The Mystery of the Lost Clipper

Air & Space Magazine Gregg Herken, Ken Fortenberry



Twenty-five victims were never found, including Bill Fortenberry. For years, his son Ken believed the navigator was awaiting rescue on a desert island. (NASM)

THIS IS A GHOST STORY. FOR THE PAST 46 YEARS, the two of us—Ken, a newspaper publisher, and me, a history professor—have been haunted by what happened to Pan American Airways Flight 7 early in the evening of November 9, 1957. The airliner, Clipper Romance of the Skies, was on the first leg of a round-the-world journey that began earlier that day in San Francisco. Its next stop was to have been Honolulu, but the Boeing 377—known by the airline as PAA-944—never arrived. It crashed in the Pacific, killing 44 people, including Ken's father, second officer and navigator Bill Fortenberry, and flight attendant Marie McGrath, who had been my fourth grade teacher.

Our class was told that the big four-engine Boeing Stratocruiser had simply vanished, but the biggest air-sea search since the disappearance of Amelia Earhart would end just days later with the discovery of 19 bodies and floating wreckage about 1,000 miles northeast of Honolulu. And the little that was recovered from the flight only deepened the mystery.

Three anomalies confounded Civil Aeronautics Board crash investigators: There was no decipherable distress call received from 944; the location of the debris showed that the Clipper was well off course and headed away from a Coast Guard ship that could have helped; and, finally, elevated levels of carbon monoxide were found in several of the recovered bodies. Further inquiry by authorities implicated three suspects in the loss of the aircraft. The mystery of Romance of the Skies was, in effect, an airborne Agatha Christie thriller—Murder on the Orient Express at 10,000 feet.

In January 1959, after an unusually long investigation, baffled CAB officials found "no probable cause" for the crash, and formally closed their inquiry. Informally, Ken and I have reopened it, with the hope of bringing 21st century technology to bear upon this nearly-50-year-old mystery, and to finally discover what happened to a father, a favorite teacher, and the 42 other souls on board Clipper Romance of the Skies.

Like the fabled B-314 flying boat that preceded it, the Stratocruiser was an aircraft unmatched in size, speed, and luxury when Boeing introduced it to the world's airlines in 1947. Dubbed "the ocean liner of the air," the B-377 featured Pullman-style sleeping berths, separate men's and women's dressing rooms, and a horseshoe-shaped cocktail lounge in the belly of the airplane. Reclining seats doubled as sleeperettes and offered an amazing 60 inches of legroom. Seven-course dinners, beginning with champagne and caviar, were served on china. Meals for first-class passengers on transatlantic flights were catered by Maxim's of Paris.

Even laden with heavy appointments, the "Strato-clipper" was faster than its two commercial rivals, the Douglas DC-6 and the Lockheed Constellation. Four Pratt & Whitney R-4360 B6 Wasp Major engines—the biggest piston engines ever put into production—gave it a top speed of 350 mph and an unmatched capacity for payload, as much as 30,000 pounds. When 944 left the gate at San Francisco's International Airport shortly before noon for the nine-and-a-half-hour flight, its cargo hold was stocked with luggage, mail, movie film, radioactive medicine, and a new IBM computer.

The 38 passengers aboard the Clipper reflected the socioeconomic status of those who could afford the \$300 ticket to Hawaii or the \$1,600 round-the-world fare (equivalent to \$10,500 today). Robert LaMaison, the vice president of Renault Auto and a World War II French air ace, was on vacation with his wife Nicole. William Hagan, a prominent Louisville surgeon, and his wife Norma Jean were on their way to a medical conference in Honolulu. H. Lee Clack, the general manager of Dow Chemical in Tokyo, was headed home with his wife Anna, sons Bruce and Scott, and two adopted daughters, Kimi and Nancy. Edward Ellis, the vice president and general sales manager of a spice company, was beginning a tour of his firm's overseas plantations. Soledad Mercado—a Phoenix dress designer better known as "Soledad of Arizona"—hoped to find new customers abroad.

