

ARE PLANES WE FLY MORE AT RISK?

Pressures build for mechanics

Safety from previous page

Lee Seham, a White Plains, N.Y., attorney who represents airline mechanics, says that during the past two years he has heard from dozens of mechanics who complained of being threatened with retaliation for reporting safety problems. Seham says he has seen a significant increase in complaints from mechanics who make such claims.

At least eight mechanics have filed complaints with the federal Labor Department since 2000, alleging they were fired or punished for reporting safety concerns.

Two of those mechanics have gotten favorable rulings from the labor department, four have gotten unfavorable rulings and two cases are pending.

Mechanics have a term for being pressured to sign off on work that wasn't performed, or to approve planes that weren't airworthy. They call it "pencil whipping."

Ramp workers, not mechanics, now perform preflight checks

At US Airways and other major airlines, mechanics say they don't get to inspect planes as frequently as they used to.

Before a new contract took effect this year, US Airways mechanics in Charlotte guided planes to and from the concourse, inspecting them as part of the process. On occasion, they'd find potentially dangerous problems, Tanenbaum said.

Under new rules, however, ramp workers, not mechanics, guide and inspect the planes. Mechanics say they're better trained than ramp workers to spot problems such as hydraulic leaks or improperly secured electrical wires. But most major airlines already use ramp workers instead of mechanics for the task.

US Airways says that if ramp workers or pilots discover problems, they call in mechanics. "There's no compromise on safety," says William Bozin, the airline's vice president of safety and regulatory compliance.

American Airlines used to inspect each of the planes that stayed at one of its maintenance facilities overnight. Mechanics would typically take about four hours per plane - looking for fuel leaks, checking tire pressure and making sure emergency equipment was working properly, among other things, says mechanic MacTiernan, who works in the airline's San Diego maintenance base.

But last spring, the airline told mechanics not to do the nightly checks unless planes were scheduled for maintenance or pilots reported a problem. MacTiernan says this increases the possibility that small mechanical problems will become bigger ones.

He has witnessed similar cutbacks across the industry.

"I see the quality of maintenance on U.S. fleets deteriorating," MacTiernan said. "You get what you pay for. There's no shortcut for safety."

American Airlines said its periodic service checks are now based on the number of hours a plane has flown, rather than on where it spends the night. The airline says the change is within FAA guidelines. American says it still keeps close tabs on maintenance problems and has seen no indication that the change has affected safety.

As pay falls, layoffs rise, some mechanics go elsewhere

In Joseph Bellino's family, aviation maintenance has been a tradition. His grandfather and uncles were airline mechanics, and about 15 years ago, Bellino became one, too, signing up with American Airlines.

But over the years, Bellino said, he grew increasingly frustrated as his benefits were cut and inflation outpaced his pay. About eight years ago, he also took a part-time job servicing and installing air conditioning in Long Island, N.Y.

In May, he was laid off from American. But when he got a recall notice this November, he ignored it. He'd rather keep doing the air conditioning work.

"I saw my chosen career going down the toilet," says Bellino, 39. "...When my 3-year-old son looks up and says, 'Ooh an airplane, I say, 'Don't even look there.'"

Many experts predict a shortage of mechanics when the in-

"I always tried to envision people being on the planes I was working on. What if my dad is on the plane? I always tried to keep it personal. I felt if I did that, my quality would be better."

CHRIS BENDER, FORMER MECHANIC FOR HAMILTON STANDARD



ROBERT LAHSER - STAFF PHOTO

Mechanic Chris Bender inspected a propeller blade that later snapped, causing a fatal 1995 crash of an Atlantic Southeast Airlines plane in Georgia, the NTSB found. Crash investigators subsequently found that Bender's employer, Hamilton Standard in Rock Hill, was largely to blame for providing its employees inadequate procedures and training. Hamilton Standard acknowledged that Bender followed its procedures correctly, but that some of those procedures were inadequate.

dustry comes out of its financial slump.

A wave of mechanics who joined the industry after the Vietnam War is starting to retire.

Nationally, schools that train airline mechanics have seen enrollments drop significantly since 2001. Youths with technical skills may be able to make more money working on computers, amusement park rides or cars. The military, which has historically helped train many airline mechanics, is now working more aggressively to keep them.

At some airlines, including US Airways, pay for top mechanics has declined slightly since 2001, according to mechanics' unions.

Some laid-off workers have taken better-paying jobs in fields such as the computer industry, where they can work day shifts and have weekends off - a luxury few airline mechanics enjoy.

Bill Lech, a 15-year US Airways mechanic based in Charlotte, said that if he had it to do over again, "I would probably go to college and pursue a more stable sector to work in. I would do something where I would be clean and compensated for my contribution."

Lech said it's stressful to work for an airline with such an uncertain future. "You don't know if you're going to have a job in a week," he said.

National Transportation Safety Board member John Goglia, a former US Airways mechanic, says he sees fewer highly skilled people going into the profession these days.

"The average mechanic today is not the same mechanic we had 20 years ago," he said. "The better people with hand-eye coordination have been sucked away by the computer industry. The quality of mechanics is lower."

He predicts airlines will soon face a shortage of skilled mechanics, and will increasingly use contract repair stations, which in turn will rely on "low-skilled, not-as-well-educated warm bodies."

Harsh work conditions, high pressure prevalent

Lives depend on the work airline mechanics do.

"We live with the fact that everything we do has to be right," says Brian Finnegan, president of the Professional Aviation Main-

tenance Association.

