leg and frustrating us. On the second leg of the day, again at FL240, we caught up to and passed the Navajo ("This is what racing's all about," I thought) and were slowly gaining on the 421 when we realized that the CAVU weather was giving way to IFR conditions near Ushuaia. Only a long VOR approach



Silver Bullet takes on oxygen while copilot Merce Marti supervises (above). Race Director Bernard Lamy in Ushuaia (below).

serves the airport there, and we were sent into a holding pattern while the 421 shot the approach. Once again, the time we had made up in flight was all for naught, and frustration filled my head. We helplessly performed three racetracks in the sky and were then cleared for the approach. Surprisingly, after all of our delays, we maintained our fourth-place position at the halfway point. Lance *Knight Flight* maintained a huge lead, with Mooney *Silver Bullet* and King Air *¡Cielos!* battling for the second-place spot.

It's the end of the world as we know it

Despite the fact that the locals say it



means some 360 days a year in Ushuaia, we got lucky with two glorious days of crystal blue skies with few clouds. Ushuaia is touted as "*el fin del mundo*" (the end of the world) and it lays claim to the title "the southernmost city in the world." Boasting aside, Ushuaia is beautifully situated between the foot of a snow-capped mountain range and the Beagle Channel.

Racers were greeted by low clouds (which obscured the mountains) and freezing conditions for the departure from Ushuaia. Scouting for the rest of the group, King Air *¡Cielos!* took off first and reported no icing all the way up to its cruising altitude. *Kona Wind* (421) also reported no icing, and the flurry of departures began. Delangis and I cranked up the 414 and discovered a very low oil pressure indication on the right engine. As we swapped gauges to troubleshoot the problem, the rest of our friends left. When we realized that the gauge was not at fault, we knew that we were stuck.

A mechanic couldn't be corralled until 5 p.m., so we were going to spend an extra day in Ushuaia. When a mechanic arrived, he hooked up an oil pressure gauge at the engine; it registered 65 psi, just as a new engine should. We blew out and bled the line and were ready for a morning launch.

Hot jug/cold jug

The next day we took off into another typical Ushuaian day—rainy, cold, low ceilings, and a chance of icing. Once established in cruise at FL 240, we watched the Insight Gemini 1200 engine monitor begin to show a steady increase in EGT on the left engine's number 3 cylinder. As the EGT climbed, the mixture was enriched but provided no cure. I began proceedings for a precautionary landing at the nearest airport with an ILS, while Delangis flew the airplane. We troubleshooted the problem and suspected a clogged fuel injector. As the EGT climbed through 1,650 degrees, the engine began to vibrate as a result of the misfiring. We began a rapid descent into Punta Arenas, Chile, which was under our nose 25 miles ahead. The roughness continued during our descent, and the number three cylinder eventually went stone cold. We thought for a moment about shutting the engine down to stop the vibration. We quickly realized, however, that in IFR and potential icing conditions, we would need that engine's alternator to power the electrics. As we came down, the number three cylinder mysteriously came back on

NANCY GARRIOTT



Robert and Marcy Garriott, the crew of ¡Cielos! are interviewed in scenic Ushuaia by Moyra Rodger, a producer/director for the Canadian Broadcasting Corporation.

line and the roughness stopped. Our controller spiralled us down about two miles off the end of the runway and had the emergency equipment standing by on the taxiways. After the engines were shut down and secured, the reality that we were out of the race hit me. I thought about it for a second and then relished the fact that we were safely on the ground.

