



PATCO-affiliated controllers on the picket line

Chapter 5: An Evolving Agency in a Changing World

On January 20, 1977, Jimmy (James E.) Carter became President of the United States. Brock Adams became his first secretary of transportation. John McLucas resigned as FAA Administrator on April 1, 1977, and **LANGHORNE BOND [TERM: 05/04/77 – 01/20/81]** succeeded him, becoming the seventh FAA



Administrator Langhorne Bond

that managed bus technology projects for transit authorities. In March 1973 Bond became the Illinois Secretary of Transportation, the position he held when selected for the FAA position.

Deregulation

When President Carter assumed office, airlines faced severe economic distress as passenger demand fell and ticket and fuel prices rose. Since 1938 the Civil Aeronautics Board (CAB) had regulated all domestic air transport as a public utility, setting

fares, routes, and schedules. CAB also ensured the airlines had a reasonable rate of return. Since the creation of CAB, no airline had failed economically. Technological developments in the 1960s and 1970s, such as the wide-body aircraft, however, had created strains on the airline industry. While new aircraft significantly increased airline capacity on many routes, they made it harder for airlines to recover the cost of extra seats without adjusting pricing. The 1973 Arab oil embargo resulted in skyrocketing fuel costs that lowered airline profits.

Airline regulation guaranteed profits for most of the major airlines. Although the airlines favored federal regulation, passengers forced to pay escalating fares did not. Small communities that subsidized air service at ever increasing rates lobbied for deregulation. Leading economists had long argued that airline regulation resulted in inefficiency and higher costs. President Carter believed an unregulated industry would attract new carriers and increase competition among airlines. This, in turn, would result in lower fares and improved service.



Deregulation brings more airlines and routes

In November 1977 President Carter tested deregulation theories when he signed legislation that ended economic regulation of air cargo operations. Almost a year later, on October 24, 1978, he signed the Airline Deregulation Act of 1978 (Public Law 95-504). The new law allowed immediate air fare reductions of up to 70 percent without CAB approval, and the automatic entry of new airlines into routes not protected by other air carriers. It also phased out federal control over airline pricing and routes. CAB's authority over fares, routes, and mergers would be removed entirely before 1983, and — unless Congress acted — CAB itself would shut down on January 1, 1985.



1978, President Carter signs the Airline Deregulation Act

The Airline Deregulation Act created a highly competitive airline industry. The early effects of deregulation included bankruptcies, mergers, acquisitions, and furloughs. Between 1978 and the end of 1983, the number of scheduled interstate carriers in the United States increased from 36 to 123. During the same period, 34 carriers went bankrupt and another 69 ceased operations. Prior to 1978, during the time they were protected by the government from competition, the major carriers had become high-cost, unionized operations. When competition began in 1978, the new carriers generally employed relatively cheap nonunion labor and used smaller crews on their aircraft than the established airlines. Deregulation also increased FAA workload exponentially. FAA had to certify every new airline and there were hundreds of applications

after deregulation that FAA had to review and approve or disapprove. In the immediate years after the deregulation act, FAA flight standards and other offices focused primarily on the new applicants.

By the time airline deregulation became law, FAA had achieved a semi-automated air traffic control system based on a marriage of radar and computer technology. By automating certain routine tasks, the system allowed controllers to concentrate more efficiently on the vital task of keeping aircraft safe and separated. Data appearing directly on their scopes provided controllers the identity, altitude, and groundspeed of aircraft carrying radar beacons. Despite its effectiveness, however, the air traffic control system required enhancement to keep pace with the increased volumes



1980s, tower controllers at work

of traffic that resulted from the new, deregulated competitive environment. New fare and route competition in the air passenger industry and the entry of new domestic carriers required long-term FAA planning.

Controller Relations

On March 15, 1978, a three-year labor-management agreement between the Professional Air Traffic Controllers Organization (PATCO) and FAA went into effect. Since the controllers' pay had been adjusted by a 1976 Civil Service Commission ruling, the contract dealt primarily with their working conditions. The agreement contained 75 articles, including provisions for overtime pay. In the past, airlines had always provided free familiarization flights for eligible controllers, but now the principal overseas air carriers balked at the prospect of providing cockpit space on international flights for all air traffic controllers at a certain pay level. Previously, only controllers who handled international flights could take the overseas familiarization trips, but now FAA allowed most controllers to take international familiarization flights. The agency also agreed to pay controllers their salaries while they were on such flights.