Those on Romance that day also included the mundane—and the mysterious. A deadheading Pan Am pilot, Robert Alexander, had planned a fishing trip to the islands with his wife and their two children. Twenty-four-year-old William Deck was en route to Kyoto to marry a Japanese woman he had met while in the U.S. Navy. Foreign service officer Thomas McGrail was bound for Rangoon, Burma, and an assignment as cultural attaché at the American embassy there. U.S. Air Force Major Harold Sunderland's final destination remains somewhat unclear. Sunderland belonged to the 1,134th Special Activities Squadron and was on an undisclosed mission to southeast Asia with a briefcase full of classified documents. The Air Force would later describe Sunderland in a press release simply as an "information gatherer."

In command of 944 that day was 40-year-old Captain Gordon Brown, a 15-year veteran of the airline. Bill Wygant, the first officer, had been with Pan Am for more than a dozen years. The young flight engineer, Al Pintara, was taking night courses in electronics at a community college in anticipation of promotion. The senior flight attendant, Yvonne Alexander, was a statuesque blonde who also took care of her ailing father in San Francisco.

Ken's father, navigator Bill Fortenberry, 35, was an avid outdoorsman who enjoyed taking his young sons to Yosemite on weekend hiking and fishing trips. Abandoned by his mother while in his teens, Bill had been taken in by a South Carolina farm family and originally planned to be a minister, but he had a yearning to fly, so he took a part-time carpentry job after college to pay for the lessons. He was a religious man, and his sons remember him telling them that once a man has flown over the clouds and gazed upon the Earth below and the heavens above, he could never doubt the existence of God.

Stewardess Marie McGrath, 26, was an energetic brunette whom friends would remember as "pretty" and "pert." Even while she was attending Keuka College in upstate New York, Marie had dreams of someday flying for Pan Am. Under her graduation picture in the college yearbook is the inscription "Wanderlust...air-minded...California."

During her three-week layovers between round-the-world flights, Marie worked as a substitute teacher at my elementary school in San Mateo, California. When our regular teacher went on maternity leave, our class came to know and love Miss McGrath, who one day held a "luau" for us kids. We were all secretly sad when our regular teacher returned to work and Marie went back to flying.

At 4:04 p.m. local time, from an altitude of 10,000 feet, Captain Brown radioed a routine position report to the Pontchartrain, a Coast Guard weather ship stationed in the Pacific to assist over-flying aircraft. Romance of the Skies had just passed the point of no return and was on course and schedule, 1,160 miles from Honolulu and about 10 miles east of the Pontchartrain. The skies were clear and the seas calm, with the sun low in the western sky. Onboard the Clipper, Yvonne Alexander and Marie McGrath had just started serving hors d'oeuvres when something terrible happened. Twenty-two minutes later—wristwatches found on three recovered bodies had stopped at 4:26 p.m.—944 hit the water.

Debris from 944 was eventually found 90 miles to the north of the flight's intended track, suggesting that the airplane continued to fly for some time after the mysterious incident occurred. Fourteen of the 19 bodies recovered were wearing life vests but no shoes, indicating that some preparations had been made for ditching. (Yvonne Alexander's body was found still strapped to its seat, a life vest carefully fitted over her serving apron.) Floating fragments of the fuselage and cabin indicated that the airplane hit the ocean with the nose slightly down and the right wing lowered. Although several of the recovered bodies exhibited "impact trauma," according to the CAB report, the fact that most died from drowning suggests that 944's final plunge into the sea was not completely uncontrolled. The wreckage had burn

marks; these were above the waterline, indicating a post-crash fire, but there was no evidence of an inflight conflagration.

Pan Am and the FBI suspected foul play. Suspicions grew when autopsies uncovered high levels of carbon monoxide in four bodies. The gas was found in the bloodstreams of Captain Brown and passengers who had been seated in the front as well as the rear of the airplane, suggesting that the carbon monoxide had been widely distributed.