Sesenta y cinco

Daniel Avila, one of the air traffic controllers who vectored us to the runway at Punta Arenas, took us under his wing, got us through customs, found a mechanic, and translated our problem. He even gave us his home phone number to call if there were any further problems. It's amazing how you can find helpful people like Avila in a place so far from home. We hit the telephones to call mechanics in Canada and the States while we waited for the local mechanics to get freed up to look at the airplane. Although plenty of theories were tossed around, none seemed to nail down the problem exactly. By midafternoon the mechanics wheeled the 414 into the hangar and immediately did a compression check on our bum cylinder. It registered 65 over 80—not bad for a Continental, I thought. One mechanic, perhaps feeling us out for gullibility, told us in simple Spanish and charades-like body movements that the cylinder was junk and it should be 80 over 80. We quickly denounced that fix and even showed him previous checks in the logbook where that cylinder consistently scored a *sesenta y cinco* (65). I then became worried about whether these mechanics really wanted to help us or to keep us stranded and take our money. By nightfall we had attacked all of the basics—compression, fuel, magnetos, plugs, injectors—and realized

that there was nothing else to do. We test flew the airplane and planned for an early departure.

The next morning we cranked up in anticipation of the long flying day ahead and the possibility of catching up to our friends. We each muttered a few choice words when we saw that the right engine's oil pressure rose to only 10 psi, as it had when it stranded us in Ushuaia. We bled the line to the gauge again and managed to get only a slightly higher reading. We had already been delayed an hour and we knew it was only the line, so we took off anyway. After takeoff, all of our senses were acutely tuned for any sign of trouble from that bum cylinder. Although the GEM gauge and all other instruments showed "ops normal," our intense concentration told us that we still had a rough engine. More likely, it was our heightened awareness supplying a little "autorough" to the engine. We proceeded onward, babying the engines by running them at lower altitudes and power settings.

After spending a night in Santiago, we caught up with the rest of the group in Lima, Peru. It felt as though we'd come home when everybody greeted us in the hotel lobby that evening, but it wasn't time to relax yet—the next morning we had to push on to San José, Costa Rica. Getting out of Lima, however, would be a huge headache.

Besides going through the usual immigration hassles and stamps, race director Lamy had to pay a \$4,000 ransom to allow his troupe of little airplanes to leave, despite having permission from the head of Peru's civil aviation authority. Because of the language barrier and the volume of traffic at Lima, it took us 45 minutes to receive a taxi clearance just to get fuel. After another two hours, we received a clear-

ance to take off. All told, it took 4.5 hours from the airport door to wheels up. Although I can be sure that none of the racers will return to Lima anytime soon, there was one high point of our brief stay there. Solar Aviation, a family-owned FBO, took service to a new height when they provided individual hangars to nearly all of the race aircraft and even washed the airplanes. They also had a military marching band there to see us off, even though many of the airplanes were still waiting for their clearances when the band packed it in.

After flying more than 4,000 nm in three days, we were exhausted when we reached San José. Thankfully, Arc en Ciel had planned no tours for the day in San José.

Murphy finally picked on somebody else en route to Oaxaca, Mexico. Marcy and Robert Garriott, in *¡Cielos!*, were carefully monitoring one of the King Air's N₁ (engine rpm) gauges, as it was steadily climbing towards the redline. The efficient husband-and-wife crew suspected a gauge error but continued to reduce power to keep the needle out of the red just to be safe. Knowing that there was a Raytheon service center in Guatemala City, the couple diverted there with one engine running at flight idle. As their suspicions proved, it was simply a gauge error and nothing was wrong with the engine. The little diversion cost them second place, however, and *Silver Bullet* moved up a spot.

Of controllers and accents

After a day in Oaxaca, we launched on our long-awaited return to the States and something we all sorely missed—English-speaking controllers. True, all

controllers are required to know English, but it was obvious that only a few sectors in South and Central America got to use it very often. Any jargon used by pilots would completely baffle these poor fellows. In many places the controllers understood only key words or phrases. Besides the accents and limited knowledge of English, the radio quality in some areas made controllers sound as if they were talking into a tin can full of wet socks. Our first encounter with Houston Center was welcoming—albeit with a slight Texas drawl.

Our stay in New Orleans was only overnight, but some of the racers managed to make it to Bourbon Street and back before the 8 a.m. bus departure to the airport for the final leg.