Despite FAA concessions, some U.S. flag carriers refused to provide controllers with overseas familiarization flights. On May 25, 1978, PATCO staged a day of intermittent slowdowns to protest against these companies. Then, on June 6-7, the union began another slowdown. Resulting delays in the national aviation system were especially severe because of the increased air travel resulting from

new low transatlantic and domestic fares. FAA asked for, and received, help from the U.S. court system to stop this slowdown. On June 21 PATCO agreed to obey a federal-court injunction and end the "work to rule" delays. The union also agreed to pay a fine of \$100,000 to the Air Transport Association for violating the permanent injunction won in a 1970 law suit against air traffic slowdowns.



Cancelled and delayed flights during the strike create passenger delays

A new federal law in late 1978 established new federal offices to oversee civil service rules, including the relationships between federal agencies and employee unions. On October 13, 1978, President Carter signed the Civil Service Reform Act (Public Law 95-454) in fulfillment of a campaign promise. Among other things, the law created the U.S. Office of Personnel Management (OPM), the Federal Labor Relations Authority (FLRA), and the U.S. Merit Systems Protection Board (MSPB). The legislation provided the first statutory basis for collective bargaining between the federal government and employee unions.

Concerned that FAA would take disciplinary action against controllers taking part in work slowdowns, PATCO established a national controller subsistence fund in May 1978. Believing the union created the fund as a war chest for financing illegal job actions, FAA quickly filed an unfair labor practice complaint. On May 4, 1979, the regional director of the Washington Office of the FLRA ruled the fund legal. The ruling held that, while federal statute prohibited strikes or other overt job actions by federal employees, it did not prohibit strike funds. A three-member FLRA panel upheld the regional director's ruling in December 1980.

PATCO President John Leyden resigned in February 1980 after a bitter struggle with Robert Poli for control of the organization. Both men had submitted their resignations to the PATCO board, but the board accepted only the president's resignation. The regional vice president became interim president and subsequently was elected to a three-year term on April 24.

Controller unrest did not diminish under the new leadership. On April 15, 1980, PATCO distributed an educational package to its members that FAA considered to be, in effect, a strike plan. These materials provided: information on how to establish communications networks and committees on security, welfare, and picketing; recommendations for a variety of financial preparations in case of the loss of wages during a job action; and advice to local PATCO organizations to make arrangements for bail bondsman and for other legal services. The union followed this with an August 15 slowdown at Chicago's O'Hare International Airport that caused 616 delays of 30 minutes or more and cost air carriers more than \$1 million in wasted fuel. The slowdown followed FAA's refusal to meet a demand by O'Hare controllers for an annual tax-free bonus of \$7,500.

Two days after the Chicago slowdown, FAA brought suit for preliminary and permanent injunctions against the controllers. The following day, a U.S. District Court judge issued a temporary restraining order prohibiting PATCO and its O'Hare affiliate from taking part in any work stoppage or slowdown. Subsequently, FAA pressed its plea for permanent injunctive relief. On December 15 a U.S. District Court judge in Illinois dismissed the court action brought by FAA against PATCO and its Chicago O'Hare Local No. 316 for the August slowdown. The judge considered such a slowdown an unfair labor practice, but noted that Title VII of the Civil Service Reform Act of 1978 gave jurisdiction in such controversies to the FLRA, not to U.S. district courts.

Protecting the Environment

Increased noise and air pollution proved a consequence of more flights and larger aircraft. In March 1977 FAA defined three stages of aircraft noise levels for subsonic large transport aircraft and subsonic turbojets. Stage 1 aircraft did not meet



Researchers conduct an emissions test

then-current noise standards and had to be modified or replaced according to a previously established schedule. Stage 2 aircraft met the current standards, while Stage 3 aircraft met the more rigorous noise standards established for the next generation of jet transports. The agency judged that improved noise-reduction technologies made it economically reasonable to apply the new standards, which became effective on October 1, 1977.

FAA also reduced noise limits on landing approaches from the old standard of 102-108 effective perceived noise decibels (EPNdB) to 98-105 EPNdB, depending on aircraft weight. For the first time, the agency based the standards for takeoff and sideline noise levels on number of engines as well as weight. FAA reduced takeoff noise limits from the old standard of 93-108 EPNdB to 90-106 for four-engine jets, 90-104 for three engines, and 89-101 for one and two engines. In addition, the agency reduced sideline noise limits from



Residents of Santa Monica, California, express concern about airport noise

102-108 EPNdB to 96-103 for three and four engines and 94-103 for one and two engines. A November 1980 FAA rule required foreign operators of aircraft over 75,000 pounds serving the U.S. to comply with the same noise standards as U.S. operators. The rule generally required final compliance by 1985.

In January 1980 the Environmental Protection Agency (EPA) established a schedule for reducing air pollution from older transport aircraft using the JT3D jet engine (mostly used on DC-8s

and Boeing 707s). EPA required the replacement of one-fourth of these stage 2 engines by January 1, 1981; one-half by January 1, 1983; and all by January 1, 1985. The rule postponed earlier requirements established in 1973. The emissions standards also applied to foreign-owned aircraft serving U.S. airports.



