

8. GOVERNANCE

8.1 Introduction

Both the NPR and the National Airline Commission concluded that FAA would benefit from using more businesslike practices. They stated that the airline industry, and the U.S. economy as a whole, would benefit if FAA more closely aligned its operations with the needs of its principal customers.

A number of other studies identified deficiencies in the FAA's current governance structure that seriously affect its ability to be responsive to customer needs and to acquire advanced technology for the ATC system. Among frequently cited deficiencies are:

- A lack of continuity in FAA's leadership. The average term of an FAA Administrator has been less than three years and Acting Administrators have run the agency for lengthy periods. This turnover at the top has contributed to inadequate long-term planning and strategic policy formulation, constantly changing priorities and a lack of accountability.
- An organizational culture that is not responsive to change, emphasizes conservatism and conformity, and lacks innovation.
- An inability to control operational decision making because of excessive external oversight by DOT, OMB and Congress.

A number of government and private corporations were studied to determine which structure would be most effective. This section addresses the three problems mentioned above and provides additional detail on how the ATS Corporation would be governed.

8.2 Optimal Governance Structure

The EOC recommends the establishment of a government Air Traffic Services Corporation with a Board of Directors to exercise fiduciary responsibilities and a Chief Executive Officer (CEO) to manage the day-to-day operation and safety of the system. The corporation would be wholly-owned by the government. The ATS Corporation would be independent from FAA, but the Administrator would have the authority to intervene in compelling safety and national security issues where they are unresolved between the FAA and the corporation. Safety oversight of ATC would be the responsibility of the FAA. The Board of Directors is expected to ensure a high level of safety in its direction of the ATS Corporation, further enhancing the importance of aviation safety in the operations of the ATS Corporation.

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A central issue is whether the recommended governance structure enables the Secretary of Transportation and the FAA Administrator to discharge their responsibilities for aviation safety and security as well as meet the national security missions of the ATC system. Under this structure, the responsibility for safety regulation and oversight remains within a traditional government organization. If there are disagreements between the corporation and FAA, the FAA Administrator would have the authority to intervene on safety, national security or airspace regulatory issues, serving as a single source of oversight and conflict resolution. There may even be additional monitoring resulting from some redundancies in the safety and security staffs of FAA and the ATS Corporation. National security interests will be protected by statutory requirements in the Corporation's enabling legislation, by the Administrator's ability to intervene on national security issues and by DOD representation on the Board.

The decision to provide a linkage between the Corporation and the Administrator was made principally because of concerns about safety. The objective was to leave a single aviation executive accountable for safety and to avoid segregating airspace management functions. The approach taken was to provide autonomy to the ATS Corporation so that it could achieve needed reforms while assuring that safety issues could be resolved. The EOC's recommendation is to ensure that the corporation has the independence to operate in a businesslike manner while retaining safety oversight.

The corporation allows for a number of business incentives that a government agency would not be able to attain. These include a governing Board of Directors with user input, the ability to borrow on private markets, the responsibility of paying liability settlements and the establishment of user fees that are linked to the cost of providing service. These incentives will make the ATC organization more efficient and effective.

The specific recommendations for the governance of the ATS Corporation are shown below along with the rationale for selecting specific governance structures.

RECOMMENDATION: Establish a wholly-owned government corporation for air traffic control within the Department of Transportation

The alternative of mixed ownership was considered, but it appeared to be employed when a government function was to transition to private ownership eventually or the organization has a specific finite mission and the organization will terminate upon the completion of the mission. It was believed that a wholly-owned corporation could be structured to provide relief from the statutory requirements in acquisition, finance and budget and personnel that have been identified as leading to poor organizational performance. This measured step is supported by ample precedents and would avoid any appearance of conflict of interest between the owners and users of FAA services.

RECOMMENDATION: The corporation will generally be subject to the Government Corporation Control Act and will submit an annual business-type budget to Congress, and will have an annual financial audit performed by an independent public accountant.

The goal was to limit extensive Congressional oversight while allowing Congress to provide broad policy direction. The proposal reduces budget reviews via minimal or no reliance on appropriations to fund activities by largely removing the corporation from the appropriations process and placing it generally under the provisions of the Government Corporation Control Act. The GCCA provides for the submission of an annual business-type budget not subject to line item reviews. The requirement for an annual financial audit by an independent public accountant ensures financial accountability without detailed Congressional oversight.

RECOMMENDATION: The corporation will be governed by a Board of Directors with 9 members. The Board will comprise the CEO and 8 external members including the Secretary of Transportation and the Secretary of Defense (or designees), plus 6 members appointed by the President, confirmed by the Senate and subject to removal for cause.

Management direction and leadership of most sizeable private sector business entities is provided by a corporate structure in which a Board of Directors hires and evaluates a Chief Executive Officer who is responsible for day-to-day operations.

The central issue is whether a Board of Directors would add any value to the ATS Corporation. Some government corporations report that their Boards are a source of diverse perspectives and experience that complements that of their CEO. They also report it is beneficial to have their Board directly accountable for the success of their corporation. Others report that the effectiveness of the Board is highly dependent on the capabilities of its members, and resignations and delays in appointments hinder its usefulness. In addition, a Board is weakened in organizations that have close oversight and direction by secretarial officers. In the latter situation, they suggest that an Advisory Committee may be preferable to a Board of Directors. While the performance of Boards of Directors has been mixed, most government corporations have one (out of 27 government corporations surveyed in a recent study, 24 had a Board of Directors).

The EOC recommends a Board of Directors because it concludes that the corporation needs a "change agent" or means of bringing different perspectives and expertise to the governance of the organization. It serves as a vehicle for user input and is diverse in talent and perspective. It also provides stability and continuity of leadership. The EOC's recommendation for a Board of Directors is consistent with both NPR and National Airline Commission recommendations.

Alternative structures were considered for the Board of Directors. One was an 11-person Board of Directors, including representatives of the Secretaries of Transportation and Defense and nine other members, with three each appointed by the President, by the House and by the Senate. Board members would have broad-based business experience and no current ties to the aviation industry. A second structure was a seven-person Board of Directors, including representatives of the Secretaries of Transportation and Defense, and five members appointed by the President. A nine-member board was determined to be large enough to include those interests that needed to be represented and small enough to encourage efficiency of leadership.

RECOMMENDATION: **Members of the Board will include representatives of the Secretaries of Transportation and Defense, the CEO, commercial and non-commercial aviation interests, airports and labor. The Board will have a three-member safety committee.**

User representation on the Board could be perceived as a conflict of interest. However, the EOC concluded that as long as the corporation is wholly government-owned, and the Congress, DOT and FAA continue to provide oversight, a conflict would not arise and user participation in governance would be beneficial. The EOC chose a Board of Directors with user representation so that the corporation would collaborate with users on important decisions regarding system capacity, from the R&D stage through operations. In addition, the EOC believes that user representation would provide a force to assure that the corporation strove for efficiency in operations. DOD Board representation is to assure that the corporation addresses national security interests. The aviation members would represent the industry and labor would represent FAA employees. The safety committee would serve as a permanent organization to place safety concerns at the highest level.

RECOMMENDATION: **The six non-designated members of the Board, will serve five-year staggered terms. The Chairman of the Board would be chosen from among Board members.**

Fixed terms with staggered tenures were established to assure continuity of leadership and stability for the corporation. The role of Board is critical to making the ATC Corporation more customer-oriented and accountable to users.

RECOMMENDATION: **The Board will meet quarterly. Its responsibilities will include strategic planning and approving major financial decisions, the annual budget and the level of user charges.**

Quarterly meetings will enable the Board to provide strategic direction to the CEO and to keep apprised of the corporation's financial picture. The goal is to have the Board meet often enough to provide strategic guidance to the corporation but ~~not often enough to~~ encourage the Board to intervene in the day to day management of the corporation.

RECOMMENDATION: The CEO will be selected by the Board and will serve as a member of the Board. The CEO is responsible for the day-to-day operation and safety of the system.

While there are precedents for a fixed term for the CEO in other government corporations, the EOC believed that this could hamper the flexibility of the Board. The CEO will serve at the discretion of the Board, and the Board will fix the term of employment and compensation for the CEO. The lack in continuity of leadership would be addressed in two ways. The members of the Board would have fixed and staggered terms. The selection of the CEO would not be political and his/her term would not be contingent on the tenure of the President.

The EOC recommends that the CEO be selected by the Board and serve on the Board. Other options considered included a CEO who would be elected by the Board but not be a member and a CEO who would be appointed by the President and could be removed by the President. The EOC also recommends that the President be able to appoint an interim CEO to operate during the transition. This appointment could be made so that the corporation would begin transition while the Board was selected.

RECOMMENDATION: The Secretary of Transportation will have the authority to reject the kind and level of user charges set by the Board. The FAA Administrator will serve as a single source of oversight and dispute resolution.

The EOC attempted both to limit involvement of the Secretary and Administrator in the day-to-day operations of the corporation and to address their significant interests in the performance of the corporation, specifically with respect to safety, intermodal issues, long-range planning and national security. The EOC attempted to balance these concerns in several ways. To address safety and national security concerns, the FAA Administrator would have the authority to intervene in the corporation and serve as a single source of oversight and conflict resolution.

In addition, the Board would include a three-member safety committee to establish a high-level emphasis on safety. The Board would also include the Secretary of Defense as a member to address national security concerns. To address intermodal issues the DOT representative on the corporation's board would be able to provide the perspective of the other modes while also carrying back the corporation's perspective to DOT. To address long-range planning, the corporation's strategic plan will be coordinated through the FAA Administrator to ensure a unified aviation plan. To address the financial performance of the corporation, the Secretary would have authority to develop standards for rate reasonableness and to disapprove the corporation's rates. The corporation would provide for public notice and comment on its fee proposals, and these would be crafted to be reasonable under the standards set by the Secretary.

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RECOMMENDATION: Current arrangements for joint civil and military operation and use of the national airspace system as well as joint DOT/DOD procurements will be maintained.

An extensive relationship is currently maintained between FAA and the Department of Defense. This relationship governs joint civil and military operation and use of the national airspace system, joint ATC equipment acquisition, DOD provision of ATC service to civil users, shared facility maintenance responsibility and transfer of the ATC system to DOD control in times of national emergency. Particular care would have to be exercised to ensure that this relationship is maintained and the transition to a corporation would be transparent in terms of protecting national security interests.

These above recommendations will enable an ATC Corporation to enhance accountability and a high level of safety, improve management flexibility, establish continuity of leadership and organizational priorities, increase responsiveness to users and implement businesslike practices.

8.3 Other Issues

8.3.1 Liability

The corporation will remain under the standards of the Federal Tort Claims Act. The corporation will be required to reimburse the settlement fund for any liability claims, and pay its own litigation expenses. By retaining Federal Tort Claims coverage while also requiring the corporation to pay for any claims paid or litigation expenses, the corporation faces direct financial consequences of accidents. This will provide increased incentives for safety and efficiency by making these a cost of doing business. The corporation may need to secure liability insurance for the Board of Directors.

8.3.2 Sue and Be Sued

The enabling legislation of the ATS Corporation should include a provision that the corporation be able to bring suit, or be sued, in its own name for the breach of any business responsibilities.

8.4 Transition Issues

An important transition consideration is to allow sufficient time for an orderly transition of ATC from the FAA to a government corporation. One year is recommended as a minimum transition period. For example, the transfer to Metropolitan Washington Airports Authority (MWAA) took seven months of intensive effort. This was a smaller organization than FAA, and it was transferred intact. In another case, Amtrak officially had a six-month

transition period; however, the actual transfer of personnel who operated the trains took almost ten years.

It may be necessary to phase-in the transfer of functions to the new corporation. Maintaining continuity of existing services is an overriding consideration. Pension, personnel, payroll, accounting, acquisition and other systems must be designed. Other organizations, such as MWAA, used extensive contractor support in these areas to facilitate the transition.

Finally, selecting the Board and an interim CEO (within 30 days of passage of the legislation) so that the Corporation or its transition team can function during the transition is a necessity. Their expertise could be used during the transition, and they could set the direction for the corporation from its inception.

9. ACQUISITION

9.1 Introduction

The EOC believes that the FAA acquisition process takes too long, lacks flexibility and accountability, and results in products and services that cost too much. Micromanagement of the acquisition process by other levels of government aggravates the problems of this already unwieldy system. The statutes and regulations that direct FAA's acquisition system were created to prevent fraud, the waste of taxpayer money and favoritism in the award of contracts. Instead, the regulations inhibit FAA in the timely acquisition of advanced technology equipment and results in the inefficient use of three critical resources:

- Time is wasted in focusing on the acquisition system's procedures, rather than on results;
- People are not used effectively in an acquisition system that discourages innovation and rewards them for following rules and avoiding protests and audit reviews; and,
- Money is wasted by delayed acquisitions, the purchase of obsolete technology and cost overruns.

Unlike any other federal agency, FAA is charged with the huge real-time operational responsibility of providing a safe, orderly and expeditious system of air traffic control through the nation's airspace, directly affecting the well-being of a major American industry. In a real sense, the federal government controls the production line of the U.S. airline industry, and FAA is already behind the technology of the industry.

The complexity of the acquisition process has delayed the modernization of the ATC system. According to an April 1993 GAO report, the average delay in the implementation of NAS plan projects is five years. The slow pace of modernization not only delays future benefits to users, it also causes problems with the operation of the existing system. This winter air traffic controllers at Dallas-Ft. worth International Airport found themselves working with blank radar screens and dead radios—with 10 aircraft approaching the airport, 2 cleared to land and 37 waiting to take off. A computer problem had caused an extensive power failure and backup systems failed as well. Radio contact was restored quickly although radar screens were blank for 15 minutes, and the planes cleared to land were guided down by controllers who could see them through the rain. Ten days later, a power surge at Seattle-Tacoma International Airport blacked out all radar screens there for four minutes. Unfortunately, these were not isolated incidents. Many such failures are caused by

antiquated equipment whose replacement has been delayed by complex acquisition regulations.¹

In fairly straightforward acquisitions it can typically take four years before a contractor begins its work. The process begins with the development of a Missions Needs Statement, performance requirements, budget estimate and a budget request. By the time the budget is approved by Congress, two years have passed. It then takes two years to prepare the procurement request package, advertise the proposal, complete the technical evaluation, negotiate with those firms in the competitive range, and award the contract. Equipment delivery typically takes at least another three years after development of a prototype and production.

Thus, even relatively simple equipment acquisitions take up to seven years to complete, with acquisition of more complex systems taking over ten years to complete. The ATC system is becoming increasingly dependent on information technology where product life cycles can be as short as a few years. The existing acquisition system is simply not designed to meet the needs of an organization whose efficiency depends on the timely application of advanced technology.

The existing acquisition system also creates technical compatibility problems between systems. For example, during the competitive design phase of the voice switching and control system (VSCS) acquisition, bidders were not allowed to hold discussions with IBM the contractor that held the contract for the advanced automation system (AAS), although the VSCS contractors were responsible for the interface with AAS. FAA was concerned that such communication could have been viewed as a compromise of the competitive process for VSCS, leading to a protest by the eventual losers.

Acquisition laws and regulations are rigid, complex and over-proceduralized. Managers must cope with over 10,500 pages of statutory, Office of Management and Budget (OMB), Office of Federal Procurement Policy (OFPP), GSA, DOD, DOT and FAA instructions on acquisition matters.

Examples of the impact of major statutes and associated regulations include the following:

- The Brooks Act authorizes the General Services Board of Contract Appeal to consider bid protests to federal information service procurements. FAA has faced an average of 10 such protests annually in recent years. Although FAA has successfully defended against over 90

¹New York Times, March 15, 1994.

percent of those protests, the process has delayed important acquisitions and required significant expenditure of resources;

- In most instances, the Competition in Contracting Act requires FAA to solicit and evaluate all potential offerors, no matter what their expertise or qualifications. The FAA is further restricted from dealing with a limited number of qualified sources. In general, the Competition in Contracting Act requires that competition be maintained over the life of a program resulting in new solicitations and sometimes new contractors from one phase to the next.
- The Federal Acquisition Regulation (FAR) precludes FAA from using its expertise to make timely programmatic and business decisions. The FAR forbids comparison of offerors' proposals, making it difficult to consider key differences between proposals which inhibits the FAA from negotiating the best terms.
- FAA's cost effective acquisition of appropriate advanced technology equipment is impaired by its links to changing appropriations, one-year budgets and other restrictions on expenditures.

The NPR proposed broad reforms for the acquisition process, but until specific proposals emerge, it is unclear how these will affect the FAA. It is critical that the acquisition process be restructured as a package to address its unique issues. Although the NPR stresses streamlining and delegation wherever possible, it continues to maintain the structure of current statutes and regulations. These tie the corporation to other government agencies and processes that preclude the corporation from being entirely accountable for its actions and from being as effective as a business.

This acquisition process would continue to allow any interested party to submit proposals whether or not they are qualified. The result is that FAA expends valuable resources to comply with lengthy procedures. Relief from the Competition in Contracting Act (CICA) would permit the corporation to develop, maintain and select suppliers from technology-specific qualified supplier lists, which would permit competition among selected, qualified suppliers. The corporation would form a partnership with its suppliers to develop realistic solutions to user requirements. This procedure would allow the corporation to trade-off cost and technical considerations in selecting a successful supplier, using evaluation factors that would include proven past performance, management capability, life-cycle costs and quality. While this initiative is partially fostered under the NPR's innovative contracting approaches, it does not provide relief from CICA, which prevents the partnership arrangements that would involve the suppliers in the planning process and ensure their participation in determining which programs will provide the greatest benefit and are most cost effective.

Unlike the NPR reforms, the corporation's acquisition process would allow target costing techniques that would involve contractors in establishing design-to-cost objectives and to motivate them to reduce costs creatively. The corporation would also have the ability to use the same contractor throughout the total acquisition cycle if good business reasons justify such practices.

9.2 Recommended Best Acquisition Practices

The Acquisition Working Group identified the characteristics of an optimal acquisition system that will enable an ATS Corporation to buy what it needs, when it needs, from whom it wants, at the best price, and with the flexibility to make required changes. Ten essential recommendations, requiring legislative relief, are necessary to implement the optimal acquisition system. The EOC accepted the recommendations of the Acquisition Working Group and the Task Force.

RECOMMENDATION: Design Simplified Acquisition Guidelines in Lieu of Rigid Regulations

The ATS Corporation should be exempted from existing acquisition statutes and regulations and to replace them with simplified guidelines on how to acquire products and services, reflecting best practices in private industry and other successful government corporations. Specific legislative exemptions are discussed in greater detail later in this section.

