

1931 2011

A HISTORY OF ACHIEVEMENT:
80 Years of Pilots Putting
Safety and Security First

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AIR LINE PILOTS ASSOCIATION, INTERNATIONAL



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Throughout the last eight decades, airline safety and security have been at the core of ALPA's operations. "Schedule with Safety" has been the mission since our Association was founded, and our legacy of championing air safety carries on. It is manifested in the ongoing work and far-reaching contributions of ALPA's network of dedicated pilot volunteers and staff working with industry groups and government officials in the United States and Canada to ensure one level of safety and security for every airline operation – cargo and passenger.



A HISTORY OF ACHIEVEMENT: 80 Years of Pilots Putting Safety & Security First

1920s 1930s

In the early days of commercial flight – in the 1920s and 1930s – piloting was a very dangerous occupation. Professional aviators literally risked their lives daily on the job. A chilling example of this: More than half of ALPA’s founders died as a result of “unnatural” causes – airline accidents. Today, flying is much safer and more secure. In fact, ALPA pilots have led the way, making aviation the world’s safest mode of transportation. We in ALPA are proud of our efforts and advocacy to make flying safer. And we can say with the greatest pride that the Association’s contributions throughout the years have made a difference, touching the lives of every airline pilot, every cabin crewmember, and every passenger, from departure to arrival gate, from Boston to Bangladesh and beyond.

In its first 80 years, ALPA either worked single-handedly or played a key part in government/industry cooperative efforts to improve aviation safety – in the air and on the ground. The Association was involved in the development of the first air traffic control centers, the creation of the “basic T” instrument panel layout, the development of modern collision avoidance systems, the passage of stringent One



William “Big Bill” Hopson, a pilot who helped establish transcontinental airmail service, was proof positive that piloting was dangerous in the profession’s early years. “Big Bill” died when his airplane crashed in 1928.

Level of Safety regulations that affect all airline passengers (covering all airliners with 10 passenger seats or more), the creation of improved regulations covering passenger aircraft emergency evacuations, the formation of antiskijacking strategies adopted by federal regulators, the development of safer procedures for the carriage of hazardous materials aboard airliners, and the initiation of safer land-and-hold-short operations in the United States and Canada – to name just a few of ALPA’s premier accomplishments in this area. 🌐



Jack Knight, “the ace of the Air Mail Service,” was one of the pioneers of airmail and the first pilot to complete the night leg of a transcontinental airmail route. Later he was a United Airlines captain and one of ALPA’s first members.

In addition, many of ALPA’s greatest safety “victories” are not spoken of or publicized outside of the Association’s walls. These accomplishments are our efforts to prevent other parties from attempting to decrease the margin of airline safety. In fact, many “bad” ideas have been abandoned in their earliest stages because of the perception that “ALPA would never stand for them.”

ALPA’s efforts, advocacy, and dedication to aviation safety represent the Association’s legacy to each new generation of airline pilots and their passengers, who reap the benefits of a safer traveling environment. Our efforts also represent a challenge to the current generation of pilots, and to future generations, to strive to raise the safety bar even higher. 🌐

Today, flying is much safer and more secure. In fact, ALPA pilots have led the way, making aviation the world’s safest mode of transportation.



The J-4 Swallow, a single-engine biplane, was flown by pilots during the early days of the airmail service.



1930s

The 1930s was a decade of great significance for airline pilots across the United States, Canada, and beyond. It was the decade when a professional union of pilots was born to protect the interests of airmen during a decade marked by “pilot pushing,” horribly unsafe flying conditions, and a company mentality that pilots were an expendable commodity. Fly at all costs, under all conditions; just make sure that the mail is delivered on time.

1931 Capt. David L. Behncke, a pilot for Boeing Air Transport (predecessor of United Airlines), meets with



23 other “key men” in Chicago to officially launch a new pilot organization. Among other items, the pilots approve a name (Air Line

Pilots Association) and adopt a motto (Schedule with Safety). More than half of the 24 “key men” would later perish in aircraft accidents.

1933 The National Labor Board (NLB) renders landmark Decision 83, limiting flight time for pilots and copilots to 85 hours per month. ALPA lobbied successfully for this decision.

1936 ALPA succeeds in convincing several airlines to agree upon the need to form air traffic control centers, the first of which were located in Chicago, Cleveland, and Newark.

1939 Fifth meeting, ALPA Board of Directors (BOD), which

- ▶ calls for a minimum crew of three pilots on all aircraft over 25,000 pounds, and for the addition of a fourth pilot on flights over 1,500 miles (crew-fatigue concerns fuel ALPA’s drive to bring additional pilots into the cockpit); and
- ▶ establishes the first ALPA technical committee to enhance safety – the Airworthiness and Performance Committee. 🌐

This rotating beacon tower, located in North Platte, Neb., was typical of airways facilities in those days. ALPA pushed for the formation of the first ATC centers in the mid-1930s.



80
Years

A team investigates a DC-3 that crashed near Washington, D.C., in January 1948. ALPA staff engineer C.F. Eck is pictured at far right.



1940s

During the 1940s, many ALPA pilots joined the fight to preserve democracy as we know it during the Second World War. It also was a decade when ALPA first began advocating for the formation of an independent aviation safety board, and one marked by greater pilot cooperation across national borders through the creation of the International Federation of Air Line Pilots' Associations (IFALPA).

1940 ALPA establishes two more committees to improve safety: the Engineering and Air Safety Advisory Committee and the Air Traffic Control and Airway Aids Advisory Committee.

1940 President Franklin Roosevelt sends his Fourth Reorganization Plan to Congress, proposing to move control of aviation to the Commerce Department and making the Air Safety Board part of a new agency called the Civil Aeronautics Board (CAB). ALPA lobbies against the plan on the grounds that Commerce should not regulate safety and investigate accidents. The Association wants the safety board to remain independent of Commerce. Time has shown the need for investigation agencies to be independent.

1940 Sixth meeting, ALPA BOD, which calls for reestablishing an independent aviation safety board – finally realized in 1966 with the creation of the National Transportation Safety Board (NTSB).

1944 Delegates from 52 nations meet in Chicago to discuss the problems facing international aviation during the postwar period. Delegates agree to create the International Civil Aviation Organization, subject to approval by a majority of delegates' governments. After two years

In the 1940s, ALPA established its Engineering and Air Safety Department. Sixty years later, ALPA's air safety structure is the largest nongovernmental safety organization in the world.

of interim operations (1945–47), ICAO officially comes into existence in April 1947. Since that date, and via ALPA's role in IFALPA (which has observer status at ICAO), the Association has been a leader in numerous ICAO committees and study groups on international aviation safety issues.

1944

ALPA hires engineer Ted G. Linnert as the first director of the Association's newly created Engineering and Air Safety Department, which will monitor technical developments in the aviation industry, work with the Civil Aviation Authority (CAA) on aviation regulations, and investigate aviation accidents.

1948

Pilot organizations from 16 nations sign an agreement in London to form IFALPA. ALPA signs as the representative of U.S. pilots. The agreement is an outgrowth of a 1943 trilateral agreement among ALPA, the British Airline Pilots' Association, and the Canadian Air Line Pilots Association. Since the day IFALPA was founded, ALPA has played a major part in innumerable study committees to improve aviation safety standards around the globe.

1948

A group of ALPA pilots meets with Douglas Aircraft Company engineers to discuss improvements to the design of Douglas's proposed DC-6.✈️



ALPA began lobbying for an independent air safety board in the early 1940s. The Association's wish became a reality with the creation of the National Transportation Safety Board some 25 years later.

80
Years

Delegates to
the 1953 IFALPA
Conference
include ALPA
President
Clarence Sayen
(bottom row,
direct center).



1950s

In the 1950s, the concept of the modern jet transport moved from blueprint to reality. The advent of the jet kicked off a revolutionary new means of transporting people and cargo. ALPA's air safety structure also was devised, and the framework established in 1951 has evolved into the largest nongovernmental safety structure in the world. In the '50s, the issue of crew fatigue and rest requirements, which continues to be an unresolved item on ALPA's safety agenda today, also became an increasing concern to pilots.

1951 ALPA develops and puts into effect an internal air safety structure based on pilot-led committees and on air safety representatives at each ALPA pilot group.

1952 12th meeting, ALPA BOD, which overwhelmingly votes to hold an annual Air Safety Forum.

1953 ICAO adopts an international standard for a centerline approach light system developed by Capt. Ernie Cutrell, an ALPA line pilot from Pan American World Airways.

1953 ALPA holds its first annual Air Safety Forum. Among the topics discussed are cockpit standardization, fire hazards, approach lighting, emergency evacuation, and noise abatement.

1954 In ALPA's News Bulletin, Association President Clarence Sayen cautions airlines that incident reporting systems aren't working effectively because pilots fear

disciplinary action by carriers or the government if they report dangerous occurrences. Sayen proposes pilot-immunity-in-reporting programs. This was the first step toward today's Aviation Safety Reporting System (ASRS) and Flight Operations Quality Assurance (FOQA) programs.

1954 ALPA calls a strike against American Airlines as a result of the company's new policy of scheduling pilots for more than eight hours of flight time in one day. The strike runs from July 31 through August 25, when the two sides agree to negotiate flight-time limitations.

1954 13th meeting, ALPA BOD, which calls for a federal requirement that all cockpit crewmembers possess commercial pilot certificates, ensuring that professional pilots are in the cockpit seats of all commercial airliners.

1955 The work of a single ALPA TWA line pilot, Capt. Larry DeCelles, during the investigation into the crash of a TWA Martin 404 in New Mexico, proves that the probable cause of the accident was a malfunction of the flux gate compass – not pilot negligence. DeCelles’s work leads to the development of instrument comparators.

1955 ALPA representatives visit Boeing, Douglas, and Lockheed to discuss development of jet transports. The B-707 is currently undergoing flight testing; the DC-8 is in the design stage.

1956 ALPA pushes for standardized use of a “standard T” layout for cockpit instrumentation in aircraft, developed by the Association, to the IFALPA Cockpit Standardization Study Group. The Study Group approves the proposal and forwards it to the IFALPA Athens Conference, which approves the “T” design as the worldwide standard for cockpit instrumentation layout.

1956 The CAA issues the requirement for two pilots on Sikorsky S-58 helicopters following months of ALPA lobbying against a single-pilot operation.

1956 14th meeting, ALPA BOD, which

- ▶ establishes the annual Air Safety Award for “outstanding contribution by members in the field of air safety” – ALPA’s most prestigious safety award;
- ▶ establishes a committee to investigate transport of hazardous materials (HAZMAT);
- ▶ adopts a new policy calling for a mandatory requirement that all cockpit crewmembers be pilot-qualified; and
- ▶ establishes the Gold Medal Award to recognize heroic pilots.

1957 The Civil Aeronautics Board rules that U.S. domestic carriers must schedule flights realistically so at least 75 percent of all flights can be completed on time. ALPA urged the CAB for three years to stop airlines from publishing unrealistic schedules, which would undermine safety.

1957 ALPA President Sayen meets with CAA officials to discuss how ALPA pilots may participate in the certification of new transport aircraft.

1958 President Dwight Eisenhower signs the Federal Aviation Act of 1958, which replaces the Civil Aeronautics Act of 1938 and creates a new independent body – the Federal Aviation Agency (FAA) – to regulate airlines. The Act separates the



The DC-8 was one of the first jet airliners. ALPA worked with various aircraft manufacturers to develop jet transports.


The work of a single ALPA TWA line pilot . . . leads to the development of instrument comparators. 1955

CAB from the Commerce Department but retains the Board's authority over economic matters and accident investigations. The Act also creates the first airway development fund, primarily at ALPA's request.

1958 President Eisenhower establishes a Presidential Emergency Board (PEB) to hear the dispute between Eastern Air Lines and its pilots over whether flight engineers should be pilot-qualified. ALPA favors pilot training for FEs, while the Flight Engineers International Association (FEIA, which represents EAL second officers) does not. Both unions are threatening to strike over this issue. On July 21, the PEB issues its report, which validates ALPA's position, recommending that cockpit crewmembers on Eastern jets be pilot-qualified.

1958 A dispute over flight hours and daily duty rates prompts the pilots at American Airlines to call a strike on December 20. The strike ends on January 10, 1959. 🌐

IFALPA approves the "standard T" instrumentation layout in aircraft—developed by ALPA—as the worldwide standard for cockpit instrumentation layout. 1956



80
Years

An accident investigation team works in the late 1960s. ALPA has participated in numerous accident investigations around the globe to protect the interests of downed pilots and their families.



1960s

Although the late 1950s marked the birth of the jet transport, the 1960s marked the first widespread use of this revolutionary new form of transportation, which created a whole new set of safety concerns. During this decade, the NTSB was created under the new Department of Transportation (DOT) to investigate accidents – an idea ALPA strongly advocated for many years. (The agency severed its organizational ties to DOT in 1975.) And, in the '60s, ALPA led the way to improved regulations covering aircraft emergency evacuations – the culmination of decades of work spearheaded by a dedicated ALPA safety volunteer, Capt. Vic Hewes of Delta Air Lines.

