

ARE PLANES WE FLY MORE AT RISK?

To the crew, it was just another day

Flight from 1A

Gibbs was a big man, 6-foot-2 and 210 pounds. He grew orchids. He baked apple crisp. He bought and restored an old house to pay for flight school.

A gentle giant, friends called him.

He knew the intricacies of the plane's electrical and hydraulic systems so well it had annoyed Capt. Leslie until she realized he wasn't trying to quiz her. Now, she relished flying with him; he was a strong backup as first officer. That morning, he completed the walk-around outside the plane, checking the engines and propellers and stabilizer, the de-icing boots and landing gear struts and nose wheel, the bolts and safety pins and antennae.

"... I had a dream," she said and laughed, "that I was in Miami all night partying."

Leslie was a head shorter than Gibbs, 5-foot-6, with lemon-blond hair and freckles, even on her earlobes. She seemed to have a smile for everyone. That morning, she looked especially radiant. Her fiancé, also a pilot, had commented on it when they said goodbye in the airport terminal.

I just love flying, he remembers her telling him.

Even though she had come home the night before tired and complaining, she was eager to go again. They're abusing you, her roommate sometimes scolded, but Leslie plowed ahead, upbeat. Nothing's perfect, she often said. That's what heaven is for.

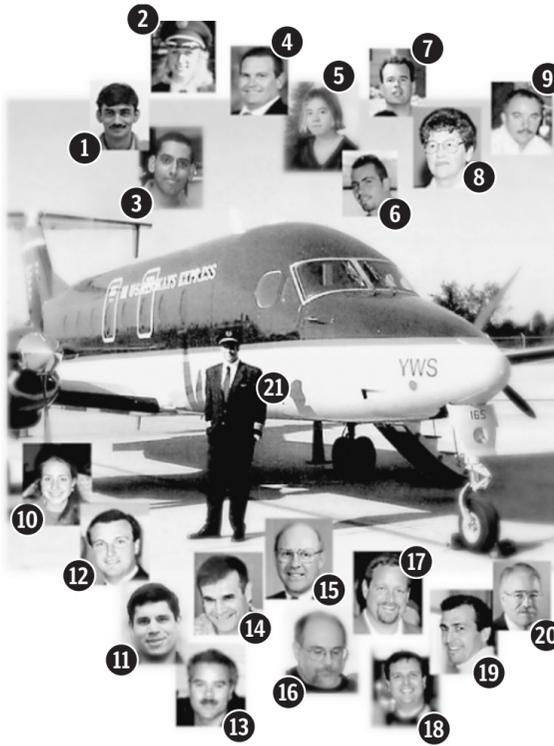
At 8:20 a.m., Leslie greeted the passengers.

"Good morning," she told them. "Welcome aboard US Airways Express service to Greenville-Spartanburg. It's a very short flight, maybe 30 minutes, gate to gate."

I'll be back

A few of the passengers knew each other, but most were strangers: 14 businessmen headed to the next job, a grandmother going home after visiting her daughter's family, an eighth-grader from the Bahamas hoping to see snow for the first time, three students from abroad on their way back to college after the holidays.

They had flown from Ohio, Florida and Massachusetts, from Maryland, Virginia and Califor-



How This Story Was Reported:

The direct quotes in this four-day narrative came from the cockpit recorder recovered after the crash of Flight 5481. Details about the airplane and its fatal flight came from the flight data recorder and from testimony before the National Transportation Safety Board. Other sources of information included US Airways, Raytheon Aircraft Company, the National Weather Service, and interviews with pilots, eyewitnesses, mechanics, investigators, lawyers, and with families and friends of 19 of the 21 victims.

nia, from India, Portugal and the Abaco islands. Charlotte was a layover on their way to Greenville, S.C.

I love you, Rae Pearson had told her daughter and grandchildren.

I'll be back the same day, Sylvain Dubois had promised his wife and patted her belly, seven months pregnant.