RECOMMENDATION: Ensure a Predictable and Stable Flow of Funds, Without Restrictions on Allocation

The FAA is restricted by a budget process that micromanages its use of financial resources. A substantial portion of its funding is one-year, ear-marked, or assigned to a specific category of use. These budgetary limitations make it difficult for FAA to plan and execute the acquisition of large scale systems that require many years to design and implement.

An ATS Corporation with predictable and stable revenue would be able to incur multi-year obligations, use life-cycle funding and make the best business decisions concerning capital investments.

RECOMMENDATION: Develop, Maintain, and Select Contractors from Technology-Specific Qualified Contractor List

The EOC recommends that an ATS Corporation be allowed to pre-select and then use qualified suppliers. A system of pre-selecting suppliers, based on demonstrated performance and capabilities (quality, technology, speed, productivity,

leadership and finance) would reduce overall costs and improve quality. Competition for contracts would be limited to those suppliers with the certified capability to perform.

RECOMMENDATION: Permit Competition Among Selected Qualified Suppliers or Use Sole Source Based on Good Business Judgment

The current acquisition system encourages awards to the supplier offering the lowest price technically acceptable proposal--without regard to cost realism, past supplier performance, or "best value."

The EOC recommends that an ATS Corporation permit bona fide competition for contracts, limited to those suppliers with the capabilities to do the job. Such procedures would enable the corporation to trade-off cost and technical considerations in selecting a successful supplier. Evaluation factors other than cost to be considered would include technical competence, proven past performance, management capability, life cycle costs and quality.

The EOC also recommends that an ATS Corporation be permitted to negotiate with a single supplier if good business reasons (cost, timeliness, continuity, efficiency, etc.), justify such practices.

RECOMMENDATION: Maintain Investment in Proven Contractors Throughout the Life of a Program

Acquisitions typically have a well-defined life cycle that includes the following stages: requirements definition; strategy and planning; procurement (solicitation, negotiation, selection, etc.); implementation (testing, deployment, etc.); support; and disposal. An ATS Corporation should have the freedom to use the same contractor across acquisition phases, without new competition, if good business reasons justify such practices. If a supplier has proven superior performance in one phase of a program, continuation of that contract on a sole source basis should be allowed, providing continuity in programs and ultimately resulting in better products and cost savings.

RECOMMENDATION: Write Contracts with Flexibility to Modify Scope or Enhance Requirements without Competition

The EOC recommends that contracts negotiated under a new acquisition system have the flexibility to modify the scope of the acquisition and to add enhancements as required. The ATS Corporation must be have the ability to accommodate changes in requirements during the acquisition life cycle of complex advanced technology systems in a timely manner and without new competition.

RECOMMENDATION: Aviation Stakeholders and Customers should be Involved in Setting Requirements and Priorities

The EOC recommends that an ATS Corporation adopt procedures to involve customers and stakeholders early in the acquisition process. Continuous user involvement is important to ensuring that products will meet operational requirements and results in both higher quality products and increased customer satisfaction. Since most opportunities for cost reduction occur early in an acquisition program, the corporation should ensure that acquisition officials and suppliers involve customers and stakeholders in determining which programs will provide the greatest benefit and are most cost-effective. Early planning ensures that the ATS Corporation will purchase products and services that provide the greatest value to the aviation community.

RECOMMENDATION: Corporation and Suppliers Form Partnerships to Develop Realistic Solutions to User Requirements

The EOC recommends that an ATS Corporation make suppliers partners, establishing long-term relationships based on mutual trust and mutual benefit. Building partner-like relationships with suppliers and involving them in the planning process will result in realistic cost and schedule and conformance to each. In addition, a contractor may be willing to assume some of the development cost to maintain a long-term supplier relationship.

RECOMMENDATION: Allow Suppliers to Propose System Design Within Specific Target Costs

The EOC recommends that an ATS Corporation employ target costing techniques in its acquisition system. Target costing is used to set total cost goals for programs. The early supplier involvement is invoked in establishing design to cost objectives and motivates suppliers to reduce costs creatively. Target costing, if properly used, results in cost reductions, greater commitment and innovation from suppliers, and reduces gold-plated requirements.

RECOMMENDATION: Eliminate Unnecessary Oversight That Does Not Add Value

The EOC recommends that oversight be based on the assumption of individual and team competence and responsibility. People should be empowered to get the job done and held accountable for the results of their work. In an effective acquisition system, oversight adds value and promotes coordination, rather than reviewing technical matters. Oversight should focus on decisions affecting major program measures and policy matters. The use of cross-functional acquisition teams will provide checks and balances on decision making.

9.3 Legislative Exemptions

Much of the existing legislation governing federal acquisition activities was adopted for good reasons on their own. In the aggregate however, they represent rigidity, as well as burdensome and time-consuming approval processes and oversight. In contrast to that, the EOC believes that the corporation charter should provide for exemption from certain statutes and regulations in order to fully implement the optimal acquisition system. Relief from these regulations will permit effective, timely and responsive FAA acquisitions. Exemption from, but not limited to, the following statutes and regulations, is recommended:

- Brooks Act;
- Competition in Contracting Act;
- Federal Acquisition Regulations;
- Small Business Act;
- Appropriations Authority;
- Office of Federal Procurement Policy Act;
- Regulations for Construction/Services/Supplies;
- Integrity Acts;
- Real Property and GSA Regulations;
- Procurement Protest Act;
- Economy Act; and,
- Other Administrative Acts and Executive Orders.

The corporation should be expected to adopt the intent of many of the above statutes and regulations; however, the corporation would not be required to follow the rigid regulations, approval processes, and oversight associated with compliance. For example, the Small Business Act and FAR Part 19 address the solicitation and award of contracts that are set aside for small business or small disadvantaged businesses. This policy must be followed by government agencies. There are no similar type requirements for private industry. The ATS Corporation will foster the intent to set aside certain procurements for small business, small disadvantaged businesses, and woman-owned businesses. During the outreach sessions with several private industries and government corporations it was found that there is the practice to set goals for small business awards. Those goals range from 5 to 35 percent of their annual procurement budget. In order to support these businesses, the ATS Corporation will develop procedures that will allow for the CEO to determine an appropriate goal. However, it is recognized that the corporation would not be burdened with the cumbersome oversight and record-keeping required under federal laws.

9.4 Transition Issues

The EOC recommendations for creating an optimal acquisition system involve major changes in internal procedures and its relationships with suppliers and stakeholders. Changing from an executive agency to a government corporation requires consideration of certain transition issues:

- Maintain current relationships with DOD and other federal agencies to meet certain government-wide obligations; in particular, enabling legislation would seek limited relief from federal laws for DOD acquisition relating to national ATS system interoperability, thus continuing joint procurement under the proposed new system for the ATC Corporation.
- Determine the extent to which current interagency agreements will be valid under a new structure and modify the agreements as needed;
- Provide training for managers and employees in their responsibilities under an optimal acquisition system;
- Arrange for the continuation and close-out of existing contracts;
- Develop procedures for dealing with the transfer, lease, or purchase of real property and related assets.

10. PERSONNEL

10.1 Introduction

The major shortcoming with FAA's human resource systems is their lack of flexibility and integration with overall strategic objectives, which often thwarts effective management practices. Specific problems include:

- Personnel, compensation and incentive systems and rules are rigid, complex and over-proceduralized. Managers must cope with over 47,200 pages of statutory, OPM, DOT and FAA instructions on personnel matters;
- Personnel systems are established to address broad, generic government-wide concerns and not to directly support FAA's strategic objectives or unique personnel situations. For example, OPM and FAA have recognized the unique requirements of the air traffic controller occupation by establishing the journeyman level at GS-14, while maintaining the typical GS-12 journeyman level for other government agencies' professional occupations. In addition, government-wide requirements set the top non-executive grade at GS-15; at FAA this means that all air traffic managers, from the first-line supervisor to the headquarters program manager, are at the same level;
- Human resource practices are determined and administered at too high a level. The FAA's line managers do not have human resource management authority commensurate with their operational and capital investment authority. FAA managers are responsible for the expenditure of \$17.8 billion in capital investments (\$2.8 billion in capital improvement, acquisition and installation in 1993 alone). Yet, neither FAA nor its managers have the authority to offer an industry-competitive salary to attract world-class technical specialists to conduct research related to these investments or to manage any of these programs;
- Internal FAA practices reflect a quasi-military, hierarchial culture.

Major changes are needed in FAA's human resource systems and organizational culture to support a corporation that is to be efficient and responsive to customer needs. These changes will require broadly-based exemption from the personnel provisions of Title 5 of the U.S. Code to give the corporation flexibility to quickly readjust when needed, and totally integrate personnel, compensation and benefits practices with strategic objectives.

Persuasive arguments support granting the corporation exemptions from these statutes in compensation, employment, performance management and labor relations. FAA's unique operational mission among civilian agencies is discussed earlier in this report. That unique mission has been recognized in exemptions that have specifically focused on FAA's personnel problems:

- Action by Congress in the Air Traffic Revitalization Act to give controllers and maintenance technicians additional pay, recognizing the unique requirements of directly operating the national airspace system;
- Action by DOT and OPM in establishing the Pay Demonstration Project in 1989 to provide further pay incentives for controllers and maintenance technicians in certain hard-to-staff facilities; and,
- Action by Congress to grant special retirement benefits for air traffic controllers in recognition of the extensive demands of directly operating the national airspace system.

Although helpful, these exemptions have been piece-meal, stop-gap measures that do not comprehensively address FAA's requirements. Additionally, the process for obtaining exemptions to government-wide rules is time-consuming and cumbersome. For example, the exemption for the Pay Demonstration Project took 16 months from inception to actual implementation because of justification, approval and oversight requirements. This is at cross-purposes with the need to react quickly in a rapidly changing environment.

The Personnel Working Group asked Towers Perrin, a leading human resources consulting firm, to evaluate best practices in human resource management in the public and private organizations. Towers Perrin's report provided the framework for the Personnel Working Group's recommendations.

The Corporation Task Force and the Executive Oversight Committee accepted the Personnel Working Group's recommendations. The Working Group and the Task Force have received encouragement from OPM, which sets governmental personnel policies, to make the recommended changes to the personnel systems and procedures for the ATS Corporation. OPM recognizes that, although NPR and the President's National Partnership Council recommended many of these changes for all government employees, it is not likely that such changes could be completed on the schedule required for the establishment of the ATS Corporation. In addition, several of the EOC's recommended changes, such as those in labor relations and in compensation and benefits go beyond the NPR recommendations. The ATS Corporation, as a new organization, would have the opportunity to provide for best practices personnel systems in its charter.

10.2 Key Recommendations

The EOC's key recommendations address human resource systems that must be fixed or enhanced.

RECOMMENDATION: Seek an exclusion from the Personnel Provisions of Title 5 of the U.S. Code, Except for the No-Strike Provisions

The lack of flexibility that is the major shortcoming with the current human resource systems can best be addressed by obtaining an exclusion from the personnel provisions of Title 5 of the U.S. Code. (Some other government corporations, such as the Federal Reserve and the Tennessee Valley Authority, have established a precedent and are exempt from Title 5.) This would free the corporation to develop simpler and interconnected systems that directly support its strategic objectives. The no-strike provision will be retained because the aviation industry and national economy cannot tolerate a shutdown of the ATC system. An exclusion will also give the corporation greater flexibility to readjust systems without external approval, when shifts in technology call for additional changes in administrative practices. These changes are detailed in the recommendations below.

RECOMMENDATION: Create a Flexible Labor Relations System That is Excluded from the Labor-Management Relations Provisions of Title 5

FAA's efforts represent the leading edge in the federal service in labor-management partnerships and employee involvement programs.

Labor-management relations issues are among the EOC's most important concerns in restructuring FAA. Sixty-two percent of FAA's employees are represented by one of several unions and the ATS Corporation's workforce would have as much as 90 percent of its workforce represented. The workforce would be predominately air traffic controllers and maintenance technicians, who are currently in recognized bargaining units that would continue to be recognized as part of the transfer.

FAA management and the unions representing key workforces have recognized the importance of working together to achieve employee involvement and communication. Airway Facilities' and the Professional Airways Systems Specialist (PASS) Employee Involvement Program (for maintenance technicians) and Air Traffic's and the National Air Traffic Controllers Association (NATCA) Quality Through Partnership (for controllers) represent the leading edge in the federal service in labor-management partnerships and employee involvement programs. The EOC wishes to maintain this leading position by reinforcing and expanding such efforts in a corporate

environment, going even beyond the recommendations made by the President's National Partnership Council.

The EOC recommends that the corporation obtain an exemption from the labor-management provisions of Title 5 for the corporation and its represented employees and labor organizations. Consistent with current efforts to forge labor-management partnerships, the corporation should draw upon its successes and, freed of the limitations of Title 5, create its own flexible labor relations system, jointly agreed on by the unions and management, that provides:

- A simplified labor relations structure for resolving disputes, bargaining, representation rights and other basic labor relations matters;
- Continued recognition of established bargaining units;
- Full scope of bargaining with an agreed-upon mechanism for binding decisions in the event of impasse;
- The continuation and enhancement of existing employee involvement initiatives; and,
- The retention of the no-strike provision of the current statute.

For the reasons set forth above, the EOC recommends that the ATS Corporation have the flexibility of a labor relations framework that is exempt from the labor relations provisions of Chapter 71 of Title 5 (the Federal Service Labor-Management Relations Statute). That statute prescribes in detail all aspects of the labor-management relationship for Federal agencies and labor organizations representing Federal employees, including FAA and its employees. The Title 5 provisions have a limited scope of bargaining and highly structured dispute resolution procedures.

The procedures, constraints, and limitations of the statutory scheme have consistently created friction points between the agency and labor organizations in the past. Also, the strictures of the labor relations statute do not comport with the expanded flexibilities the EOC is recommending in the areas of compensation, employment, and performance management. Without the flexibility of a labor relations framework free from the constraints of Title 5, the ATS Corporation would be ill-equipped to effectively implement the flexibilities in other human resource systems.

**RECOMMENDATION: Develop A Compensation System That Permits Flexible
Salary-setting Within Expanded Pay Ranges Exempt From
Title 5**

FAA's compensation and classification system frustrates employees and managers throughout the agency and does not directly support its strategic objectives:

- * *The white-collar grading and pay systems are complicated, time-consuming and difficult to understand. Over 150 separate sections in the Federal pay statutes govern pay matters.*

FAA and its line managers do not have authority to make most non-routine pay decisions. When the manager of a major air traffic automation development project announced his retirement prior to implementation of the project, it took FAA one year to obtain approval to offer him retention incentives. Of course, the manager had left by then.

The job-grading structure makes it difficult to move employees from one job to another; many highly-graded technical employees are forced to take pay reductions to become supervisors or managers.

The EOC recommends that the corporation obtain an exemption from the pay and allowances provisions of Title 5 and implement a broad-banding pay system. Using fewer and broader pay grades, broad-banding is simpler and gives managers great flexibility in determining individual pay levels. It enables managers to compensate employees based on their contributions to the organization. Broad-banding would allow employee advancement to be based on factors important to line-of-business objectives; for example, competency-based (recognizing mastery of certain sets of skills), or market-based (reflecting competition with private firms for certain skills). Broad-banding is also an effective system for redeploying people without changing their compensation (i.e., the new job, with different duties and responsibilities, is in the same band).

In addition to broad-banding, the compensation system should address other problems by:

- Devising a variety of incentives to reward outstanding individual and team performance, focused on achieving strategic objectives;
- Expanding executive pay ranges and removing the cabinet-level cap to attract more industry-competitive candidates;
- Designing a simplified position classification process;
- Developing a simplified system of premium pay;
- Creating supervisory pay bands or differentials to attract employees in highly technical occupations to managerial ranks;

- Creating rank-in-person rather than rank-in-position; and,
- Using techniques similar to "manage to budget" to administer systems and to control costs.

RECOMMENDATION: Create a More Flexible Recruiting, Selection and Placement System Exempt from Title 5, and Free From Legislative and Administrative Restrictions on Employment Levels

The existing recruiting, selection and placement system neither permits managers to readily hire the people they need nor to reassign employees in response to changing needs:

Rigid federal rules for recruiting, selection and placement of employees limit hiring flexibility and therefore increase the amount of time it takes to hire a new employee. It takes an average of four to six months to fill a trainee air traffic controller position, with 60 days spent just creating a pool of candidates.

Federal time-in-grade and standard qualification restrictions limit the ability of managers to place internal employees in more complex jobs even when they have the necessary skills and training.

Arbitrary federal personnel ceilings limit managers' ability to staff at the best employment level for the agency. This results in over-staffing in some areas and under-staffing in others and may lead to the costly use of contractors to balance the workload.

The EOC recommends that the corporation be exempt from the employment provisions of Title 5, and from legislative and administrative restrictions on employment levels. An exemption from these provisions will give the corporation the flexibility to resolve existing problems by, for example, reducing the time needed to fill many jobs or supporting more ready redeployment of employees where their skills are needed. It will also enable the corporation to make additional changes in the future as unpredictable shifts in the economy and the industry affect employment strategies and as technological changes create a need for employees with new skills.

RECOMMENDATION: Design a Performance Management System That is Exempt from Title 5 and Other Administrative Restrictions

FAA's performance management system is based on government-wide rules that link pay and performance and it is not results-oriented.

Federal regulations limit managers' ability to reward their best employees and effectively administer conduct and disciplinary actions.

The annual numerical performance appraisal system is ineffective. It focuses on completion of forms so that pay raises can be given rather than the process of having employees perform at their highest potential and productivity levels. It results in managers and employees "working the ratings," a practice that breeds cynicism.

The EOC recommends that the corporation be exempt from the employee performance provisions of Title 5 and other administrative restrictions and design a new performance management system that is tied directly to the agency's overall strategic objectives.

A best practice performance management system would focus on a continuous evaluation process rather and:

- Have employees take responsibility for their work and focus on achieving organizational objectives;
- Use a collaborative process between employees and supervisors to set goals, agree to a performance contract and monitor and renegotiate that contract as needed;
- Create an environment that is open, fosters communication among employees and supervisors and provides continuous "360 degree" feedback;
- Be positive and developmental; if an employee does not meet the standards that were negotiated, the standards may be renegotiated or training identified that will enable the employee to meet the current standards;
- Facilitate prompt action to address those who continue to fail to meet expectations.

10.3 Other Recommendations

The EOC also proposes changes to human resource systems that are adequate but can and should be improved.

