

ARE PLANES WE FLY MORE AT RISK?

Trends in industry concern mechanics

Safety from 1A

The mechanics' concerns come at a time when maintenance increasingly plays a role in fatal accidents, an Observer investigation found.

It's also a time when mechanics face an uncertain future. During the financial crunch that followed Sept. 11, 2001, thousands have been laid off. Many have

had their wages and benefits cut. Others are leaving the profession for higher pay and better job security.

All this has made it harder to attract top-notch people to the industry, experts say. And they predict it could lead to a shortage of skilled mechanics if the airline industry rebounds.

"My prediction for the profession is we're in danger," says Ken MacTiernan, a longtime mechanic for American Airlines,

who runs a group that works to educate the public about airline mechanics. "We're in danger of not getting the quality people to work on these airplanes."

Airline says worker exceeded authority in reporting crack

When mechanics report potentially serious problems such as cracks in planes, federal regulations call for airlines to fix them, temporarily removing a plane from service.

In the case of the United 737, another mechanic at the Indianapolis maintenance base told Gulliford he'd heard the airline would discipline anyone reporting the crack, according to Gulliford's complaint with the U.S. Department of Labor.

United says that when Gulliford reported the crack, he exceeded the scope of his authority. He was not "reprimanded for identifying a repair, but was informed of the inappropriateness

of the process he used," a United spokesperson said.

Gulliford was a shop steward who represented union employees.

But the Labor Department ruled in Gulliford's favor, concluding the airline violated a federal whistle-blower act that prohibits airlines from discriminating against employees for reporting safety violations. The Labor Department ordered United to remove the reprimand from

Gulliford's file and to pay his attorney fees.

Airlines say they do their best to create an environment where mechanics can find, report and fix all safety problems.

The number of fatal crashes has dropped from 45 between 1984 and 1993 to 19 this past decade.

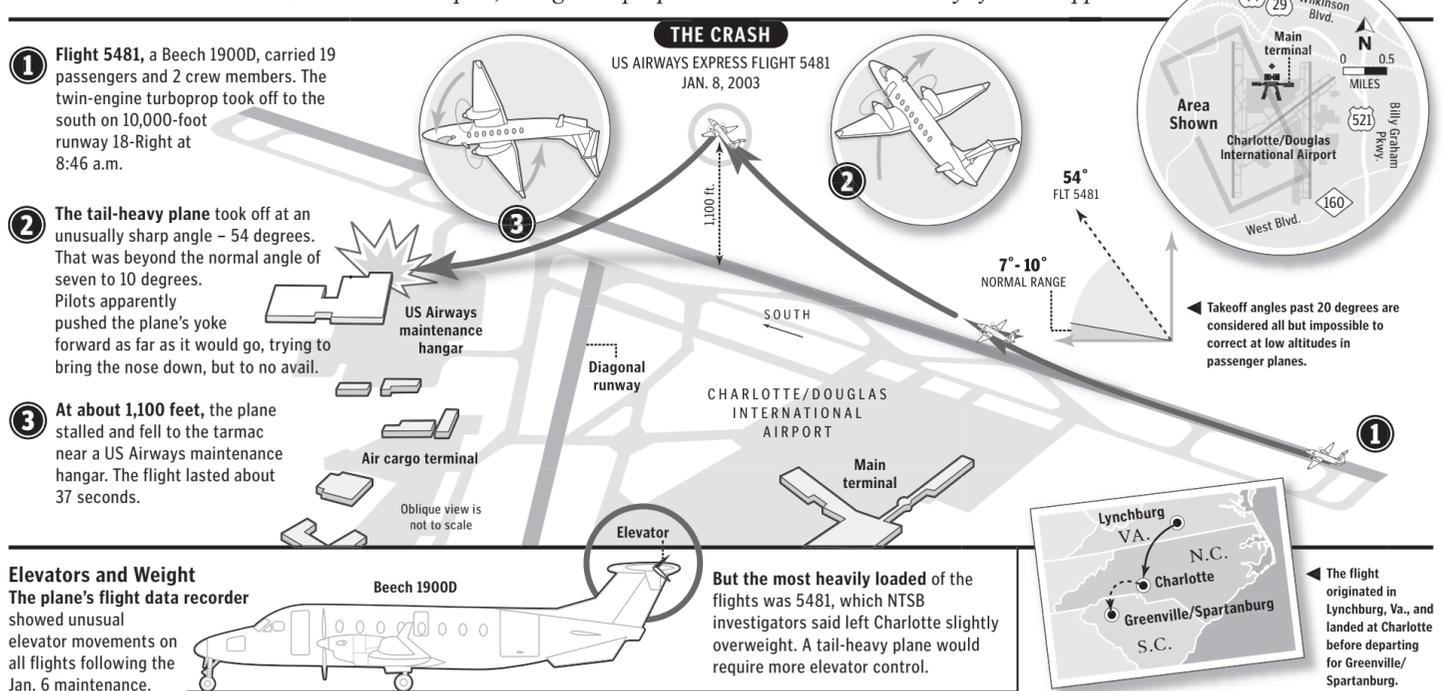
But now when there is a crash, it's far more likely to be related to faulty maintenance.

SEE SAFETY | NEXT PAGE

Plane hovered, then plunged

A 37-Second Disaster

On Jan. 8, US Airways Express Flight 5481 crashed shortly after takeoff from Charlotte/Douglas International Airport, killing all 21 people on board. Here's a summary of what happened.



No matter how hard they pushed, investigators say, they could not shove the yoke any further. The plane kept rising at a dangerous angle, up... up... up...

Look at him hotdog it, an air traffic controller called out to colleagues.

As soon as he said it, he realized something was wrong.

