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Vision 100: Historical Review of the Century of Aviation Reauthorization Act (P.L. 108-176)

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Bartholomew Elias, John Fischer, and Robert Kirk
Specialists in Transportation
Resources, Science, and Industry Division

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Summary

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (FAIR21 or AIR21; P.L. 106-181), which provided authorization for the Federal Aviation Administration (FAA) and related aviation programs, expired at the end of FY2003. Congressional debate on a new reauthorization bill took place during the 1st Session of the 108th Congress leading, finally, to a new reauthorization that extends FAA programs through FY2007.

A number of issues were considered during the reauthorization debate. The condition of the airline industry, while not directly addressed in the bills under consideration, had an impact on the debate because the aviation industry's recessionary environment has constrained the trust fund revenues that support most of the FAA budget. Increasing capacity and reducing future congestion and delay, as well as proposals concerning air traffic modernization were issues. "Environmental streamlining" was also a major element of the reauthorization debate, involving proposals to expedite environmental reviews potentially affecting the completion of airport capacity capital projects. Funding security enhancements at airports without depleting the Airport and Airway Trust Fund of funds needed to support the national system's other needs was also a significant issue in the debate. Subsidizing air service to isolated communities is a perennial issue in FAA reauthorization as are other issues such as federal aid for airport noise mitigation, aviation safety, and air traffic control privatization.

On July 25, 2003, Vision 100-Century of Aviation Reauthorization Act (H.Rept. 108-240) was reported out of conference. The conference report specified $59.2 billion over four years for FAA activities. However, a few provisions of the original conference report were considered controversial. Most notable of these was a provision that would have prevented privatization of certain air traffic control functions, but would have allowed privatization of certain airport towers. On October 28, 2003, the House recommitted the bill to the conference to address this controversy, and the following day a new conference report (H.Rept. 108-334), almost identical to the first but without the air traffic control privatization protection language, was filed. That report passed the House on October 30, 2003; passed the Senate on November 21, 2003; and was signed into law on December 12, 2003. The new law, Vision 100-Century of Aviation Reauthorization Act (Vision 100; P.L. 108-176), reauthorizes FAA aviation programs for fiscal years 2004-2007. The bill also includes numerous provisions to improve aviation security.

This report will not be updated.

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On June 11, 2003, H.R. 2115, Flight 100 — Century of Aviation Reauthorization Act, was passed by the House of Representatives. On June 12, 2003, the Senate passed a version of H.R. 2115 striking out the House language and substituting the amended language of S. 824. On July 25, 2003, Vision 100 - Century of Aviation Reauthorization Act (H.Rept. 108-240) was reported out of conference. On October 28, 2003, the House passed H.Res. 377 recommitting the conference report back to the conference. On October 29, 2003, a new conference report (H.Rept. 108-334) was filed and was agreed to by the House on October 30, 2003. The new conference report (H.Rept. 108-334) was agreed to by the Senate on November 21, 2003 and signed into law by the President on December 12, 2003 (P.L. 108-176).

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (FAIR21 or AIR21; P.L. 106-181), which provided authorization for the Federal Aviation Administration (FAA) and related aviation programs, expired at the end of FY2003. Consequently, the 1st Session of the 108th Congress engaged in the process of drafting and debating legislation to reauthorize the FAA and related aviation programs for future years. The Senate proposal for FAA reauthorization, the Aviation Investment and Revitalization Vision Act (AIR-V, S. 824) proposed a three-year reauthorization for FY2004-FY2006 totaling $43.5 billion. The House proposal, H.R. 2115, dubbed Flight-100 in commemoration of the 100th anniversary of powered flight, would have reauthorized the agency's operations, facilities and equipment, and airport planning budgets for four years at funding levels slightly higher than those proposed in the Senate bill, totaling $58.2 billion over four years. The Federal Aviation Administration Research and Development Reauthorization Act (H.R. 2734)(not considered on the House floor) proposed spending of about $200 million per year over three years for FAA's research, engineering, and development program, while the Second Century of Flight Act (H.R. 2271), an alternative introduced in the House, proposed a three-year funding plan at levels identical to the Senate bill.

Both the Senate and House bills provided for slight increases in funding across all program areas over the next three and four years respectively. By comparison, the Administration's four-year proposal, also called Flight-100, proposed flat funding for airport development, held fixed at $3.4 billion per year, minor increases for other programs and significantly reduced funding for Research, Engineering, and Development.

Vision 100 (P.L. 108-176) adopts the Senate plan for airport improvements funding levels starting at $3.4 billion in 2004 and providing $100 million annual

increases thereafter. Vision 100 also provides increased authorization levels for facilities and equipment in 2004, and significantly higher authorization levels for research, engineering, and development. Vision 100 otherwise mirrors the House version of H.R. 2115 with regard to program funding authorizations. A summary of the proposed funding authorizations in the House, Senate, and Administration bills and enacted authorization levels is provided in **Table 1**.

This report discusses major elements of the legislation and significant issues considered during debate over FAA reauthorization including:

- The economic outlook for the aviation industry and its impact on aviation program funds;
- Initiatives to promote and ensure air service for isolated communities;
- Funding for airport development;
- Initiatives to improve aviation safety and security;
- Initiatives to promote aviation and aerospace research and technology; and
- FAA organizational issues.