RECOMMENDATION: Permit Employees to Retain Current and Equivalent Health and Life Insurance Benefits, Retirement Benefits, But Explore Enhancements or New Systems

The EOC recommends that the corporation permit current employees to retain Federal retirement benefits, and equivalent health and life insurance benefits. The corporation should subsequently explore enhancements to the existing systems or develop new systems. The EOC recognizes that for purposes of continuity and stability of the workforce in the transition to a corporate environment, retaining the established benefit systems is necessary. However, in line with best practices in business, Towers Perrin identified several options that they strongly recommended be considered by the corporation. Best practice calls for enhancements or new retirement systems that are integrated with compensation systems as part of an appropriate total compensation package. It is recommended that the employees who are newly hired after the inception of the ATS Corporation fall under its health, life insurance and retirement benefits systems. As such, benefits systems for new employees will have to be established. It is recognized that this represents an ambitious target from a timing viewpoint, but every effort should be made to achieve that objective. The corporation should explore the most cost-effective means of providing these benefits.

RECOMMENDATION: Conduct a Training Needs Analysis and Design a System That Ties Training Programs and Their Administration to the Corporation's Strategic Plan

The EOC recommends that the corporation conduct a training needs analysis that ties training programs and their administration to its strategic plan. Based on this analysis, the corporation should improve current programs through the use of best practices such as competency-based skill training.

The corporation should also restructure in-house training courses and explore the feasibility of relying on the market to train at least some potential employees.

10.4 Transition Issues

The EOC's wide-ranging recommendations for restructuring human resource systems can be successfully implemented only through close attention to the following major transition issues.

10.4.1 Continuity of Human Resources

Processes for a smooth, efficient changeover to a more flexible environment must be developed. Key human resource systems, such as compensation, should be established before the shift to a new structure. The corporation needs to offer employment or

financial incentives for "carryover assistance" to key personnel who otherwise may not join the new organization.

10.4.2 Communication

The corporation should develop a proactive plan for effective communications with all elements of the workforce--early, continuously, and in sufficient detail for employees to understand the nature of the changes and how the changes will affect them.

10.4.3 Cost Control

Cost/benefit analysis of each major human resource system should be conducted once the proposals are fully developed and before those systems are put in place.

10.4.4 Labor Relations

The corporation should implement new human resource systems with major labor organizations as full partners. The EOC recognizes that the changes it has recommended have major implications for the corporation's relationship with its unions. Their buy-in and support throughout the transition process is essential to effective implementation.

All labor organizations must be fully briefed and formally notified regarding the proposed changes, and significant bargaining with the unions will have to be accomplished as a part of the transition.

10.4.5 Organizational Change

The EOC's recommendations will not by themselves transform the organization to a less hierarchical, less rigid and more flexible entity. For the transition to be successful, and to take full advantage of proposed human resource system flexibilities, the corporation must take specific steps to reinforce its commitment to organizational change. These steps include:

- Expanding employee involvement initiatives;
- Establishing and clearly communicating value expectations;
- Recognizing and rewarding alignment with new values; and,
- Dealing effectively with those who fail to align with these values.

Change is always difficult and uncomfortable, but it is necessary for the long term survival of all organizations. Just as the corporation must keep pace with technological

advances to accomplish its mission, it must also keep pace with human resource best practices to have the right people, working in the right place, and doing things right.

10.5 Summary

The EOC recognizes that existing personnel systems will not support the human resource management objectives of the ATS Corporation. As such, it recommends major changes in this area. For example, the Metropolitan Washington Airports Authority, which moved from FAA to an independent authority in 1987, was able to successfully transition its workforce. By all reports, these changes were well received by the employees at the Washington Airports. Most importantly, these changes have resulted in significant improvements in the services to passengers and airlines which use these airports.

11. FINANCE AND BUDGET

11.1 Introduction

FAA's budget and spending constraints do not differ from those of other federal agencies. Unlike other civilian agencies, however, FAA operates an around-the-clock system whose performance directly affects the operating costs and productivity of commercial and general aviation users, the delays suffered by passengers, and profitability of airlines. That system's effective operation is dependent on the continual modernization of its capital-intensive advanced technology equipment. As the Airline Commission noted: "In the history of American business, there has never been a major commercial industry whose minute-by-minute operating efficiency was capped by the daily operating efficiency of the federal government--except the airlines.

The modernization of the ATC system has been delayed by FAA's dependence on annual appropriations and the federal budget process. FAA's inability to make sufficient investments in the ATC system will not only constrain FAA but will also impose cost penalties on system users. Eliminating these cost penalties could more than offset the cost of improvements to the ATC system. Despite the need to increase the level of investment in the modernization of the ATC system, FAA will not be able to do so in the current budget environment.

The complexity of the budget process reduces FAA's flexibility in using available funding. FAA receives funding through four major Congressional appropriations, which are "fenced off" into 41 budget activities and over 160 line items. Preparation of the FY1994 budget began early in 1992 and took 22 months from the initial call for estimates from FAA's field organizations to Congressional approval. The budget was influenced more by process concerns (e.g., government-wide ceilings and reduction targets) rather than relating to specific strategic programmatic objectives or other substantive concerns. Arthur Andersen & Co., a leading accounting firm engaged to advise the EOC on finance and budget matters, reported that the budget cycle of a large corporation using best business practices is only three-to-five months and is tied directly to the corporation's strategic plan.

Although a large share of FAA's resources are derived from taxes on the aviation community deposited into the Airport and Airway Trust Fund, Congress must still appropriate these funds for operations and specific capital investments. Although the Trust Fund completely finances ATC facilities and equipment as well as its associated research,

engineering and development, funds provided by the general taxpayer support about 50 percent of FAA's budget for its operations.¹

Not all of the monies paid into the Trust Fund are spent on current investments. A part of the Trust Fund balance is reserved in the form of commitments, which is spending authorized by Congress but set aside for a period of up to eight years for future expenditures.

This section presents EOC recommendations on how the ATS Corporation can achieve financial autonomy. It also identifies those policy issues that are key to corporation financing. Section 12 presents a summary of the financial restructuring necessary to develop a financially autonomous ATS Corporation and to fund the activities of the remaining FAA. There also are a number of actions required in the budget and finance area during the transition to a corporation. These are summarized in Section 17.

11.2 Recommendations

The EOC concluded that the problems associated with current finance and budget procedures are among the primary reasons for considering restructuring of ATC services. In fact, failure to address budgeting issues makes reform of personnel and acquisition less effective. Major changes in these areas are required for an ATS Corporation to become efficient, businesslike and customer-focused. FAA's current budget and finance practices are incompatible with operating and modernizing a high technology system on a businesslike basis.

RECOMMENDATION: Make the corporation not-for-profit.

The new ATS Corporation will be a monopoly--it will not have any competition for the provision of ATC services. In order to ensure there is no incentive for the corporation to unduly raise fees, and no "bottom-line" incentive to reduce safety-enhancing investments, the corporation will be not-for-profit.

RECOMMENDATION: Free the corporation from external limits on expenditures.

The level of expenditure for the ATC system should not be unduly constrained by overall governmental fiscal requirements, but instead should be driven by market forces based on providing the level of service users require and improvements for which they are willing to pay. Historically, FAA formulates its investment priorities between ATC infrastructure needs and new technology introduction with funding constraints in mind. In

¹Section 12 provides a more detailed overview of FAA's current costs and user tax receipts. It also presents information on how these costs are allocated to various FAA activities, including the development, operation and maintenance of the ATC system, safety and security regulatory programs, and the Airport Improvement Program.

this context, the budget requests and appropriations often fall short of fully meeting investment needs. A substantial portion of the funding is one-year, ear-marked, or assigned to a specific category of use. These budgetary limitations make it difficult to properly plan and execute investments in a climate of changing priorities. The ATS Corporation should ensure stability in life cycle funding for a resource commitment, which includes funding for support and disposal.

RECOMMENDATION: **Authorize the corporation to invest in improvements to increase the level of service or reduce costs to users.**

Investments in the ATC system should be based on user needs. A reengineered acquisition system in the ATS Corporation will result in a process more adept at defining user needs and characterizing those requirements as specific capital investments. A necessary prerequisite is a sound financial foundation that is responsive to the aviation community and provides adequate resources to undertake investments in a timely and cost-effective manner. In Section 12, the EOC has identified an illustrative accelerated investment program for the ATC system that will produce substantial user benefits and reduce ATC operating costs. While the FAA conducts benefit-cost analyses of system improvements, the aggregate level of investment is set as part of a budget process that often micromanages the expenditure of financial resources. In a corporate environment, investment decisions are defined in the context of such factors as financing capacity or return on investment. Corporations are afforded a broader range of financial mechanisms including debt financing to meet investment needs. FAA, on the other hand, does not have that degree of financial flexibility. For example, it cannot use debt financing as part of a long-term investment strategy to upgrade the system.

RECOMMENDATION: **Authorize the corporation to establish, collect and use fees for the services it provides for commercial aviation.**

The ATS Corporation should establish direct user fees for commercial operations, which are flights making the most intensive use of the ATC system. In this way, resources will be directed toward those services users require for safe and efficient operations. The EOC recognizes that direct fees for service may provide disincentives for general aviation to use safety services and recommends that the ATS Corporation retain existing aviation fuel taxes for general aviation users.

RECOMMENDATION: **To support the development of user fees, conduct a cost allocation study to measure the direct, indirect, operational and capital costs of providing services.**

FAA's existing accounting and financial information systems do not reflect the total costs of producing specific services. To develop equitable and efficient user fees, the ATS Corporation must be able to allocate its costs to reflect the total cost of services, which may vary by location, user type or for other reasons. The EOC recommends a set of interim user

fees for the corporation to use during transition. While these are based on the current understanding of the relationship between costs and charges, it recognizes that the corporation will have to conduct the analyses necessary to support a permanent system of user fees.

RECOMMENDATION: Establish a long-term capital spending program so investments are made on a businesslike basis, using debt financing on private markets where appropriate.

Businesses invest as part of a long-term strategy. They employ both debt and internally generated capital (i.e., equity) to support a capital spending program. Figure 10-1 illustrates a businesslike approach to financial management and budgeting that could be used by an ATS Corporation. The key elements are the linkage of the strategic plan and the annual budget for the corporation. The annual budget would consider both operating and capital items. Capital costs would reflect the investment required to operate the ATC system during the period reported. A financially autonomous corporation should be able to finance capital improvements by borrowing on the private capital markets. The financial discipline imposed by the private markets should assure that the corporation pursues an appropriate investment program. With an opportunity for such financial leverage, the repayment of debt would occur as the benefits from the investments--cost reductions for the corporation or users, or improved levels of services for users--are realized and as users' ability to pay increases as a direct result of a more efficient ATC operation.

RECOMMENDATION: Employ businesslike financing and accrual accounting practices to obtain an accurate picture of the economics of providing ATC services.

Historically, FAA has financed both operations and capital improvements out of its annual budget. Its accounts reflect only the capital expenditures authorized in any year and not the capital cost of providing ATC services. As a government agency, FAA enters capital investment into its accounts in the year made and expenses the capital when the asset is disposed of, rather than allocating these costs to the time periods in which the capital is used. Commercial enterprises, in contrast, depreciate assets over their useful life to reflect the cost of these assets in the periods in which they were used. Businesses match revenues and expenses to the time period in which revenues are earned and when expenses are incurred. The ATS Corporation would use integrated financial systems based on generally accepted accounting principles (GAAP), in its accounting for revenues from user fees, costs, and for project accounting in the strategic plan and annual budgets.

RECOMMENDATION: Improve the cost and productivity performance of the ATC system.

Because FAA does not match aviation taxes precisely with the cost of services provided to its users, it has few incentives--other than government-wide economy moves--to

reduce specific costs and increase productivity. It does not examine which services users are willing to pay the full costs for, and reduce the costs of producing services where costs exceed the value placed on the service by users.

RECOMMENDATION: Begin the transition to a self-sustaining ATC system.

For an ATS Corporation to operate on a businesslike basis, it requires financial autonomy from appropriated funds. Because of the high existing proportion of user funding, it will be possible to become self-sustaining in the future. This is a necessary prerequisite to operating like a business.

11.3 Key Policy Issues

A number of policy issues that will affect the financial and budgetary practices of an ATS Corporation are discussed below.

11.3.1 Type and Level of User Fees

The type and level of user charges for ATC services should reflect the total cost of providing those services and would vary as the cost of providing specific services varied. Most countries that employ user charges to pay for ATC services currently base those charges on mileage and weight for en route ATC.² Operations have been widely used as a charging element for approach control services. Many countries use a form of registration fee to recover ATC costs from small aircraft users; others exempt aircraft below a threshold weight from any user charges so as not to discourage the use of safety services. The EOC recommends that a cost allocation study be used to determine the costs of producing specific ATC services for the different types of users. The results of the cost allocation study will be an important input in designing a fair, cost-based charging system. Public users will be exempt from ATC fees.

As noted above, the current system of user fees does not precisely match the cost of specific services with the revenues received. Because the use of ATC services is important to safety, and many users have made substantial investments based on the existing system, the EOC concludes that a transition period is required in moving from the current system to a more direct system of charging users for specific services. In developing user charges, the EOC recommends the following:

²The U.S. has objected to weight-based ATC fees in other countries because it does not believe they reflect the cost of producing services and result in an undue burden on some users.

- The existing burden on users should not be increased--to the extent fees are imposed on commercial users, these should be offset by corresponding reductions in aviation taxes;
- The approximate proportional shares of financial payments by the various user types should be retained; and,
- Direct user charges should not be employed where they would discourage the use of safety services.

11.3.2 Development of Finance and Accounting Systems

The ATS Corporation will require a number of accounting and financial systems. Existing governmental accounting systems are not appropriate for a business-type operation using accrual accounting and generally accepted accounting principles (GAAP). Systems will be needed for the billing and collection of user fees, payroll, property accounting and other systems. Such systems should be operational when the corporation commences activities or as soon thereafter as is possible. As such, systems development must begin well before this and should make use of off-the-shelf-systems to the extent possible, for example for general ledger accounting. The EOC recommends that funds for these activities be provided to FAA in FY1995.

11.3.4 Independent Audit and Asset Valuation

Presently, the FAA's financial statements, portions of which have been audited by the Office of the Inspector General, are based on the requirements and standards mandated for federal agencies. Statements for the ATS Corporation will have to be prepared to reflect a businesslike orientation, following the same generally accepted accounting principles used by other government corporations. This will be a major undertaking. It is necessary, however, to have accurate data for the new organization's opening balance sheet, particularly, the current value of capital assets. Presently, capital assets are captured in the accounting system at the acquisition costs, and do not reflect the decreasing value of the assets as they are used.

11.3.5 Working Capital

The ATS Corporation will need funds on its first day of operation. Even if there is only a 30-day lag in collecting user charges, some level of working capital will be necessary. This could be provided by a transfer of part of the Trust Fund uncommitted balance to the corporation.

11.3.6 Debt Financing

The EOC recommends that the ATS Corporation obtain debt financing on private markets for construction of facilities and acquisition of equipment. Financing from the private market provides useful disciplines and incentives for the corporation to be efficient. The debt-carrying capacity of the corporation will be determined by its financial performance. The EOC recommends a ceiling on total ATC Corporation borrowing of \$15 billion.³

11.3.7 Liability

The ATS Corporation and its employees would remain under the standards of the Federal Tort Claims Act for civil liability purposes. However, the EOC recommends that the ATS Corporation not rely on the settlement fund for claims paid resulting from ATC system liability. Securing its own insurance will provide the corporation with incentives to minimize these costs and, as a result, will enhance safety performance. The ATS Corporation also will assume responsibility for any legal or administrative costs related to ATC litigation. It would undertake and pay for these activities in its own name.

11.4 Summary

This section has identified the shortcomings which limit FAA's ability to operate and invest in the ATC system to produce the level of services users require in the most efficient way. It recommends those changes necessary to establish a financially autonomous ATS Corporation. This section also has explored a number of issues which will affect how the ATC system could be restructured into a government corporation. The following section analyzes the projected financial performance of the ATS Corporation.

The EOC's recommendations for the ATS Corporation will provide the following incentives for businesslike efficiency:

- The ATS Corporation will borrow on private capital markets--its investment plans will have to be financially sound in order to attract capital. The market will assure that the corporation produces sufficient revenues to service its debt and to pay operating expenses.
- User representation on the Board of Directors ensures that the corporation will undertake investment programs which improve service quality and safety, reduce the corporation's operating costs, or provide user cost savings.

³This is based on the anticipated net asset value of the corporation over the period examined in the financial review.

- Direct charges to commercial aviation for ATC services links the cost of producing service to the prices paid for ATC services. The corporation would be required to justify changes in rates and charges, providing incentives for cost control.
- The corporation will secure and finance its own insurance for ATC liability claims and related costs. This will provide increased incentives for safety and efficiency by making these a cost for doing business.

12. FINANCIAL RESTRUCTURING PLAN SUMMARY

12.1 Introduction

The EOC recognizes that an important priority of the ATS Corporation will be to develop financial analyses of its revenues and the costs of services it provides to users. However, the EOC believes that the finances of the ATS Corporation are an important issue not only to the corporation but also to its users, its employees, the Administration, Congress and the public. As such, many of the EOC's deliberations focused on financing issues. In particular, the EOC believes that, in order to achieve its objectives, the ATS Corporation must be financially autonomous. In addition, financial issues such as an appropriate policy on user fees for general aviation are integral to the EOC's recommendations on safety.

The EOC--supported by the Corporation Assessment Task Force and Finance and Budget Working Group--undertook a number of analyses to determine the financing needs for the ATS Corporation and the remaining FAA, as well as recommending the sources of funds available to pay for them. The EOC also commissioned Arthur Andersen & Co. to assist in the development of financial projections and analyses for the ATS Corporation, the remaining FAA and the Airport and Airway Trust Fund (Trust Fund).¹ This section summarizes the financial restructuring plan for changing from the current FAA to an independent ATS Corporation and a remaining FAA. Pro forma financial projections of the performance of the ATS Corporation over a ten year period are detailed in Attachment E.

12.2 Financial Structure of the Existing FAA

In order to provide a frame of reference for the financial restructuring the ATS Corporation and the remaining FAA, it is necessary to understand FAA's current expenditures and aviation user tax revenues. As such, this section first presents information on how FAA's costs are allocated to various FAA activities, including the operations, maintenance and development of the ATC system, safety and security regulatory programs, and the Airport Improvement Program.

12.2.1 FAA Expenditures and Aviation User Tax Revenues

The FAA budget is divided into four major programs:

¹Arthur Andersen & Co., Report of the Restructuring Plan for the Proposed Air Traffic Services Corporation, April 1994.

- The Operations program provides for the continuing requirements of FAA, including operating and maintaining the air traffic control system, developing safety and security standards and administering civil aviation regulations, and federal support to develop a national system of airports.
- Under the Facilities and Equipment (F&E) program, the ATC system is expanded and improved by the installation of new equipment and the construction and modernization of FAA facilities.
- The Research, Engineering, and Development (RE&D) program provides for aviation research efforts that focus on safety, security, capacity, and efficiency.
- Finally, the Airport Improvement Program (AIP) provides airport planning and development grants and funds for noise abatement programs.