Noise limit requirements depend on type of aircraft

The Aviation Safety and Noise Abatement Act of 1979, signed into law by President Carter on February 18, 1980, gave airlines more time to comply with EPA's stage 2 aircraft noise standards insofar as they applied to two-engine jets over 75,000 pounds. EPA initially required two-engine aircraft to comply by January 1, 1983, but the new law extended the deadline to January 1, 1985, for aircraft with over 100 seats and until January 1, 1988, for those with 100 seats or fewer. [On January 20, 1983, EPA eliminated the requirement that the remaining in-use JT3D engines be retrofitted to meet the standards.] The legislation also authorized funds for noise planning and land use compatibility

projects and, in certain circumstances, barred law suits for damages resulting from airport noise.

FAA published a rule in early 1980 eliminating the allowable amount of ozone gas in airliners flying above 18,000 feet. The agency restricted ozone concentration in the cabin to a maximum of 0.25 parts per million. In addition, the average exposure on flights of more than four hours could be no more than 0.1 parts per million. FAA gave airlines the choice of achieving these standards through air filters, use of engine heat to break down ozone, or selection of routes that avoided ozone concentrations. The agency expected that about 500 large transport aircraft used at high altitudes in northern latitudes would require modification. FAA set a compliance deadline of February 20, 1981. The same rule amended airworthiness standards for new transport aircraft to provide protection against ozone depletion.

Safety

The Airline Deregulation Act authorized the use of larger aircraft by commuter airlines. The rule helped boost the already booming growth rate of commuter airlines and led to important new FAA regulations. Hoping to bring the safety level of commuter airlines in line with that of the major airlines, in December 1977, FAA promulgated a comprehensive revision of Federal Aviation Regulations Part 135, governing air taxi and commuter airline operations. Under the new rules, depending on the size of the operations and aircraft, FAA required commuter airlines to have a director of operations, a chief pilot, and a director

of maintenance, as well as more stringent training and maintenance programs. In addition, FAA required commuter airliners, depending on their size, to have equipment such as a ground proximity warning indicator, thunderstorm detection equipment, and a third attitude gyro (to indicate the orientation of the aircraft's axes relative to some reference line, such as the horizon). Because the new requirements were tied to the size and complexity of operations, they enabled commuter airlines to fly aircraft with a seating capacity of up to 30 passengers or a payload of up to 7500 pounds as allowed by the Airline Deregulation Act.

On March 27, 1977, the worst accident to date in aviation occurred when two Boeing 747s collided on a runway at Tenerife, Canary

Islands, under conditions of limited visibility. Controllers had instructed one of the aircraft, a Pan American jet, to move down the runway toward an assigned taxiway, but they also ordered the other jet, belonging to KLM Royal Dutch Airlines, to wait at the end of the same runway. The Dutch crew, approaching the legal flight duty time limit, apparently misinterpreted a message from the tower as clearance to take off. Disregarding the doubts of a crew member, the captain began the takeoff roll. The resulting collision killed all 248 persons aboard the KLM jet and 335 of the 396 persons aboard the Pan American. An intense fire engulfing both aircraft caused most of the casualties.



Commuter safety requirements increase

A few days later, on April 4, a Southern Airways DC-9 crashed near New Hope, Georgia. The pilot attempted an emergency landing on a highway, but the aircraft broke apart and caught fire. The accident killed 62 of the 85 persons aboard, as well as eight persons on the ground. In addition, one passenger and one person injured on the ground died about a month later.

In June 1977 FAA established the Special Aviation Fire and Explosion Reduction (SAFER) Advisory Committee to examine the topic of post-crash survival of aircraft cabin occupants. The committee's 24 members came from airlines, aircraft manufacturers, universities, research organizations, as well as flight and cabin crews. Formation of the committee resulted from two public hearing held by FAA to discuss four rulemaking proposals concerning fire hazards in transport aircraft. The hearings reflected public consensus that the issues addressed in the four rules were interrelated and should be addressed as one problem. Deciding to wait for the SAFER committee's recommendations, FAA withdrew the four rulemaking proposals. One of those would have required fuel tank explosion prevention systems. The other three concerned the effects of fire on compartment interior materials, toxic gas emission standards, smoke emission standards, and replacement of existing materials that did not meet flammability standards.

The agency also intensified research on post-crash fires. In late 1977 it signed an agreement with the United Kingdom to help develop an anti-misting kerosene fuel, known as AMK. In November 1978 FAA announced that a new fire research laboratory would be built at its National Aviation Facilities Experimental Center in Atlantic City, New Jersey.