Table 1. Reauthorization Funding Levels by Program

($ Billion)

Program		FY2004	FY2005	FY2006	FY2007
Airport Improvement Program (AIP)	Admin:	3.400	3.400	3.400	3.400
	Senate:	3.400	3.500	3.600	—
	House:	3.400	3.600	3.800	4.000
	Enacted:	**3.400**	**3.500**	**3.600**	**3.700**
Facilities and Equipment (F&E)	Admin:	2.916	2.971	3.031	3.098
	Senate:	2.916	2.971	3.030	—
	House:	2.938	2.993	3.053	3.110
	Enacted:	**3.138**	**2.993**	**3.053**	**3.110**
FAA Operations and Maintenance (O&M)	Admin:	7.591	7.732	7.889	8.064
	Senate:	7.591	7.732	7.889	—
	House:	7.591	7.732	7.889	8.064
	Enacted:	**7.591**	**7.732**	**7.889**	**8.064**
Research, Engineering, and Development (RE&D)	Admin:	0.100	0.102	0.104	0.107
	Senate:	0.289	0.304	0.317	—
	House:*	0.190	0.207	0.228	—
	Enacted:	**0.346**	**0.356**	**0.352**	**0.356**
TOTAL	Admin:	**14.007**	**14.205**	**14.423**	**14.669**
	Senate:	**14.196**	**14.507**	**14.836**	**—**
	House**	**13.929**	**14.325**	**14.742**	**15.174**
	Enacted:	**14.475**	**14.581**	**14.894**	**15.230**

* House RE&D provisions introduced in H.R. 2734.
** House totals do not include RE&D provisions in H.R. 2734.

State of the Aviation Industry

Reauthorization of the FAA took place against the backdrop of the remaining effects of the war in Iraq, memory of the recent outbreak of Severe Acute Respiratory Syndrome (SARS), and lingering concerns about terrorism dating back to September 11. Almost all facets of the aviation industry were operating in a recessionary environment, even though the official recession as defined by the Treasury had ended before final passage of Vision -100.. According to the FAA's *Aerospace Forecasts for Fiscal Years 2003 - 2014* (issued March 2003), any recovery in the demand for aviation services was "stalled" even before the Iraq war started. In 2003 most airlines, with the notable exceptions of Southwest and some other newly emergent air carriers, experienced significant losses. Even with traffic beginning to return, profitability was still viewed as being a year or more away. The economic difficulty of the situation was not limited to the airlines, but extended across a broad spectrum of aviation industry activities.

Reauthorization is not normally viewed as a vehicle for addressing the overall financial health of the aviation industry. During consideration of AIR21, the focus was on making sure that there would be enough air traffic control and airport capacity to facilitate the rapid growth occurring in all sectors of the industry at that time. This imperative was particularly important to the authors of AIR21, who raised funding for many FAA programs, but especially the airport improvement program (AIP).

Although aviation growth was "stalled" in 2003 it was believed that this situation was temporary. The same FAA forecast mentioned above expected that industry growth would resume before the end of 2003, as it appears to have been doing, but at lower levels then those experienced at the end of the 1990s. It is hoped, barring further destabilizing incidents, that this industry will return to its historical growth patterns. When growth does recur, many of the same concerns about overtaxed infrastructure will return.

Competition and Delay Issues. The 2003 Senate bill addressed a number of long-standing concerns about competition and delay in the overall aviation system and at key airports. A provision of the Senate bill allowed the Secretary of Transportation to call for meetings between the FAA and airlines if it was deemed necessary to consider flight reductions/rescheduling at an airport. These meetings are to be held using procedures developed by the Secretary. In 2003, specific airport flight delays were not an issue, but prior to September 11 these issues arose at a number of congested airports including, for example, New York LaGuardia and Chicago O'Hare. Without this process, a meeting between airlines to discuss schedules would run afoul of antitrust concerns. Another provision in the Senate bill required that hub airports denying airline requests for facilities notify the Secretary as why the request was denied and also identify when they expect to be able to fulfill the airline request.

The House bill also had provisions that allowed for scheduling meetings during "capacity reduction events." The House plan created a demonstration or pilot program that allowed "collaborative decision making" at three airports during congested periods, in the interest of improving efficiency. There are a number of conditions that must be met for a scheduling meeting to take place and the Secretary

of Transportation can offer limited immunity from antitrust law. The program was to run for two years, but could be extended for an additional two years and expanded to include up to seven additional airports.

All of the provisions discussed above were part of the conference bill, although some aspects of each proposal were modified. For example, the pilot program only allowed for two airport participants during the first two years, instead of three, and the denial of facilities provision is now a biannual reporting requirement. All of these provisions while seemingly straight forward, potentially raise issues about DOT intrusion into the business decisions of airlines and local airport operators and could become controversial in the future.

Reagan National Airport Slots. There are four slot-controlled airports in the United States. In only one instance, Reagan National Airport, are the slots determined by federal statute. Reagan National has long operated with limited slots (takeoffs and landings) and with a perimeter rule that limits flights beyond 1,250 miles. These rules were originally put in place to move long haul flights to the then underutilized Dulles International Airport, and legislation that created the Washington Metropolitan Airport Authority in the mid-1980s reaffirmed them in federal statute. These rules have always been controversial. Many Washington area residents support the existing slot system and object to additional flights for noise and other environmental reasons. Some residents of states outside the perimeter have been opposed to these rules, protesting their lack of access to the area's most convenient airport.