In FY1993, FAA's budget authority was \$9.1 billion for its major programs, while aviation tax receipts totalled \$5.1 billion.² As will be shown below, the shortfall between FAA expenditures and user tax revenues is funded, in part, by general government revenues and prior capital contributions from users available in the Trust Fund. FAA's FY1993 total budget authority was comprised of the following:

- Operations--\$4.5 billion;
- Airport Improvement Program--\$2.1 billion;
- Facilities and Equipment--\$2.3 billion;
- Research, Engineering and Development--\$230 million.

Over their life cycle, numerous FAA capital investments were initiated as a program in the RE&D budget, developed and installed throughout the ATC system as a program in the F&E budget, and operated and maintained in the Operations budget.

The FAA is funded by a set of dedicated aviation taxes, which are deposited in the Trust Fund, and from resources provided by the General Fund. Current aviation taxes include:

- A domestic passenger ticket tax of 10 percent,
- An air cargo waybill tax of 6.25 percent,
- GA fuel taxes of \$0.15 and \$0.175 per gallon for aviation gasoline and jet fuel, respectively; and

²All data are current dollars unless otherwise noted.

- An international passenger departure tax of \$6.

In FY1993, aviation user tax receipts were as follows:

- Passenger Ticket Tax--\$4.5 billion (88 percent of total aviation user taxes collected);
- Cargo Waybill Tax--\$255 million;
- GA Fuel Taxes--\$120 million; and
- International Departure Tax--\$233 million

By law, private users currently fund 75 percent of FAA's total costs. The remaining 25 percent of FAA funds are provided by general government resources. User taxes fund all expenditures for F&E, RE&D, and AIP and approximately one-half of operations costs. The remaining one-half of operations costs are funded by general government resources. In FY1993 this amount was \$2.2 billion.

12.2.2 Allocation of FAA Costs

The recommended financial strategy to make the corporation financially autonomous takes into account FAA's existing funding sources and shows how financial autonomy can be achieved without increasing the user or government contribution. An important first step in the restructuring process is the allocation of FAA costs to the ATS Corporation and the remaining FAA. The cost allocation benchmark developed for use by the EOC involved a two step process. First, the EOC was assisted by the FAA Office of Budget which developed initial distributions of personnel and programs between the ATS Corporation and the remaining FAA for each appropriation. Second, an update of the methodology employed in the 1985 FAA Cost Allocation Study was the basis for allocating ATC costs by facility type and user group.

Figure 12-1 portrays FAA receipts and expenditures for FY1993. The total amount of funds available from private users was \$6.9 billion, while total budget authority was \$9.1 billion. Receipts from aviation user taxes totalled \$5.1 billion. The remaining \$1.8 billion of private user contributions was provided by interest earned on committed and uncommitted Trust Fund balances and a drawdown of the uncommitted balance in the Trust Fund. General government revenues provided \$2.2 billion to FAA. About one-half of the general government revenues provided to FAA represent the allocated costs of public use of FAA services. The other one-half offset the shortfall between receipts from private users and their allocated share of expenditures.

Figure 12-1

FAA SOURCES AND USES OF FUNDS (FY 1993 –BILLIONS)

<u>SOURCES OF FUNDS</u>		
Private Users Contribution		
Current Taxes	\$5.1	
Trust Fund Interest	\$1.1	
Trust Fund Drawdown	\$0.7	
Subtotal		\$6.9
General Fund		\$2.2
Total Sources		\$9.1
<u>USES OF FUNDS*</u>		
Air Traffic Control		\$6.3
AIP		\$2.1
Regulatory		\$0.7
Total Uses		\$9.1

* Based on FY 1993 update of 1985 FAA Cost Allocation Study.

Figure 12-2

**ESTIMATED TOTAL COST OF ATC SERVICES BY
USER GROUP
(FY 1993 – MILLIONS)**

	Air Carrier	AT/Commuter	GA	Public	All Users
ARTCC	\$1,661	\$447	\$406	\$606	\$3,120
TRACON	\$1,191	\$678	\$350	\$330	\$2,549
ATCT	\$16	\$21	\$150	\$25	\$211
FSS	\$5	\$15	\$357	\$9	\$385
All Facilities	\$2,873	\$1,160	\$1,262	\$969	\$6,264

Figure 12-2 shows additional detail on the estimated total ATC costs for FY1993. (Supporting data are in Attachment C.) Total ATC costs include site labor, maintenance and communications, plus allocated costs for Navaid maintenance, facilities and equipment, research, engineering and development, and overhead. The estimated costs by facility type are as follows:

- Air route traffic control centers (ARTCCs)--\$3.1 billion;
- Terminal radar approach control (TRACONs)--\$2.5 billion, including tower costs for the primary TRACON airport;
- VFR towers--\$211 million;
- Flight service stations--\$385 million.

Almost 90 percent of the ATC costs are associated with those facilities which serve the IFR system, ARTCCs and TRACONs.

Figure 12-2 also shows the allocation of ATC costs by user type, and are based on an update of the 1985 FAA Cost Allocation Study. However, while these estimates have been adjusted for changes in activity by the user types and the costs of producing ATC services, they should be viewed as only indicative of user cost shares. Given the large investments made in the ATC system since 1985, accurate estimates of user cost shares require a new cost allocation study. The EOC recommends that such work be undertaken in the immediate future, as it is a necessary input for the corporation in determining its revenue sources and in setting the type and level of permanent user charges.

12.3 Overview of the Restructuring Plan

The development of options for the financial restructuring must of necessity be based at least initially on the underlying assumptions of the current FAA budget. This section presents the recommended financial strategy to make the ATS Corporation financially autonomous. While the analysis is based on FAA revenue and expenditure projections, the EOC recognizes that an essential feature of the ATS Corporation is that it would vary spending levels based on its own analyses of services required, productivity improvements, and return on investment. However, the EOC believes it is important to show that the corporation can be viable without increasing the burden on users or taxpayers.

12.3.1 Factors Affecting Restructuring

There are a number of factors about FAA's current financial structure which affect the ability to achieve a financially autonomous ATS Corporation. These include the following:

- About one-half of the general government revenues provided to FAA represent the allocated costs of public use of FAA services. The other one-half offset the shortfall between receipts from private users and their allocated share of expenditures.
- According to prior FAA cost allocation studies, private users are responsible for about 87 percent of FAA costs, with the remainder incurred on behalf of public users;
- FAA's budget does not reflect all costs for civil air traffic control:
 - Some ATC services are produced by the Department of Defense;
 - The liability costs of ATC are paid for by a separate fund;
 - Some space rental costs are paid by the General Services Administration.
- FAA budgets for and sets aside funds for equipment and installation in the year the acquisition decision is made--this is one reason there are large committed balances in the Trust Fund;
- FAA acquires substantial long-lived assets for the ATC system--however, it does not reflect the cost of these assets over their useful life--the financial treatment of investment retains the asset on the books at full value until it is disposed of, at which point it is written off; and
- FAA does not relate aviation tax payments to the cost of ATC services.

12.3.2 Financial Objectives

As noted in the prior section, one-half of FAA's operations budget is supported by general government funds. To become financially autonomous, the ATS Corporation should not rely on direct appropriations. To achieve this goal while not increasing the financial burden on users, the EOC recommends that:

- The corporation use business-type financial practices based on generally accepted accounting principles (GAAP);
- Committed F&E programs be carried out using the committed Trust Fund monies already set aside for them;
- Existing assets be transferred to the corporation without charge because these have been funded via taxes paid into the Trust Fund;

- The corporation should employ debt financing for ATC system investments and recover the costs of these investments over their useful life;
- General Fund appropriations be used to pay for the operations budget of the FAA--F&E and RE&D for safety and security programs and AIP would be funded via dedicated user taxes deposited in the Trust Fund;
- Gradual draw down of the Trust Fund uncommitted balance, with the longer run target being a solvent Trust Fund in which annual revenues are equal to annual expenditures;

The EOC has established general objectives related to any user charges imposed for ATC services:

- User fees will be set so as not to discourage the use of ATC safety services;
- The Board of Directors will review fees established for intensive users of the IFR system in the authorizing legislation to see if they can be more closely aligned with the cost of producing specific ATC services;
- User fees will be set at the level of current taxes for one year;
- Costs of billing and collecting user fees will be reasonable;
- When permanent fees for international flights are established, they will be in accord with international obligations.

12.3.3 Financial Needs

To illustrate the types of changes needed to create a financially autonomous and viable ATS Corporation, Figure 12-3 projects user tax revenues and expenditures on a "modified" current services basis for FAA over the 1996 to 2005 time period. A current services baseline, which is established annually in the President's budget, is designed to demonstrate what revenues and budget authority would be if no changes are made to laws already enacted. For the purposes of this analysis, however, current services expenditures have been modified from 1996 to 1998 to reflect a government-wide adjustment to discretionary spending caps prescribed by OMB under BEA.³ This modification establishes the likely level of FAA's future budget to use as a baseline in estimating the resources required to run the ATS Corporation and the remaining FAA

³Spending reductions from current services--1996: 5.2%, 1997: 8.4% and 1998: 11.45%.

Figure 12-3

PROJECTED TOTAL EXPENDITURES AND USER REVENUES

1996 - 2005

(\$Billions)

<u>Total Budget Authority</u>			
	<u>BEA Baseline</u>	<u>Base Case</u>	<u>Accelerated Investment</u>
Operations	\$56.7	\$50.6	\$49.7
F & E	23.3	27.1	32.0
AIP	18.4	20.3	20.3
<u>RE & D</u>	<u>2.8</u>	<u>3.2</u>	<u>3.2</u>
Total	\$101.2	\$101.2	\$105.2
Revenues	\$83.2	\$79.0	\$83.2

<u>ATS Corporation Budget Authority</u>		
Operations	\$43.2	\$42.3
F & E	24.8	29.7
<u>RE & D</u>	<u>2.1</u>	<u>2.1</u>
Total	\$70.1	\$74.1
Revenues	\$62.3	\$66.1

<u>Remaining FAA Budget Authority</u>		
Operations	\$7.4	\$7.4
F & E	2.3	2.3
RE & D	1.1	1.1
<u>AIP</u>	<u>20.3</u>	<u>20.3</u>
Total	\$31.1	\$31.1
Revenues	\$16.7	\$17.1

were no financial restructuring to take place. In the baseline, FAA expenditures would total \$101.2 billion in the 1996 to 2005 time period.

After 1998, the baseline increases at projected current services growth rates in spending. Operations spending is projected to increase at a rate of about five percent per year. This projection, which is greater than inflation, adjusts the operations budget for anticipated real growth in aviation activity. It is assumed that FAA's AIP, F&E and RE&D budget accounts would grow with inflation after 1998.

Total revenues at current tax rates are estimated to be \$83.2 billion over the 1996 to 2005 time period (these also are shown in Figure 12-3). This is based on an average annual growth rate of approximately six percent per year in user tax revenues. In early years user taxes are projected to grow at seven percent per year through 1999, and then grow at six percent per year thereafter.⁴ The actual annual growth in tax receipts from 1983 through 1993 was 6.6 percent. (These growth rates do not include the increase in the passenger ticket tax from eight to ten percent.) Tax revenue growth is a function of the increase in airline traffic and yields for the Passenger Ticket Tax and Cargo Waybill Tax. Tax revenues generated from the International Departure Tax and General Aviation Fuel Taxes increase with activity. (Because there are two components to the GA fuel tax--Avgas and turbine fuel--the composition of GA growth is important in projecting future tax receipts.)

With the EOC's recommendation that General Fund appropriations pay for regulatory operations costs, about \$15 billion must be made up. This can be accomplished by the following:

- Cost reductions from increased productivity--The FAA must undertake a required 12 percent cut in full-time equivalent employees (FTEs) over the next few years as part of a government-wide economy measure. In addition, the most recent President's budget shows that the FAA is also expected not to increase its spending for the operations budget from the current stated level until the year 2000. This decrease in spending will be accomplished, in part, by the 12 percent FTE cut. Additional productivity savings greater than projected could be achieved in a corporate environment. A corporate structure, free from certain government regulations will enable the corporation to adopt more business-like practices. Though the process of benchmarking itself against other companies or industries. For example, the ATS corporation could follow these companies' best practices to achieve not only operational efficiencies, but savings in its capital programs as well.

⁴Tax revenue projections through FY1999 were provided by FAA's Office of Aviation Policy Plans and Management Analysis. A lower rate of revenue growth after that was used to be conservative. The restructuring plan prepared by Arthur Andersen examines a range of revenue growth rates.

- Elimination of pre-funding for capital expenditures--The ATS Corporation would eliminate the current governmental practice of pre-funding capital expenditures when acquisition decisions are made. Instead, it will fund capital expenditures when the purchase is consummated, as is normal commercial practice. FAA currently sets aside committed amounts in the Trust Fund when a system acquisition decision is made. The amount set aside is sufficient to fund the acquisition, related facilities and other expenditures to place a system in service. This governmental practice of setting aside funds appropriated by Congress is required by the Antideficiency Act,⁵ and is one of the most significant underlying reasons for the existence of large committed but unspent balances in the Trust Fund.
- Draw down of uncommitted Trust Fund balances
- Use of long-term debt financing when necessary and prudent.

12.4 Budget/Spending Assumptions

The EOC's principal financial objective is that the ATS Corporation should be independent of appropriated funds. In addition, the EOC recommends that AIP and the remaining FAA's safety and security F&E and RE&D activities be funded via dedicated taxes paid into the existing Trust Fund. A new lower tax rate would be established that would generate sufficient tax revenues to provide a self-sufficient Trust Fund at planned spending levels. The operations budget of the remaining FAA would be paid for using General Fund appropriations.

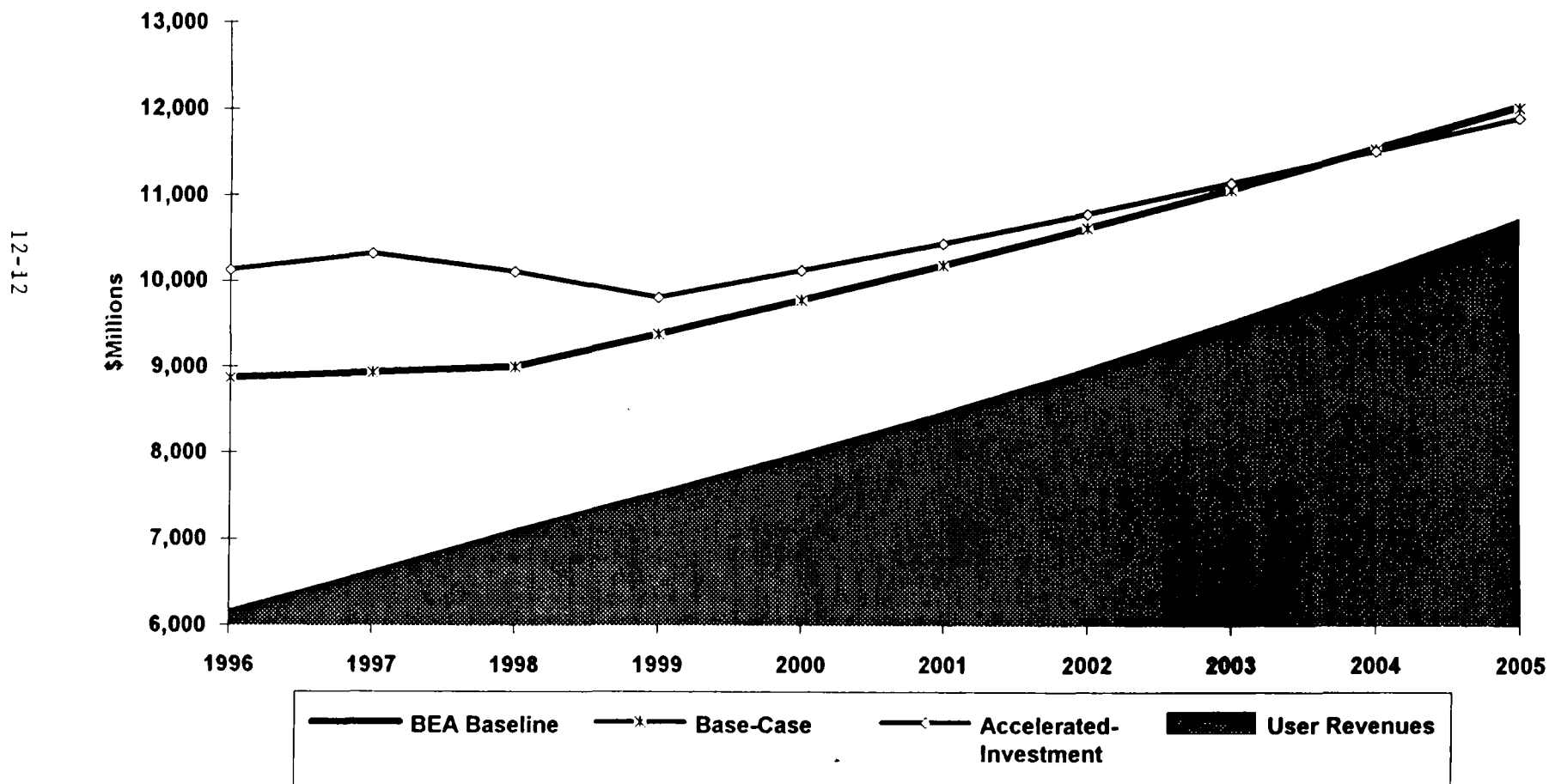
The EOC has examined two expenditure scenarios for the ATS Corporation and the remaining FAA. The first scenario, or "Base-Case," reflects an alternative spending profile that can be applied within the FAA's baseline spending projection. The second scenario represents an "Accelerated-Investment" profile based on planned FAA investment priorities absent any budgetary funding constraints. The purpose of the two expenditure profiles is to present a potential range of spending alternatives and the accompanying benefits that could be achieved while maintaining a financially ATC autonomous corporation.

Figure 12-4 illustrates these projected spending levels along with the FAA baseline over the 1996 to 2005 time period.⁶ These include budgeted amounts for both

⁵31 U.S.C. secs. 1341-1342, 1349-1351, 1511-1519.

⁶The notes to the financial statements in Attachment E provide additional detail on the assumptions and accounting treatments used to develop the financial projections.

**Figure 12-4
FAA CORPORATION ASSESSMENT
PROPOSED TOTAL BUDGET AUTHORITY**



the ATS Corporation and the activities of the remaining FAA. Forecast aviation user tax revenues at their current rates are also shown in Figure 12-4.