This won't be the last time I go with my dad, Caitlin Albury had vowed to friends.

Caitlin, who was 12, got the last seat on the plane. She was tagging along with her father and uncle on a buying trip for the family hardware store, but when they arrived in Charlotte, they discovered she had been booked by mistake on a later flight. Flight 5481 was full.

Her dad and uncle teased her, saying they might have to leave

her behind. They didn't mean it, of course. One of them would have stayed instead.

Then just before boarding, a passenger volunteered to give up his seat so all three Alburys could fly together.

By choice or chance or twist of fate, 19 passengers and two pilots ended up that Wednesday morning in the twin-engine airplane at Charlotte/Douglas International Airport.

They found their seats. Stowed away luggage. Buckled seat belts.

It is a routine passengers follow thousands of times every day on thousands of flights. Only in hindsight would anyone realize that Flight 5481 should never have been cleared for takeoff.

Built for short trips

Air Midwest owned plane No. 233, a Raytheon Beechcraft

On The Front Page

Those who died on Flight 5481.

1. Sreenivasa Badam
2. Capt. Katie Leslie
3. Ganeshram Sreenivasan
4. Robin Albury
5. Caitlin Albury
6. Nicholas Albury
7. Mark Congdon
8. Ima Rae Pearson
9. Keith Coyner
10. Christiana Shepherd
11. Richard "Eric" Fonte
12. Steven Krassas
13. Michael Sullivan
14. Sylvain Dubois
15. Ralph Sylvia
16. Forrest Stephen DeMartino
17. Gary Gezzer
18. Paul Stidham
19. Joseph Spiak
20. Richard Lyons
21. First Officer Jonathan Gibbs

five children between them.

Spiak ran marathons and had a washboard stomach at 46. He married Jill, his high school sweetheart, and they had two teenagers, Michael and Kristin.

Stidham, also 46, grew up in Virginia in a big Southern family. He met Dora, his wife, at a salon in New Jersey where she cut hair. They had two girls, Alexandra, 12, and Kelsey, 7.

Lyons, who was 56, had a grown son, Brian, by his first marriage and was now married to Deidre, a colleague in his Cambridge, Mass., office. When people asked how he was doing, Lyons always gave the same reply: "Terrific."

On the first row behind the cockpit, two graduate students from India sat across the aisle from each other. Ganeshram Sreenivasan came from one of his country's top scientific institutions and won a scholarship to Clemson University.

Sreenivasa Badam had left a tiny village to travel halfway around the world to America. He wasn't offered a scholarship, but won a teaching assistantship and financial aid after scoring a perfect 4.0 his first semester at Clemson. He was, his roommate teased, "a short man with tall dreams."

The two students shared a name that's common in southern India. They also shared a goal: They would get master's degrees in computer science from a U.S. university, then return home better suited to find jobs.

Just me and my dad

Two rows behind them sat the Alburys.

For Robin Albury, who was 38, it was just another business trip.

For his daughter Caitlin, it was a milestone, the first time she had left the Bahamas without her mother.

They were a close-knit family, Robin and Janet, Caitlin and her 9-year-old sister, Joanne. And they came from a close-knit community, Marsh Harbour, with 6,000 residents and the only stop light on the Abaco islands.

Caitlin had curvature of the spine and wore a brace from beneath her arms to her hips, 24 hours a day, no exceptions. Her doctor was in Florida, so they often flew on a 19-seater Beechcraft, all four of them together.

This was Caitlin's first big father-daughter adventure, and she

worked over the Christmas holidays at their hardware store to help pay for it.

Just me and my dad, she told friends.

The principal at Agape Christian School called Caitlin the school's unofficial welcoming committee. If she spotted a new student alone, Caitlin invited the student to join her for lunch. She was an honor student and packed science and social studies books to study on the airplane.

Flight records have Caitlin seated in the back, row 9, seat F, her dad and uncle up front in row 3, seats A and F.