1960 Following two years of concerted ALPA effort, the FAA issues a regulation requiring weather radar on all large transport aircraft (with certain exceptions). This action improves the safety of these aircraft by allowing pilots to detect and avoid thunderstorms.

1960 The FAA institutes Project Scan – a “third-party” reporting system for pilots to report near misses without fear of enforcement action. Under Scan, pilots report to the Flight Safety Foundation, which will analyze reports and send statistical summaries to the FAA. The FAA will not have access to the original reports. ALPA endorses the project, which is to run only six months, and expresses hope to the FAA “that it may be expanded into an effective incident reporting system.”

1961 The Feinsinger Commission recommends to President John F. Kennedy that four-man jet crews gradually be reduced to three-man crews and that ALPA and the FEIA merge. Neither “peace nor safety on the airlines will be fully assured as long as there are two unions in the cockpit,” the commission says.

1961 After a great deal of lobbying by ALPA and other airline-interest groups, President Kennedy signs legislation making aircraft

In the 1960s, the National Transportation Safety Board (NTSB) was created— an idea ALPA strongly advocated for many years.

hijacking and other violent acts aboard aircraft federal crimes punishable by death or prison terms.

1963 During ALPA-promoted fire tests in Cleveland, Ohio, toxic gases from burning aircraft cabin interiors are discovered. Findings lead to flame-resistant materials in cabins, a greater impetus to improve fire-extinguishing capabilities, and an improved likelihood of passengers' surviving future airline accidents.

1963 The ALPA Executive Board meets to discuss the failure of the American Airlines Master Executive Council to abide by ALPA policy on crew complement while negotiating its new contract. ALPA policy calls for pilot-qualified FEs on jet aircraft, but the MEC is not willing to negotiate for this standard. The Executive Board decides to remove the MEC as the bargaining agent for the American pilots. The MEC refuses to accept the decision and decides to separate from ALPA and form its own independent union – the Allied Pilots Association – in April.


1964 18th meeting, ALPA BOD, which creates a special committee to formulate policy on crew complement for each new transport aircraft.

1966 President Lyndon B. Johnson signs a bill creating the DOT to consolidate various agencies dealing with transportation, including the FAA (renamed the Federal Aviation Administration). The law also creates the five-member National Transportation Safety Board within the DOT to investigate transportation accidents. Before this time, the CAB investigated aviation accidents. ALPA had passed internal policy and lobbied for this change since 1940.

1966 19th meeting, ALPA BOD, which reinstates mandatory policy requiring three pilots on all new aircraft and makes that policy part of ALPA's Constitution and By-Laws (Article XX).

1967 ALPA's All-Weather Flying Committee visits the Douglas Aircraft Company to examine and flight-test the Elliott head-up display on the DC-9 – the first such installation on a civil jet transport. ALPA's All-Weather Flying Committee adopted a policy calling for the use of HUDs on civil transports in 1962.

1967 ALPA President Charles Ruby meets with FAA Administrator William McKee to caution that the United States' crowded skies require three-member flight crews on the new Boeing 737. Ruby says, "The human skills of today's professional airmen are our most important asset in dealing with the mounting traffic problems."

1969 ALPA hires its first aeromedical adviser, Dr. Richard Masters. 



ALPA today recommends that airports use airport fire trucks like this one. In the 1960s, the FAA issued improved regulations for aircraft emergency evacuations and airport fire-extinguishing capabilities—to the benefit of crewmembers and passengers alike—after literally decades of work spearheaded by a dedicated ALPA safety volunteer, Capt. Vic Hewes (Delta).

A BOAC VC-10 hijacked in Jordan is blown up in September 1970. The 1970s were marked by a tremendous rise in aircraft hijackings across the globe.



1970s

The 1970s marked a difficult time for the U.S. airline industry. The threats of skyjacking became realities and hit closer to home. Despite the difficulties, the decade did contain some success stories in the area of aviation safety: ALPA's Safe Transportation of People (S.T.O.P.) campaign was victorious, the FAA established the first airport certification requirements after nearly three decades of pressure by ALPA, and NASA launched the Aviation Safety Reporting System (ASRS) – an airline incident database that ALPA helped pioneer. ALPA also initiated the first studies on the role of wind shear in airline accidents.

1970 President Richard Nixon signs legislation creating the Airport and Airway Trust Fund to pay for the Airport Development Aid Program and other safety-related projects through user taxes. ADAP replaces the Federal Aid Airport Program, which was funded from the general treasury. ALPA was a prime and outspoken supporter of creating the trust fund.

1970 ALPA identifies the need for an airborne collision avoidance system and begins work to make such a system a reality.

1970 ALPA's Aeromedical Office is established in Denver, Colo.

1970 21st meeting, ALPA BOD, which

- ▶ establishes a permanent Flight Security Committee and authorizes a suspension of service (S.O.S.) if any crewmember or passenger is killed during a skyjacking attempt;

- ▶ calls for the development of a collision avoidance system to replace the outdated concept of "see-and-avoid"; and
- ▶ turns down a proposal to let each MEC decide crew complement policy for its own pilots.

1971 At ALPA's urging, the world's first airport disaster drill takes place in Oakland, Calif. The National Fire Protection Association and ICAO later write materials on the subject with heavy input from ALPA. In 1987, the FAA requires that full-scale emergency drills be practiced every three years at certificated airports.

After three decades of lobbying by ALPA, the FAA creates an airport certification program. 1972

1972 After 30 years of lobbying by ALPA to create an airport certification program, the FAA adopts a regulation (Part 139) requiring airport operators to obtain a certificate from the FAA showing that they comply with safety standards.

1972 ALPA announces plans for an a suspension of service (S.O.S.) to all countries that aid aircraft hijackers. Two days later, IFALPA calls for a worldwide S.O.S. by pilots on June 19 if the United Nations fails to make a prompt attempt to stop hijackings. On June 18, after the UN fails to respond to IFALPA’s plea, the Air Transport Association (ATA) obtains a court order restraining ALPA pilots from participating in the IFALPA boycott, which takes place as planned on June 19.

1972 ALPA initiates the first studies to help identify the effects of wind shear on aircraft performance. The initial work is based on the 1972 TWA accident at JFK Airport.

1972 22nd meeting, ALPA BOD, which establishes an antihijacking campaign to lobby for stronger measures against terrorism.



In 1972, ALPA initiated the first studies to help identify the effects of wind shear on aircraft performance.

1973 Following the 1970 in-flight fire on Pan Am Flight 160, started by an improperly packaged shipment of nitric acid, and the airplane’s subsequent crash at Boston’s Logan Airport, ALPA launches Project S.T.O.P. Airline pilots start refusing shipments of all HAZMAT, except certain critical items such as medicine.

1974 ALPA publishes the first “S.T.O.P. Checklist” for pilots on transporting HAZMAT.

1974 ALPA introduces the Human Intervention and Motivation Study (HIMS) – the first reliable, systemwide program to help airline pilots with substance abuse problems.

1975 After years of intense lobbying by ALPA, the FAA approves rules requiring ground proximity warning systems (GPWS) in airliners. Use of GPWS has significantly reduced controlled-flight-into-terrain (CFIT) airline accidents. Lobbying was based upon evaluations conducted on commercially available hardware.

President Richard Nixon signed the U.S. Antihijacking Act of 1974. Beginning in the 1970s, when the threat of hijacking reached its all-time high, ALPA was intimately involved in activities to curb aircraft hijacking and improve airport and aircraft security.



However, not until the 1974 TWA Flight 514 accident near Dulles Airport did congressional interest force appropriate FAA action. In addition to mandated GPWS, the accident leads to the creation of ASRS and clarifies the ATC instruction “cleared for the approach.”

1975 President Gerald Ford signs the Transportation Safety Act of 1974, removing the NTSB from the DOT. This marks the first time since 1966 that responsibility for investigating accidents is vested in an independent agency. The Act also directs the DOT to draft new regulations on the shipment of HAZMAT. ALPA pushed for both reforms. ALPA was, and remains, an active participant in all accident investigations involving ALPA members and in many that do not but that have safety implications for ALPA members and the flying public.

1975 ADAP expires for lack of congressional legislation to renew it. ALPA urges lawmakers to continue it.

1976 After more than two decades of urging by ALPA for a pilot incident-reporting system with immunity protections based on foreign carriers’ success with similar systems, the National Aeronautics and Space Administration’s Ames Research Center in California begins operating ASRS to develop a database of the safety problems encountered by pilots and controllers in the day-to-day environment. ASRS has become the model for reporting systems worldwide. ALPA was a principal proponent of ASRS and has been represented on NASA’s ASRS Advisory Subcommittee since it was created. The Association also participated in the NTSB investigation/hearing into the cause of the previously mentioned TWA Flight 514 accident, where ALPA was instrumental in highlighting the need for such a system, which led to its creation and implementation.

1976 After strong urging by ALPA, Congress renews ADAP.

1979 FAA Administrator Langhorne Bond tries to severely modify ASRS – by eliminating the waiver of disciplinary action for crewmembers reporting an incident to ASRS. ALPA and the airline industry are quick to condemn the intended action, and at a hearing convened by Congress, a united airline industry strongly opposes the FAA’s proposal. ALPA participates in hearings and supports NASA’s ASRS Advisory Subcommittee in its opposition to the proposal. The FAA then backs down from its original proposal and issues a rule that a waiver of disciplinary action would be available only if a reporter has not been found guilty of violating a federal aviation regulation within the preceding five years. 🌐



Containers are labeled as HAZMAT. In 1973, ALPA introduced Project S.T.O.P. to urge the U.S. government to improve its regulations covering the air transport of hazardous materials.

80
Years

In 1980, ALPA pilots march in front of the White House to protest the government's failure to fulfill its safety responsibilities in the wake of deregulation.



1980s

The 1980s meant one word to anyone involved in the airline industry: deregulation. The Airline Deregulation Act of 1978 forever changed the landscape of the airline industry in the United States. During the process, three of the “powerhouse” airlines – Eastern, Braniff, and the original Pan Am – went out of business, along with other major consequences of this reinventing of the U.S. aviation economy. Deregulation also created a whole new wave of safety concerns. However, the '80s also provided ALPA with some long-fought-for safety victories: traffic alert and collision avoidance system (TCAS) requirements for Part 121 operations, passenger “fasten seatbelt” signs in airplanes, adoption of the Association’s antiskysjacking strategy by federal regulators, and federal approval of crew resource management (CRM) training, to name just a few.

1980 ALPA pilots, dressed in uniforms and carrying placards, march in front of the White House in a day-long safety protest against the Carter administration’s failure to fulfill its responsibilities in the area of aviation safety in the wake of deregulation.

1980 ADAP – begun in 1970 and renewed in 1976 – expires, shutting off funds for airport improvements until Congress decides whether to renew it. ALPA again urges the program’s renewal.

1980 26th meeting, ALPA BOD, which

- ▶ authorizes the Executive Board to conduct a nationwide S.O.S. to demonstrate ALPA’s concern over airport certification, cockpit voice recorder tapes, medical standards, flight time/duty time limitations, and other safety issues.

1981 The FAA approves a regulation requiring “fasten seatbelt” signs in passenger aircraft cabins. This was achieved through an ALPA petition and eight years of work by Capt. Ray Lahr, a United Airlines line pilot, who pushed it because of a turbulence encounter on one of his flights during which one of his passengers was seriously injured.

1981 ALPA’s Executive Board votes to cancel a planned S.O.S. after receiving assurances from Transportation Secretary Drew Lewis that the Reagan administration will pay close attention to ALPA’s concerns about aviation safety. In February, Secretary Lewis announces the names of three individuals who will serve on a presidential task force to study the issue of crew complement on future transport aircraft.

1981 The President's Task Force on Aircraft Crew Complement opens two weeks of hearings on whether the government should require two or three pilots on future transports (MD-80, B-757, and B-767). President Ronald Reagan establishes the task force with the understanding that ALPA will abide by its recommendations. The Association makes a detailed presentation favoring three-member crews, but the task force deems two-person crews sufficient. To offset the loss, ALPA achieves a greater level of participation in the aircraft certification process.

1982 At ALPA's request, Congress for the first time includes, in the reauthorization of ADAP, language that states that the use of safety facilities in aviation must be maximized. At ALPA's urging, the Act's Declaration of Policy designates the following safety items, among others, to be given the "highest priority" for installation, operation, and maintenance at airports that serve airlines:

- ▶ precision and full approach lighting systems for each primary runway;
- ▶ grooving or friction treatment for all primary and secondary runways;
- ▶ nonprecision instrument approaches for all secondary runways;
- ▶ runway edge and end identifier lights and markings;
- ▶ electronic or visual vertical guidance on all runways; and
- ▶ radar approach coverage for all airport terminal areas.