12.4.1 The Base-Case Scenario

In the Base-Case scenario, total budget authority for 1996 through 2005 is estimated to be \$101.2 billion for all FAA programs.⁷ (See Figure 12-3.) This is comprised of the following:

- Operations--\$50.6 billion;
- Airport Improvement Program--\$20.3 billion;
- Facilities and Equipment--\$27.1 billion;
- Research Engineering and Development--\$3.2 billion.

There is a difference of \$22.2 billion between tax revenues and budget authority over this time period. Were FAA to continue as a federal agency, this difference, for the most part, would be paid for from General Fund appropriations as it is today. Figure 11-2 shows the total budget authority for the 1996 to 2005 time period divided into that for the ATS Corporation and the remaining FAA. The ATS Corporation accounts for about \$70 billion of the total budget authority. Additional costs have been added to account for the ATS Corporation's payments for liability insurance. The safety and security regulatory programs and AIP together account for about \$31 billion of total budget authority and would remain with FAA. Additional costs have been added to the budget to account for the cost of ATC safety regulation by the remaining FAA. This was selected as the base scenario for comparison of the financial performance of the ATS Corporation and the remaining FAA with what should happen at the FAA if broad restructuring is not implemented.

12.4.1 The Accelerated-Investment Scenario

One of the most significant advantages of the establishment of an ATS Corporation is that it would allow the corporation to increase investment above planned budget levels to reduce user costs or the costs of producing ATC services. Presentation of an Accelerated-Investment scenario is based on the assumption that the ATS Corporation with the approval of its Board of Directors could invest as it desired to expedite implementation of advanced technology.

The EOC has independently reviewed FAA's Capital Investment Program and found significant benefits with accelerating certain programs.⁸ The findings of this

⁷Expenditure projections were developed by FAA's Office of Budget.

⁸Effects of Potential Funding on CIP Benefits: A Technical Note for the Corporation Assessment Task Force," prepared by FAA's NAS Program Office, March 7, 1994.

analysis suggest that greater flexibility in capital investment spending could accelerate benefits in user efficiency, safety and ATC productivity in the 1996 to 2005 time frame. The benefits of accelerating ATC capital investments are discussed in greater detail below in section 12.5.

As shown in the Accelerated-Investment scenario in Figure 12-3, total budget authority for 1996 through 2005 is estimated to be \$105.2 billion for all programs.⁹ This is comprised of the following:

- Operations--\$49.7 billion;
- Airport Improvement Program--\$20.3 billion;
- Facilities and Equipment--\$32 billion;
- Research Engineering and Development--\$3.2 billion.

The EOC estimates that the Corporation could accelerate and increase ATC investment by a total of \$5 billion over the 1996 to 2005 time period. A reduction of \$0.9 billion in operating cost savings representing productivity improvements from increasing capital investments have been subtracted from baseline spending in the operations account for the ATS Corporation.

12.5 Benefits From Restructuring

The EOC evaluated the benefits of a corporate restructuring by comparing the estimated financial performance of the ATS Corporation and the remaining FAA to the budget projections for the existing FAA if it were to continue as a government agency. The key groups receiving the benefits of the proposed ATS Corporation restructuring are users (e.g., airlines, general aviation, etc.), taxpayers and the traveling public. This section examines the impact to these stakeholder groups and explains how these benefits are achieved.

12.5.1 Benefits to Users and the Travelling Public

A portion of the benefits of moving to a more efficient operating and financial structure as a government corporation would accrue to the users. Under current aviation user tax rates, the projected burden detailed in Figure 12-3 will total \$83.2 billion in the 1996 to 2005 time period. In the base-case scenario, the projected combined burden from user fees collected by the ATS Corporation and aviation taxes at their reduced levels to finance the Trust Fund for the remaining FAA, are projected to be \$79.0 billion for the same period. This represents savings of \$4.2 billion for aviation system users and the travelling public. In the accelerated-investment scenario, the projected burden on

⁹Expenditure projections were developed by FAA's Office of Budget.

users will be the same as with current user tax rates. However, there are substantial safety, delay reduction and operating cost savings to users from increased investment as shown below.

12.5.2 Benefits From Accelerated Investment

A significant advantage of an ATS Corporation is its opportunity to increase capital investments above the levels currently planned by the FAA. Under the investment scenario, accelerating 25 selected capital projects would result in the ATS Corporation realizing productivity improvements and savings within the aviation user community much earlier in time.

Three categories of benefits have been defined: user efficiency, safety, and FAA cost reductions. User efficiency benefits represent potential operational cost savings (e.g., reduced delays, expanded preferred routes and altitudes and integrated avionics cost savings) as well as associated passenger time savings. Safety benefits contribute to reducing potential economic costs from reduced aviation accidents and incidents. FAA benefits represent potential productivity improvements that would accrue to the corporation.

Although any capital project can demonstrate benefits in one or more of the benefits categories, many projects are oriented toward one category over another. Examples of projects generally associated with user efficiency benefits include:

- Global Positioning System;
- Advanced Automation System;
- Oceanic automation;
- Weather projects;
- Digital communications; and
- Data link.

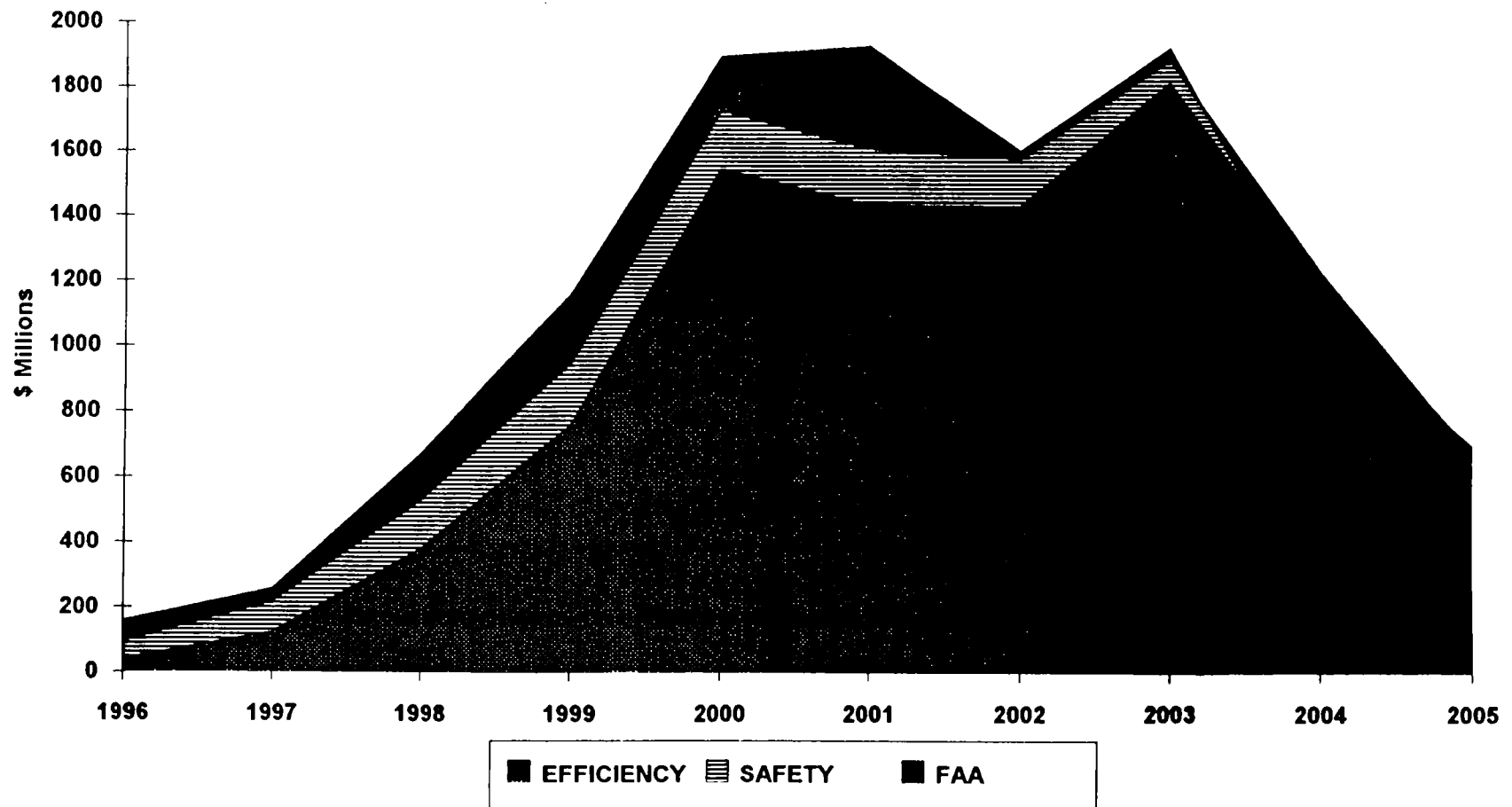
Projects that provide safety benefits include:

- Airport Surface Detection Systems;
- Approach lighting systems; and
- Weather projects.

Projects that provide operating efficiency benefits include:

- Remote maintenance monitoring;
- Metroplex ATC facilities; and
- Satellite navigation and communications.

Figure 12-5
NET INCREASE IN ANNUAL BENEFITS
FROM ACCELERATED-INVESTMENT SCENARIO



As shown in Figure 12-5, total benefits from accelerating planned capital investments are estimated to be \$11.3 billion in the 1996 to 2005 time period. Overall, 92 percent of the benefits associated with the accelerated-investment scenario are estimated to accrue to users in the form of user efficiency and safety benefits. User efficiency benefits of \$9.4 billion represent approximately 80 percent of the benefits in the accelerated-investment scenario. Safety benefits total \$1.1 billion. The estimated \$890 million in FAA benefits represent potential productivity improvements. These have been subtracted from baseline spending in the operations costs of the ATS Corporation.

12.5.3 Benefits from Reengineering Acquisition

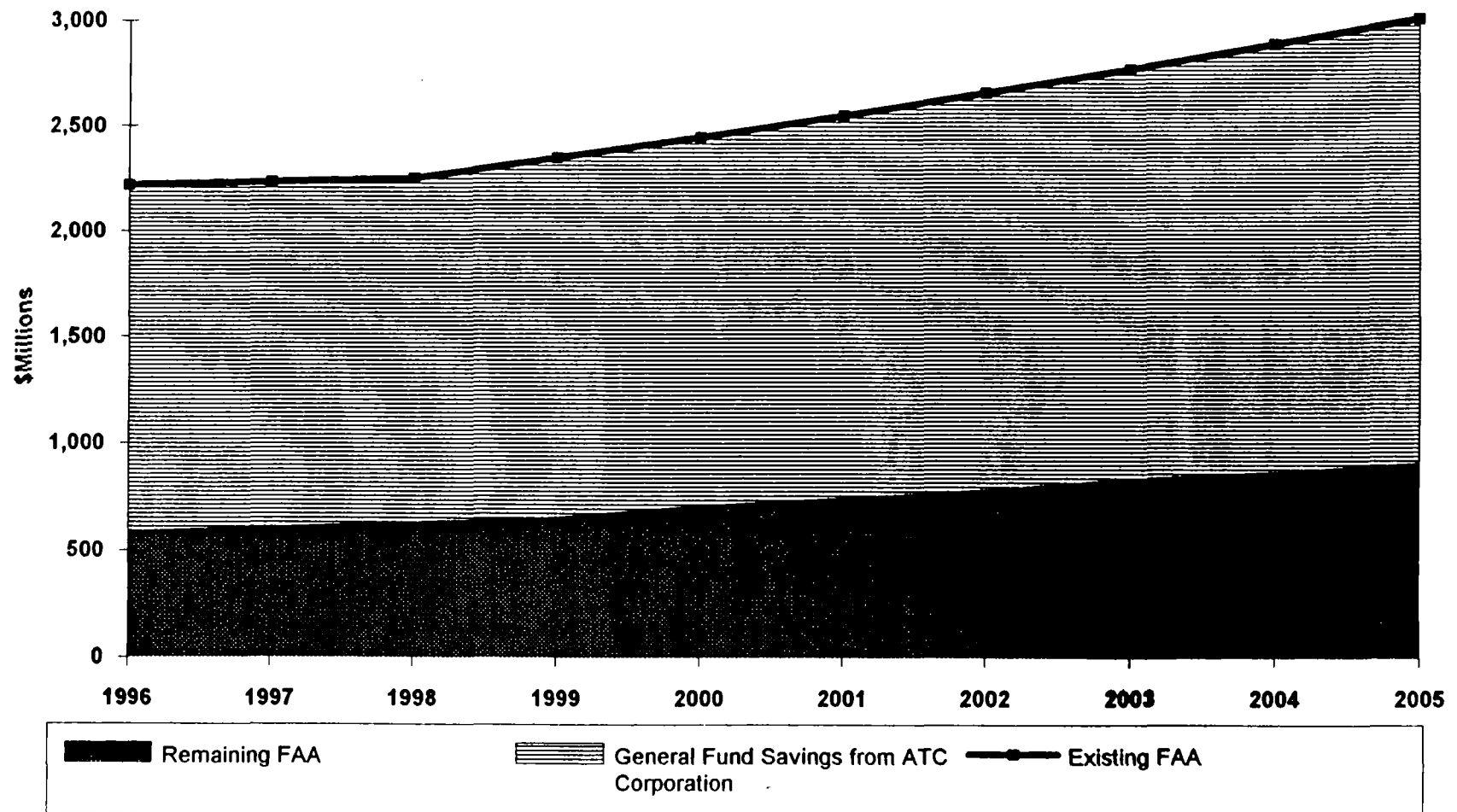
A focal point of the proposed corporate restructuring is reengineering the acquisition system. In the past, the FAA has experienced delays and overruns in completing large capital projects. The Acquisition Working Group, which was assisted by Arthur D. Little & Co., found that many firms across a broad spectrum of industries have been able to significantly reduce their acquisition cycle time. A reference target for acquisition reengineering could be as much as a 45 percent reduction in the cycle time.¹⁰ Therefore, the EOC has incorporated a reduction in the acquisition cycle time for the financial analysis of the ATS Corporation. However, dollar benefits have not been estimated for these. In addition, the added discipline related to loan repayment schedules and oversight associated with debt financing could also contribute to a reduced implementation cycle time.

12.5.4 Benefits to Taxpayers

For taxpayers, the primary benefit of corporate restructuring is a reduction the General Fund appropriations for FAA. A key objective established by the EOC is that the ATS Corporation should be financially autonomous. In other words, it will not receive any appropriations from the General Fund. Figure 12-6 compares the level of General Fund appropriations projected for the existing FAA and for the remaining FAA after restructuring. Currently, the FAA receives a General Fund appropriation for its Operations program totaling 25 percent of the FAA's overall budget. After restructuring, the remaining FAA will receive a General Fund appropriation for its Operations program. All F&E, RE&D and AIP spending for the remaining FAA will come from the Trust Fund. In the 1996 to 2005 time period, General Fund appropriations for the existing FAA are projected to total \$25.3 billion. After restructuring, General Fund appropriations for the remaining FAA are projected to be \$7.3 billion. This represents a savings of \$18 billion for the taxpayer.

¹⁰Arthur D. Little, "Best Practices in Acquisition," prepared for the Corporation Assessment Task Force (November 1993).

Figure 12-6
TOTAL GENERAL FUND CONTRIBUTIONS



12.6 Financial Analysis

This section presents the financial results of the accelerated-investment scenario for ATS Corporation and the remaining FAA. Supporting data for these financial analyses are contained in Attachment E of this report.

12.6.1 Financial Assumptions

A number of financial assumptions underlie the restructuring of the FAA into an ATS Corporation and a remaining FAA. These are key to the financing of the ATS Corporation and the remaining FAA and include the following:

- FAA's existing ATC assets will be transferred to the corporation without charge because these have been funded via user taxes paid into the Trust Fund. These assets are estimated to have an average useful life of 12 years and are assumed to be 50 percent depreciated with a depreciated book value of \$5.4 billion at the end of 1995. The remaining value is depreciated over six years to no residual value. They are recorded as investment of the U.S. Government;
- The Trust Fund committed balances representing obligations already incurred for ATC F&E, and RE&D will be transferred to the ATS Corporation and recorded as contributed capital from customers in the year in which the outlays were projected to occur (\$4.7 billion over the 1996 to 2002 time period), these are treated as a prepayment by users and are amortized to offset the depreciation expense for purchased assets;
- Assets acquired by the corporation are paid for in the year outlays are made--these are assumed to be placed in service and then depreciated in the year following the outlay on a straight line basis over ten years. (The corporation does not set aside money in the Trust Fund to pay for outlays in future years as is FAA's current practice.)¹¹;
- The corporation maintains a current ratio (current assets/current liabilities) of two to one to assure liquidity. The current ratio is a measure of how easily the corporation can meet its current financial obligations;
- User fees are set to have the ATS Corporation break even over the ten year period (revenues approximately equal to expenditures under GAAP);

¹¹The actual depreciation period used by the corporation will depend on the specific assets acquired.

- The corporation acquires fixed assets with internally generated funds, transfer from the Trust Fund for committed projects at inception, and borrowing as needed;
- The corporation increases investment by a total of about \$5 billion over the amounts planned in the budget projections for FAA

The principal assumptions for financing the remaining FAA include the following:

- The General Fund will pay for the operating costs of the remaining FAA (\$6.5 billion over ten years);
- AIP and the F&E and RE&D expenditures of the remaining FAA will be funded via dedicated aviation taxes paid into the Trust Fund.

12.6.2 Financial Results -- ATS Corporation

The investment scenario represents the EOC's best estimate of the levels of capital expenditure that the corporation unrestrained by budget caps might make. In this increased investment scenario, the ATS Corporation achieves financial viability with no increase in user fees. (Financial viability for a non-profit government corporation means the revenues of the entity are at least equal to its expenses and that it has sufficient liquidity to conduct on-going operations.)

Figure 12-7 shows the sources of funds for the ATS Corporation. Funds are obtained from user fees and debt financing. The capital contribution from customers represents transfers from the Trust Fund to carry out committed F&E projects which will be transferred from the FAA to the ATS Corporation. Beginning in 1997, debt financing is used to pay for some investment. At the end of the year 2005, the corporation has long-term debt of \$6.4 billion.

Figure 12-8 shows the revenues, expenditures and estimated net income of the corporation including interest paid on long term debt and depreciation on physical assets. The corporation operates on a break-even basis over the 1996 to 2005 time period.

Figure 12-9 shows the investment and finance activities of the corporation. The majority of capital expenditures (57 percent) are financed via internally generated funds. The remainder are funded via long-term debt (26 percent) and capital contributions from customers (17 percent).

12.6.3 Financial Results -- Remaining FAA

As noted above, the operations budget of the remaining FAA will be funded via General Fund appropriations, with AIP, F&E, and RE&D funded via the Trust Fund.