They earn less than many who work on computers. Average annual pay for line mechanics, who do routine maintenance work and fix problems reported by pilots, ranges from about \$36,200 at regional airlines to about \$56,200 at major airlines, according to a recent survey by Aviation Maintenance magazine.

Unlike computer technicians, they must handle dangerous equipment and work in harsh weather.

Gary Eiff, an aviation maintenance expert who teaches at Purdue University, remembers accompanying a mechanic at Chicago's O'Hare Airport as he went outside in sub-zero weather to repair an engine. The mechanic brought a cup of coffee, but not to drink. It was to pour on his fingers when they got numb.

Mechanics often work long days. The mechanic in Huntington, W.Va., who adjusted control cables on a Beech 1900D two days before the plane crashed in Charlotte worked a 14-hour shift, according to time cards made public by the NTSB. His trainer, who also inspected the job, worked a 15.5-hour shift.

Experts recommend that mechanics not work shifts longer than 13 hours, including overtime, in order to prevent fatigue.

With technology, need for training rises, but budgets fall

In some ways, the jobs of airline mechanics will likely grow harder. Modern aircraft are more reliable, experts say, but the maintenance they require involves more technical expertise.

That, experts say, is one reason to improve training.

But at some airlines, budget cutbacks have reduced training.

Since Sept. 11, 2001, US Airways has cut back on a "human factors" training program. Such training seeks to create a work environment where maintenance mistakes are less likely to happen - by encouraging teamwork and recognizing how personal problems may impede performance.

US Airways says that human factors training for new mechanics, once offered in separate sessions of about six hours, has been folded into the hour-and-a-half session offered as recurrent training to veteran mechanics.

control, but the crippled plane slammed into a Georgia hayfield. Ten people ultimately died from injuries suffered in the fiery crash.

Crash investigators said workers at a Hamilton Standard plant in Rock Hill had failed to detect corrosion that likely caused the blade to snap.

Chris Bender was one of the mechanics who inspected and repaired propeller blades. Like many of his fellow technicians, Bender came to the Hamilton Standard plant in 1994 from the automobile industry. He says he took the job seriously.

"I always tried to envision people being on the planes I was working on," he said. "What if my dad is on the plane? I always tried to keep it personal. I felt if I did that, my quality would be better."

At the time, Hamilton Standard was trying to address a problem. Two of the company's propeller blades had previously failed in flight, so the FAA and Hamilton Standard came up with procedures for inspecting blades to ensure they were safe.

When ultrasonic tests showed that blades had potential problems, many of them were shipped to Hamilton Standard and came to Bender, who used a special tool to inspect the interior for corrosion or cracks.

He remembers seeing news of the Atlantic Southeast crash. The next day, Bender remembers, the FAA called the plant.

A quality-control inspector at the shop instructed Bender, then 23, to go through boxes of paperwork and look for the serial number of the propeller blade that snapped on ASA Flight 529.

He found the serial number, then opened a packet and saw the initials: CSB.

Christopher Scott Bender. He had inspected the blade. "My heart sank," he remembers. "I was almost in tears."

That night, he says, he called his mother and told her, "Something really bad happened at work. Can you be praying for me?"

Two years later, the NTSB blamed Hamilton Standard, not Bender. The safety board found that Bender and his colleagues hadn't been properly trained and equipped to identify the corrosion that led to the blade's fracture. Hamilton Standard said the technicians followed company procedures, but acknowledged that some of those procedures were inadequate. Atlantic Southeast declined to comment.

Bender, now 32, lives in Fort Mill, S.C., and works as a youth pastor. He still wonders whether he could have done something to catch the problem. He thinks better instructions and communication might have prevented the crash.

He says the company could have done more to show him what to look for in the propeller blades with potential problems. He had been doing that job for about a month when he first examined the propeller blade that later went on the Atlantic Southeast plane. No one had ever shown him a crack in a propeller blade, he said.

"The method we were using was very primitive compared to what we needed to be using," Bender now says. "Looking back on it, you think, 'Why wouldn't we have a better way?'"

Special Report | A Summary

TODAY | More than 20 mechanics interviewed by The Observer expressed increasing frustration with cost-cutting they say makes it harder for airlines to maintain their planes properly.

The mechanics' concerns come at a time when maintenance increasingly plays a role in fatal accidents.

It's also a time when mechanics face an uncertain future. Since 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 as the airline industry rebounds.

SUNDAY | Maintenance mistakes increasingly play a role in fatal airline accidents, but the industry hasn't made fixing the problems a priority.

MONDAY | The crash in Charlotte of Flight 5481 illustrates much of what can go wrong in the maintenance safety system.

WEDNESDAY | Aviation safety experts offer ideas to improve maintenance.

Special Report Staff**REPORTERS**

Ames Alexander (704) 358-5060
aalexander@charlotteobserver.com

Ted Reed (704) 358-5170
treed@charlotteobserver.com

Elizabeth Leland (704) 385-5074
eleland@charlotteobserver.com

DATABASE EDITOR

Ted Mellnik (704) 358-5028
tmellnik@charlotteobserver.com

COPY EDITOR | Shelly Shepard

DESIGNER | Michael Tribble

NEWS GRAPHICS EDITOR | Wm. Pitzer

PHOTO ILLUSTRATION | L. Mueller

RESEARCH | Sara Klemmer

EDITORS | Cheryl Carpenter, Marion Paynter (research), Tom Tozer, Peter Weinberger (photography).

PROJECT EDITOR | Gary Schwab

On the Web

Read the previous installments of this special report online at: www.charlotte.com/mld/charlotte/news/special_packages/planes/