1982 Congress passes ALPA-requested legislation that upgrades the required qualifications of members of the NTSB, mandating for the first time that a majority of the members of the Board, including the chairman, be technically qualified with an expertise in transportation and accident investigation.

1982 27th meeting, ALPA BOD, which

- ▶ authorizes ALPA to "explore all avenues available to its committees and staff to effect an acceptable resolution of the flight time/duty time problems, up to and including a suspension of service";
- ▶ agrees "to abide by the recommendations of the Presidential Task Force on Aircraft Crew Complement";
- ▶ approves obtaining "legislative relief designed to prevent abuse or misuse of cockpit voice recorder (CVR) tapes by outside agencies and persons";
- ▶ opposes use of video monitoring equipment in the cockpit for any reason;
- ▶ directs "revision of operational procedures and instrumentation to increase stall margins during compounded emergencies";
- ▶ encourages the development and installation of runway distance-to-go markers;
- ▶ seeks "all aircraft employed in scheduled air transportation services [to] be upgraded to comply with certification of FAR 25" (minimum engine-out criteria for minimum acceptable risk levels to ensure safety). This was the first step of ALPA's One Level of Safety program; and
- ▶ urges that aircraft takeoff performance "account for all runway conditions," including wet, dry, and contaminated, engine failure, and more.

1984 The FAA publishes standards for runway distance-to-go-markers. ALPA began petitioning for marker requirements in 1975.

1984 ALPA publishes a revised pilots' guide for carrying dangerous goods, encompassing the ICAO standards.

1984 28th meeting, ALPA BOD, which
 ▶ directs the Association to “seek appropriate revision of existing international and supplemental flight time limitations through the regulatory process.”



In 1985, the FAA issues separate and additional safety criteria for commuter aircraft after years of urging by ALPA.

1984 ALPA suspends the S.T.O.P. program as a result of the DOT’s accepting the international HAZMAT/dangerous goods standards adopted by ICAO’s Dangerous Goods Panel. ICAO’s *Technical Instructions* contain criteria that address, meet, or exceed ALPA’s concerns – some of which were highlighted in a 1970 Pan Am accident. Suspension of the program does not end S.T.O.P., but moves ALPA’s focus to monitoring criteria for the proper acceptance of HAZMAT aboard

President Ronald Reagan signs into law a bill, strongly advocated by ALPA, that enhances the ability of the United States to combat international air piracy. **1985**

aircraft under the regulations. To date, no known HAZMAT incident or accident can be attributed to a shipment that has met each of the applicable regulations.

1985 After years of pointing out deficiencies in Part 23 (10–19 passenger seats) airplanes, the FAA issues a proposed rule to address many of ALPA’s concerns. The Association’s involvement in the FAA’s airworthiness review helps the agency and aircraft manufacturers develop separate and additional certification criteria for a new “commuter” category that takes into consideration these larger Part 23 aircraft widely used by regional airlines. The commuter category adds increased safety measures to the following areas, including, but not limited to, takeoff path, engine-out climb, balked landing, emergency evacuation and exits, fire extinguishing systems, and operating procedures and performance information provided.

1985 ALPA, the FBI, and the FAA develop a common strategy for hijacking situations – a confidential operations plan to be used when an aircraft is hijacked.

1985 The FAA issues an advisory circular (AC) allowing specifically equipped twin-engine transports to fly over the North Atlantic for as long as 120 minutes at single-engine cruise speed from a suitable diversion airport. ALPA plays a vital role in ensuring that safety is considered in extended-range twin-engine operations and follow-up policy that extends ETOPS to 180 minutes.

1985 After several years of intense negotiations among ALPA, the airline industry, and the FAA, the agency publishes a rule on domestic flight time/duty time limitations – the first successful rulemaking on this issue since the 1940s. Within several years, however, shortcomings and loopholes are identified in the new regulations.

1985 President Reagan signs into law a bill, strongly advocated by ALPA, that enhances the ability of the United States to combat international air piracy. The law requires the secretary of transportation to ensure that foreign airports meet ICAO security standards, and authorizes specific funds to combat international terrorism and to improve research and development in the area of detecting explosives.

1985 A postcard mail-in campaign by ALPA members blocks a manufacturer's effort to obtain eligibility for federal funding of the pulsed light approach slope indicator (PLASI) – a single-light visual aid – vastly inferior to the visual approach slope indicator (VASI) or the precision approach path indicator (PAPI).

1986 After more than two decades of urging by ALPA, the FAA announces a runway pavement grooving directive. Preliminary testing on grooving began in the early 1960s.

1986 ALPA pilots create a postcard mail-in campaign describing master minimum equipment list (MMEL) abuses to the FAA. The campaign leads to the FAA's adopting an "ABCD" category system, which establishes the maximum length of time that each individual item/system may remain inoperative.

1986 ALPA forms an MMEL Project Team to work with the aviation industry and the FAA to develop consensus on MMEL policy determination. The effort results in the FAA's issuing more than 100 policy letters that standardize MMEL relief across aircraft fleets on many items/systems.

1986 ALPA is the principal participant in the formulation, drafting, and enactment of legislation, sponsored by Sen. Robert Byrd (D-W.Va.), to establish a presidential commission to examine the dual roles of the FAA as aviation promoter and aviation safety regulator. The commission is also directed to study the effect of airline deregulation on the margin of safety.

1986 30th meeting, ALPA BOD, which opposes privatization of the U.S. air traffic control system.

1987 As a result of congressional pressure and enactment of ALPA-generated legislation, the FAA issues regulations requiring TCAS in passenger aircraft to help minimize the possibility of midair collisions. ALPA played a key role in the development of TCAS and has been a major advocate of airborne collision avoidance systems since 1970. Since the introduction of TCAS, no airliner in U. S. airspace has been involved in a midair collision.



An ALPA accident investigator uses a special microscope to examine foil tape from the flight data recorder retrieved from an accident circa 1978.

1987 Due in great part to years of work by ALPA safety volunteers to force acknowledgment of the effects of microbursts and to minimize the wind-shear threat, the FAA releases long-needed procedures on how to effectively deal with microburst encounters: *The Windshear Training Aid*. With an extensive background in “real-world” flight operations, ALPA participated in the development of the training aid and agrees to endorse the final product, if it is subject to alterations, as needed. The Association also encourages the creation of wind-shear detection equipment. The training aid and detection equipment have helped reduce the number of airline accidents attributed to wind shear today.

1988 RTCA – a nonprofit corporation that acts as a federal advisory committee to the FAA – issues a recommendation prohibiting the use of personal electronic devices during takeoff and landing. ALPA has long advocated against the use of PEDs by passengers during critical stages of flight because of the dangers of electromagnetic emissions from the devices interfering with avionics.

1988 31st meeting, ALPA BOD, which recommends additional studies on the effects of fatigue associated with regional and short-haul operations.

1988 President Reagan signs into law a bill, advocated by ALPA, that forbids the manufacture, sale, importation, or possession of any firearm that an X-ray machine cannot detect.



Pilots use TCAS in the cockpit. Since the early 1970s, ALPA has been a key proponent of the installation and use of TCAS II. In 1987, the FAA approved federal regulations mandating these airborne collision-avoidance systems in passenger aircraft. ALPA continued to work to get TCAS mandated in cargo carriers.

1988 An oxidizer fire in a Class “D” cargo compartment, attributed by the NTSB to the loading of an undeclared shipment of HAZMAT that was improperly packaged, labeled, documented, and loaded, almost results in the downing of an American Airlines MD-80 in Nashville. ALPA’s participation in the NTSB investigation points out the Association’s primary concern that the shipment was undeclared. ALPA considers removal of undeclared HAZMAT to be the Association’s next priority regarding the issue.

1988 ALPA supports and participates in the development of a notice of proposed rulemaking (NPRM) on Class “B” combi-cargo compartments, following the November 1987 loss of a South African Airways B-747 over the Indian Ocean. The accident is the result of a major onboard fire in the main deck Class “B” cargo compartment. The FAA evaluates smoke and fire detection and suppression systems contained within Class “B” main deck cargo compartments and finds that these systems have significant deficiencies. The NPRM requires that main deck Class “B” cargo compartments exceeding 200 cubic feet meet the more stringent requirements of Class “C” cargo compartments.

1989 The FAA releases a final rule limiting the distance between aircraft exits to 60 feet (to prevent Boeing from removing the overwing exit from B-747s), as a result of strong technical efforts by ALPA’s Accident Survival Committee. Also because of this committee’s work, the FAA releases final rules for cargo and baggage compartment fire protection, improved seat safety standards for newly certificated aircraft, and the inclusion of infants and non-fare-paying passengers on manifests.

1989 Alaska Airlines installs head-up displays (HUDs) in its B-727 fleet, leading to widespread use. Pan Am installed the first HUDs in B-747s 21 years earlier, but they were used for only one year.

1989 The FAA issues an Airworthiness Directive on the B-737 air/ground sensor – a direct result of the ALPA Accident Investigation Department’s investigation into numerous B-737 overrun accidents. The B-737 is the most widely used jet in the airline industry today.

1989 The FAA releases an AC on CRM training. The AC was a direct result of recommendations derived by the Joint Government/Industry Task Force on Flight Crew Performance, in which ALPA was a key participant. CRM is an integral part of the Advanced Qualification Program (AQP) – a voluntary method for airlines to use for improved crew training – that ALPA also vigorously supported during its development. 🌐

ALPA pilots create a postcard mail-in campaign describing master minimum equipment list (MMEL) abuses to the FAA. The campaign leads to the FAA’s adopting an ‘ABCD’ category system, which establishes the maximum length of time that each individual item/system may remain inoperative. 1986

80
Years

ALPA was part of the team that designed this B-777 flight deck and other aspects of the airplane. The design team received the prestigious Collier Trophy for 1995.



1990s

During the 1990s, the airline industry had to deal with the aftershocks of deregulation. It also was the decade of several major airline tragedies. However, some of these accidents led to aviation safety enhancements, including the redesign of the B-737 rudder control system, improvements to the ATR-42/72 wing deicing boots, and changes in pilot training on aircraft performance in icing conditions. The crown jewel of ALPA's safety work during this era was our successful campaign for One Level of Safety, to bring Part 135 operations with more than nine passengers up to the same standards as Part 121 operations. The FAA adopted this standard in 1995.

1990 President George H. W. Bush signs into law the Airport Noise and Capacity Act of 1990, establishing national noise abatement procedures for all U.S. airports. ALPA plays a critical role as part of a small industry working group on noise, which develops U.S. standardized noise abatement procedures.

1990 President George Bush signs into law ALPA-drafted legislation that requires special procedures for use of CVR tapes or transcripts during court proceedings to keep irrelevant portions out of public scrutiny.

1990 Beginning in 1990 and continuing through the mid-1990s, ALPA pilots are involved in national and international aviation activities to ensure that reduced vertical separation minima (RVSM) procedures in the North Atlantic Track System are implemented in a safe manner. Working

closely with ICAO, ALPA influences an international implementation program to provide for an adequate safety analysis and a graduated implementation schedule. ALPA has continued this aggressive approach toward reduced oceanic separation minima into the Pacific, the Caribbean, and the Gulf of Mexico, to provide the safest possible operational environment for our pilots and passengers.

1990 The FAA issues a rule requiring either an approved airborne wind-shear warning and flight guidance system (reactive) or an approved airborne detection and avoidance system (predictive) in all turbine-powered aircraft manufactured after January 3, 1991. ALPA supports the predictive equipment alternative and urges all airlines to install this option.

1990 The Commission on Aviation Security and Terrorism issues a final report that accepts a number of ALPA recommendations on countering aviation-related terrorism. ALPA also joins the U.S. State Department and the ATA in establishing an antiterrorism reward fund.

1990 The FAA issues an airworthiness directive on B-737-300/-400/-500, B-767, B-757, and B-747-400 rudder trim systems as a result of numerous electric rudder trim system anomalies reported to the FAA by ALPA as part of the USAir 5050 (LaGuardia Airport) accident investigation.

1990 The FAA publishes a final rule on Class “B” combi-cargo compartment regulations. The FAA establishes a study group to investigate and develop certification criteria for main deck cargo compartments. ALPA ensures that safety provisions are included in the rulemaking, which increases the margin of safety for main deck cargo compartments.

1990 32nd meeting, ALPA BOD, which recommends that any security screening of flightcrew members be performed “at a discrete screening facility” away from passenger screening.

1991 Through ALPA’s leadership, the FAA orders all air carrier airports certificated under FAR Part 139 to improve taxiway signs (to use international standards for signs) by January 1, 1994, to help prevent runway incursions. The signs help identify taxiway location, mandatory hold position, and runway location. Pilots will no longer have to taxi aircraft on taxiways with nonstandard signs.

1991 The FAA establishes the Aviation Rulemaking Advisory Committee to speed rulemaking and distribution of essential advisory information to the airline industry. ARAC allows the airline industry and the FAA to discuss operational certification issues and develop consensus recommendations

for NPRMs, ACs, and other guidance materials. ALPA actively participated in the creation of ARAC, and continues to participate as a leader and an active member of the committee’s working groups.