Janet Albury is convinced that's not where they sat.

Neither man, Janet is certain, would have let Caitlin sit alone. That wasn't like them.

Robin and his father had started the hardware store in 1981, and Robin's three brothers joined them after each finished school. Robin managed the store, but also stocked shelves, ordered lumber, helped customers. In 15 1/2 years of marriage, Janet never heard him raise his voice.

Nicholas was more outgoing; he'd hear a familiar voice in the store, quit working on the computer and rush downstairs to talk. At 21, he was thought to be the youngest person ever elected to the local government.

Nicholas, Janet Albury is certain, would have switched seats with Caitlin so she could sit with her dad.

Ready for takeoff

At 8:21 a.m., Capt. Leslie finished her usual advisory about seat belts, carry-on luggage, emergency exits.

"This door," she said, referring to the main entrance on the left front side of the plane, "can also be used as an emergency exit. Push the button in the box, lift the handle and the door will come out. Please don't hang on to that door. If you do, it'll pull you out."

She paused. "Sit back," she continued, "relax, enjoy the flight and we'll have you there in a few minutes."

She shut the door to the cockpit and prepared for takeoff.

MONDAY

U.S. Airways Express Flight 5481 is heavily loaded; after takeoff, it shoots up out of control.

Delay repairs, hasten danger?

Air Safety from 9A

nance-related enforcements, including fines and reprimands, are directed against midsize and regional airlines. From 2000 to 2002, nonmajor airlines accounted for about 37 percent of flights but 67 percent of FAA maintenance actions against airlines.

Most major airlines have been shifting some passengers to regional affiliates, which fly smaller planes on less-traveled routes.

When passengers book short flights on major airlines, they often are shifted to smaller, regional carriers. Under contracts with the major airlines, regional carriers typically shuttle passengers between hub cities and smaller ones. That was the mission of Flight 5481.

A decade ago, when passengers booked a flight from Charlotte to Greenville-Spartanburg, they usually flew on a US Airways jet, maintained by the airline's mechanics and flown by the airline's pilots.

But the passengers on US Airways Express Flight 5481 boarded an Air Midwest turboprop maintained by contract mechanics in Huntington, W.Va.

US Airways' only role was booking the flight. Regional airlines flew 98.4 million passengers in 2002 - twice as many as a decade earlier. The number of passengers on major airlines has increased about 10 percent.

Regional airlines have improved safety standards in recent years, largely in response to tougher federal regulations, which require operators of

planes with 10 or more passengers to follow most of the same rules as larger airlines.

But many aviation experts say the quality of maintenance at the major airlines remains superior.

The NTSB's Goglia and others say they're worried that the regional airline industry's rapid growth will hurt maintenance.

"We often see when expansion happens too fast, the infrastructure can't keep up with it," he says. "I've been concerned."

Airlines stretching time between maintenance checks

Many airlines no longer have mechanics look over planes before each departure. Instead, they are relying on ramp workers to do the checks. Mechanics say ramp workers aren't as well-trained to spot problems.

In recent years, airlines have also extended the time between maintenance checks, experts say.

John Lauber, vice president of safety and technical affairs for Airbus and a former NTSB member, said the FAA grants extensions only when airlines prove they are warranted.

Last year, Delta Air Lines began reducing the number of maintenance checks on its Boeing 757 jets without FAA approval, according to documents The Observer obtained.

The airline had first proposed changes to the maintenance program more than two years earlier. According to FAA correspondence, Delta went forward with more limited changes that didn't require FAA approval.

"Delta has lost substantial economic benefits due to the (FAA's) continued delays of approval," the FAA quotes Delta as saying.

FAA officials concluded last



ASSOCIATED PRESS FILE PHOTO

National Transportation Safety Board member John Goglia, shown in January, was on the scene after the crash of Flight 5481. Goglia recently said the airline industry needs to focus on improving maintenance or expect more disasters. "To fix a problem, you've got to admit you have a problem and identify it. We haven't gotten to admitting the problem yet."

year the airline exceeded its authority when it made the change, according to an agency memo. FAA officials questioned the data Delta used to justify the change.