AIR21 broke the perimeter barrier for the first time, by allowing a limited number of additional slots for service beyond the perimeter. The House bill increased the number of slots at National adding 12 new exemptions to existing slot rules for flights outside the perimeter and 8 new exemptions for flights within the perimeter. As modified by a managers floor amendment the slots within the perimeter would not be reserved for new entrant carriers, but would be competitively available to all airlines. A further addition to the bill on the House floor redesignates commuter slots so that they could be used by aircraft with 76 seats or less. This provision accommodates new regional jet aircraft such as those owned by US Airways.

Vision 100 essentially adopts the House provisions. The act, however, suggests that DOT consider the possibility of expanding service to western cities that could be viewed as gateways as part of its route selection process. DOT has now allocated these new slots to several airlines.

War Risk Insurance. Immediately following the events of September 11th private market insurance firms stopped offering terrorism coverage as part of their offerings to the airline industry. This was partially a response to the potentially large costs engendered by claims resulting from the terrorist actions and partially a concern that the announced "war on terrorism" might make this an even more risky insurance product in the years ahead. Although air carriers have traditionally provided at least some degree of insurance self coverage, they have always been reliant on the larger insurance and reinsurance markets to provide catastrophic coverage. And they must carry coverage in order to satisfy operating certificate requirements (all airlines must

have an operating certificate issued by DOT), lien holders, and other interested parties.

Federally offered war risk insurance has been a feature of federal aviation policy since the cold war era. It is considered an important element in the Civilian Reserve Air Fleet (CRAF) program that makes civilian aircraft available to the military in times of national emergency. In light of the lack of a private market for terrorism insurance at what is considered a reasonable price after September 11, Congress has afforded the airline industry extended coverage under the war risk program. Funding for this program has been extended several times, most recently by the emergency wartime supplemental appropriations for FY2003 (P.L. 108-11), which provides coverage until the end of August 2004, unless extended by the President until the end of 2004.

As proposed in the Senate bill, authorization of the war risk program would be extended until the end of 2007. An amendment adopted in Committee would extend war risk insurance to aircraft manufacturers for the first time. Eligibility would be at the discretion of the Secretary and could only apply for loss or damage claims of over $50 million. Vision 100 is similar to the Senate version of the bill, but extends program authorization until March 30, 2008. Subject to DOT approval, aircraft manufacturers will be able to obtain war risk insurance in certain circumstances.

Improving Air Service to Isolated Communities. The Essential Air Service (EAS) program and the Small Community Air Service Development (SCASD) Program were designed to address the difficulties in obtaining and maintaining air service in small, isolated communities where access to the national air transportation system is limited. Vision 100 reauthorizes these programs and restructures the EAS program. Additionally, Vision 100 establishes a National Commission on Small Community Air Service.

The Essential Air Service Program. EAS provides subsidies directly to air carriers for providing service between selected small communities and hub airports. The program was originally established in 1978 as part of airline deregulation to ensure a minimum level of air service at smaller communities that may otherwise lose service because of economic factors. At present, 125 communities in the United States and its territories participate in the EAS program and this number is expected to increase given that current financial conditions may prompt air carriers to discontinue service without subsidies. However, the effectiveness of the current EAS program has been questioned as total passenger traffic among EAS communities has declined 20% since 1995.

The EAS program received $102 million in appropriations for FY2004 (see P.L. 108-199). Vision 100 authorizes a total of $127 million annually through FY2007, of which not more than $12 million can be applied toward the new marketing incentive program included from the Senate bill. Several modifications were included in Vision 100 to increase program flexibility and transportation options for linking EAS communities to the national aviation network.

The new marketing incentive program allows EAS communities to obtain grants of up to $50,000 for implementing marketing plans to increase ridership.

Communities must be willing to match 25% of the grant with non-Federal funds, but the proposal includes incentives to offset these costs, dropping the non-Federal share to 10% the following year if the community realizes a 25 percent gain in ridership, and to zero if the community achieves a 50 percent increase in ridership. Vison 100 provides up to $12 million each year to fund this initiative. Vision 100 also includes a community flexibility pilot program allowing up to 10 EAS communities to opt out of the program for a 10-year period in exchange for a grant equivalent to 2 times the subsidy paid for EAS service in the most recent 12-month period.

Vision 100 also contains additional provisions for a community and regional choice program as an alternate to EAS. The community and regional choice program provides an alternative to EAS in which eligible communities are funded directly and can then use the funds toward a variety of air transportation options that are not available under the traditional EAS program. Eligible communities would be able to use funds received to provide subsidies to an air carrier or an on-demand air taxi service; for scheduled or on-demand surface transportation linking the community with another airport; to purchase aircraft or fractional ownership in aircraft; or to pay for other transportation options approved by the DOT.

A provision in Vision 100 requires that DOT establish a consistent standard for calculating milage. It also requires that DOT consult with state officials when calculating the most commonly used highway distance to a hub airport for the purpose of determining EAS eligibility.

Additionally, a somewhat controversial provision contained in Vision 100 directs the DOT to establish a local participation pilot program under which up to 10 EAS communities, no more than 1 per state, located within 100 miles of a large hub, will be required to pay 10% of the EAS subsidy with non-federal funds for a period of four years. However, a provision in the FY2004 consolidated appropriations measure (P.L. 108-199) prevents the use of any FY2004 appropriations to implement this program.