Interestingly, the leg back to Caldwell was one of the harder stretches, considering the weather and the lack of navigational freedom that we had in foreign territories. Weather over Virginia and Maryland brought some icing conditions for anyone above 10,000 feet and, unlike the past 70-plus hours of flying GPS direct to our destinations, we were now required to fly designated arrival routes at less-than-optimal altitudes for speed and avoidance of the icing. Besides the frustration of the circuitous funnel into New York's airspace that began in Virginia, it was great to hear friends' and coworkers' voices when they checked on to the same Washington Center frequency as we did. They were making their way home to Maryland from the Sun 'n Fun EAA Fly-In in Florida. I didn't say anything to them, but it sure brought a warm feeling to one homesick pilot.

Upon our arrival in Caldwell, family,

The female competitors of the race celebrate at the Caldwell finish. From left to right: Marcy Garriott, Adele Fogle, Merce Marti, Karole Jensen, Daphne Schiff, and Dawn Bartsch.



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friends, and media were there to greet the racers. Touching down later in the day, but in first place by a huge margin, were Carr and Mosier in the *Lance Knight Flight*, which had never relinquished its grip on the lead. Total time for the crew was slightly more than 90 hours at an average speed of 161.16 knots.

Competitors were relieved yet sad that the race was over. We had all experienced the trip of a lifetime. Sure, many racers spent a good chunk of change on this adventure. All told, each team spent at least \$50,000 in entrance fees and fuel

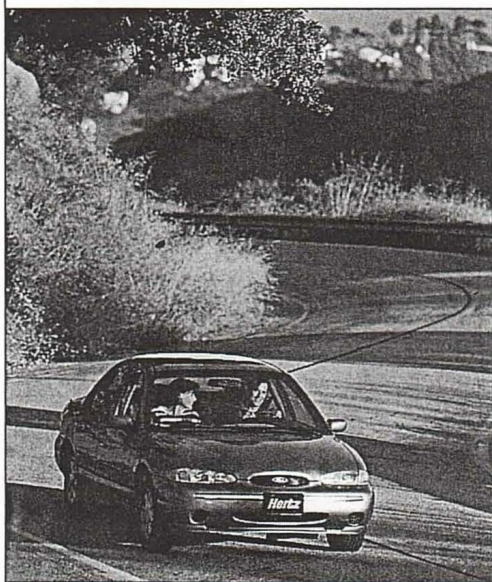
costs. Those flying turbocharged twins and turboprops paid more. T-Fal, The Raymond Group, and the *International Herald Tribune* helped to underwrite the organizational costs of the race but some teams found sponsors to help offset their individual costs. Merce Marti, a 27-year-old charter pilot from Barcelona, Spain, who copiloted *Mooney Silver Bullet*, had all of her expenses covered by her sponsors because of her aggressive recruitment in the months before the race. Adele Fogle and Daphne Schiff, a Canadian

team of grandmothers flying Navajo *Silver Wings*, had three sponsors to help offset costs.

Participating in a race of this magnitude demands a lot from the pilots. Cooperation, concentration, and—above all—patience are a must in the cockpit. Although it's tempting because you're in a race, you cannot consistently challenge the limits of the weather, the airplane, and yourself—and get away with it. Racing is a great way actually to utilize your airplane to its potential. It's fun and challenging, and it introduces you to a bunch of people with similar interests.

Each of the participants came away

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Mosier and Carr inspect the Lance's intake air access panel.

from the race with a logbook full of rich experiences and a slew of new friends. We are all looking forward to getting together again sometime—perhaps next year at Aerosports '97, the first World Air Games, to be held September 13 to 21. Although not an Arc en Ciel race, a rally that will depart Reykjavik, Iceland, and end at the site of the games in Turkey is being planned, with the Lamys helping to organize it. This event will be significantly shorter and less expensive than the Air Race of the Americas but will nonetheless prove to be competitive since supplemental tanks will not be allowed. As for the next Arc en Ciel race? Lamy is working on an event that may take place as soon as 1998. And I'm sure after that competition, a whole new group of pilots will be introduced to the thrills and fun of air racing. □

For more information, contact Arc en Ciel, 4 rue des Erables, 78150-Roquencourt, France; telephone (331)39 55 3200; E-mail 101374.736@compuserve.com.