The crash of USAir Flight 5050 resulted from a high-speed rejected takeoff at New York’s LaGuardia Airport in September 1989. Investigation into the accident led to improved FAA regulations covering rudder trim systems in the B-737-300/-400/-500, the B-767, the B-757, and the B-747-400.

1991 ALPA works successfully to restrict the number of different models of a single-type aircraft that can be included under a pilot’s common type rating. The Association’s efforts are significant in limiting the number of aircraft covered after aircraft manufacturers begin to upgrade the avionics and flight management systems in their older models and in newer derivative aircraft. As an example, the DC-9-10/20/30s are covered by a different type rating than the MD-80. Similar type ratings exist in the Airbus fleet.

1991 ALPA, along with the ATA, the FAA, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey, sponsors the first international symposium on volcanic ash and aviation safety. ALPA continues to take a leading role in developing U.S. and international safety procedures and technology to help pilots effectively avoid encounters with volcanic ash.

1992 After three years of concerted lobbying by airline industry groups, led by ALPA, the FAA issues a final rule to govern standards and procedures for ground deicing fluids. ALPA previously declared the FAA's Part 135 ground deicing NPRM unacceptable and unsafe because it was based on a concept of two levels of safety for the traveling public (those flying in aircraft meeting Part 121 requirements and those flying under Part 135 requirements).

1992 Congress approves ALPA's request for a \$400,000 grant to continue the HIMS program.

1992 33rd meeting, ALPA BOD, which

- ▶ recommends the initiation of remote end-of-runway de/anti-icing and inspection facilities at air carrier airports having winter operations; and
- ▶ supports the establishment of a Transient Crew Security System (TCSS).

1993 After intense lobbying by ALPA, the FAA expands the TCAS requirement to Part 135 operations.

1993 The FAA AC for Noise Abatement Profiles becomes effective. ALPA's Noise Abatement Committee successfully leads an industry working group to develop this circular, which establishes standardized noise abatement departure procedures and recommends changes to standardized air carrier operations specifications to incorporate specific departure profiles.

1993 At ALPA's urging, Congress appropriates \$2 million for the FAA to test and implement TCSS. With ALPA's active participation, the FAA develops a magnetic stripe card system first tested in 1995–97 and approved by the agency in 1998.

1993 FAA Administrator David Hinson directs air traffic controllers to issue wake turbulence warnings to pilots landing behind B-757s after a corporate jet in Santa Ana, Calif., crashes, killing five people. ALPA's Accident Investigation Board studied wake vortices for many years and urged policy makers to provide regulatory means for pilots to more accurately judge how to avoid wake vortices.

1994 USAir Flight 427 crashes in a wooded area near Aliquippa, Pa., killing all 132 persons on board. The crash spurs the longest NTSB investigation in history to that time. Again, ALPA fights the unjust



Ash rises as Mount St. Helens erupts in May 1980.



Ash from the eruption of Mount Pinatubo, Philippines, in June 1991 coats an airplane. ALPA is one host of the first international symposium on volcanic ash and aviation safety that year.

claim of pilot error – the probable cause of the accident is finally determined to be a malfunction in the B-737 rudder control system. ALPA plays a leading role in that determination, and in the redesign of the B-737 rudder control system. As a result of the findings, the FAA develops regulations directing the entire B-737 fleet – the most widely used commercial aircraft – to be retrofitted with an improved rudder control system. Soon the B-737 will have the same redundancy in its flight controls as other jet transport aircraft have.

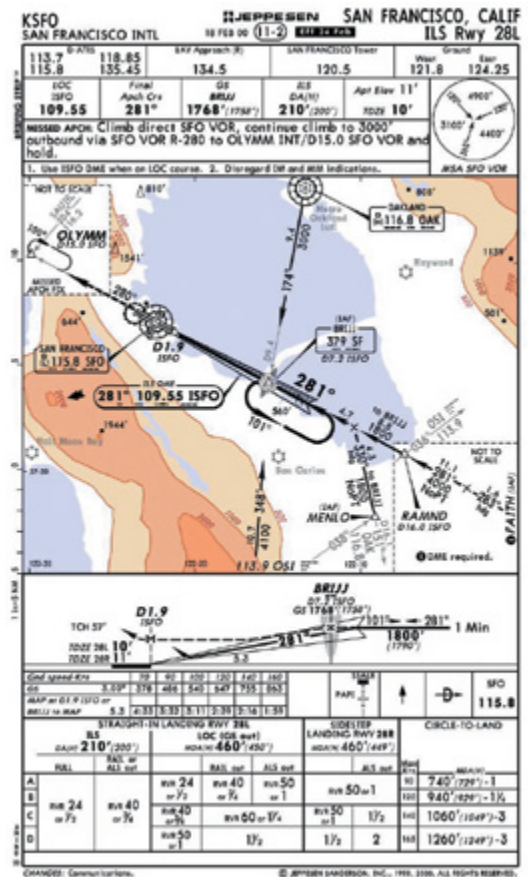


An airplane is deiced before takeoff. In 1992, after an intense lobbying effort spearheaded by ALPA, the FAA issues a final rule to govern standards and procedures for ground deicing fluids.

1994 American Eagle Flight 4184 crashes in Roselawn, Ind., killing all 68 on board. During the NTSB investigation into the crash, in-flight icing tests lead to changes in the design of the ATR 72 and changes in pilot training on aircraft performance in icing conditions. ALPA supports and is intimately involved in this study – helping to develop facts about airframe icing-related difficulties with the ATR 72 and 42. This crash, along with three others involving turboprop airliners, leads the NTSB to convene a special hearing, at ALPA’s urging, into the safety of commuter airlines.

1994 Members of a worldwide industry effort, led by the Flight Safety Foundation, to provide operators with tools to reduce the CFIT accident rate by 50 percent are honored with a Laurels Award from *Aviation Week & Space Technology*. ALPA is a key member of the team, whose work began in 1991.

1994 Jeppesen begins using color to depict terrain contours, which ALPA advocated, after studies of CFIT accidents showed that the situational awareness of pilots can be improved by better terrain depiction. ALPA’s long participation and support of efforts to ensure that instrument approach charts provide pilots with better vertical depiction of terrain leads



to addition of color terrain contours to approach plates. Pilots today now have better visual cues available to them, aiding their navigational capabilities.

- 1994** 35th meeting, ALPA BOD, which
- ▶ directs promotion of One Level of Safety campaign on an international scale; and
 - ▶ urges “a timely resolution to the domestic flight time limitation regulations issue” and that pilots flying international routes receive the same reserve rest limitations.

1995 At an airline safety summit in Washington, D.C., Transportation Secretary Federico Peña calls for creation of flight safety departments at airlines, despite the opposition of airline executives. ALPA is a key proponent of appointing properly qualified safety directors at airlines. From this high-level conference, held to discuss the state of airline safety, came the FAA’s directive to establish One Level of Safety.

1995



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ALPA achieves a major safety victory when the FAA announces a final rule to implement One Level of Safety, in which commuter

airliners with 10–30 passenger seats are to be operated under the same, more stringent safety rules as those for airliners having more than 30 seats. In 1994, ALPA *single-handedly* launched the campaign (including coining the slogan One Level of Safety) and fought long and hard to obtain these new federal standards. On this date, the FAA also announces a separate, but related, final rule (also advocated by ALPA) that brings commuter airline pilot training requirements in line with more stringent ones for pilots of larger airliners. For the first time in history, *all* airline passengers and crews are flying under the same regulations.

1995 Transportation Secretary Peña, FAA Administrator Hinson, and ALPA President

Randolph Babbitt hold a press conference to unveil the Aviation Safety Action Plan (ASAP), which includes 173 FAA/industry initiatives to address 45 safety issues of prominence. Several of these issues top ALPA’s safety “wish list” at this time, including raising commuter airliner standards to those of larger airliners. At the press conference, ALPA President Babbitt also announces a major agreement among ALPA, the airlines, and the FAA to establish FOQA – a voluntary, nonpunitive program to collect and analyze digital flight data recorder information to detect safety problems.

1995 After years of prodding by ALPA, including a petition for rulemaking and congressional hearings, the FAA issues an NPRM on flight time limitations and rest requirements. ALPA immediately establishes a task force to develop an in-depth response to the NPRM – the task force finds serious concerns with some aspects of the proposal and submits comments in 1996.

1995 ICAO adopts standards developed by ALPA for detecting, tracking, and avoiding volcanic ash.

1996 Reacting to much pressure by ALPA and the NTSB, the FAA orders that all U.S. turboprop airliners with 10 or more passenger seats be equipped with GPWS to help eliminate CFIT accidents.

The FAA issues a final rule to govern standards and procedures for ground deicing fluids after an intense lobbying effort spearheaded by ALPA. 1992

1996 ALPA participates, as an observer, in the NTSB investigation into the ValuJet Flight 592 accident, caused by an undeclared shipment of oxygen generators. ALPA again focuses on undeclared HAZMAT, cargo compartments, and cockpit crewmember smoke/fire management (masks). The Association presents testimony and a position paper at the NTSB's public hearing on major points of concern, and subsequently the NTSB issues recommendations that cover undeclared HAZMAT.

1996 TWA Flight 800 crashes into the Atlantic Ocean (near Long Island, N.Y.), killing all 230 on board. ALPA plays a leading role in the NTSB investigation into the probable causes of the accident, which leads to almost 20 FAA airworthiness directives and NPRMs and to the FAA's aging-wiring program (announced in June 2000).

1996 The U.S. National Aeronautic Association awards the 1995 Collier Trophy to the Boeing 777 Team and the Boeing Commercial Aircraft Company. ALPA was a key member of the award-winning B-777 development team and shared the Collier Trophy.

1997 ALPA hosts the first international conference on disruptive passengers/air rage, focusing greater worldwide attention on this growing danger.

1997 Congress approves a second grant of \$400,000 for continuation of ALPA's HIMS program.

1998 After more than eight years of discussions, the National Weather Service starts using an improved SIGMET (in-flight aviation weather advisory regarding thunderstorms) plotting chart designed by a United line pilot and ALPA safety volunteer, Capt. Steven Targosz.

1998 In September, the ALPA Executive Board approves the establishment of the Human Performance Committee, which consolidates the activities of the Aeromedical, Critical Incident Response Program, Pilot Assistance, and Professional Standards Committees. In this action, ALPA demonstrates its commitment to a human performance policy dedicated to promoting airline pilots' professional performance, total health, and, when necessary, drug/alcohol intervention and rehabilitation for job reintegration.

1998 37th meeting, ALPA BOD, which

- ▶ adopts policy on in-flight crew rest areas because "current FARs and CARs are not specific enough to be considered 'adequate'"; and
- ▶ opposes the use of land-and-hold-short operations (LAHSO) until all of ALPA's safety issues are resolved; if LAHSO issues are not satisfactorily addressed within 120 days, the BOD directs that a recommended LAHSO moratorium begin.



The shattered fuselage of TWA Flight 800, a B-747, has been reconstructed at the NTSB Training Center. ALPA played a key role in the NTSB's investigation into the probable causes of the accident.

1998 ALPA participates in the accident investigation of the crash of Swissair Flight 111, one of the most tragic fatal accidents of the decade, which involved an in-flight fire on an MD-11. ALPA's participation and input assists the Transportation Safety Board of Canada in formulating the final recommendations on insulation, wiring, and checklist and circuit breaker reset procedures. The ALPA team that worked on this investigation receives an IFALPA Presidential Citation.

1999 ALPA's efforts to change the FAA's MEL policy on inoperative autopilots lead to a reduction in the time an airplane may fly without an autopilot. 🌐

ALPA achieves a major safety victory when the FAA announces a final rule to implement One Level of Safety, in which commuter airliners with 10–30 passenger seats are to be operated under the same, more stringent rules as those for airliners having more than 30 seats. 1995

80
Years

The most horrific day in aviation history occurs on September 11, 2001. Terrorists commandeer four U.S. airliners as guided missiles to kill thousands of innocent people and wreak economic havoc.



2000s

Several decades-long safety concerns continue to be prominent on ALPA's agenda in this new century: reserve rest requirements, collision avoidance systems, long-range operations, development of a nonpunitive safety reporting system with guaranteed pilot immunity, and runway incursions – to name just a few. The era began on a high note with ALPA's successful land-and-hold-short-operations (LAHSO) campaign (although the work in Canada to make simultaneous intersecting runway operations [SIRO] safe remains ongoing).

The 9/11 terrorist attacks had a devastating impact on the airline industry. As a result, aviation security issues have been at the forefront of much of ALPA's activities over the last five years. In response to the terrorist attacks, ALPA has been a leader in developing, lobbying for, and helping to implement numerous security-enhancing initiatives in the United States and Canada. Reflecting on the lessons learned since 9/11, ALPA continues to address areas that are still vulnerable in airline security.