Small Community Air Service Development Program. Vision 100 reauthorizes the Small Community Air Service Development (SCASD) Program and removes the previous designation of the program as a 'pilot' program. Vision 100 authorizes $35 million per year for the program. The program was established under AIR 21 to develop solutions for improving air carrier service to communities that are experiencing insufficient access to the national air transportation system. Program funding provides direct grants to selected communities for implementing strategies to improve the availability and pricing of air service. The General Accounting Office (GAO) has cautioned that it is still too early to assess the long term impact of this program and has noted that many of the programs receiving grants appear similar to prior programs tried by communities using state, local, and private funds and may not be sustainable beyond the period of subsidized funding. While the House version sought to remove the per state limit on grants, Vision 100 sets a limit on grant recipients to 4 per state each fiscal year.

Airport and Airway Trust Fund (Aviation Trust Fund) Issues

The airport and airway trust fund, also known as the aviation trust fund, provides all funding for three of the FAA's four major programs; the Airport Improvement Program (AIP), Facilities and Equipment (F&E), and Research, Engineering, and Development (RE&D). It also provides significant funding for the Operations and Maintenance Program (O&M). O&M, however, as a result of long standing agreements, also receives funding from U.S. Treasury General Funds. The split between trust fund and general fund monies on O&M has always been somewhat controversial and could again become an issue in this reauthorization cycle.

The poor economic condition of the aviation industry is having a negative effect on trust fund revenues. Trust fund revenues more than doubled between FY1990 ($4.9 billion) and FY2000 ($10.7 billion). The trend, however, changed dramatically in the new century. In FY2001, revenues fell slightly to $10.2 billion. In FY2002 they dropped slightly again to $10.1 billion. Predictions made prior to the Iraq War, which now might be optimistic, foresaw a slight increase in FY2003 to $10.2 billion, followed by a recovery in more typical growth to an FY2004 level of $11.1 billion. Because aviation spending has remained constant, as required by AIR21, there has been a steady decline in the uncommited balance in the trust fund, which stood at $4.8 billion at the end of FY2002.

AIR21 created a budgetary regime for aviation programs that was closely linked to the availability of funds in the trust fund. In simple terms, appropriators were required to fully fund AIP and F&E at authorized levels, and must further account for all trust fund revenues prior to determining the general fund share that would be provided for O&M in a fiscal year. This is a part of the so-called funding "guarantee" that is designed to insure that all trust fund income is spent on aviation and not other transportation activities. Both the House and Senate bills continue this process as does Vison 100.

The Senate, House, and Administration reauthorization proposals call for only modest growth in the FAA budget (just over $14.0 billion in FY2004). The House, however, provides somewhat more funding over four years, primarily for the AIP program. Vision 100 is a compromise. It adopts the House's four year structure, but reduces its AIP funding amounts slightly in favor of increases in other FAA program areas. By maintaining the growth in spending at a modest level the act seems to side step any trust fund solvency concerns.

Airport Development

The Airport Improvement Program (AIP) provides federal grants for airport development and planning. AIP funding is usually limited to capital improvements related to aircraft operations. Commercial revenue producing portions of airports and airport terminals are improvements that are generally not eligible for AIP funding. AIP money cannot usually be used for airport operational expenses or bond repayments. AIP funds are distributed either as formula grants or as discretionary grants. Small airports are much more dependent on AIP grants than large and

medium hub airports. These airports can more easily generate revenue from user fees and have historically had the financial wherewithal to successfully access the bond market.

The Passenger Facility Charge (PFC) program provides a source of non-federal funds intended to complement AIP spending. The PFC is a local tax imposed, with federal approval, by an airport on each boarding passenger. PFC funds can be used for a broader range of projects than AIP grants and are more likely to be used for "ground side" projects. PFCs can also be used for bond repayments.

Reauthorization Proposals and Issues. Vision 100 included provisions directed toward facilitating capacity enhancing projects and redirected some funding toward smaller airports. Compared with the changes in AIR21, the changes to AIP under Vision 100 are of a perfecting nature rather than major changes. As set forth in **Table 1**, the funding increases were also modest, growing $100 million annually from a FY2004 base of $3.4 billion to a high of $3.7 billion for FY2007.

Apportionment and Eligibility Changes. Vision 100 included provisions that protect small airports from having their apportionments reduced in FY2004 because of reduced traffic levels. The Cargo airports formula percentage was raised to 3.5%. Non primary airports are now allowed to use their entitlements for revenue generating areas if the Secretary of DOT determines that the sponsor has made adequate provisions for the airside needs of the airport. Also, AIP grants at small airports may now be used to pay interest on bonds used to finance an airport project. Purchase and retrofitting of low emission vehicles at airports, as well as other air quality projects, were made eligible for AIP grants.

Discretionary Fund Changes. Vision 100 increased the discretionary set aside for noise projects from 34% to 35%. The Military Airport Program airport maximum funding was increased from $7 million to $10 million for FY2004-FY2005.

Airport Noise Issues. Airport noise policy is linked to airport development because airport noise is a major factor in local resistance to airport capacity projects. Vision 100, as mentioned earlier, raised the noise AIP set-aside to 35%. The act also included language to make noise mitigation projects, approved in an environmental record of decision for a project designated as a national capacity project, eligible for AIP noise mitigation funding. This appears to provide, under certain conditions, for AIP funding of projects at airports that have not submitted a noise compatibility plan, as has been required in the past.