That guy's gonna stall, the controller said, and co-workers turned to look.

Trouble with elevators

Usually changing the angle of flight is as easy as turning a steering wheel in a car. The pilot grabs the steering yoke and moves it forward. The nose of the plane comes down. The pilot moves it back, and the nose goes up.

But two nights before, during routine maintenance, a mechanic reset the elevator cable tension that controls the pitch of the plane. He had never before reset cables on a Beech 1900D.

Afterward, when the steering yoke was pushed all the way forward, the elevator went only partway down.

The plane flew fine on nine flights with lighter loads. Leslie and Gibbs piloted it through six of those flights, and nobody reported a problem.

But this morning, the plane was heavily loaded. The back was weighted down, the nose high. To lower the nose and change the angle of takeoff, the elevators would have to go down all the way and they wouldn't, no matter who was piloting the plane.

The Beech 1900D usually takes off at a seven- to 10-degree angle. They were soaring up at 54 degrees, nearly twice as steep as the rise of an escalator.

They could not keep flying that way.

It hovered in the sky

At 8:47:13, about 22 seconds after liftoff, the plane looked as if it were about to stall.

It stopped climbing at 1,100 feet, a couple of hundred feet higher than the Bank of America building in downtown Charlotte.

For a moment, it hovered there, as if frozen.

Mike Horan, who trains flight attendants for US Airways, had pulled into the parking lot and was headed to his office near the runway. He heard the plane before he saw it. It didn't sound right. It sounded much too loud.

When he looked up, it was hanging in the sky like a giant cross.

'We have an emergency'

The next moment, the left wing dropped.

"Ahh!" Gibbs cried out.

"Oh my God!" Leslie said.

"We have an emergency," she radioed to air traffic control at 8:47:16, "for Air Midwest fifty-four eighty..."

She never finished the sentence.

The plane banked sharply. The stall warning horn quit.

The cockpit and data recorders documented the pilots' struggle, recording their voices and the instruments they manipulated. The recorders did not pick up what was happening to the passengers - except for one word.

From the cabin came the wail of a child's voice:

"Daddy!"

Something wasn't right

A Gulfstream jet owned by Coca-Cola Bottling Co. Consolidated had followed Flight 5481 to



OBSERVER FILE PHOTO

After Flight 5481 crashed at Charlotte/Douglas International Airport, a cloud of ugly black smoke hung over the city. Two days later, Pat Harris of Charlotte places a bow on a fence at the airport as part of a makeshift memorial to those who died.

the runway. As pilot Michael Garrett waited for his turn to take off, he saw something strange out of the corner of his eye.

He normally would not have paused to look at the plane ahead. He needed to concentrate on his jet. But something wasn't right.

Ron! he said to co-pilot Ron Griffin. Look at that. I think they're in trouble.

Oh my God! Griffin said. Garrett would relive the next few moments for days, every time he closed his eyes. Each time, he wished he could reach out and grab the plane and make it right.

Lindy Hannah, their flight attendant, heard the pilots' voices

and ran to the cockpit. One of them, she thought, must be having a heart attack.

Griffin pointed out the window.

Run! They're crashing

The plane rolled to the left until it was almost upside down, then it reversed direction and streaked nose down toward the ground.

It was 8:47:20, and Flight 5481 had been in the air about 29 seconds.

The landing gear warning horn sounded again, loud and intermittent like the beeping of a car horn:

ENNH... ENNH... ENNH...
"Pull the power back," Leslie



OBSERVER FILE PHOTO

The wing of the airplane crashed into a US Airways maintenance hangar at the Charlotte airport. "There was nothing left that looked like an airplane," one mechanic said. After the crash, these flowers were placed in front of the charred and damaged hangar.

cried.

She pulled back on the steering yoke, investigators say, trying to bring up the nose of the plane.

The stall warning horn blared and wouldn't quit.

The nose began to inch up and, from the ground, for one brief moment, it looked as if they might save it.

But then the right wing dipped, and the plane reversed direction again and veered toward a US Airways maintenance hangar.

David Allison was in the hangar, doing sheet metal work on a cockpit door, and he heard it coming.

The plane was so low, Allison

told investigators, he thought he could see a pair of arms moving inside the cockpit.

Run! he shouted to a co-worker. They're crashing.

The plane picked up speed.

"Oh my God," Leslie cried. "Ahh..."

"Uh, uh, God," Gibbs screamed, "Ahh..."

The landing gear warning horn blared.

At 8:47:28, about 37 seconds after liftoff, the left wing hit a corner of the maintenance hangar and US Airways Flight 5481 slammed into the ground.

All 21 people on board died on impact.

With a loud boom, the plane exploded into a burst of flame

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.

and black smoke. It burned down so quickly that moments later some maintenance workers fleeing the hangar didn't realize it was an airplane.

It couldn't be their flight

Six hundred miles away, in the Bahamas, Janet Albury was sorting through bills at the family hardware store.

The phone rang. Her sister-in-law had seen a TV news bulletin: A plane headed for Greenville, S.C., had crashed in Charlotte.

Janet Albury's husband, Robin, was flying from Charlotte to Greenville that morning, and she was supposed to have flown with him. In 15 1/2 years of marriage, he had rarely traveled without her. But this time, their 12-year-old daughter Caitlin went along. Robin's brother Nicholas, who was 21, went, too. They were on a buying trip for the hardware store, headed for a trade show.

It couldn't be their flight, Janet thought. They weren't getting into Greenville until 12:30 p.m. Then she remembered: The trade show started at 12:30. They very well might have taken the early flight.

No! she screamed. No! No! No! She telephoned Robin's cell phone.

He didn't answer.

WEDNESDAY

A family struggles with its loss.