2000 After years of advocacy by ALPA – culminating in an Association-wide recommended moratorium on LAHSO – the FAA releases its final order on LAHSO, which addresses all of ALPA's five minimum safety requirements for these airport-capacity-enhancement procedures. ALPA's similar campaign to improve the safety of SIRO in Canada remains ongoing. However, the Association achieves a minor victory in Canada when it convinces Transport Canada of the need for a regulation prohibiting SIRO with any tailwind component.

2000 The White House announces the establishment of a nonpunitive safety reporting system to resolve potential aviation safety problems. Early groundbreaking work on ASAP – a more sophisticated ASRS – was conducted by ALPA at USAir in 1990, after pilots and their safety representatives became concerned over an increasing number of altitude deviations. ALPA had pushed for the development of a nonpunitive pilot reporting system since the early 1950s.

2000 President Bill Clinton signs into law the Aviation Investment and Reform Act for the 21st Century (AIR-21), which contains several safety-related provisions added to the initial bill specifically at ALPA's request:

CRITICAL X JUNCTURE
• ALPA's campaign for safer land-and-hold-short operations •

- ▶ requiring installation of collision avoidance equipment at least as good as TCAS II in cargo aircraft with a payload capacity of 15,000 kg or more by 2003;
- ▶ authorizing \$8 million for the purchase and installation of universal access systems;
- ▶ directing the FAA to issue an NPRM on small airport certification and authorizing \$15 million for each of the next four fiscal years to help airports with compliance;
- ▶ authorizing funds for wildlife hazard mitigation measures; and
- ▶ directing the FAA to issue rulemaking to improve runway safety areas and require installation of precision approach path indicators.

2000 ALPA expands its staff in Ottawa to include a full-time air safety coordinator whose role is to interact with Canadian regulators and industry representatives to promote the safety interests of pilots in Canada.

2000 ALPA and Embry-Riddle Aeronautical University cosponsor two international aviation security academies. Representatives from around the globe attend these four-and-one-half-day schools.

ALPA and Embry-Riddle Aeronautical University cosponsor two international aviation security academies, attended by representatives from around the globe. 2000

2000 ALPA leads a successful effort to reduce the time allowed for TCAS to be inoperative from 10 to 3 days, along with other MMEL improvements.



ALPA President Duane Woerth testifies before Congress in April 2000 against the use of cockpit video recorders. ALPA has opposed the installation/use of such equipment since the early 1980s.

2000 Terrain Awareness and Warning System, sometimes referred to as enhanced GPWS, is mandated by regulation. Some aircraft will be required to be equipped with TAWS starting March 29, 2001, and all turbojet aircraft with six or more seats will be required to have TAWS installed by March 29, 2005. ALPA called for the airlines to install enhanced GPWS in 1998 and supported TAWS because of its vast improvements over traditional GPWS systems, which include TAWS's forward-looking capability, its display of terrain to pilots, and its greater potential to reduce CFIT-related accidents.

2000 38th meeting, ALPA BOD, which

- ▶ reaffirms Captain's Authority in the cockpit;
- ▶ asserts that if the FAA does not implement an acceptable FOQA rule by January 31, 2002, ALPA will terminate all operating FOQA programs that involve ALPA-represented pilots; and

- ▶ directs ALPA’s president to “utilize any and all appropriate measures necessary to effect change to both U.S. and Canadian regulations and bring an expeditious resolution to providing adequate flight crew rest and duty time limits.”

2001 Las Vegas becomes the first airport in the United States with RNAV Standard Instrument Departures (SIDs) and Standard Terminal Arrival Routes (STARs). ALPA, working with the FAA and other users, led the effort to optimize the routes to reduce fuel costs while minimizing noise along the departure and arrival corridors. In addition, the FAA accepts ALPA-developed radio phraseology that reduces the number of radio transmissions made by pilots and air traffic controllers, resulting in less frequency congestion.

2001 The most horrific day in aviation history occurs on September 11, 2001. Terrorists commandeer four U.S. airliners as guided missiles to kill thousands of innocent people and wreak economic havoc. The repercussions from that tragic event will still be felt years later.

In response, ALPA takes immediate action, creating the ALPA Security Task Force, a multidisciplinary group of pilots and staff led by the ALPA first vice president. Over the next few years, this group will develop, lobby for, and help implement dozens of security-enhancing initiatives in the United States and Canada. ALPA creates and staffs a 24/7 crisis command center for several months, which fields hundreds of phone calls from pilots with security-related questions and serves as a liaison with law enforcement and regulatory agencies.

2001 On September 11, ALPA safety and security representatives respond to the emergency shutdown of all air traffic coming into the United States by assisting hundreds of stranded crews and their passengers at

many Canadian airports. For their dedicated efforts, the ALPA Canada Board team receives an IFALPA Presidential Citation.

2001 The U.S. secretary of transportation creates the Airport and Aircraft Security Rapid Response Teams (RRTs). The Aircraft RRT, which is headed up by ALPA’s president, submits a comprehensive report – with numerous security-enhancing recommendations – to the DOT secretary two weeks after the 9/11 attacks.

2001 Following the September 11, 2001, terrorist attacks in the United States, the Canadian government further enhances the country’s counterterrorism capabilities and preparedness, with ALPA’s strong endorsement. One measure is the creation of a new Crown corporation, the Canadian Air Transport Security Authority, which is made responsible for several core aviation security functions, including those associated with



the screening of passengers and their onboard and checked baggage. Other measures include funding for reinforced cockpit doors, purchase of additional explosive detection systems, and funding for an expanded program of armed police officers on aircraft.

2001 In Canada, ALPA supports air marshals aboard Canadian aircraft, resulting in the transport minister's decision to create the Canadian Air Carrier Protective Program with Royal Canadian Mounted Police (RCMP) Aircraft Protective Officers (APOs) present on selected flights.

2001 ALPA participates in the aircraft and airport working groups of Canada's Aviation Security Advisory Committee (ASAC). ASAC's recommendations to the transport minister result in significant improvements to aviation security, including the installation of reinforced cockpit doors on aircraft in Canada.

2002 ALPA repeatedly testifies before Congress in the first few weeks after the 9/11 attacks. In January 2002, the Aviation and Transportation Security Act is enacted, incorporating many of ALPA's recommendations, including a requirement that flight deck doors on commercial aircraft be strengthened. ALPA's team of pilots, engineers, and security specialists work together to promote standards for new doors, and they are installed on all passenger airliners and many cargo aircraft.

2002 A few months after the 9/11 attacks, ALPA convenes a government/industry group to review and update the Common Strategy – the U.S. government's airline protocol for handling hijackings. In early 2002, the FAA, Transportation Security Administration (TSA), and DOT adopt the new version of the Common Strategy, developed by the ALPA-led group, which emphasizes a forceful response to hijackers.



ALPA's strong advocacy leads to the Arming Pilots Against Terrorism Act (APATA), which is enacted as part of the Homeland Security Act of 2002.

2002 In November, Canada's transport minister assigns two additional responsibilities to the Canadian Air Transport Security Authority (CATSA), which ALPA endorses: implementation of an enhanced restricted area pass system for Canadian airports; and screening of nonpassengers entering restricted areas at airports.

2002 ALPA's testimony before Canada's Senate Committee on National Security and Defence on Airport Security leads to the transport minister's introduction of a new identity card – Restricted Area Identity Card (RAIC) – that would be required for all airport employees and airline crewmembers. This identity card, which includes biometric information, is in the process of being implemented at the 29 Class I and II airports in Canada.

2002 ALPA recommends that Congress legislate a program to train and arm volunteer pilots to protect the flight decks of commercial airliners. ALPA's strong advocacy leads to the Arming Pilots Against Terrorism Act (APATA), which is enacted as part of the Homeland Security Act of 2002. APATA directs the TSA to establish a program to select, train, equip, and deputize volunteer pilots as federal flight deck officers (FFDOs).

2002 ALPA supports the formation of the Terminal Area Operations Aviation Rulemaking Committee (TAOARC) following the safety issues and recommendations identified by the Commercial Aviation Safety Team (CAST). ALPA had worked with CAST to study controlled flight into terrain (CFIT) accidents and incidents, as well as airport capacity issues, which dictated a need for improvements in terminal area operations. These improvements would use the capabilities of modern aircraft, specifically the use of area navigation.

2002 The FAA publishes an Electronic Flight Bag (EFB) Advisory Circular. ALPA participated in an intensive industry effort to define standards and capabilities for the electronic flight bag. These efforts result in the FAA advisory circular, which is the basis for subsequent design, installation, and use of electronic flight bag technology in aircraft.

2003 ALPA works closely with the TSA to develop a comprehensive program for selecting, training, and equipping FFDOs. In April 2003, the first class of 44 FFDOs graduates from the Federal Law Enforcement Training Center (FLETC) in Glynco, Ga. Since that time, thousands of pilots are trained and deputized as FFDOs.

2003 ALPA expresses concerns to Transport Canada over the lack of a Canadian version of the Common Strategy. As a result, significant changes to the security training guidelines for crewmembers are made, including the four levels of response to incidents aboard aircraft.

2003 In October 2003, the ALPA National Security Committee (NSC) initiates a Man-Portable Aircraft Defense Systems (MANPADS) Project Team to evaluate and study the potential threat that shoulder-launched missiles might pose to commercial aircraft. By early 2004, the issue gains heightened public awareness and generates a level of concern within Congress that leads to funding of a counter-MANPADS study by the Department of Homeland Security (DHS), and the eventual funding of the Propulsion Controlled Aircraft System study as a viable safety and security enhancement to transport aircraft. The goal of that study is to determine the feasibility of adapting military counter-MANPADS technology to the commercial airline fleet. In late 2004, ALPA publishes its findings on this subject in a position paper that receives considerable attention from the media, government, and industry.

2003 The FAA issues a new FAR Part 33 rule on bird ingestion for jet engines – the result of a two-year effort in which ALPA was an active participant. This rule changes the engine certification requirements to ensure that new engine designs could withstand a strike from larger birds. ALPA’s participation in this successful effort included input on the design itself, as well as ALPA’s work with wildlife experts to evaluate changes in the bird population, which enabled the industry to better understand the hazard posed by bird strikes.

2003 A Special FAR (SFAR 88) is published, setting a new standard for reducing the hazard of an in-flight fuel tank explosion. ALPA participated in a group whose efforts to define standards to reduce fuel tank flammability led to SFAR 88. The effort continues through 2006, when a draft Final Rule further refining those standards is published.

2003 ALPA expands its catalogue of safety- and security-related training courses with the Advanced Accident Investigation Course – a hands-on field exercise that complements classroom training for ALPA safety representatives participating in NTSB and TSBC accident investigations. The course, developed in collaboration with the University of North Dakota, trains ALPA safety representatives and other industry safety professionals to be better prepared to participate in NTSB/TSBC investigations by using actual aircraft wreckage and realistic field conditions.

2004 ALPA is instrumental in establishing Simultaneous Offset Instrument Approaches (SOIA) at San Francisco Airport. Because the runway centerlines are only 750 feet apart, simultaneous instrument approaches are not possible during marginal weather. SOIA uses an offset ILS to provide lateral and vertical guidance until the pilots see the other aircraft and the landing runways. Now ALPA carriers can continue operations to both parallel runways during lower weather conditions. SOIA is being expanded to similarly constrained airports.

2004 With support from ALPA and other groups, the 108th Congress and President George W. Bush take the first critical step toward transforming the Next Generation Air Transportation System (NGATS) by establishing the Joint Planning and Development Office. The mission of this agency is to address critical safety and economic needs in civil aviation while fully integrating national defense and homeland security improvements into this future system. Led by the ALPA president, who serves as a co-chair of the NGATS Institute Management Council (IMC), ALPA is instrumental in establishing the NGATS Institute to provide industry input into the NGATS planning.



November 2003—A MANPADS attack on a DHL A300 occurs in Iraq.



ALPA expands its catalogue of safety- and security-related training courses with the Advanced Accident Investigation Course—a hands-on field exercise that complements classroom training for ALPA safety representatives participating in NTSB and TSBC accident investigations.

2004 The Performance-Based Operations Aviation Rulemaking Committee replaces the TAOARC, providing a forum for the aviation community to discuss, prioritize, and resolve issues, provide direction for flight operation criteria, and produce consensus positions for global harmonization. This committee's scope of work is broader, with the objective of helping to move the aviation system to a performance-based system, thereby producing the highest levels of safety and security and increasing access, reducing delays, and improving the efficiency of the NAS.

2004 ALPA establishes the Airbus A380 Project Team, with the goal of creating an open dialogue between the manufacturer and pilots to address design and development

issues on a real-time basis. ALPA participates in a continuing series of meetings with Airbus to identify potential product improvements suggested by the pilot community and to develop a greater understanding of current and emerging fly-by-wire (FBW) design features, composite materials technology, and other unique design features associated with the world's largest transport aircraft. Since its inception, the project team has had several briefings from Airbus on its product and made several visits to Airbus's facility in Toulouse to monitor the progress of the certification and industry introduction programs.