For years afterward, whenever an airplane went down under "mysterious circumstances," I would think of Romance of the Skies and Marie McGrath. On my first day at work at the National Air and Space Museum, in 1988, I asked my new colleagues in the aeronautics department about the B-377 and its reputation. But my job as chairman of the department of space history left me little time for research. In 2002, shortly before I left NASM, I finally began to seriously investigate the incident.

The revelation that I was not alone in my search came suddenly—like the discovery of footprints on a supposedly deserted beach—when I typed "Romance of the Skies" into an Internet search engine and came up with Ken's Web site on the crash. After a short correspondence and several phone calls, Ken and I decided to join efforts.

Ken had begun his investigation almost 40 years earlier. As a child, he'd become convinced that his father was still alive on a desert island awaiting rescue, but on the tragedy's seventh anniversary, he realized that his father wasn't coming home. He wrote a letter to the CAB's chairman saying he wanted some answers about his father's death, and the CAB responded by sending him a copy of its report. Even as a 13-year-old, he thought the report was incomplete. Not a week goes by that he doesn't file a Freedom of Information Act request or try to chase down another angle.

Independently, we had both researched 944 on the Web site of the CAB's successor agency, the National Transportation Safety Board. The NTSB archives provided a passenger manifest and the basic facts of the investigation. Ken was able to get more details about the people who had been on Romance of the Skies by mining hometown newspaper "morgues," and through the Freedom of Information Act, we obtained the FBI file on 944, which revealed a surprising—and disturbing—twist to the story.

On November 18, 1957, as the aircraft carrier Philippine Sea docked at Long Beach with recovered bodies and wreckage, a dockside dispute between CAB representatives and FBI agents concerning who had jurisdiction in the case blossomed into a full-fledged feud between the rival agencies. In retaliation, FBI director J. Edgar Hoover washed his hands of the investigation. Ignoring pleas from both the airline and the head of the CAB, Hoover left the question of determining whether a crime had been committed up to Pan Am and the board, whose investigatory capabilities were considerably less than the bureau's.

We began our own inquiries by posting questions on a pair of Web sites maintained by former Pan Am employees, asking for information about 944's crew members from those who might have known them. We were surprised to be deluged with responses from more than two dozen pilots, navigators, flight engineers, and flight attendants. And we learned from them that the airline, back in 1957, suspected one of its own.

Former colleagues revealed that 944's 46-year-old purser, Eugene Crosthwaite, had previously been in trouble with Pan Am for erratic and sometimes bizarre behavior. Crosthwaite once bragged that he had deliberately dropped a meal on the galley floor before serving it to an unsuspecting captain, who he felt had insulted him. Furthermore, Crosthwaite blamed Pan Am for several misfortunes, including the tuberculosis he'd contracted in Shanghai before the war, while serving as a purser on the airline's flying boats.

Though fully recovered from the disease, Crosthwaite had been despondent following his wife Julie's death from cancer three months earlier. She was a raven-haired beauty some 13 years younger, whom he had met and married in China. Her death had left Gene the sole guardian of Tania, his wife's 16-year-old daughter from a previous marriage.

Relations between Crosthwaite and Tania were stormy. On November 3, just days before the flight, Crosthwaite had called the county sheriff's office to complain about the girl, whom he called "a demon" and blamed for his wife's death. Crosthwaite even amended his will the morning of the flight—disinheriting Tania unless she "lived a moral and upright Catholic life"— and left a copy of the document in the glove compartment of his car, which he parked at the airport.