The FAA noted in 2001 that it had seen serious corrosion in the floor beams of some planes, problems the airline says it has addressed. The 121 Boeing 757s in Delta's fleet are 12 years old, on average, the FAA says.

"Delta has offered a lot of theory but very little in substantiation to support your proposed program," an FAA official monitoring Delta's maintenance wrote to the airline in February.

FAA spokesman Les Dorr says the agency is looking at the possibility of taking enforcement action against Delta, but declined to elaborate.

Delta says it has reached an agreement with the FAA. The airline says it's "unaware of any pending enforcement action" by the agency.

1900D, and flew it for US Airways on commuter routes.

It was a small plane, built for short trips - 57 feet 10 inches long, about 17 feet longer than the Wright Brother's Flyer. The cabin was so narrow, passengers could touch both walls with outstretched arms. A single row of seats lined each side with three seats along the back.

Richard Lyons and Joe Spiak flew from Boston to Charlotte to make the flight, and Paul Stidham flew in from Baltimore. They all worked for W.R. Grace, a big chemical company, and were bound for a plant in Enoree, S.C., that mined vermiculite.

Each man woke up before 4 that morning to catch an early flight to Charlotte. It was worth it to them. No one wanted to be away from home long. They were family men, married, with

allowed the part to deteriorate "without the opportunity for detection."

"Virtually any system on an aircraft treated with the indifference shown to this mechanism will break, many with equally catastrophic effect," Goglia wrote at the investigation's conclusion. "Aircraft simply must be maintained, and maintained with care..."

Regulations allow delays in repairs deemed noncritical

When a plane's parts break or malfunction, airlines don't always fix them right away. Regulations allow delays on repairs not deemed critical.

With a clear forecast, for example, planes are allowed to fly without weather radar, an important safety tool. The reasoning: Mechanics who discover problems don't always have the parts, manpower or expertise to fix them. The rules allow planes to get to better-equipped bases.

Statistically, experts say, such deferrals increase the chances that something could go wrong. The FAA says it doesn't collect industrywide statistics on how often airlines defer maintenance. But some experts think the practice is increasing, particularly at airlines that reduce parts inventories to save money.

"If the part is not there, there is enormous pressure for an aircraft mechanic to say, 'Maybe it will endure one more flight,'" says Lee Seham, a New York attorney who represents mechanics.

Last year, mechanics working on an America West jet found problems with one of its two thrust reversers, which slow jets after landing.

The mechanics deferred the

repair and deactivated the left thrust reverser, according to the NTSB.

Eight days later, on Aug. 28, 2002, the jet landed in Phoenix with 159 aboard. Instead of using the brakes, the pilot used both thrust levers. But with the left-side thrust reverser inoperable, the plane swerved sharply and sped off the runway.

Passenger Bob Babb, a computer specialist from Pleasanton, Calif., said the plane began bouncing in the dirt. After rolling about 100 yards, the nose gear snapped off and the plane lurched to a stop.

"The passengers were all hanging by their seat belts," Babb said.

Ten passengers were hurt while evacuating down the emergency slides.

The NTSB has not yet determined the accident's cause. Pilots say it's possible to land safely without thrust reversers, using brakes and rudders. But if a pilot forgets or doesn't know a reverser isn't working, a jet is likely to swerve after landing.

Jeff McClelland, chief operating officer for America West, said maintenance workers had put a placard in the cockpit to alert pilots that the thrust reverser wasn't working. The NTSB is still investigating.

McClelland said America West has fewer deferred maintenance items per plane than most airlines.

Babb said he was unaware airlines could fly planes with parts that aren't working. The idea troubles him, particularly since he works for a company where employees frequently fly.

"If you've got to lose some money to make things safe, you make that decision," he said.