2004 Boeing invites ALPA to join in a collaborative effort on design and production of the B-787. This collaboration is similar to the effort involving the B-777 aircraft that resulted in ALPA's being the co-recipient of the Collier Trophy in 1996. In numerous discussions with Boeing, the ALPA B-787 Project Team addresses cockpit and aircraft design issues and the design of the crew rest facility. In 2005, ALPA's efforts are recognized when ALPA and IFALPA are invited jointly to participate with Boeing in the 787 Flight Deck Reveal ceremony, where the flight deck design is presented to the world press.

2004 ALPA is instrumental in Transport Canada's establishing the Advisory Group on Aviation Security (AGAS). ALPA is a member of this group, which creates a formalized consultation process, including all stakeholders on aviation security matters. The consultation framework is formally adopted at the AGAS meeting in June 2006.

ALPA is instrumental in Transport Canada's establishing the Advisory Group on Aviation Security, which creates a formalized consultation process, including all stakeholders on aviation security matters. 2004



2004 The first-ever NTSB Cargo Safety Forum is held to address safety issues unique to or prevalent in the air cargo industry. ALPA is involved in all aspects of the event – as a member of the planning committee to set the agenda for the event, and as the largest single participant, preparing more than one-fourth of the papers presented at the forum.

2005 On January 20, 2005, history is made when the first aircraft begins flying with 1,000-foot vertical separation between FL290 and FL410 inclusive in domestic U.S. airspace. Based on the successful implementation in the North Atlantic, Europe, and parts of Asia, ALPA works with the FAA to implement Domestic Reduced Vertical Separation Minima (DRVSM) at the earliest possible time. Before DRVSM, aircraft operating between FL290 and FL410 were flying with 2,000-foot vertical separation. DRVSM effectively doubles the number of flight levels above FL290 and allows for more fuel-efficient cruise operations and increased safety through additional ATC flexibility. With the rising price of fuel, ALPA considers DRVSM essential to the industry's economic viability.

2005 ALPA, in conjunction with the FAA's Office of Runway Safety, AOPA's Air Safety Foundation, United Airlines, and other industry organizations, creates two unique products to increase runway incursion awareness and mitigate the risk associated with airport operations. The first of these is the Online Runway Safety Education Course on ALPA's website. This interactive program is designed to increase the line pilot's situational awareness in the airport environment and introduce flight crews to future programs, such as the ALPA-supported Surface Moving Map Displays hosted on electronic flight bags and runway status lights.

The second product is the “Was That For Us?” DVD – a modular, educational resource designed to be part of formal training programs or for individual use. More than 175,000 copies are distributed worldwide, including 80,000 through *Air Line Pilot* magazine directly to ALPA members.

2005 MIT Lincoln Laboratory begins conducting a Runway Status Lights Operational Evaluation at the Dallas/Fort Worth International Airport to automatically provide a direct indication of runway status to pilots. Runway entrance lights protect each of the taxiways that enter Runway 18L/36R; and takeoff hold lights embedded along the runway centerline automatically warn departing pilots if an incursion occurs ahead. The ALPA AGE Group assisted MIT LL and FAA with the original configuration determination, ALPA pilots have participated throughout the evaluation, and ALPA provides surveys for the evaluation on the Association’s website.

2005 Transport Canada introduces regulations requiring airlines to have a Safety Management System (SMS), including nonpunitive reporting systems. ALPA was a strong advocate of these regulations at the Canadian Aviation Regulation Advisory Council (CARAC) consultations. ALPA worked effectively with Transport Canada and Air Transat to implement SMS at that airline in 2002 and 2003. A key component was the company’s agreement with the ALPA Air Transat MEC on the nonpunitive reporting system.

2005 ALPA’s strong advocacy leads to several regulations being accepted by Transport Canada. The regulations – which include ACAS, an approach ban, a speed limit below 10,000 feet, and runway performance requirements for wet and contaminated runways – are now in the formal legal processing phase.




2005 ALPA's work in wildlife management is successful when Transport Canada adopts regulations requiring airports to have a wildlife management program, including the reporting and collection of bird-strike data.

2005 The TSA creates the Cockpit Access Security System (CASS) program, acting on ALPA's recommendations to reopen the flight deck jumpseat to off-line dead-heading and commuting pilots. ALPA, working closely with airline and labor representatives, promoted CASS to the government for a number of years before the program was institutionalized. CASS provides a secure method of positively identifying jumpseaters and verifying their employment status using existing airline databases.

2005 Transport Canada establishes a security consultative structure composed of the Advisory Group on Aviation Security (AGAS), the Security Regulatory Committee (SRC), and working groups. The mandate of AGAS is to exchange information between government and industry on current and emerging aviation security policy and regulatory and program priorities and initiatives. The Canada Board becomes an active participant on AGAS.

2006 The FAA selects Automatic Dependent Surveillance–Broadcast (ADS-B) as the future surveillance system for the National Airspace System (NAS). ADS-B provides automatic broadcast of aircraft position, altitude, velocity, and other data and enhanced situational awareness of aircraft and vehicle traffic for pilots and air traffic controllers; and it uses GPS, which allows the FAA to reduce reliance on ground-based infrastructure and shift to a space-based infrastructure.

ALPA's involvement in the ADS-B working groups led to successful deployment of

an ADS-B demonstration in Alaska (Capstone). ALPA also pushed for the rapid deployment of ADS-B ground and avionics throughout the NAS in an effort to reduce infrastructure costs, increase capacity, and support the deployment of numerous airborne ADS-B applications that will increase pilots' situational awareness both on the ground and in the air.

2006 In Canada, ALPA achieves a breakthrough with the RCMP regarding its concerns that a lack of communication and coordination was hindering the effectiveness of the APO program. In response, the RCMP briefs and provides demonstrations to selected groups, including ALPA, at its training facilities, and agrees to review procedures in coordination with airlines and pilot associations.

2006



ALPA, frustrated with the slow pace of RAIC implementation in Canada, succeeds in convincing Transport Canada to fast-track the introduction of regulations and to advise airports

that full implementation would be required by December 31, 2006.

2006 The number of ASAP and FOQA programs increases significantly since November 2001, when the FAR protecting organizations and pilots from FAA enforcement action and public disclosure was implemented, and April 2002, when the FAA published the ASAP advisory circular. Currently there are 13 approved FOQA programs operating in the United States and 1 in Canada. Additionally, 47 airlines have ASAP in place on their properties.

As airlines with these programs find they are a cost-effective means to enhance

safety on their properties, ALPA and others call for data and information sharing throughout the industry. As a result, the Voluntary Aviation Safety Information Program (VASIP) is put in place under the auspices of the Voluntary Safety Information Sharing (VSIS) ARC. The objective of this program is to identify industry-wide safety deficiencies so that corrective actions may be taken to enhance safety.

2006 The TSA issues the first *Common Strategy for All-Cargo Carriers*. Although Common Strategy guidance had existed in the passenger carrier domain for many years, none was provided to all-cargo carriers. ALPA played a key role in developing this critical training guidance for all-cargo crewmembers.

2006 The Commercial Aviation Safety Team (CAST), on which ALPA has been an integral player from its inception, successfully completes development of mitigations for all the major types of airline accidents. The CAST safety enhancements, when fully implemented, are expected to reduce the risk of a fatal airline accident by over 70 percent. CAST, with full ALPA participation, continues to seek ways to further reduce risk in airline operations by the proactive use of safety data and detailed evaluation of events leading to serious incidents.

2006 Members of ALPA's Aircraft Design and Operations Group meet with test pilot and engineering representatives from Embraer Aeronautics at its manufacturing facility in São José dos Campos, Brazil, for in-depth discussions regarding aircraft systems design and to conduct evaluation flights on the E-170 and E-195 aircraft. Additionally, the team participates in the evaluation of steep-approach hardware and software enhancements to the E-170 aircraft in advance of certification at London City Airport. This new and evolving steep-approach technology will

facilitate safe approaches to previously unserviceable airports and strengthens ALPA's position as *the* pilot organization most closely linked with innovative technology certification.

2006 After a 15-year effort, an Aviation Rulemaking Advisory Committee, in which ALPA participated from the beginning, completes drafts for a new FAR appendix and associated advisory circular to redefine the nature of in-flight icing. This group's work results in a greater understanding of the nature of the hazards posed by in-flight icing.

2006 ALPA is part of an international effort to produce a checklist template intended to revise the general procedures used by flight crews to handle an in-flight event involving smoke and/or fumes of unknown origin. For several years, ALPA had advocated changing the existing philosophy of checklist design to one that emphasizes the immediate need for the crew to consider an emergency divert/landing while evaluating the nature of a smoke/fume situation. The group, made up of ALPA, aircraft and systems components manufacturers, and regulators, successfully creates a new checklist template, which has since been adopted by at least one manufacturer for its fleet.

2006 The Air Cargo Security Final Rule is published in the *Federal Register* in May 2006. It calls for sweeping changes in security measures applied in both the passenger and all-cargo domains. The Air Cargo Security Final Rule is based on the work done by three cargo security working groups that had strong participation by ALPA. They were chartered by the TSA's Aviation Security Advisory Committee (ASAC) to examine and make recommendations related to three topics: shipper acceptance procedures, indirect air carriers, and security of all-cargo aircraft.

2006 ALPA marks its 75th Anniversary at the 52nd Annual Air Safety Forum and International Aviation Security Academy (IASA) 2006. Topics on the Air Safety Forum agenda include examination of issues in the cockpit related to flight time/duty time limits, issues on the ground such as runway friction, and issues in the air related to the air traffic control system. Topics on the IASA 2006 agenda include current security threats in the

area of MANPADS, air cargo and passenger screening, and airport security. Additionally, speakers reflect on ALPA's 75 years of aviation safety and security accomplishments and look ahead to the collective efforts necessary to ensure the safety and security of the aviation industry in the future.

2006 The FAA awards a HIMS contract to ALPA in late September for one base year and an option to renew for two additional years, for a total contract of \$500,000 for years 2007–09.

2007 Concerned about the ongoing problem of runway incursions, ALPA publishes a white paper entitled “Runway Incursions: A Call to Action” in March and distributes it to members of Congress, the FAA, Transport Canada, the NTSB, and others in government and industry. The paper explains the safety risk posed by these events and recommends solutions to reduce the potential for their occurrence. Later that year, ALPA creates a website dedicated to runway safety with educational materials and postings of runway safety bulletins. In August, the FAA convenes a “Call to Action on Runway Safety,” with the participation of ALPA, the airlines, and airport operators. The FAA administrator–chaired group agrees to a number of short-term action items to improve safety, including enhanced airport visual aids, more pilot training on ground operations, and a commitment to create an Aviation Safety Action Program for air traffic controllers.

2007 ALPA actively participates on the new ICAO Dangerous Goods Panel's ad hoc Working Group on Lithium Batteries to improve the testing criteria for lithium batteries transported as air cargo. The FAA publishes new rules that ban lithium metal batteries from passenger aircraft, but not cargo aircraft.



The Air Cargo Security Final Rule is published in the Federal Register in May 2006. It calls for sweeping changes in security measures applied in both the passenger and all-cargo domains.

2007 ALPA establishes a Blue Ribbon Panel on Pilot Fatigue, which examines fatigue from a broad-based perspective and makes recommendations to the Association's leadership.



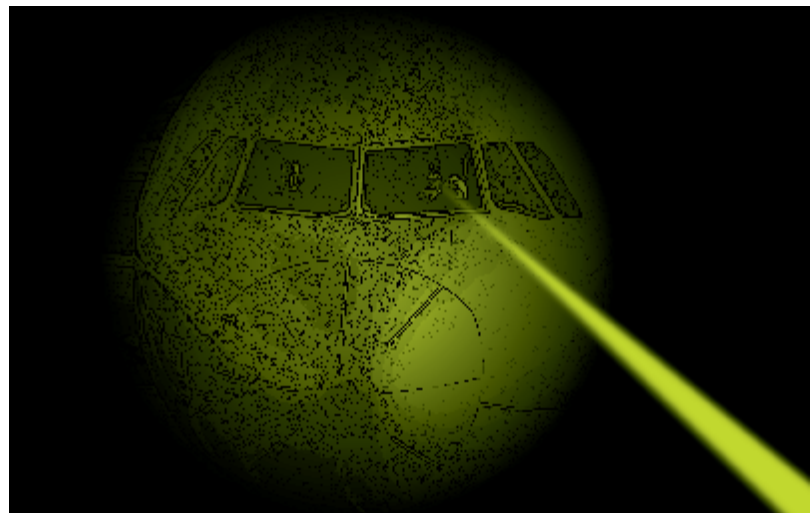
2007 The ALPA President's Committee for Cargo hosts the Cargo Aircraft Rescue and Fire Fighting Symposium in November. The chair of the NTSB serves as keynote speaker for this event, which brings together more than 70 representatives of the airlines, pilot groups, and aircraft rescue and firefighting (ARFF) organizations to share information and find solutions to common ARFF problems.