Passenger Facility Charge Issues. Vision 100 included provisions to streamline PFC public notice requirements as well as ending the "significant contribution" project requirement for large and medium hub airports that wish to impose PFCs at the $4 and $4.50 level. The requirement of notice and consultation of air carriers at applicant airports is limited to carriers that have no less than 1% of the boardings at the airport, 25,000 boardings, or that provide scheduled service at the airport. The act established a pilot program to test alternative procedures for authorizing small airports to impose PFCs. It also made conversion of ground support equipment to low emission technology eligible for PFC funds. Vision 100 also

empowered the Secretary to allow the use of PFCs for debt service for indebtedness on non-eligible, non-airport related projects, if the Secretary finds that such project funding is necessary due to an airports financial need.

Federal Share. Vision 100 raised the federal share from 90% to 95% for airports smaller than large and medium hub and airports in states participating in the state block grant program. It also raised from 40% to 70% the share for airports participating in the pilot privatization program (see below) for private ownership of airports.

Airport Privatization. Vision 100 amends the approval conditions for the Airport Privatization Pilot Program. This program allows the Secretary of Transportation to approve applications from up to five airport sponsors that wish to sell or lease a general aviation airport or lease any other airport. The selected airports would receive exemptions from certain provisions of Title 49 concerning revenues, grants, and compensation, but are also required to meet the terms and requirements set forth in section 47134.

Under Vision 100, airports selected for the pilot program must meet new approval criteria concerning carriers at the airport. For primary airports, privatization must be approved by 65% of the scheduled carriers at the airport and by scheduled or non-scheduled carriers whose aircraft landing at the airport had at least 65% of the total landed weight at the airport. For non-primary airports the Secretary of Transportation must consult with 65% of owners of aircraft based at that airport. Air carrier non-approval has to be filed within 60 days or approval will be granted..

This program involves privatizing airport facilities and operations normally under the control of an airport sponsor. It does not allow for privatization of air traffic control or security operations.

Airport Security Project Eligibility. Vision 100 repealed the authority to use AIP or PFC funds for airport security purposes. These costs are to be paid for from an Aviation Security Capital Fund (see “Security Enhancements at Airports”, below).

Runway Safety Areas. The House bill contained a provision that would have made runway improvement grant approvals contingent on assurances that the sponsor will, to the maximum extent possible, improve the runway’s safety area to meet FAA standards for passenger airports. Vision 100 limits the applicability of this provision to airports in Alaska and directs the DOT to study the potential impact of applying these runway safety area standards at airports in other states. The NTSB recently recommended that runways at passenger airports be upgraded immediately to meet FAA’s runway safety area criteria following the March 5, 2000 mishap at Burbank, CA, where a Southwest Boeing 737 overran the runway.

Environmental Streamlining. Vision 100 included provisions that can be described as proposals to accelerate the completion of major airport safety and capacity projects by streamlining the environmental review process. The act designated the DOT as the lead agency in the project review process and directed the Secretary to develop a coordinated process for major airport capacity projects that

will assure simultaneous review by all government agencies. Much from the House bill, which included the most extensive environmental streamlining provisions, was included in Vision 100. The act provided detailed information on how environmental reviews are to be conducted to reduce the amount of time and number of reviews required for new airport project approval.

Airway Facilities Improvements and Air Traffic Modernization

Airway facilities consist of elements that comprise the infrastructure of the national airspace system and include navigational aids, communications equipment, radar equipment, weather equipment, air traffic management systems, and so on. Funding for the acquisition, operation, and maintenance of airway facilities is derived from the Airport and Airway Trust Fund and comprises about 20% of FAA's spending. FAA programs to improve the accessibility, capacity, and safety of the national airspace system have been the subject of Congressional scrutiny and frequent criticism over the past 20 years as the result of numerous cost overruns, schedule delays, and failures to meet program objectives. While current economic conditions have decreased the demand on the aviation system, FAA faces a critical challenge in the next 5 to 10 years to enhance the performance of the national airspace system to meet anticipated growth in demand. Vision 100 authorizes the expenditure of such sums as may be necessary to implement a pilot program to test the cost effectiveness and feasibility of long-term financing of modernization of major air traffic control systems.

Cost Sharing for Air Traffic Modernization Projects. Vision 100 also contains provisions to foster non-federal investment in critical air traffic control facilities and equipment, such as airport navigation capabilities, weather sensing, runway lighting, and air traffic control towers, by providing permanent authorization to carry out up to 10 cost-sharing air traffic modernization projects each fiscal year. Under the program, cost-sharing arrangements between the FAA and non-federal sponsors such as an airport, an air carrier, or a joint venture between an airport and one or more air carriers, can be made to fund airport-specific air traffic facilities and equipment. This concept was demonstrated in a three-year pilot program, enacted as part of AIR21, that funded 10 air traffic modernization projects where sufficient federal funds were unavailable. However, under the program authorized by Vision 100, federal funds for a project will be limited to the lesser of one-third of the total program cost or $5 million, as compared to a $15 million cap in the pilot program. The new program, however, allows more flexibility in the composition of non-federal project sponsors, allowing airlines to participate without establishing a partnership with an airport. However, the current economic status of the airlines makes it unlikely that they will provide a significant near-term source of non-federal funding for air traffic modernization projects. Also, the smaller cap on federal funds may mean that smaller scale projects may be undertaken in the future. This program is most likely to benefit those airports that derive larger revenues from PFCs and commercial activity and, consequently, are capable of funding larger scale air traffic modernization projects with more limited federal funding.