Figure 12-7
ATS CORPORATION -- SOURCES OF FUNDS
Accelerated-Investment Scenario

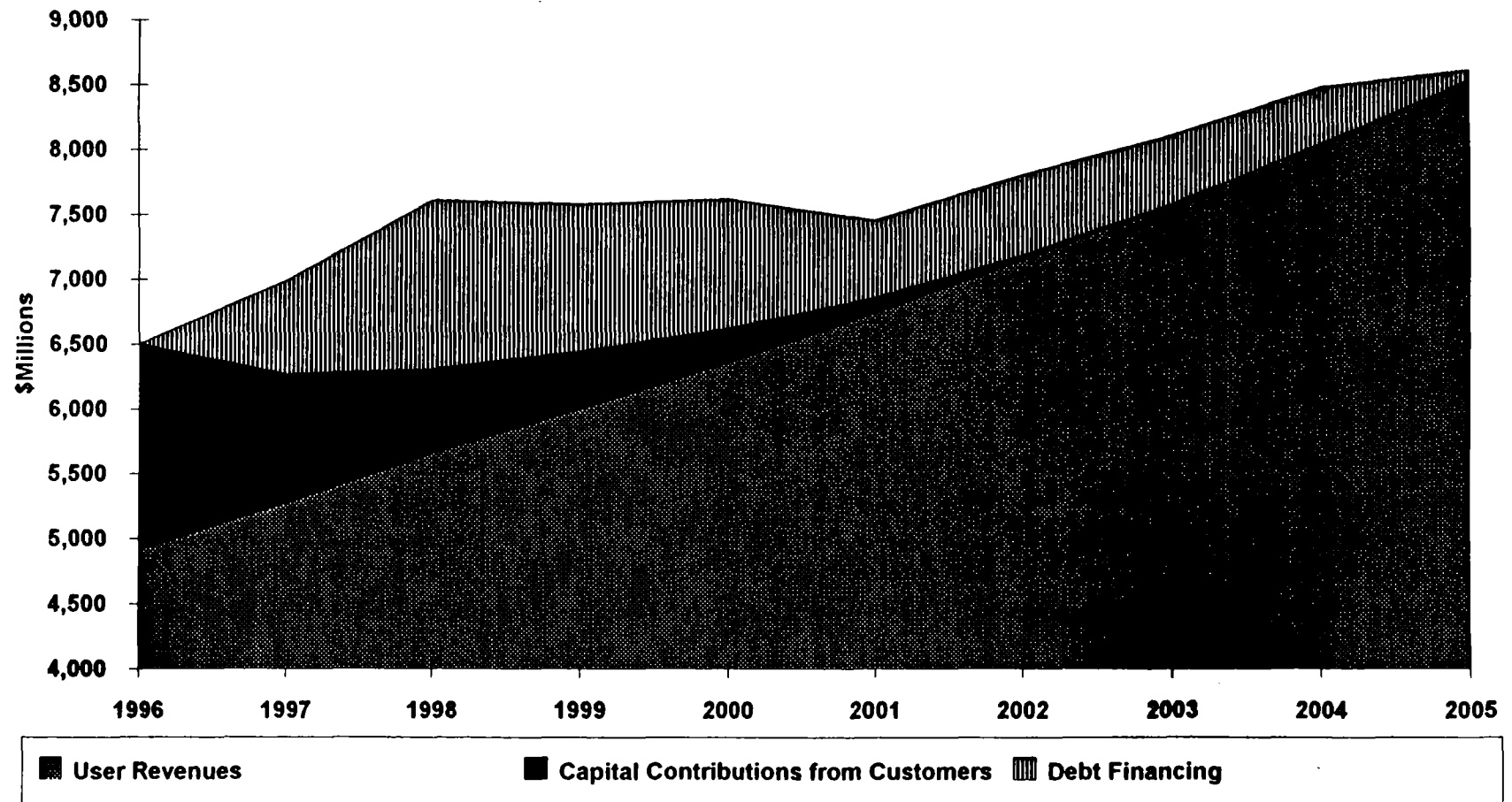


Figure 12-8
ATS CORPORATION - OPERATIONS SUMMARY
Accelerated-Investment Scenario

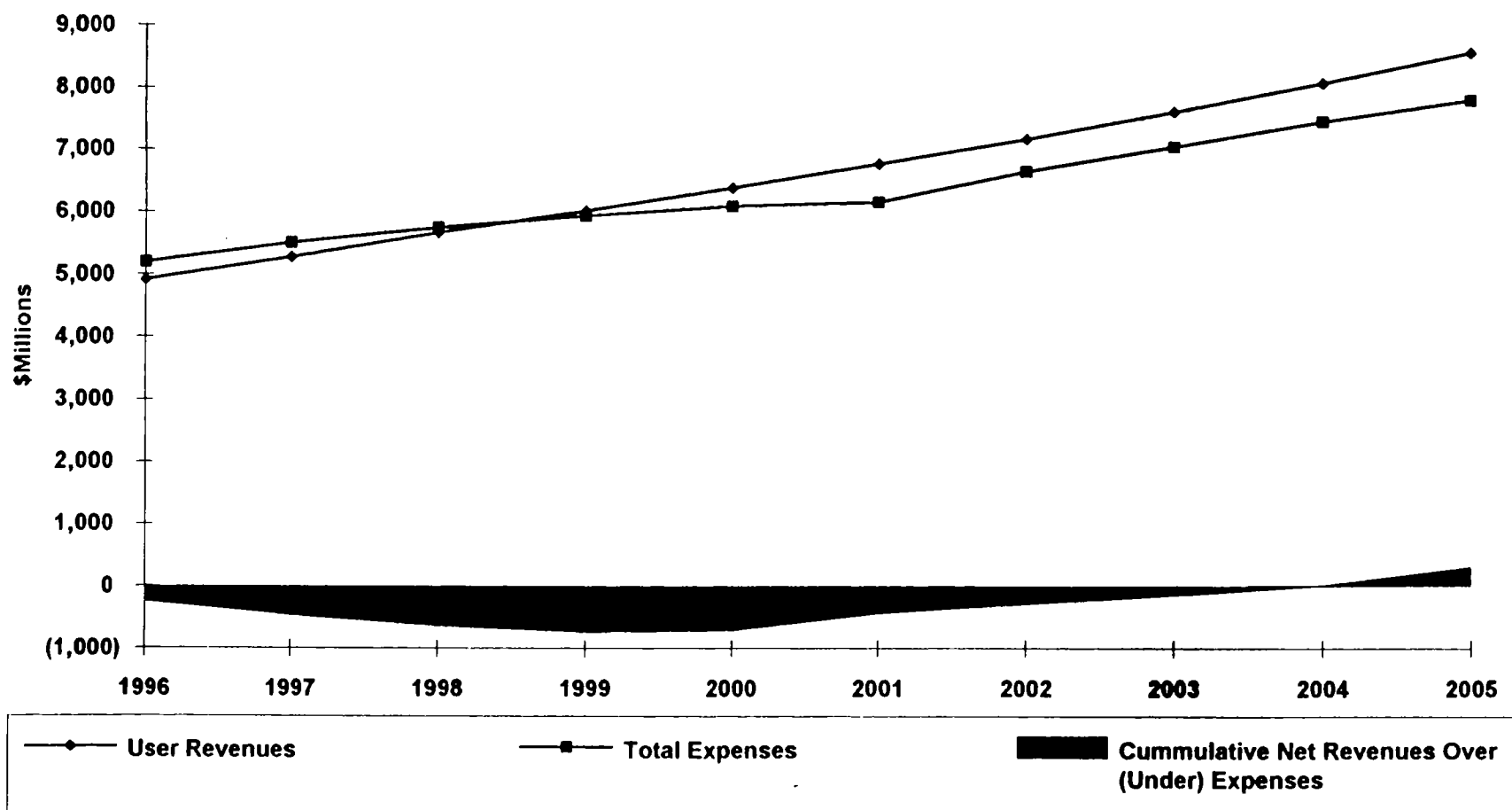


Figure 12-9
ATS CORPORATION - CASH FLOW FROM INVESTING AND FINANCING
ACTIVITIES
Accelerated-Investment Scenario

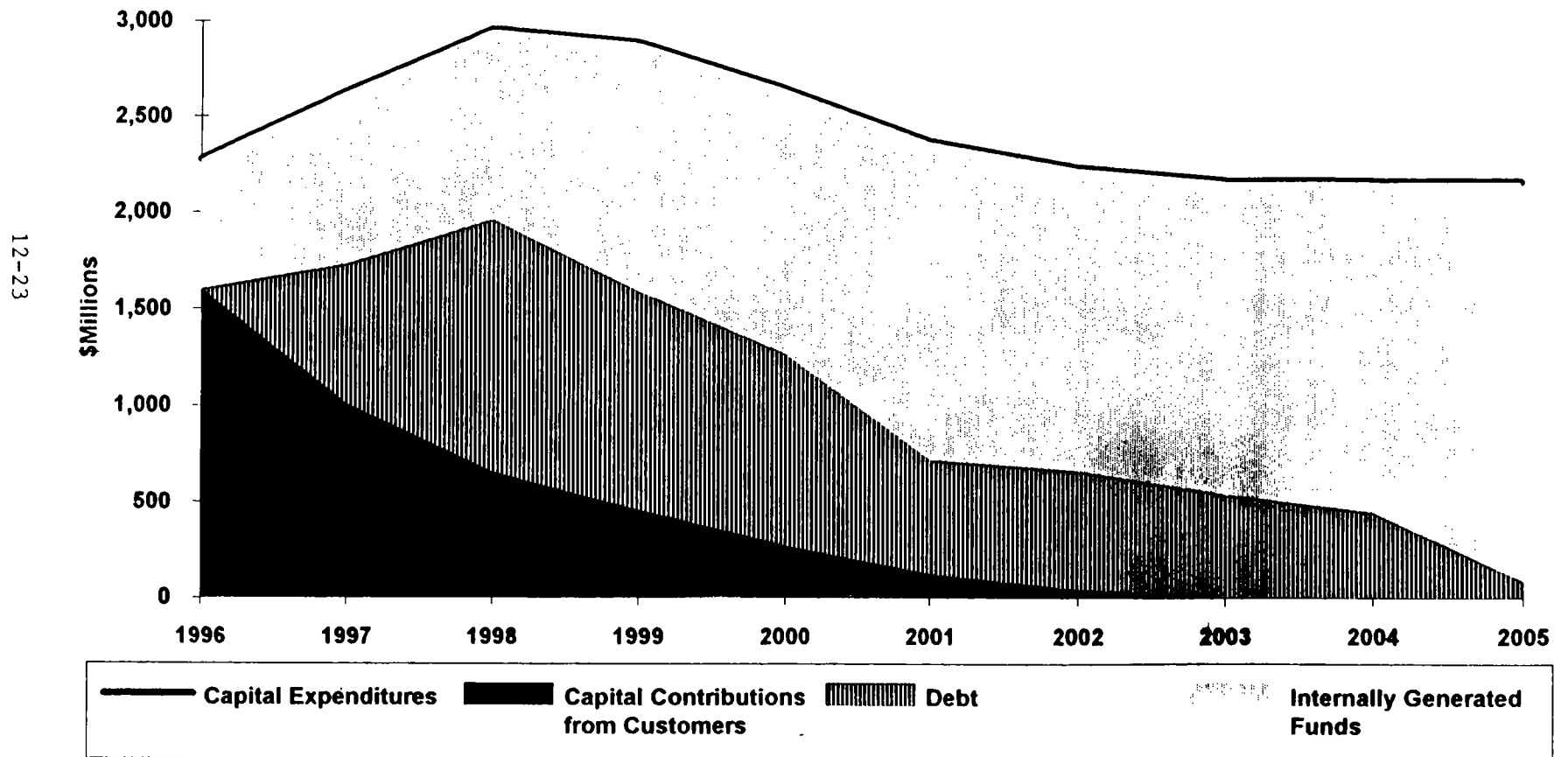


Figure 12-10
REMAINING FAA - SOURCES OF CASH

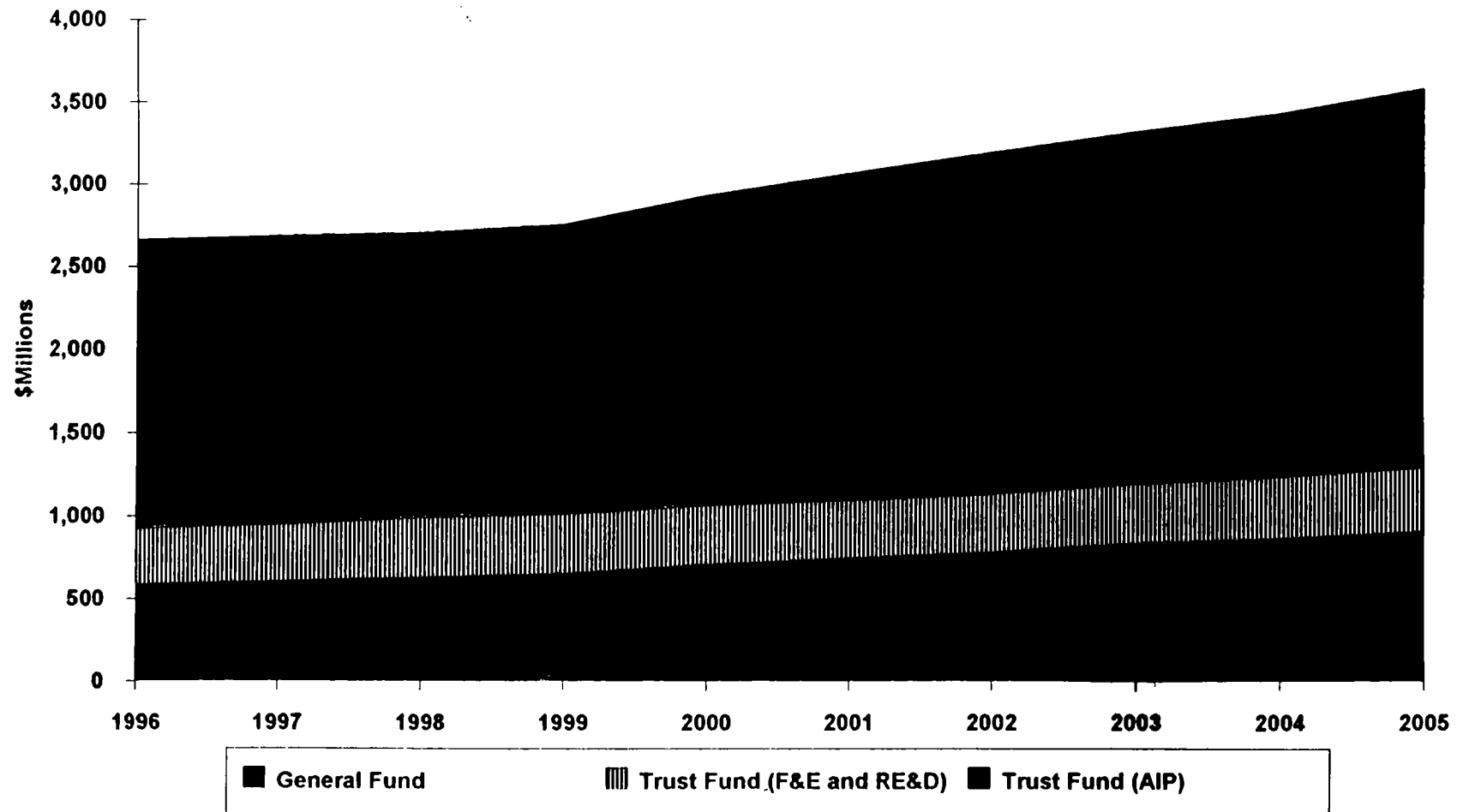


Figure 12-10 shows the sources of funding for the remaining FAA. Current user taxes fund the majority of investment activity with Trust Fund interest and draw down used to fund the remainder. In 2005, the Trust Fund is stable with receipts equal to outlays. Figure 12-11 shows the draw down on the Trust Fund committed and uncommitted balances. The uncommitted balance in the Trust Fund is reduced from about \$4.6 billion in 1999 to \$2.3 billion in 2005.

12.7 Budget Enforcement Act

The above analysis assumes that the ATS Corporation operates with an exemption from the Budget Enforcement Act (BEA) or is determined to be an activity not subject to BEA. At a minimum, the ATS Corporation's spending will have to be reclassified from discretionary to mandatory to allow the reduction in user taxes so that they can be converted to user fees and to allow mandatory spending without appropriations. However, even if this were accomplished, the ATS Corporation would be subject to pay-as-you-go requirements were spending raised above current levels. To achieve this balance of receipts and expenditures, the corporation would be unable to use debt financing and would have to raise user fees if it decided to spend in excess of current levels.