2007 ALPA supports government, law enforcement, and industry efforts to enact federal legislation aimed at thwarting the growing problem of cockpit laser illuminations. In May, the 110th Congress introduces H.R. 1615, which would make shining a laser at an aircraft a specific federal crime.

2007 ALPA's National Security Committee develops white papers on the Crew Personnel Advanced Screening System (CrewPASS), the Federal Flight Deck Officer program, air cargo security, and secondary cockpit barriers. These advocacy documents are used to inform the government, industry, membership, and public about ALPA's views and recommendations on these subjects.

2007 In October, ALPA provides testimony to the Canadian Commission of Inquiry into the Air India bombing of 1985. ALPA's statements receive widespread media attention and provide impetus for needed screening improvements, including the development of alternative screening protocols for pilots.

2007 The FAA and the airline industry, with ALPA's participation and endorsement, initiate the Aviation Safety Information Analysis and Sharing (ASIAS) program. ASIAS is intended to expand the safety value of information gained through the use of voluntary, nonpunitive safety programs by developing the means to collect deidentified data from multiple sources and combine it to provide a more accurate "safety picture" of issues within the industry. ALPA serves in an oversight capacity to ensure that ASIAS data is used exclusively for valid safety studies.



ALPA supports H.R. 5810, the Securing Aircraft Cockpits Against Lasers Act of 2010, which is intended to make shining a laser at an aircraft a federal criminal offense.

2007 ALPA is awarded its second Collier Trophy for its role in the government-industry team that is recognized “for conceptualizing, developing, and initially implementing the next generation performance-based air to ground, ground to air, and air to air surveillance system,” which is known as Automatic Dependent Surveillance-Broadcast (ADS-B). The Collier Trophy is awarded annually “for the greatest achievement in aeronautics or astronautics in America, with respect to improving the performance, efficiency, and safety of air or space vehicles.”

2007 The ALPA Human Performance Committee is reorganized and renamed the Pilot Assistance Committee to more accurately reflect the committee’s focus on assisting ALPA members in the areas of aeromedical, critical incident response, professional standards, HIMS, and Canadian pilot assistance.

2007 ALPA establishes policy on in-flight smoke, fire, and fume events. In recognition of the hazard of these events and the fact that industry efforts at mitigation have been slow, ALPA defines a strategy to advocate for improved detection and suppression systems for both passenger and cargo aircraft.

2007 On Dec. 13, 2007, following the standard established by the International Civil Aviation Organization, the mandatory retirement age for U.S. pilots goes from 60 to 65 after the president signs the “Experienced Pilots Act” into law as P.L. 110-135. The law includes ALPA’s recommendations with regard to pilot training and health, seniority, and legal indemnification, consistent with ALPA’s Executive Board resolution passed earlier that year.

2008 After more than a year of advocacy by ALPA, the Transportation Security Administration establishes a demonstration program of an ALPA-conceived program called the Crew Personnel Advanced Screening System (CrewPASS) at three East Coast airports. CrewPASS, which provides an alternative means of security screening for authorized crewmembers, is designed to use airline employee databases to verify an individual’s identity and confirm his/her employment status.



ALPA is awarded its second Collier Trophy in 2007 for its role in the government-industry team that is recognized “for conceptualizing, developing, and initially implementing the next generation performance-based air to ground, ground to air, and air to air surveillance system.”

2008 A new ALPA presidential Task Force on Aviation Sustainability and the Environment is created in January to promote safety as an essential component of any measures to reduce airline fuel consumption. The Task Force is a primary sponsor of a two-day primer held in Washington, D.C., for U.S. stakeholders on airport noise and emissions. The primer informs key decision makers about the burgeoning problem of safety implications and restrictions on aviation expansion due to environmental issues.



2008 New ICAO standards require that all certificated pilots who operate internationally have an airman certificate with an endorsement of English language proficiency. These language provisions were recommended by the ICAO Proficiency Requirements In Common English Study Group (PRICE SG) on which ALPA participated as the IFALPA representative.

2008 ALPA serves as the first industry co-chair of a new FAA working group called the Runway Safety Council (RSC), whose primary focus is the prevention of runway incursions. The RSC establishes a Root Cause Analysis Team, on which ALPA also serves, to analyze the causes of accidents and incidents and make risk-mitigation recommendations.

2008 ALPA participates in an industry group that produces a supplement for the *Upset Recovery Training Aid* manual. This supplement provides guidance on high-altitude aerodynamics and stalls characteris-

tics and expands the guidance to apply to all commercial and corporate jet aircraft.

2008 Terrorists mount an attack November 26 in Mumbai, India, against numerous targets, resulting in significant loss of life. ALPA coordinates with industry and government security officials to help ensure the security and well-being of pilots in Mumbai at the time of the attacks.

2008 As a result of ALPA advocacy beginning in 2006, the RTCA creates Special Committee 221 to establish minimum operational performance standards for secondary barriers. ALPA is chosen to co-chair the committee and provides chairmen for two of its four working groups.

2008 ALPA is awarded its third Collier Trophy as a member of the Commercial Aviation Safety Team (CAST). CAST's identified safety enhancements, developed by teams of industry experts including ALPA pilots and staff, are recognized "for achieving an unprecedented safety level in U.S. commercial airline operations by reducing risk of a fatal airline accident by 83 percent, resulting in two consecutive years of no commercial scheduled airline fatalities."

2008 The success of Aviation Safety Action Programs (ASAPs) for pilots is shared with air traffic controllers when, at the urging of ALPA and others in the industry, the Air Traffic Safety Action Program (ATSAP) is formally begun. ATSAP permits identification of aviation safety issues in the air traffic control system, which leads to an overall increase in aviation safety. The National Air Traffic Controllers Association (NATCA) draws on ALPA's expertise in developing and maintaining ASAPs at multiple airlines to shape their program.

2008 ALPA establishes policy outlining an acceptable means of developing a Multi-crew Pilot Licensing (MPL) process. ALPA expresses support for MPL but only under rigorous controls to ensure that the safety of the program meets or exceeds conventional licensing programs.

2008 The FAA establishes the Small Unmanned Aircraft System (SUAS) Aviation Rulemaking Committee to develop recommendations on how to safely operate small (i.e., less than 55 pounds) unmanned aircraft in the National Airspace System. For the next year, ALPA, along with stakeholders in industry and government, develop recommended restrictions and procedures to mitigate the hazards posed to conventionally piloted aircraft, other users of the NAS, and persons on the ground.

The FAA issues a Notice of Proposed Rulemaking on the pilot training and qualification requirements contained in 14 CFR Part 121, subparts N & O. The proposed rule is based on recommendations by an Aviation Rulemaking Committee, on which ALPA is an active participant. **2010**



2008 ALPA members provide leadership in the design and implementation of Transport Canada's Security Management Systems, a program akin to the Safety Management System. As a member of the Aviation Security Regulatory Review Technical Committee and its associated working group, ALPA assists in designing performance-oriented security regulations and security measures for all aspects of Canadian aviation.

2009 ALPA actively lobbies for transparency, trading limits, and other constraints on runaway oil commodity speculation, which has helped to drive the price of oil above \$140 per barrel in 2009. ALPA testifies at congressional hearings on this subject and joins the airlines in a publicity campaign to bring attention to this problem.

2009 On February 12, 2009, a Dash-8 Q400 on a scheduled flight from Newark crashes while on approach to Buffalo, New York, killing all 49 people onboard and one person on the ground. This landmark accident, and several others with similar characteristics, precipitates a public hearing by the National Transportation Safety Board and congressional hearings later that year in which ALPA actively participates. During these hearings, several long-standing safety issues come to light regarding pilot training and qualifications, flight crew fatigue, and consistency of safety standards between operators. That summer, the FAA institutes a nationwide "Call to Action" (CTA) with meetings around the country of government, industry, and labor to review operating procedures and best practices; ALPA's president presents the labor perspective at the inaugural CTA meeting in Washington, D.C., and dozens of ALPA representatives lead and/or participate in numerous other such meetings held around the country.

2009 The FAA issues a Notice of Proposed Rulemaking (NPRM) on the pilot training and qualification requirements contained in 14 CFR Part 121, subparts N & O. The proposed rule is based on recommendations by an Aviation Rulemaking Committee, on which ALPA is an active participant.

2009 ALPA participates in and co-chairs an FAA Aviation Rulemaking Committee (ARC) to develop regulations and guidelines for implementing Safety Management Systems (SMS) in the industry. ALPA is represented as one of three industry co-chairs of the ARC, which develops a Notice of Proposed Rulemaking for SMS for air carrier operators.

2009 ICAO publishes the third revision to its *Manual of Criteria for the Qualification of Flight Simulators* after four years of deliberations and work by the Royal Aeronautical Society's International Working Group (IWG), on which ALPA actively serves. The revised document identifies the level of simulation that is appropriate for each training maneuver/task.

2009 The FAA charters the Flight and Duty Time Limitations and Rest Requirements Aviation Rulemaking Committee (ARC) to develop a proposed rulemaking on airline pilot flight- and duty-time limits and rest rules. The chairman of ALPA's Flight Time/Duty Time Committee and a member of the ALPA Blue Ribbon Panel on Pilot Fatigue serves as an ARC co-chair.

2009 ALPA's National Security Committee hosts a widely acclaimed Terrorism and Situational Awareness Seminar in March featuring presentations by two ALPA members who witnessed and escaped from the Mumbai, India, attacks of November 26, 2008. Subject-matter experts from law enforcement, intelligence organizations, and industry also present on a wide range of topics related to crew travel security considerations.

2009 CanJet Flight 918, a B-737-800, is hijacked on the ground in Montego Bay, Jamaica, by a lone male armed with a handgun. The heroic actions of the crew result in a successful de-escalation of the situation without injury or loss of life, and the uneventful arrest of the hijacker.

2009 A catastrophe is averted aboard Detroit-bound NWA Flight 253 on December 25, when a suicide bomber fails in his attempt to detonate a bomb smuggled aboard in his underwear. The crew of NWA Flight 253 is honored for their professional response to the event with the ALPA Aviation Security Award for Valor.

2009 The TSA officially informs ALPA that it approves of nationwide implementation of CrewPASS and establishes policy for doing so, after it conducts a one-year demonstration program at three East Coast airports. ALPA promptly initiates an effort to gain acceptance for this program by the airlines.



After many years of ALPA advocacy for expedited screening for pilots, the TSA officially informs ALPA that it approves of nationwide implementation of CrewPASS and establishes policy for doing so.

2009 The ALPA Canada Board creates a new flight-time and duty-time working group aimed at improving Canada’s outdated aircrew fatigue regulations. This results in the formation of a larger working group that is incorporated in the Canadian Aviation Regulation Advisory Council (CARAC) process.

2010 Congress passes, and the president signs into law, the Airline Safety and Federal Aviation Administration Extension Act of 2010 (P.L. 111-216), which contains significant ALPA input. This law sets a higher safety bar in a number of areas, especially regarding the training and certification of pilots, includes a requirement that future first officers hold an Air Transport Pilot rating, and improves flight/duty-time rules, among other enhancements. The FAA creates a number of Aviation Rulemaking Committees composed of ALPA and other key industry stakeholders to recommend regulations to address the law’s safety mandates on such subjects as pilot training, stall warnings, severe weather, pilot records, first officer minimum qualifications, programs for mentoring, leadership and professionalism, and others.

2010 ALPA submits comments to the FAA on a Notice of Proposed Rulemaking on airline pilot flight- and duty-time limits and rest rules. The NPRM is a product of the Flight and Duty Time Limitations and Rest Requirements Aviation Rulemaking Committee that commenced deliberations in September 2009. The Airline Safety and Federal Aviation Administration Extension Act of 2010 (P.L. 111-216) requires that the FAA publish a final fatigue rule no later than July 31, 2011.

2010 ALPA informs the Federal Air Marshal Service (FAMS) of its concerns regarding pilot safety and security when conducting certain international relief flights. Based on those concerns, the FAMS approve the first Federal Flight Deck Officer (FFDO) missions outside of the United States.

2010 A massive volcanic eruption in Iceland cripples spring air travel throughout Europe and North America. ALPA participates in domestic and international working groups in an effort to develop standards that will allow a resumption of air service. ALPA testifies before Congress on the subject and outlines operational hazards and considerations. These activities were benefited by work done by ALPA and others in 2008 on an airline training video about volcanic ash hazards.

2010 ALPA’s National Security Committee publishes a white paper calling for a “Trust-Based Security System” and urges the secretary of homeland security and others within government and industry to support changes to TSA security screening procedures. The white paper is accepted as a subject of further research and analysis by the FBI-sponsored Terrorism Research Analysis Program (TRAP) consortium, on which ALPA is a participant.



United Captain Linda Orlandy testifies before Congress on the subject of volcanic ash and outlines operational hazards and considerations.

2010 ALPA supports H.R. 5810, the Securing Aircraft Cockpits against Lasers Act of 2010, which is intended to make shining a laser at an aircraft a federal criminal offense.