Wake Vortex Advisory System. Vision 100 authorizes the expenditure of such sums as may be necessary for the development and assessment of wake vortex advisory systems. Vision 100 also directs the National Research Council to conduct

an assessment of FAA's wake turbulence research program and authorizes $500,000 for FY2004 for this assessment.

Wake vortices produced by heavy jet aircraft have been identified as factors in a small number of aircraft accidents, and the contribution of a wake turbulence encounter in the November 2001 crash of American Airlines flight 587 at JFK airport, the second deadliest in U.S. history, is still under investigation. Current air traffic procedures specify separation standards for aircraft departing behind large and heavy jets to allow their wake vortices to dissipate. Some view these standards as overly conservative and argue that accurate wake vortex prediction capabilities could allow for decreased separation thereby increasing airport capacity in many weather conditions. Others argue that the limited capability of available technology and the complexities of wake vortex propagation make it difficult to predict wake turbulence or use such predictions to reduce arrival and departure spacing without compromising safety.

Ground-Based Precision Navigation Aids. Vision 100 authorizes the installation, operation, and maintenance of ground-based precision navigational aids at mountain airports. Vision 100 specifically mentions implementing navigational aids that can also provide curved and segmented flight paths for noise abatement purposes. However, currently available ground-based navigational aids are not always viable options at mountain airports due to terrain constraints on approach procedures. Accessibility to many of these mountain airports has improved significantly over recent years and continues to improve through the use of satellite-based navigation using the Global Positioning System (GPS). However, this system is not yet capable of providing the needed precision for vertical guidance. Consequently, the FAA has proposed a plan to develop approach procedures with vertical guidance that will likely rely on a combination of satellite-based, ground-based, and on-board navigational sources. Programs to increase precision navigational capabilities at airports may need to provide sufficient flexibility to accommodate these anticipated changes in precision approach procedures.

Gulf of Mexico. Vision 100 authorizes the expenditure of such sums as may be necessary to improve air traffic services in the Gulf of Mexico. This provision will most directly benefit helicopter operations that support the large offshore oil industry, but may also benefit smaller aircraft operating below 18,000 feet over the gulf. The program is also expected to improve aerial surveillance in the gulf for national security and law enforcement purposes.

Enhancing the Safety and Security of the Aviation System

Security Enhancements at Airports. With the passage of the Aviation and Transportation Security Act (ATSA, P.L. 107-71) following the terrorist attacks of September 11, 2001, the aviation security function was significantly expanded and passed from the FAA to the newly formed Transportation Security Administration (TSA). Nonetheless, airport security projects, such as expanding and modifying passenger checkpoints and installing explosive detection systems for checked baggage, have had a significant impact on AIP funds allocated to airports. Vision 100 requires the Department of Homeland Security to establish an Aviation Security Capital Fund to relieve some of the demand on AIP funds for airport security

projects. Vision 100 authorizes funding levels of $500 million per year for FY2004 through FY2007 and requires that the first $250 million collected each year from aviation security fees be deposited into the fund. Distributions from half of the fund's annual appropriations are to be allocated in the following manner: 40% to large hub airports; 20% to medium hub airports; 15% to small hubs; and the remaining 25% to be distributed at the discretion of the Secretary for Homeland Security based on an assessment of aviation security risks. The other half of the fund's annual appropriations are to be used for discretionary grants, with priority given to funding projects with existing letters of intent. Under this program, hub airports are required to pay for 10% and non-hubs are required to pay for 5% of a security project's costs using non-federal funds.

Several airports, especially many of the large hub airports, currently face significant challenges in funding projects to relocate explosive detection systems for checked baggage temporarily housed in ticketing and check-in areas and develop in-line systems that incorporate these machines into baggage handling facilities. Some estimate that the systemwide costs to complete installations of in-line baggage screening systems may be as high as $3 billion. However, the aviation security fees designated to fund this program do not cover even the current operating budget for aviation security. The FY2004 President's budget indicates estimated receipts of $2.488 billion from aviation security fees, while report language accompanying the Homeland Security Appropriations Act for FY2004 (P.L. 108-90; H.Rept. 108-280) anticipates collections of only $2.070 billion, about 55% of the total operating budget of $3.732 billion for aviation security. Vision 100 also authorizes reimbursement to airports and air carriers for certain aviation security related costs, limited to the cost of screening catering supplies and checking documents at security checkpoints.

Other Aviation Security Measures. While the FAA's role in aviation security has been largely transferred to the TSA, Vision 100 has served as a vehicle for enacting several legislative initiatives and reforms for aviation security. Vision 100 contains provisions allowing flight engineers and flight crews on all-cargo aircraft to participate in the Federal Flight Deck Officer Program that trains and deputizes pilots to carry firearms to defend the cockpit. The program was initially limited to pilots of passenger aircraft. Vision 100 also modifies legislation regarding security training for flight and cabin crew of passenger airliners. The new provisions consist of a required basic security training program and an optional advanced self-defense training program administered by the TSA. Vision 100 also mandates a formal appeals process for pilot certificate actions, such as denials and revocations of pilots licences, on security grounds. Vision 100 establishes a requirement for the FAA to submit classified justification reports to the House Transportation and Infrastructure Committee and the Senate Commerce Committee regarding its decisions to establish and maintain any Air Defense Identification Zone (ADIZ), such as the one in place around Washington, DC, requiring special identification, communications, and operational procedures for aircraft. Vision 100 provides for up to $100 million in direct reimbursement to general aviation entities for losses incurred as a direct result of security measures imposed in response to the terrorist attacks of September 11, 2001 and requires the development and implementation of a security plan to resume general aviation operations at Washington Reagan National Airport (DCA). Vision 100 also modifies provisions in ATSA to further standardize

charter flight security, modify and streamline background checks of foreign flight school students, and increase oversight of security at foreign repair stations.