Pan Am considered the changed will a smoking gun—an indication that Crosthwaite had planned to die. The CAB too assigned one of its investigators, Claude Schonberger, to look into Crosthwaite's background. Schonberger's investigation seemed to strengthen the case against the purser. According to his report, Crosthwaite's father-in-law remembered the suspect showing him a handful of blasting powder a few days before the flight, and despite an exhaustive search, neither Schonberger nor the purser's father-in-law could find the explosive on Crosthwaite's property after the crash. For Schonberger, the most damning evidence was a chance remark that Tania made to the sheriff. The sheriff testified that Tania thought it "probable that [Crosthwaite] might have taken his life and destroyed the 40-odd passengers on the flight 'because he was too chicken to go alone.' "

But just as Pan Am seemed ready to conclude, 10 months after the tragedy, that the purser did it, a new suspect suddenly entered the case. William Harrison Payne, 41, listed as a passenger on Romance of the Skies, was reportedly on his way to Hawaii to collect an overdue debt. Payne owned the Roxbury hunting lodge, outside Scotts Bar, California, a small town near the Oregon border. Among the more curious details about Payne—whose body was not recovered—was the fact that the purported debt amounted to less than the price of the one-way ticket to Honolulu he had purchased. Even more remarkable was the fact that Payne had taken out a total of three life insurance policies on himself—one of which paid double in the event of accidental death—shortly before the flight. The two most recent policies, from separate companies, would pay a total of \$125,000 to his wife Harriet, and had been

purchased only three days prior to 944's departure. But perhaps the most arresting aspect of Payne's life was his career before becoming an innkeeper: he had been a Navy frogman—a demolitions expert.

Payne's story came to light in the pages of the San Francisco Examiner, under the banner headline "Blast Plot Hinted in Mid-Pacific Air Crash." The source for the story was Russell Stiles, an investigator for Western Life Insurance Company. Pending the results of Stiles' inquiry, Western Life was withholding payment to Payne's wife on the \$10,000 double-indemnity policy Payne had bought two weeks before the crash. Upon learning of Payne's background, Stiles had gone to the FBI and, frustrated by the bureau's inaction, had alerted the Examiner's crime reporter.

Stiles' investigation only deepened his conviction that Payne had brought the airplane down to collect the insurance money, and had in fact never been aboard Romance of the Skies. Stiles discovered that the suspect had previously been in trouble with the law for trying to collect tolls on a public road used by logging trucks. Threatened with arrest, he had set off a dynamite charge in the road, making it unusable. Payne had also fired three shots at a business associate for reasons no one could discover and was overheard to boast that he could build a delayed-action detonator using only a length of wire and two flashlight batteries.

After interviewing people who had known Payne, Stiles also discovered a possible motive for the crime: Payne owed his mother \$10,000 for the hunting lodge, which was losing money and was up for sale.

As Stiles dug, the story got even stranger. In June 1958, seven months after the loss of 944, Harriet Payne got married in Tijuana to a friend and former neighbor of her husband's. Two days later, while the newlyweds were still on their Mexican honeymoon, the heavily insured Roxbury Lodge burned to the ground. Although the authorities suspected arson, the insurance underwriters, faced with the prospect of a lawsuit from Harriet, quietly agreed to settle the claim. Meanwhile, the postmistress in Scotts Bar told Stiles, in confidence, that Harriet and her new husband had begun receiving mysterious letters and packages from overseas. There was never a return address.

In the late 1970s Ken tracked Stiles down to a small mountain town in Colorado. He refused repeated requests for a personal interview, but his daughter told Ken that Stiles had never been satisfied with the outcome of the official inquiry into 944. Even after retiring from Western Life, he had continued his investigation of Payne, using his own funds. Stiles remained persuaded that Payne was not only still alive, but likely in a vengeful mood. According to Stiles' daughter, until the day he died, in March 1999, her father feared that he would one day answer the door and look into the hateful stare of William Payne.

While Pan Am suspected Crosthwaite, and Western Life fingered Payne, some CAB investigators blamed another culprit.

Boeing's 377s had a history of problems with propellers. The airline had initially adopted seven-foot-long Hamilton-Standard Hydromatic propellers with hollow-core steel blades. But

centrifugal force tended to push the neoprene in the cores (the blades weren't truly hollow) toward the tips of the blades, creating an imbalance and, in at least a few instances, causing pieces of blades to fly off. When the wreckage of a Pan Am Stratocruiser that disappeared over the Brazilian jungle in 1952 was finally found, investigators discovered that the airplane had literally shaken itself to pieces after losing first a propeller and then an engine.