2010 Yemeni terrorists attempt to bomb all-cargo carriers on October 29 by hiding bombs in printer cartridges. ALPA provides subject-matter expertise to government law enforcement and intelligence agencies investigating the attack.

2010 The U.S. secretary of transportation announces in April the establishment of the Future of Aviation Advisory Committee (FAAC). This committee, on which ALPA serves as a member, provides information, advice, and recommendations to the Department of Transportation on ensuring the competitiveness of the U.S. aviation industry and its capability to address the evolving transportation needs, challenges, and opportunities of the U.S. and global economies. ALPA submits comments to the FAAC's Safety and Environment Subcommittees with recommendations on numerous Association priorities, including NextGen, flight and duty time regulations, and voluntarily submitted safety data.

2010 ALPA participates on the UN Subcommittee of Experts for the Safe Transportation of Dangerous Goods' working group on lithium battery testing. ALPA urges U.S. and Canadian officials to place a temporary ban on the carriage of lithium batteries as cargo on aircraft until proper regulations and packaging are in place.

2010 The FAA awards a HIMS contract to ALPA in July, with one base year and an extension for each of the following two years at \$200,000 each year, for a total of \$600,000.

2010 The FAA issues proposed new rules on in-flight icing; the proposed rulemaking represents the culmination of more than 15 years of efforts by ALPA and others in the industry to improve safety of flight in icing conditions.

2010 The NextGen Advisory Committee (NAC) is established to provide strategic direction to the FAA on acquisitions and development decisions for the equipment and procedures necessary to move the Next Generation Air Transportation System forward. ALPA participates at all levels of activity on the NAC.

2010 ALPA establishes policy on In-Flight Loss of Control (ILOC) in recognition of the cause of the greatest number of accidents in recent years, with the goal of ensuring that all pilots receive training and remain proficient in maneuvers near the edges of the flight envelope. ALPA's standard for ILOC training includes a strong academic foundation, incorporation of the industry's "Upset Recovery Training Aid," use of high-fidelity simulation in training, and enhanced research into ILOC instructional methods.

2010 ALPA establishes policy on automation dependency and its impact on manual flying skills. The new policy highlights the importance of the regular exercise of manual skills, deliberate determination of the proper levels of automation

The FAA issues proposed new rules on in-flight icing; the proposed rulemaking represents the culmination of more than 15 years of efforts by ALPA and others in the industry to improve safety of flight in icing conditions. 2010

throughout a flight based on operational conditions, threats, and other circumstances, and the need for robust standard operating procedures and training programs that emphasize the proper use of automation.

2010 The FAA publishes Technical Standard Order (TSO)-C195 “Avionics Supporting Automatic Dependent Surveillance-Broadcast (ADS-B), Aircraft Surveillance Applications (ASA).” This document represents the culmination of years of efforts by ALPA, working with aircraft and avionic manufacturers, to develop recommended standards for the use of ADS-B “In” on a Cockpit Display of Traffic Information (CDTI). When implemented, these standards will enable greater situational awareness in congested areas by allowing pilots to view traffic in real time on a cockpit display.

2010 The Commission of Inquiry into the Investigation of the Bombing of Air India Flight 182 releases its final report, which includes numerous security recommendations made by ALPA’s Canada Board in testimony to the commission. The airborne explosion on the B-747 killed all 329 passengers and crew of the flight, which represents the largest mass murder in Canadian history. The commission finds that the bombing was precipitated by a “cascading series of errors” by government agencies.

2010 As a direct result of ALPA’s advocacy to the Canadian Air Cargo Security Working Group, Transport Canada issues a rule that requires 100 percent hold baggage screening.

2010 The Future of Aviation Advisory Committee (FAAC), a government-chartered group established in May 2010 on which ALPA participated as a member, holds its last meeting in December and presents its recommendations to the DOT secretary and FAA administrator.

ALPA promotes, and the FAAC includes, recommendations to regulators concerning NextGen, safety data programs, sustainable alternative fuels, and other safety enhancements.

2010 In May 2010, the FAA issues a final rule on the use of ADS-B (out), culminating nearly three years of effort by ALPA and other industry and government participants. The rule requires all aircraft operating in airspace that currently requires use of a transponder to be equipped with ADS-B (out) by 2020. The rule specifies use of technology that harmonizes the United States with the rest of the world but also contains a lower-cost option for general aviation aircraft operating in U.S. airspace. The initial benefit of ADS-B (out) is primarily to the FAA in the form of enhanced ability to provide more accurate surveillance of aircraft in the national airspace system, although some airspace that is currently non-radar will be served by ADS-B surveillance.

One month later, the FAA charts an Aviation Rulemaking Committee (ARC) with the two-year task of developing requirements for applications of ADS-B (in), which will eventually allow airborne aircraft to take advantage of position information broadcast by other aircraft. In late 2010, the ARC delivers its first recommendations to the FAA. The group makes recommendations on a number of existing ADS-B (in) applications and on others being developed and supports continued development. The ARC will deliver additional recommendations to the FAA in September 2011 and its final report in June 2012.

2010 The first two Aviation Rulemaking Committees (ARCs) as a result of Public Law 111–216 (see above) complete their work. Final FAA action on the ARC reports is not complete, and the ARC reports are not yet public. However, brief

general descriptions of their focus and ALPA's role are listed below:

- ▶ **The Flight Crewmember Mentoring, Professional Development, and Leadership ARC** is tasked with making recommendations to the FAA on establishing flightcrew-member mentoring programs; establishing flightcrew-member professional development committees at each airline, made up of airline management and labor representatives; modifying pilot training programs to accommodate different levels and types of flight experience; establishing command and leadership training programs for new captains; and other actions that may enhance flightcrew-member professional development. The ARC report, which is submitted to the FAA in late 2010, includes recommendations on enhanced indoctrination training, different types of pilot mentoring programs, a new position within FAR Part 119 for a professional development expert, creation of pilot development committees, and other related issues. ALPA co-chairs the ARC, and members of the union's Professional Development Group and Engineering & Air Safety Department staff participate on the committee.
- ▶ **The First Officer Qualification ARC** is tasked with establishing minimum qualification for pilots in order to be hired by and fly as second-in-command (SIC) for FAR Part 121 airlines. The ARC is also tasked to develop recommended guidance on flight-hour credit toward the 1,500 hours required by P.L. 111-216 for specific academic coursework. The ARC report, which is delivered to the FAA in fall 2010, contains recommendations regarding minimum qualifications for pilots to be hired by FAR Part 121 air carriers as first officers; additional training, proficiencies, and competencies before a pilot can act as a FAR Part 121 SIC crewmember; the

requirement for SIC pilots to be type-rated; and which academic coursework and pilot training programs can qualify for flight-hour credit against the 1,500-hour requirement. ALPA's Air Safety Committee and Engineering & Air Safety Department support this effort.

2010 Under ALPA's leadership, the Safety Management Systems (SMS) Aviation Rulemaking Committee (ARC) completes its work and submits a report in spring 2010, which includes recommendations about the FAA's advance notice of proposed rulemaking (ANPRM) on potential SMS rulemaking. Among other recommendations, the ARC proposes that the FAA regulate the requirement for SMS within FAR Parts 21, 91K, 119, 121, 125, 135, 141, 142, and 145. The ARC reviews public comments submitted to the ANPRM previously issued in 2009. The ANPRM is subsequently withdrawn in 2011 (*see below*).

2010 Complying with a legislative mandate imposed by P.L. 111-216, the FAA issues a notice of proposed rulemaking (NPRM) proposing a regulatory structure for implementing Safety Management Systems (SMS) throughout airline operations.

2011 Federal Air Marshal Service (FAMS) leaders meet with ALPA leaders and staff at the agency's request to follow up on ALPA's long-standing concerns about the funding and management of the Federal Flight Deck Officer (FFDO) program. FAMS leaders readily acknowledge the validity of ALPA's concerns and promote a closer working relationship with the Association to help resolve issues.

2011 ALPA issues a regulatory, legislative, and public awareness action plan in January to safeguard the skies from deliberate laser illumination of aircraft and the risk it poses to aviation. ALPA urges making intentionally shining a laser at an aircraft

a federal crime, restricting the sale of portable lasers that are strong enough to cause injury, increasing the size of laser-free zones around airports, developing new ATC and pilot operating procedures to mitigate risk when illuminations are reported, and other actions. ALPA's president joins the FAA administrator in June at a press conference announcing that the agency will begin imposing civil penalties against people who point lasers into the cockpits of aircraft.

2011

The TSA approves testing a new, enhanced security-screening program for crewmembers called the Known Crewmember program. Known Crewmember, jointly sponsored by ALPA and the Air Transport Association, uses more advanced technology than CrewPASS, the first alternate screening system. Chicago O'Hare and Miami International Airports are chosen to be the first airports to host a 90-day test of the program. The TSA is prepared to authorize nationwide implementation pending a successful test period.

2011


More Aviation Rulemaking Committees (ARCs) are created as a result of P.L. 111-216 (*see above*). Final government action on the ARC reports is not complete, and the ARC reports are not yet public. However, brief, general descriptions of their focus and ALPA's role are listed below:

- ▶ The **Pilot Records Database ARC** was tasked with making recommendations to modify FAR Parts 121, 125, and 135 to require establishing and maintaining an electronic database containing a wider variety of pilots' records than is currently required. The records will be from both the FAA and airlines and cover training and certification, including records of failures and enforcement actions. The accuracy of such a comprehensive database is critically important to ALPA. The ARC discusses and is developing recommendations on a corrections/
- ▶ The **Air Carrier Safety and Pilot Training ARC** is tasked with evaluating best practices currently in use to enhance training, maintain high professional standards, and allow mentoring and information sharing among carriers. The ARC reports its findings to Congress in July and identifies numerous best practices, reports air carriers' and pilot associations' progress in implementing these practices, and recommends future regulatory and legislative actions. The ARC is scheduled to reconvene later in 2011 to develop a second report, due to Congress on July 31, 2012, outlining industry progress in adopting the recommendations and identified best practices. ALPA co-chairs the ARC, and members of the union's Air Safety Committee and Engineering & Air Safety Department staff participate on the committee.
- ▶ The **Stick Pusher and Adverse Weather Event Training ARC** is tasked with making recommendations to the FAA regarding methods to increase flightcrew members' familiarity with, and improve their response to, stick-pusher systems, flight in icing conditions, and microburst and windshear events. The ARC's findings are presented to the FAA in late June 2011. The FAA must report to Congress and the NTSB on the ARC's findings by July 31, 2011, and initiate actions to implement the ARC's findings. ALPA's Air Safety Committee and Engineering & Air Safety Department support this effort.
- ▶ The **Flightcrew Member Training Hours Requirement Review ARC** is tasked with developing recommenda-


tions on the time frame and methods of reliability for FAR Parts 121 and 135 air carrier pilots to master aircraft systems, maneuvers, procedures, takeoffs and landings, and crew coordination. The ARC considers initial and recurrent training, classroom training requirements, time between training events, and crew leadership training needs. The ARC reports to the FAA at the end of May 2011 and makes numerous recommendations, including the need for scenario-based training, establishing a new ARC to focus on a process-based training development system, one minimum performance standard for captains and first officers, adjustments to training intervals based on individual situations, and other related topics. ALPA's Safety Committee and Engineering & Air Safety Department support this effort.

2011 ALPA participates in a working group tasked under the Aviation Rulemaking Advisory Committee (ARAC) to provide recommendations to the FAA on developing and implementing a process to set rulemaking priorities. The group's goal is to help the FAA optimize the use of limited resources and develop safety regulations that are most critically needed for aviation.

2011 ALPA becomes the first pilot organization to join the Coalition to Save GPS. This coalition is formed to provide a unified industry voice objecting to a proposal by a private company, LightSquared, to establish a wide-ranging network of powerful transmitters providing cellular telephone and Internet service. The proposed network operates on a frequency immediately adjacent to that used by GPS worldwide, and testing shows that the system would likely overpower GPS signals and render them unusable for navigation in most areas where airline aircraft operate.

2011 By mid-2011, the U.S. Congress has not yet passed an FAA reauthorization bill and passes a short-term extension to keep the FAA operating, marking the 20th such temporary extension since the last reauthorization expired in 2007. The lack of a bill keeps a number of ALPA-backed safety initiatives in legislative limbo and the future of numerous FAA programs uncertain. 

ALPA participates in a working group tasked under the Aviation Rulemaking Advisory Committee (ARAC) to provide recommendations to the FAA on developing and implementing a process to set rulemaking priorities. 2010





ONE LEVEL OF SAFETY
80 Years and Counting

For more than 80 years, ALPA pilots, through their labor union, have successfully worked to enhance aviation safety and security for the benefit of air travelers, flight crews, and the airline industry as a whole.

As we look to the next 80 years and beyond, ALPA remains steadfastly committed to continue these efforts to maintain and enhance air travel as the dependable, secure, and safe mode of transportation it is today.



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2011