Vision 100 strikes the TSA's staffing cap of 45,000 enacted under the Consolidated Appropriations Resolution for FY2003 (P.L. 108-7), however, it does not remove the FY2004 funding cap of 45,000 full time equivalent screeners enacted in the Homeland Security Appropriations Act for FY2004 (P.L. 108-90). Vision 100 also requires that the DHS certify that concerns regarding the Computer-Aided Passenger Pre-Screening Version 2 (CAPPS2) program are resolved before that system can be implemented other than on a test basis.

FAA Oversight of Operators and Maintenance Facilities. U.S. air carriers are increasingly outsourcing maintenance to third-party repair stations. Outsourced maintenance accounted for 47% of air carriers' total maintenance costs in 2001. However, FAA inspections of domestic repair stations are only required once annually. Oversight of many repair stations located in foreign countries is delegated to inspectors from those foreign countries. FAA recently revised the regulations governing the 5,200 FAA-certified repair stations, about 600 of which are located in foreign countries, to improve bookkeeping, training, and quality control at these maintenance facilities. FAA currently employs 628 aviation inspectors to oversee these repair stations, however some in Congress have been concerned over these staffing levels and the degree of FAA oversight at repair stations, particularly at the 2,800 repair stations that perform maintenance on the air carrier fleet. Vision 100 contain provisions that would require the FAA to develop an action plan for providing adequate oversight of repair stations and ensure that repair stations in foreign countries are subject to the same level of oversight and quality control as domestic repair stations.

Oversight of operations and maintenance practices at 10 of the largest passenger air carriers in the United States is currently conducted under the Air Transportation Oversight System (ATOS). As compared to more traditional inspection methods that rely heavily on individual inspector expertise and focus on regulatory compliance issues, ATOS is a data-driven program that relies on risk assessments and analysis to focus inspection activities on particular areas where safety deficiencies might be expected at a specific air carrier. While the program's objectives and principals are generally viewed as a positive change for aviation safety, reviews of the program have revealed that its effective implementation has been hindered by a lack of standardization; a lack of adequate tools to help inspectors track safety deficiencies and corrective actions; insufficient training; and inefficient allocation of human resources. Vision 100 mandates that FAA develop an action plan to correct existing problems with the ATOS system and extend the program to oversight at more than 100 smaller air carriers in addition to the major passenger air carriers currently in the program. These provisions require the FAA to: develop inspection checklists for FAA inspectors and safety analysts; provide training in systems safety, risk analysis, and auditing to FAA safety inspectors; ensure that inspectors are physically located where they are most needed; and establish a strong central leadership for ATOS that will ensure that the system is consistently implemented and expanded. Given current implementation difficulties with the ATOS program, further expansion and refinement of the system may present significant challenges.

Another concern is that FAA maintenance and operations inspectors may lack the continuing training needed to keep up with current technologies. Vision 100 directs the GAO to study the training of FAA aviation safety inspectors, expressing a sense that FAA inspectors should get the most up-to-date initial and recurrent training on job-related aviation technologies. Congress has also expressed concern over the adequacy of FAA's inspector workforce, particularly their ability to adequately oversee the aviation industry, and the increased use of designees to carry out inspection duties. Vision 100 also direct the National Academy of Sciences to study the staffing methods FAA employs for determining its air safety inspector workforce and suggest improved methods for assessing inspector staffing needs.

Flight Attendant Certification. At present, federal regulations specify that cabin crew are required on passenger flights using aircraft with 10 or more passenger seats. These regulations identify training requirements; required duties; duty time and rest regulations; airline drug testing program participation; and airline and FAA oversight, for flight attendants. However, the FAA does not currently certify flight attendants or establish specific training program and proficiency requirements for credentialing cabin crew.

Vision 100 mandates the certification of flight attendants. The objective of this measure is to develop industry harmonization regarding flight attendant training and procedures. Opponents have argued that this provision could result in a proliferation of unnecessary regulations governing the certification of flight attendants that will increase the training and regulatory burden on airlines without a clear benefit to aviation safety. On the other hand, proponents point out that certification is required for other airline safety-critical personnel besides pilots, such as aircraft dispatchers, and flight attendant certification will likely improve airline safety by establishing industry-wide training and proficiency standards.

Cabin Air Quality. Vision 100 directs the FAA to establish a research program on airliner cabin air quality. Vision 100 specifically directs FAA to assess ozone levels, pesticide exposure, and other contaminants to which passengers and crew are exposed as well as cabin pressure and altitude on a representative number of aircraft and flights. Vision 100 also requires the FAA to establish a cabin air quality incident reporting system.

Investing in the Future of Aviation

Much of the direction for FAA's Research, Engineering, and Development (RD&E) funding and initiatives for investing in aerospace and aviation safety research and technology development were originally introduced in the Senate in the Second Century of Flight Act (S. 788). In the House, two separate RD&E bills were offered (H.R. 2271, H.R. 2734), however neither was considered on the House floor. Elements of these bills are reflected in the final conference report and in Vison 100. Vision 100 identifies several initiatives to address future needs and challenges in: aviation system safety and security; aviation system capabilities; aircraft noise, emissions, and fuel consumption; and efforts to maintain leadership and progress in aviation and aeronautics.