Pan Am and Hamilton-Standard sought to solve the problem by nickel-plating the blades. But when another Stratocruiser—with newly plated blades—was forced to ditch off the Oregon coast in 1955 because of a runaway propeller, the airline realized that hollow-core props weren't the 377's only problem.

A runaway, or "over-speeding," propeller was a nightmare for any flight crew. If the variable-pitch propeller could not be feathered—its blade pitch changed to point the leading edges in the direction of flight—centrifugal force wrenched the blades to the lowest pitch stop. The resulting drag was equivalent to that produced by a solid disk the diameter of the propeller in front of the wing. At that pitch, even if the prop simply windmilled, there was a danger that it would fly apart and pieces would penetrate the fuselage.

Equally terrifying was the fact that a runaway could occur virtually without warning, and left the pilots only seconds to react. Often the first indication of a problem was a sudden change in propeller noise, from the normal dull throbbing to a rapidly ascending, blood-curdling whine. One Pan Am pilot likened the sound to "the cry of a thousand banshees."

A year earlier, an over-speeding propeller and engine failure had forced 944's sister ship, PAA-943, Clipper Sovereign of the Skies, down on its way from Hawaii to San Francisco at nearly the same spot Romance of the Skies crashed. After circling until daylight, Sovereign ditched next to the Pontchartrain. All 31 passengers and crew were able to evacuate the airplane before it sank.

Curiously, the final CAB report on 944 paid little attention to earlier Stratocruiser overspeeds and claimed that Romance of the Skies never had an over-speeding incident. But a telephone call from one of our Pan Am veteran contacts, a gruff-voiced, 90-year-old Irishman and former B-377 pilot named Clancy Mead, contradicted that claim.

Mead recounted that he had been at the controls of Romance of the Skies when the airplane experienced a runaway propeller on a flight to Hawaii in June 1957, barely six months before its fatal plunge into the sea. Unable to feather the prop on the no. 3 engine, and losing altitude at a rate of 100 feet per minute—even with the remaining engines at rated power—Mead turned 944 around and headed back to San Francisco. He estimated that Romance cleared the mountains along the coast by only 500 feet. Luckily, he was able to set the airplane down safely at the airport.

What may be the last pieces of the puzzle came to Ken and me from two more veterans, Frank Garcia and Tony Vasko, who contacted us when word of our search got around on aviation-related Web sites. For decades, Garcia, the flight engineer on Sovereign when it ditched in 1956, has suspected that the cause of Sovereign's runaway prop was a small part in the engine nose case needed to move oil to the prop dome (see illustration, opposite). A failure of the oil transfer tube or the bearing connecting it to the dome would make it impossible to feather the blades on that propeller. But conclusive proof of Garcia's theory remains inaccessible on the ocean floor. Tony Vasko was the director of overhaul at Eastern Airlines until he retired in 1990. An expert on aircraft engines and propellers, Vasko is a frequent contributer to technical journals and aviation magazines. He found evidence that Pan Am, the manufacturers, and the Federal Aviation Administration had recognized, by the time of 944's accident, that the transfer tube—which was brazed, rather than bolted in place—represented a potentially fatal flaw on the 377. Thus, an emergency "AD"—Airworthiness Directive—issued by the FAA in early 1957 warned: "As a result of propeller shaft oil transfer bearing failures, several cases of loss of propeller control occurred which make it impossible to feather the affected propellers." The directive ordered that the brazed joint be inspected on every engine and either replaced or repaired "not later than May 31, 1957."

But Clancy Mead's 944 prop runaway had occurred June 18, 1957—more than two weeks after the compliance date had passed. This seems to confirm claims by several Pan Am veterans that maintenance standards had slipped at the airline, which was rapidly losing money on the posh Stratocruiser and had already announced plans to replace the 377s with jets.