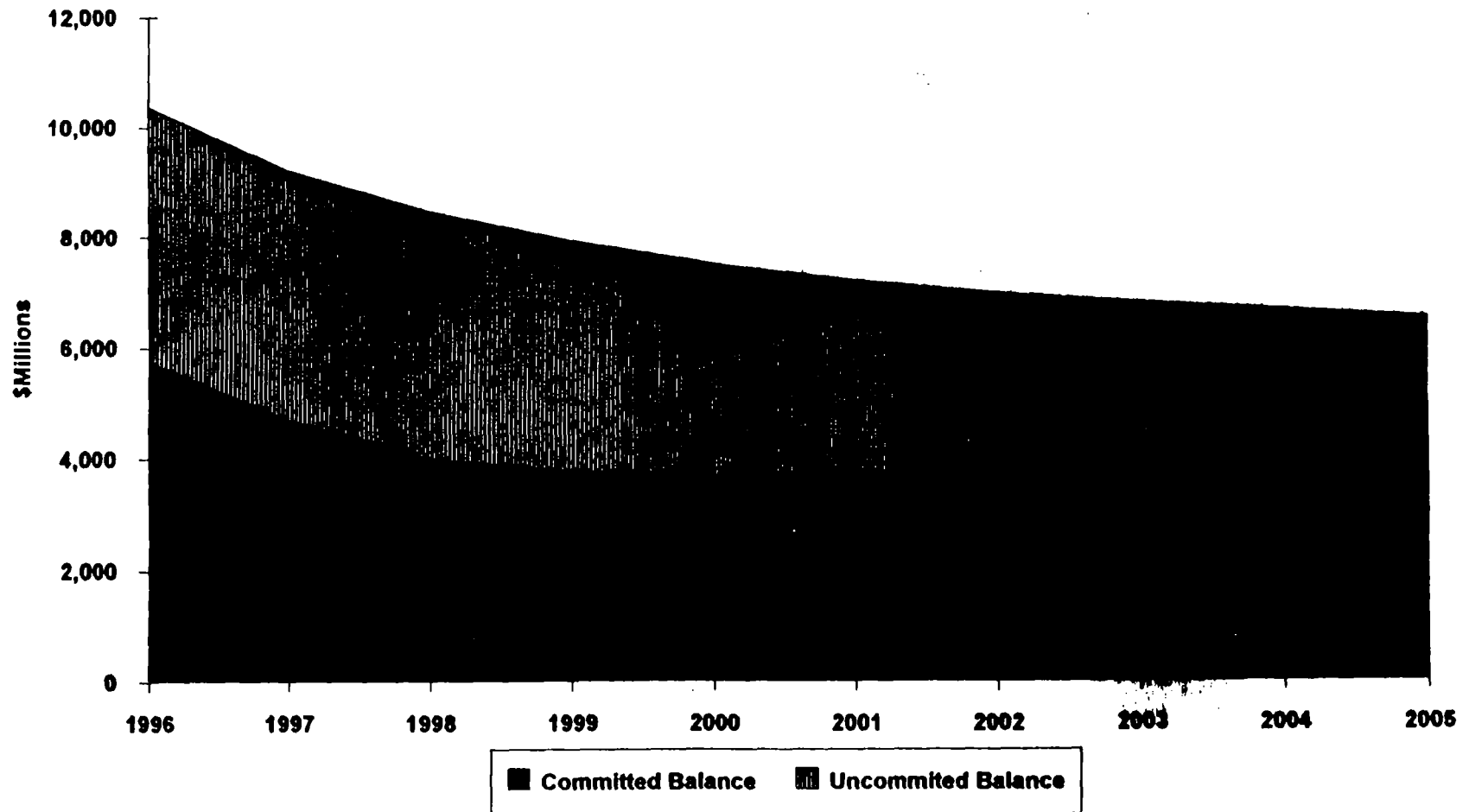
12.8 User Fees

As noted above, the corporation would raise the same or lesser amounts from users as are produced by current aviation taxes. Section 16 below notes that the ATS Corporation would initially convert user taxes to user fees and levy them on the same base and use existing or similar collection means. These fees would be paid directly to the corporation. When permanent fees are established, the Board of Directors of the corporation would evaluate moving to more direct fees that would more clearly reflect the cost of producing ATC services.

The EOC recommends the following user fee policies for the ATS Corporation's air traffic services:

- Fees will be based on the cost of operating, maintaining and modernizing the ATC system;
- For the first year of the corporation's operations, user fees will be fixed at rates equivalent to about 80 percent of the tax rates now in effect for the Passenger Ticket Tax, Cargo Waybill Tax, and the International Departures Tax. These three taxes will be reduced to 20 percent of their current levels with the tax proceeds continuing to be deposited into the Trust Fund. The new user fees will be paid to the ATS Corporation.

Figure 12-11
AIRPORT AND AIRWAY TRUST FUND BALANCES



- After the initial one year period, the Board of Directors of the Corporation will consider the establishment of fees that are more closely related to the costs of providing ATC services, and that conform to other guidance and criteria established in the corporation's enabling legislation;
- The corporation will not levy new charges on the elements of general aviation that make minimal use of the National Airspace System (smaller piston-engine aircraft);
- The rates at which fees are set will be supported by the corporation's financial records, and reflect generally accepted accounting principles;
- Corporation fee levels are subject to disapproval by the Secretary of Transportation.

Figure 12-12 is a comparison of the current aviation taxes with the proposed new aviation user fees/user taxes for the corporation.

12.9 Summary

The ATS Corporation would be able to achieve financial autonomy without General Fund appropriations, one of the EOC's principal objectives in developing the financial restructuring plan for the ATS Corporation. Initially, this can be accomplished without increasing the combination of user taxes and user fees above existing user tax levels. The operating and investment programs of the remaining FAA are also financially stable. In contrast with financing FAA as is done today, the corporation reduces the general fund contribution from about \$22.3 billion to \$6.5 billion over the 1996 to 2005 time period, a savings of almost \$18 billion to U.S. taxpayers as shown in Figure 12-7.¹² The financial analyses also assume that the Trust Fund committed and uncommitted balances are drawn down by about \$13 billion over the same period. The corporation incurs long-term debt of \$6.4 billion by the year 2005. The EOC's recommended financial restructuring of FAA into an ATS Corporation and remaining FAA can be accomplished without increasing the total burden on users.

¹²This is an approximate value. The actual savings depend on assumptions about the shares of future budgets that would be paid for by users and the taxpayer. At present, 50 percent of FAA's operations budget is paid for by general tax revenues.

**COMPARISON OF CURRENT AVIATION TAXES WITH PROPOSED
TAXES AND FEES
(INVESTMENT SCENARIO)**

Current Aviation Taxes	Deposited With	Proposed Aviation User Fees/Taxes	Deposited With
10% Passenger Ticket Tax	Airport and Airways Trust Fund	8.15%	ATC Corporation
		1.85%	Airport and Airways Trust Fund
\$6 International Departure Tax	Airport and Airways Trust Fund	\$4.80	ATC Corporation
		\$1.20	Airport and Airways Trust Fund
6.25% Cargo Waybill Tax	Airport and Airways Trust Fund	5.00%	ATC Corporation
		1.25%	Airport and Airways Trust Fund
General Aviation Fuel Tax - \$.15/gal Avgas	Airport and Airways Trust Fund	\$.15/gal	Airport and Airways Trust Fund
		--	ATC Corporation
General Aviation Fuel Tax - \$.175/gal Jet Fuel		\$.175/gal	Airport and Airways Trust Fund
		--	ATC Corporation

13. INTERNATIONAL ATC ORGANIZATION PRECEDENTS

13.1 Introduction

This section reports on developments in corporatization of ATC services in the international environment.¹ In particular, the United Kingdom, Germany, New Zealand, and Australia have all reorganized how they provide ATC services. In addition, Canada's current deliberations on proposed changes to its system are also discussed.

The EOC and Task Force examined these cases of ATC corporatization to see what results have been obtained, particularly in the areas of safety, efficiency and the ability to modernize the ATC system in a timely manner. Most other countries changed the institutional structure of ATC in order to resolve issues related to acquisition, personnel and financial autonomy. While the scope of the U.S. ATC system dwarfs that in other countries, the EOC concluded that the experience of these countries is highly relevant in pointing out the benefits of institutional reform. Moreover, it is clear that such restructurings have not had any negative effects on aviation safety.

13.2 The Problems That Have Driven Change

Broadly speaking, six major themes characterize the policy debate with varying degrees of emphasis in each national corporation case. These are:

- Safety and the Public Interest;
- Modernization Strategy;
- Management and Human Resources Issues;
- Political and Bureaucratic Separation;
- Financial Autonomy and Self-Sufficiency;
- User Satisfaction.

13.2.1 Safety and the Public Interest

Foreign governments have viewed ATC corporatizations less as a risk to safety than as an opportunity for improvement. Benefits could derive from the professionalization of both ATC and aviation regulation by making these two functions separately accountable and independent of each other. This approach sees safety regulation not as punitive enforcement on an industry otherwise disposed to

¹This section summarizes material in a report developed for the EOC, "U.S. and International Precedents for a Government Corporation," January, 1994.

act unsafely, but as providing positive value to the industry by making its products and services more acceptable to the public. The U.K., New Zealand and Germany have embraced the view that those who provide services should be distinct from those who regulate those services. However, even where there is a strong philosophy to separate regulation from operations, interactions between the two organizations are recognized. In the case of general aviation, there is widespread acknowledgement that full cost recovery from private pilots will either depress the level of GA flying or create disincentives to use fee-based services that improve safety.

13.2.2 Modernization Strategy

The imperative to implement a cost-effective modernization strategy has been an important motivation to change how ATC services are provided in several countries; in some cases it is the primary driver. Particularly in Europe, ATC modernization points to the major issue of inefficiency of investment. The costs of automating the en route system, combined with the desire to maximize local content and customize systems to incorporate the latest technology, has created compatibility issues with neighboring countries and far higher acquisition costs for ATC equipment. High ATC costs have created user dissatisfaction and a willingness to try new institutional approaches. Some countries which have corporatized ATC have been able to modernize ATC technology rapidly and cost effectively.

13.2.3 Management and Human Resources Issues

The ability to manage more effectively--with greater flexibility, accountability, professional independence and responsiveness to customer rather than bureaucratic needs--is cited as a primary motive for exiting the formal government structure. Many countries believe they achieved this outcome. Having greater control over decisions and an independence from unnecessary political influence is seen as a major benefit to establishing an autonomous financially self-sufficient entity for ATC.

13.2.4 Political and Bureaucratic Separation

Social and political pressure can influence an ATC organization to make non-economic decisions about facility closings, locations, and general agency management of foreign ATC organizations. While political factors persist in the naming of board members, most chief executives of foreign ATC organizations seem to have at least informal protection from arbitrary processes. Hiring of senior managers based on professional merit seems to be at least one characteristic of corporatized systems. Procurement decisions by ATC executives seem under no more, and perhaps even less, pressure than those on airlines executives to buy capital equipment from domestic manufacturers.

While day-to-day interventions (particularly from Ministries) have been greatly reduced, Parliaments have continued actively to monitor air traffic management, usually through "Select" committees. The corporations regularly appear before Parliament, and relationships seem to operate directly rather than through Ministries.

It is never possible nor even advisable to separate air safety totally from political lines of accountability. Because of the high public interest in aviation safety, the executive and legislative branches of government must retain oversight of aviation safety. In countries with an independent regulatory authority for ATC, the political lines to government are quite clear. In countries where the ATC entity also regulates safety, there must be linkages to political decisionmakers.

13.2.5 Financial Autonomy and Self-Sufficiency

A central objective of every case of ATC corporatization examined has been to put the overall operation on a pay-as-you-go basis and to eliminate subsidies to the ATC system. Even in countries where hefty user fees already existed, operation of ATC by government typically led to operating the system on a deficit basis. In some cases, one source of this deficit had been the cost of providing services to remote areas. However, where economically unsustainable service is deemed essential for political or social reasons, the government can also compensate the corporation in a businesslike way, by underwriting the costs of specific services. For government users, some countries' ATC organizations bill other departments or levels of government for services. In other cases, the ATC provider receives funds from general government to recover its costs.

Each system studied is expected to make a normal profit, i.e. a return on capital that will at least fund new and replacement investment. The degree and level of financial oversight varies considerably. One issue raised by a self-sufficiency mandate for a monopoly provider is how to handle a business downturn; the corporation must either reduce the costs of providing ATC services or raise rates on decreased volume.

13.2.6 User Satisfaction

Users seem to support corporatization in the countries where it has been established as well as where it is under consideration today. In New Zealand and Australia there have been substantial fee reductions for en route charges. The United Kingdom, too, has seen its high fees fall significantly. In Germany, delays have decreased from what had been very high levels. In Canada, the industry apparently anticipates service improvements and cost reductions and therefore supports the corporatization project.

The primary concern arising from these countries' corporatizations regard policies followed in New Zealand and Australia with respect to taxation and returns

to shareholders' capital. In these two countries, the ATC organizations generate transactional tax revenues and pay corporate taxes on profits and dividends. The Government of New Zealand obtained a total return of 23 percent, leading to objections from airlines that the government has taken out more cash than it put in. It is important to note that these concerns would be moot under the proposed U.S. ATC Corporation, which is defined as a not-for-profit entity.

Nevertheless, regarding the New Zealand case it is also important to note that operators have enjoyed substantially lowered airways fees even as the corporation has enacted its efficient modernization program. Because of this modernization, users can look forward to even lower costs in the future.²

13.3 National Case Studies

This section reviews the experience of some specific cases of ATC corporatization in selected countries. Figure 13-1 provides an overview the key organizational structure dimensions of the ATC organization in the four countries which have corporatized.

13.3.1 United Kingdom

The relevant ATC institutions in the U.K. are the Civil Aviation Authority (CAA) and National Air Traffic Service (NATS). External oversight is provided by the Ministries of Transport, Finance, and Defence; the Monopolies and Mergers Commission (MMC); the Transport Accident Investigations Branch (MOT); and Parliament.

NATS, a joint subsidiary of the CAA and Ministry of Defence, provides air traffic management and ATC services. The CAA is a public, limited liability corporation wholly owned by the government, subject to public utility-type regulation. It is headed by a Government-appointed chairman and a Board of up to 16 members. In addition to technical regulation, the CAA also provides economic regulation. The CAA oversees NATS in the area of safety regulation. If NATS wants to change ATC procedures, it must justify them to the CAA by presenting a formal risk analysis.

CAA and NATS executives seem to have significant authority and responsibility. CAA is directed to achieve financial self-sufficiency, and it resembles corporations operating in the private sector. It relies on user fees to cover capital and

²Airways Corporation of New Zealand recently announced a second reduction in fees for ATC services in the current fiscal year. Aviation Daily, March 23, 1994, p. 463.

Figure 13-1

Organizational Structure of Foreign Corporatized ATC Organizations

	UK	New Zealand	Australia	Germany
Ownership	Government	Government	Government	Government
For Profit Status	Yes	Yes	Yes	Yes
Appointment of CEO	Term	Term	Term	Term
Revenue Autonomy	Yes*	Yes	Yes	Yes*
Fee Structure	Direct Fees	Direct Fees	Direct/Indirect Fees	Direct Fees
Procurement Policies	Ex Post Facto Review	Ex Post Facto Review	Ex Post Facto Review	Ex Post Facto Review
Personnel Policies**	Self-defined	Self-defined	Self-defined	Self-defined
Borrowing Policies	Government Credit Line	Private	Government/Private	Private
Pays Dividends	No***	Yes	Yes	No
Insurance	Private External	Private External	Private External	Private External
Tax Liabilities	Limited	Full	Full	Limited

* Government must approve fee increases.

** U.K., NZ and Germany use some military staff. In Germany they are paid civilian wages.

*** U.K. has put any positive cash, net of depreciation, in special sinking funds.

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operating expenses, and in FY1993 had an income of \$860 million. Total CAA employment is about 7,300, of which about 5,200 serve in NATS. About half of the NATS staff are controllers or controller assistants.

To meet growing demand, NATS has embarked upon a multi-year modernization program that will require increased revenues to cover depreciation; annual capital requirements have expanded more than 500 percent since 1987-88. The CAA recently opened a new area control center to serve London. This includes a \$500 million en route system being designed and installed by IBM. The project is on time and on budget, and the corporation's managers attribute the project's progress to their freedom from government procurement restrictions.

Even so, high capital costs have increased pressure on the organization to become even more businesslike. NATS's services are the most costly in Europe, and the issue of best practice productivity is becoming an increasing concern among users. While CAA and NATS can borrow to finance investment, they are constrained by government borrowing limits. As a result, the government may allow CAA to finance a new ATC facility through borrowing or private markets.³

13.3.2 Germany

The relevant ATC institution in Germany is Deutsche Flugsicherungs GmbH (DFS). Oversight is provided by the Ministry of Transport (MOT) and by Parliament. The DFS only recently replaced an autonomous government authority within the MOT, so it is difficult to draw conclusions about the organization's performance.

Strong military demand, considerable overflights, and very strong growth in commercial movements created a congested airspace that is complex to manage. Budgeting problems have meant that the large investment program needed was implemented sporadically. Aviation needs in Germany tend to be subordinated to highways and rail. Controller morale suffered and delays led to massive demands to change the system.

The DFS was established as a limited liability company with the government as the lone shareholder. The Minister of Transport staffs the "Owner's Assembly." The chief executive has a fixed term but can be removed by the oversight bodies. There is also a Management Board of Senior Executives and an "Advisory Committee" with participation from the work force.

The DFS has increased salaries over civil service wages for most controllers, but employees no longer receive civil service benefits. The newly private controllers have also gained the right to strike. The change in employee status for ATC controllers was

³The U.K. Department of Transport may announce a plan to privatize its ATC services according to a recent report. Flight International, March 9 - 15, 1994, p. 8.

a driving force for corporatization in Germany. There was a conscious effort to increase salaries in return for increased controller productivity.

The DFS is required by law to recover its full costs from users. However, general aviation aircraft with gross weights below 4,400 pounds are exempt from user fees. The DFS has responsibility for its own investment program and can borrow in the capital market. The government retains a central role in oversight and coordination, including rates charged. German ATC user fees are among the highest in Europe, though they are still below those in the U.K. Delay rates in 1992-93 have been reduced from the very high levels in previous years. Increased controller productivity has been cited as the principal force leading to reduced delays.

13.3.3 New Zealand

The relevant ATC institution in New Zealand is the Airways Corporation of New Zealand (ACNZ). Oversight is provided by the Civil Aviation Authority (CAA); Ministries of Transport and Finance (Treasury); the Transport Accident Investigation Commission; Crown Company Monitoring Unit; External Advisors State Owned Enterprises (SOE) Steering Committee; and Parliamentary committees.

The NZ CAA is a public corporation whose Board and Chief Executive are appointed by the Minister of Transport. NZ CAA relies on indirect user and registration fees to fund its safety regulatory activities. An independent state-owned enterprise (SOE), the ACNZ provides ATC services and leads a modernization program. It relies on direct charges from commercial users to fund the ATC system, and a system of an annual fee from general aviation.

The ACNZ is a limited liability company wholly owned by the government. It has a total staff of 656, of which 70 percent are controllers. ACNZ's parent ministry is Finance, not Transport. Its Chairman and Board are appointed by the Finance Minister, and the Board names a CEO. NZ users lack direct control of the corporation, but do enjoy strongly articulated formal rights of consultation.

ACNZ determines its own levels of staff compensation and can procure goods and services based on its own criteria. It can borrow only on the open market, and pays all New Zealand taxes. ACNZ's rate of profit is not subject to formal regulation.

ACNZ is highly focused on productivity, which has risen dramatically in recent years as the modernization process has been executed. User charges have fallen equally dramatically, a 15 percent discount for instrument flight rules en route service was announced in mid-March, and profitability has been strong, \$5.1 million for the six months ending December 31, 1993. Overall, ACNZ has demonstrated excellent efficiency of investment. Not only was the modernization process carried out in a

cost-effective way, but it was done while simultaneously lowering charges and improving profitability.

13.3.4 Australia

The primary relevant institution in Australia's ATC system is the Civil Aviation Authority (CAA). Oversight is provided by the Ministry of Transport and by Parliament.

The Australian CAA is based on the British model, with economic and technical regulatory functions under one government business enterprise (GBE). DOT retains broad policy oversight functions. When CAA was established Australia's airports were simultaneously placed under a separate Federal Airports Corporation, allowing user fees to go directly to the organizations providing service.