Coordination of Research and Development Efforts. Vision 100 requires that a Next Generation Air Transportation System Joint Planning and Development Office be established within FAA, with an annual budget of $50 million for FY2004 through FY2010, to coordinate aviation and aeronautics research programs in an effort to develop more effective and directed research programs by coordinating goals, priorities, and research activities across the Federal government and with the aviation industry to facilitate technology transfer. In this regard, Vision 100 meshes two legislative proposals considered in the FAA reauthorization debate: a proposed aerospace and aviation liaison office within DOT to coordinate aviation and aeronautics research, and a proposed national air traffic management development office within FAA to develop a next generation air traffic management system plan for the United States with input from government and private sector stakeholders representing commercial aviation, general aviation, and the space industry. Vision 100 instead adopts language based on H.R. 2734 detailing the organization and functions of the Next Generation Air Transportation System Joint Planning and Development Office. Vision 100 also establishes a Next Generation Air Transportation Senior Policy Committee established by the DOT to assist th joint planning and development office. The senior policy committee is to be comprised of representatives from the DOT, the FAA and NASA, as well as the Departments of: Defense, Homeland Security, and Commerce, as well as the Office of Science and Technology and any other federal agencies determined to have a significant interest in or responsibility for aspects of the national airspace system.

Aviation and Aerospace Education. Vision 100 establishes NASA and FAA-sponsored merit-based scholarships for higher education in fields related to aerospace and aviation safety. Both NASA and the FAA will administer their scholarship programs independently, however the two programs are virtually identical. Both the NASA and FAA scholarship programs are authorized to receive up to $10 million per year. A separate provision reauthorizes such sums as may be necessary to carry out and expand the Air Traffic Control Collegiate Training Initiative.

Identified Research Programs. In addition to those research initiatives already mentioned, Vision 100 specifically mentions airfield pavements and pavement standards as a research area to be addressed by the FAA. The legislation also directs the FAA to establish a center for excellence in advanced materials, such as composites, for transport category aircraft and authorizes $500,000 for FY2004 to develop the center. Vision 100 also establishes a rotorcraft research and development initiative within the FAA to reduce rotorcraft noise, vibration, and weight, and to improve rotorcraft safety and all-weather capabilities within the next 10 years. Vision 100 also mandates that the FAA create a research program to study existing certification methods and reduce the cost of new product certification; and conduct research assessing the impact of new technologies and procedures on pilot and air traffic controller training. Vision 100 also establishes a four-year pilot Airport Cooperative Research Program to identify and fund research on airport issues not adequately addressed by existing federal research programs.

FAA Organizational Issues

Chief Operating Officer (COO). This position was created by AIR21. According to the statute, the COO position was designed to allow the FAA to hire someone with experience operating high technology integrated systems like air traffic control. The COO position, however, was not filled until Russell Chew was appointed to the position in June 2003. Filling the position proved to be a controversy in itself as it took more than three years to find a qualified candidate. Before the position was finally filled, several candidates apparently turned down the position because it was perceived as a very difficult job offered at a pay scale far below what might be offered for a similar position in private industry. As defined in AIR21, some were concerned that the job might sound more like a chief executive officer (CEO) position than a COO position. This would have potentially caused concern about the relationship between the COO and the FAA Administrator who by statute functions as the Agency's CEO. Vision 100 seeks to clarify this relationship and make the COO position itself more desirable.

Air Traffic Control Privatization. The House bill included a provision that prohibited privatization of the ATC system. During floor debate, the Senate bill was amended to include a somewhat broader privatization prohibition. Privatization has often been discussed as a possible way to increase the efficiency of the ATC system while at the same time reducing its cost. The idea has been discussed in many contexts during the last decade, but never acted upon by Congress. Recent action by the Bush Administration, removing ATC from its definition of inherently governmental functions, was viewed by some as a precursor to a privatization proposal, though no such proposal has been made.

In the original conference report (H.Rept. 108-240) a less stringent prohibition on privatization was adopted that precluded transfer of ATC to a private or public entity prior to October 1, 2007. The provision, however, would have allowed the contract tower program to expand at certain defined levels. This provision was inserted without support from Minority Conference Committee Members and represented an agreement reached by the Majority Members of the Conference and the Bush Administration. This provision became the most contentious item in the bill with some Members vowing to try to defeat the Conference Report unless the provision was eliminated. The union representing air traffic controllers was particularly critical of the provision and launched a wide ranging campaign to see that this provision was not adopted. Based largely on this controversy, on October, 28, 2003, the House voted unanimously (407-0) to recommit the bill back to the conference. On October, 29, 2003, a new conference report (H.Rept. 108-334) was filed. This new conference report, which was almost identical to the original except for some minor technical corrections and deletion of the language pertaining to air traffic control privatization protections, was agreed to by the House by a narrow margin (211-207) on October 30, 2003. By striking the privatization protection language, the bill maintains the status quo on this matter, under which the FAA may privatize any air traffic control function at its discretion in accordance with applicable statutes, regulations, and guidelines pertaining to outsourcing.

In order to gain final passage of the Conference Report in the Senate, The FAA Administrator promised, in a letter, that it would take no action on privatization of any type prior to the end of FY2004. It is quite possible that this issue will reappear at some point during the 2nd Session of the 108th Congress.