The problem with the oil transfer bearing was soon corrected, thanks to subsequent ADs. But had it been fixed before Romance of the Skies took off on its final flight?

The near-half-century that has passed since the loss of 944 has made it possible to rule out some of the theories that had been put forward at the time of the crash. For example, Japanese pathologists in the 1980s—fearful that the high incidence of drunk businessmen falling off their boats and drowning was the handiwork of organized crime—confirmed that excesscarbon monoxide, the forensic discovery that had worried CAB investigators as they first looked for causes of the crash, can be the result of natural decomposition in warm saltwater. But there is still no smoking gun that would allow Ken and me to say we have solved the mystery.

Ocean charts indicate that the resting place of 944 is at a depth within the range of today's miniature subs. Deep-sea submersibles of the sort that discovered the resting place of the Titanic could almost certainly answer the question of whether Romance of the Skies broke apart from the aerodynamic stresses caused by a dead engine, or whether a disintegrating propeller pierced the cabin and started a fire, also knocking out communications.

But without a Titanic-like expedition, our next best hope lies in finding an audio tape that has become the Holy Grail of our search. Our Pan Am friends have told Ken and me about a tape recording of radio transmissions from aircraft transiting the Pacific that day. The recording, which was entered into evidence at the CAB hearing on 944 back in 1958, seemed to include a last desperate "Mayday" from Romance of the Skies after all. Pilots who had

known the airplane's crew claimed that, upon repeated playbacks, they could hear a faint, garbled message on the tape. Pan Am had appealed for help to Bell Laboratories, which, after analyzing the tape for three months, concluded that it contained no recognizable words.

Thanks to computers and the cold war, however, signal analysis has made giant strides over the past several decades. Digital processors have replaced the oscilloscopes of the 1950s. Recently, experts at the National Transportation Safety Board were able to deduce the cause of a helicopter crash by listening carefully to a recording of the pilot's frantic radio calls. In the background, almost too faint to be heard, was the telltale sound of a failing gear. When the wreckage was pulled up from the bottom of San Francisco Bay, the NTSB's hypothesis was confirmed.

The archivist at Lucent Technologies—formerly Bell Labs—says that both Lucent's copy of the tape and the report done for Pan Am have likely been destroyed. Pan American Airways went out of business in 1991, and the University of Miami now owns its records. The bulk of those—some 1,000 boxes—remains in storage at a former Navy base nearby. That collection is largely unprocessed and is currently off limits to researchers. But it is likely that the maintenance records for 944, Pan Am's internal investigation of Eugene Crosthwaite, and perhaps even the audio tape are all in that labyrinth of boxes.

The archivist at the University of Miami estimates that it will be at least three years before the Pan Am collection is processed and opened to researchers. NTSB representatives have expressed a willingness to reopen the investigation of Romance of the Skies if new evidence or, in this case, old evidence that can be reanalyzed by new methods—surfaces.

If the tape is found, what might it reveal—if anything? An explosion? A struggle in the cockpit with a madman? Or the shrill, accelerating scream of a runaway propeller? When those boxes are opened, Ken and I plan to be there.

The governor inside a constant-speed propeller helps translate engine power to blade pitch. Gyrating flyweights (A) in the governor are driven by the engine. When the engine's power is increased or decreased, the change in centrifugal force causes the L-shaped flyweights to open or close an oil flow valve (B), which controls the amount of oil flowing through the oil transfer tube (C) into the prop dome. Inside the dome, pressure from the oil shifts the piston-and-roller assembly (D), which twists the cam to adjust the pitch of the blades. If oil drains from the prop dome—perhaps due to a failure of the oil transfer ring (E), which connects the oil transfer tube to the spinning prop shaft—centrifugal force wrenches the spinning blades to their lowest angle of attack, perpendicular to the air flow. This condition makes it impossible to feather the blades. Without resistance from the blades—which aren't doing any work—the engine drives the propeller too fast, causing it to over-speed.