Post crash fire research leads to new regulations

As the SAFER committee continued its investigations, two more accidents raised concerns about post-crash fires. On May 25, 1979, an American Airlines DC-10 crashed into an open field near Chicago's O'Hare airport after its left engine and pylon assembly separated from the aircraft on takeoff. The ensuing crash and fire killed all 272 persons aboard the flight and two people on the ground. An August 1980 in-flight fire on a Saudi Arabian Airlines L-1011 intensified fears about aircraft fires. Smoke inside the aircraft prompted a return to Riyadh shortly after takeoff. The aircraft landed normally, but was destroyed by fire on the taxiway. All 301 persons aboard died in the fire.



1980, aftermath of fire onboard a Saudi Arabian Airlines flight

The SAFER Committee released its final report in September 1980. The committee found that over the previous 15 years fatalities due to post-crash fire in U.S. scheduled air carrier operations averaged about 32 per year. The SAFER group urged FAA to expedite the investigation and validation of anti-misting kerosene. Other recommendations included:

- Requiring mandatory fuel tank vent protection,
- Maximizing the probability of engine fuel shut-off in potential fire situations,
- Conducting research on lowering the flashpoint of kerosene fuels,
- Improving accident investigation and reporting,
- Undertaking research to establish the contribution of cabin interior materials to the post-crash fire hazard,
- Developing fire-blocking layers for seats,
- Accelerating toxicity research,
- Establishing radiant heat resistance standards for evacuation slides, and
- Developing improved fire-resistant cabin windows.

The committee also urged FAA to create a standing advisory committee to provide regular expert advice in the field of fire and explosion research. FAA subsequently set up working groups to examine the SAFER recommendations and take rulemaking action when feasible.

Security

The number of hijacking attempts throughout the world doubled in 1977 and resulted in the death of 129 persons. The most spectacular incident of 1977 was the five-day odyssey of a Lufthansa Boeing 737 hijacked in October over the Mediterranean and flown to various places in the Near East. The hijackers murdered the pilot, and later, in Somalia, threatened to massacre the other 86 people on board. Just 90 minutes before their deadline, West German commandos stormed the aircraft and rescued all the hostages. After this incident, the International Federation of Air Line Pilots threatened a two-day international pilots' strike unless the United Nations took immediate action on air piracy. Just two month later a Malaysian Airlines Boeing 737 crashed after being hijacked, killing all 100 persons aboard.

During the Carter Administration, the U.S. continued to work with its international partners to improve aviation security worldwide. At a July 17, 1978, economic summit conference in Bonn, Germany, representatives from the United States, West Germany, France, Great Britain, Japan, Canada, and Italy announced a joint resolution to isolate from international air traffic all countries harboring air hijackers. The resolution stated their intent to stop all flights to any country that refused to extradite or prosecute those who have hijacked an aircraft and/or failed to return such an aircraft. The resolution also called for a ban on incoming flights from an offending nation, as well as a ban on any traffic to that nation by airlines of participating countries. The conferees informally agreed to make no exceptions, not even for persons escaping from totalitarian governments. Diplomatic efforts began immediately to gain the agreement of as many other countries as possible.

In July 1978 a new FAA regulation extended to both domestic and international charter operations security screening procedures already in effect for scheduled airlines. Less than a year later, in



Test of new airport security equipment

March 1979, FAA revised its rules for airport security. In a departure from previous rules, the agency permitted police officers assigned to security checkpoints in some airports to patrol other areas of the terminal, as long as they could respond quickly to trouble at their checkpoints. In another major change, FAA made it a regulatory violation for anyone, passenger or not, to carry guns or explosives into the sterile areas beyond the checkpoints. Prior to that, regulations only prohibited carrying weapons on board aircraft. The revised airport security regulations represented increased concern for the safety of people in airport terminals as well as aboard airliners.

During 1978 U.S.-registered aircraft experienced eight hijacking attempts — the highest level since FAA began screening passengers and carry-on luggage in 1973. None of the hijackers, however, had been able to slip firearms or explosives through airport screening points. That changed on January 25, 1980, when the first U.S. air carrier hijacking occurred in which real weapons or high explosives passed through the passenger screening system. On that date, a hijacker armed with a pistol and pretending to have a bomb diverted a Delta Airlines L-1011 to Cuba. Once in Cuba, he demanded to be flown to Iran, but eventually surrendered to Cuban authorities.

In July 1980 a hijacker, holding what seemed to be a small handgun to the back of a flight attendant, diverted another Delta Air Lines L-1011 to Cuba. This incident was the first in a series of hijackings by Cuban refugees who had arrived in the U.S. during the boat lift, beginning in April, from the port of Mariel. These refugees returned to their homeland in ten additional hijackings between August 10 and September 17. During the last quarter of 1980, however, no successful “Marielista” hijackings occurred.



Airport security tightens in response to increased hijacking attempts