CAA may borrow in private markets, and it faces the same tax exposure as a private corporation. Most of the CAA's revenues come from service fees, with the remainder from a GA fuels tax and inspection and audit fees. Revenues cover 77 percent of estimated costs in the current fiscal year.

Costs have fallen 18 percent since 1990, and staff has been reduced by 32 percent. In addition the number of ACCs has been reduced from five to two. Local managers have more authority, such as the ability to control procurement using decentralized operating budgets.

ATC charges have fallen 37 percent in real terms since 1988, though they remain high by regional standards. The CAA expects to earn a profit of A\$40.8 million this fiscal year. Overall, the government, CAA employees, and users are pleased with the CAA's results and expect further cost reductions.

13.3.5 Canada

Transport Canada is examining the corporatization of ATC on a self-sustaining basis with direct user fees.⁴ The current system operates at a deficit. Canada is closely following U.S. reform efforts and has a history of good cooperation with FAA.

Currently, the Air Navigation Service of Transport Canada operates as a public service similar to ATC in the U.S., with indirect user fee recovery. Canada hopes to gain operating cost savings from reform, as well as to deal with political intrusion in

⁴Canada recently announced that it will hold public consultations on reorganizing ATC. The Globe and Mail (Toronto), March 12, 1994.

decisionmaking, inefficient procurement practices, problems imposed by the annual budget process, and work force morale and management issues.

Canada appears to favor a wholly-owned government corporation free to set pay scales and to invest, borrow, procure equipment and bill customers similarly to public utilities. Government would retain responsibility for regulation, accident and incident investigation, airspace policy, international coordination, R&D, and non-self-sufficient services that are in the national interest. En route charges could replace the ticket tax. Some cross-subsidization of GA may be necessary, along with a gas tax.

The Air Transport Association of Canada, the Canadian Air Traffic Controllers Association, the Canadian Airline Pilots Association and the Canadian Business Aircraft Association are jointly proposing a private non-profit organization. A final decision is expected in the Fall of 1994.

13.4 Conclusions

While great differences exist among the countries examined in this section, foreign ATC reorganizations have addressed many issues similar to those now faced by the U.S. This study found overall public and political support for the changes made in foreign ATC organizations. While the experience in each country differs somewhat, ATC corporatization in other countries has led to reduced fees, improved services and more rapid modernization of the ATC system.

In outreach sessions with representatives of foreign aviation authorities and ATC providers, not one suggested that there was interest within their countries to step back from ATC corporatization. Most countries have achieved many of the improvements sought from corporatization. Overall, the examples of successful ATC corporatization in foreign countries (and the interest in this form in several others), show that it can resolve many of the problems similar to those the U.S. now faces. Most importantly, there is no evidence that ATC corporatization has had any negative effect on safety. In fact, during the outreach with foreign ATC organizations, a number of countries indicated that safety had been improved through corporatization because it has facilitated more rapid modernization of ATC.

14. U.S. PRECEDENTS FOR A GOVERNMENT CORPORATION

14.1 Introduction

This section examines various existing U.S. Government corporations to determine how they are structured and managed, and how effectively they function. The EOC, Task Force and Working Groups reviewed the experience of existing U.S. Government corporations to determine the attributes which have led to successful government corporations. In addition, the study group wanted to identify what limitations the other government corporations operated under. This review was used to structure the EOC recommendations for the ATS Corporation. Five major areas analyzed are governance, external oversight, financing, personnel and procurement.

This section broadly discusses the 45 entities identified by the Government Accounting Office (GAO) in its *Report on Government Corporations* (1988)¹, and examines the following seven organizations in detail:

- St. Lawrence Seaway Development Corporation (SLSDC);
- Tennessee Valley Authority (TVA);
- U.S. (Uranium) Enrichment Corporation (USEC);
- National Railroad Passenger Corporation (Amtrak);
- United States Postal Service (USPS);
- Federal Reserve System;
- Metropolitan Washington Airports Authority (MWAA).

Figure 14-1 shows the key organizational aspects for the above government corporations and for the proposed ATS Corporation. As can be seen, the ATS Corporation fits within the range of current practice for government corporations.

14.2 Definition of a Government Corporation

Government corporations are federally chartered entities that produce revenues and conduct business-type activities that are of national importance. Users generally pay for the majority of the costs of the corporation and thus the focus of government corporations is usually on the ability to generate revenue.

¹The GAO report included all entities established, created, or authorized by the Congress to operate as corporate entities. In particular, this includes all corporations identified in the Government Corporation Control Act (GCCA) and other corporations identified elsewhere in the U.S. Code which are subject to any provisions of the GCCA.

Figure 14-1

COMPARISON OF GOVERNMENT CORPORATION PRECEDENTS AND THE ATC CORPORATION

Entity	Ownership	Profit Status	Board	Financing	Personnel	Procurement
St. Lawrence Seaway	Wholly	Non-profit	Advisory	Tolls and appropriations	Federal rules	Federal rules
TVA	Wholly	Non-profit	Directors	User fees and appropriations	Generally Exempt	Exempt except Brooks
USEC	Wholly	For-profit	Directors	User fees	Exempt	Exempt
Amtrak	Mixed	For-profit	Directors	User fees and appropriations	Exempt	Exempt
USPS	Independent	Non-profit	Governors	User fees and appropriations	Exempt	Exempt
Federal Reserve	Independent	Non-profit	Directors 3 Advisory	User fees and interest income	Exempt	Exempt
MWAA	N/A	Non-profit	Directors	User fees and grants/bonds	Exempt	Exempt
Recommended ATC Corporation	Wholly	Non-profit	Directors	User fees/ debt	Exempt*	Exempt

* The no-strike provision would be retained.

While they have a number of common features, no two government corporations are the same. Some corporations are subject to Federal procurement and personnel regulations; others are exempt and have developed their own systems. Some are completely self-financing; others rely on appropriations. The majority of government corporations provide banking or insurance services. Two corporations provide transportation services: Amtrak and the St. Lawrence Seaway Development Corporation. Figure 14-2 contains a profile of the 45 government corporations included in the 1988 GAO study.

The National Academy of Public Administration has identified attributes that justify establishing a government corporation. Key among these are that government deals with the public as a business rather than as a sovereign, and that users, rather than taxpayers, are expected to pay the costs of providing services. A government corporation is suited to certain situations because it allows more flexible, businesslike operation, financial control and planning than typically is possible within a government agency. A government corporation also can allow the development of acquisition and personnel systems that are tailored to the needs of the entity and which differ from those used in government departments. The EOC believes that FAA's air traffic control functions fit well within the accepted definition of activities which justify the establishment of a government corporation.

14.3 Benefits/Risks of a Government Corporation

Some generalizations can be made about the nature of the benefits and risks associated with the government corporation form. Among the benefits are:

- Potential financial control and independence;
- Ability to create efficiency incentives;
- Ability to design procurement and personnel requirements;
- Longer tenure of top management likely;
- Reduced political interference.

Risks include:

- Ability to be sued;
- Requirement to indemnify;
- Potential loss of adequate oversight.

However, government corporations do not always avoid certain problems often found in government agencies, such as micromanagement, dependence on appropriations, inefficiency and unresponsiveness. The existing government corporations note that the enabling legislation for the entity is particularly important in determining the degree to which it is subject to these problems. Generally, those

Figure 14-2

Summary Profile of Government Corporations

In 1988, the Government Accounting Office (GAO) prepared organizational, financial and legal profiles of 45 corporations authorized or established by the Congress. It prepared the following summary of key attributes.

<u>Legal Status</u>	<u>Number of Corporations</u>
Wholly government-owned	14
Mixed ownership	7
Other	24
<u>Purpose of Corporation</u>	
Banking-related	10
Education-related	3
Farm-related	9
Housing-related	6
Industrial-related	8
Investment-related	3
Other	6
<u>Budget Status</u>	
On budget	5
On budget, and subject to Government Corporations Control Act	16
On budget, but funds provided through related agency	6
On budget, but excluded from budget totals	8
Excluded from budget	10
<u>Agency Status</u>	
Subordinate to federal government agency	9
Independent federal agency	8
Not specified in enabling legislation	16
Not an agency or establishment of the federal government	12
<u>External Financial Audit Requirements¹</u>	
Audit required by GAO	15
Audit required by independent public accountant	17
Audit required by GAO and independent public accountant	12
No audit requirement	1
<u>Government Investment</u>	
Yes	30
No	10

¹ Subsequently modified substantially by the Chief Financial Officers Act

corporations which are structured to be more independent of traditional government processes encounter fewer problems.

14.4 Ownership of Government Corporations

Regarding ownership, government corporations can be divided into three major categories: wholly-owned, mixed-ownership, and private and others.

Wholly-owned corporations exhibit the closest relationship to the President and Congress. They have assets solely owned by the government and are managed by a Board or Administrator appointed by the President or a Cabinet Secretary. They pursue a governmental mission and may be capitalized by appropriations. Wholly-owned government corporations generally try to operate on a self-sustaining basis and recover the costs of operations through user charges.

Mixed-ownership government corporations are part private and part public. They have assets owned by both government and the private sector. The management structure is similar to a wholly-owned corporation but has more constituent representation and maintains more political independence.

Private or other types of corporations include a variety of organizations created by the Federal Government. For example, it includes government-sponsored enterprises which have been defined as privately-owned, federally chartered financial institutions with nationwide scope and limited lending powers that benefit from an implicit federal guarantee to enhance its ability to borrow money. The U.S. Postal Service is listed under the "other" category since it is not technically a government corporation. However, it behaves and has the characteristics of a wholly-owned, independent government corporation.

Of the 45 entities profiled by the GAO, 14 were wholly-owned, 7 were mixed-ownership, and 24 were private or other (including government-sponsored enterprises, or GSEs). Nine of the entities are housed in government agencies, and all of these are wholly-owned corporations. Six are explicitly for-profit organizations, and all but one (Amtrak) are classified as under private or other ownership. Typically, mixed- and wholly-owned government corporations are not-for-profit entities.

Few examples of mixed-ownership corporations exist in the U.S. Also, according to the GAO report, no mixed-ownership corporations have a parent agency, and no wholly-owned government corporations are for-profit (USEC became a corporation in 1993 and is the lone example of a wholly-owned, for-profit government corporation, though it is in the process of being privatized). The USPS is the only current government corporation that began as a large government agency, as is now proposed for FAA. Though not explicitly a for-profit entity, the USPS has

accomplished the financial objective set by Congress, to become self-sustaining. This financial stability has been achieved largely through significant cost reductions, and despite continuing problems, the USPS is now more efficient than its federal predecessor.

14.5 Governance

For all types of government corporations, the enabling statutes provide for either a single administrator or a Board of Directors, usually appointed by the President of the U.S. or a Cabinet Secretary. Proponents of government corporations believe that Presidential appointment protects the public interest.

Most of the corporations' Board members are appointed to fixed terms, and several have Boards that are required to have representatives from certain constituencies or other interested parties. The existence of an Advisory Board is perceived to enable external oversight of corporate activities, but a Board of Directors is viewed by some as having the potential for undue micromanagement.

14.6 External Oversight

External oversight by Congress and/or the executive branch is another issue handled differently among government corporations. Overall, the relationship between a corporation and Congress is largely dependent on the method of financing the corporation. Corporations funded by appropriations generally have more oversight. Even without appropriated funds, Congress can exercise control through specific statutory language. The GAO audits most government corporations and comments on their financial condition, as specified in the corporation's enabling legislation.

Besides influencing government corporations via funding or direct statutory control, another common approach to external oversight is a requirement of periodic reports to Congress on the corporation's operations.

14.7 Methods of Funding

The major problem government agencies face is the unstable and unpredictable budget process through which an agency must compete for general treasury revenues. In contrast, government corporations have a variety of financing mechanisms available. These include:

- Earning revenues from fees;

- Borrowing from the Treasury;
- Borrowing funds directly, based on the guarantee of future revenue streams;
- Receiving money from Congress through the appropriations process.

The method of financing government corporations varies among corporations with respect to the degree of self-sufficiency, level of appropriations, ability to use debt, and profit motive. Users generally pay the majority of the costs of a government corporation while appropriations are generally provided for non-revenue-producing activities or to offset losses. A limited number of corporations are chartered to be profit making.

The Government Corporation Control Act requires wholly-owned corporations to submit to Congress a business-type budget as prescribed by the President. These budgets contain estimates and a statement of financial condition. Most wholly-owned government corporations are on-budget.

Overall, the main issue for government corporations regarding financing is to what extent a corporation's revenues and borrowing authority permit self-sufficiency.

14.8 Personnel

Government corporation employees are usually considered to be employees of the U.S. and subject to civil service rules. To the extent that a corporation's mission differs from other government agencies, corporations are generally exempt from government personnel regulations. If the work is comparable to that of other federal departments, civil service rules are likely to apply. Employees of mixed-ownership and other types of government corporations are generally not subject to civil service rules; instead these entities develop their own personnel systems.

The primary goal in developing any personnel system is to have the ability to attract and retain qualified employees. The major problem that federal agencies often face is the existence of arbitrary personnel ceilings, civil service requirements and procedures, and the lack of competitive pay that can make it difficult to attract a talented and technically sophisticated work force.

14.9 Procurement

The cumbersome Federal procurement system is designed to prevent fraud and meet other social objectives, but instead often leads to barriers to the timely and efficient acquisition of sophisticated and rapidly evolving high technology goods and services. Enabling legislation determines whether Federal procurement regulations

must be observed in a government corporation. Even if a corporation is not required to follow the regulations, most organizations establish contracting procedures to assure that the benefits of competition are retained.

14.10 Summary

As mentioned earlier, no two government corporations are the same, and an ATS Corporation would also be unique in that there would be no directly comparable U.S. Government corporation. ATC also is in the unique position of having public safety as a paramount concern; in other government corporations, except for Amtrak and the Saint Lawrence Seaway Development Corporation, it is a peripheral issue.

Government corporations are not a panacea. Problems in federal agencies can also be found in government corporations, and benefits of government corporations can be found in federal agencies. In general, a government corporation is most successful if the entity has a commercial function and can produce revenues. Government corporations are least successful when their fees are not related to the costs of providing services.

On the whole, the experiences of existing government corporations in the U.S. show that this form of organization can be used to provide for the more businesslike delivery of services. In all cases, the composition and wording of a corporation's enabling legislation is key to developing a successful organization.

15. REVIEW OF PAST STUDIES

15.1 Introduction

The EOC and the Corporate Assessment Task Force reviewed many prior studies on FAA and ATC restructuring to broaden their perspective and gather all available information. Thirteen studies or reports from 1985 to 1993 were formally reviewed, as listed in Figure 15-1 and included in a report to the EOC. The past studies have emphasized nine major problem areas:

- Budget Process/Program Planning;
- Revenue Generation;
- Continuity of Leadership;
- Organizational Culture;
- Personnel;
- Procurement;
- External Oversight;
- Conflicting Goals and Objectives; and,
- Technology/Operational Performance.

The areas discussed in each report are shown in Figure 15-1 and are briefly discussed in the following sections.

15.2 Report of the National Performance Review

The September 1993 National Performance Review, chaired by Vice President Gore, covered the operations of the entire Federal Government. Recommendations in *From Red Tape to Results: Creating a Government that Works Better and Costs Less* are organized into four areas: Cutting Red Tape, Putting Customers First, Empowering Employees to get Results, and Cutting Back to Basics. The NPR recommended that government take four specific steps in putting customers first, including Creating Market Dynamics. In the discussion of Creating Market Dynamics, the report specifically recommends that FAA be restructured.

The NPR proposes to "restructure the ATC [system] into a government-owned corporation, supported by user fees and governed by a board of directors that represents the system's customers. As customer use rises, so will revenues, providing the funds needed to answer rising customer demands and finance new technologies to improve safety. Relieved of its operational role of the air traffic control system, the FAA would focus on regulating safety." (p. 61) The NPR states "the FAA ATC system is constantly hamstrung by budget, personnel, and procurement restrictions." (p. 60) and that the ATC system needs to have access to capital markets to modernize technology.

Figure 15-1

PROBLEM AREAS COVERED IN PRIOR STUDIES

Report	Budget Process / Program Planning	Revenue Generation	Continuity of Leadership	Organizational Culture	Personnel	Procurement	External Oversight	Conflicting Goals and Objectives	Technology / Operational Performance
National Performance Review	X				X	X			X
National Commission Report	X	X			X	X			X
Reason Foundation	X	X	X	X	X	X	X	X	X
Federal Managers Association			X		X	X		X	X
Phaneuf Associates Incorporated	X	X	X			X			
National Research Council	X	X	X	X	X	X	X	X	
Office of Technology Assessment	X		X	X	X	X	X	X	X
OST/FAA Working Group	X				X	X		X	X
Aviation Safety Commission	X		X	X	X	X	X	X	X
Kenneth M. Mead	X				X	X			X
Apogee Research, Inc.	X	X	X	X	X	X	X	X	X
National Academy of Public Administration	X	X		X	X	X	X		X
Air Transport Association	X	X			X	X			

See Figure 15-2 for the full names of the reports.

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15.3 National Commission to Ensure a Strong Competitive Airline Industry Report

The National Commission to Ensure a Strong Competitive Airline Industry, created in 1993, investigated and made policy recommendations about the financial health of the U.S. airline and aerospace industries. The National Airline Commission's membership included experts in aviation economics, finance, international trade and related disciplines representing airlines, passengers, shippers, airline employees, aircraft manufacturers, general aviation and the financial community. The National Airline Commission reviewed a broad range of aviation matters. Its recommendations, delineated in *Change, Challenge and Competition: A Report to the President and Congress*, are organized into three general areas: efficiency and technological superiority, financial strength and access to global markets. The first area includes a specific recommendation to restructure FAA.

The National Airline Commission report, issued in August 1993, recommends that FAA be established as an independent government corporation and removed from the Federal budget process:

"The FAA must be reinvented. The new structure of FAA must be designed to produce a stable and predictable source of funds and to allow that funding stream to be leveraged to finance strategic capital investments, as well as a regulatory system that is cost-effective, enhances safety and efficiency and does not impede the ability of the industry to manage its affairs." (p. 2)

The National Airline Commission report recommends that the FAA government corporation be created within the Department of Transportation to manage and fund ATC and related functions, including system development, procurement and maintenance. However, the Commission states that policy control of the ATC system and safety oversight should stay with the Federal Government.

Specifically, the Commission report recommends that the ATC Corporation be based on the following principles:

- Ability of the corporate entity to create and use a predictable, stable source of revenue for operations, maintenance and capital investment;
- Ability of the corporate entity to issue long-term bonds for capital purchases;
- Removal of current expenditures and revenues from the Federal budget in equal amounts for a fiscally neutral effect;
- Sufficient management flexibility to create systems for procurement, staff and budget consistent with the best practices in the private sector;

- Flexibility in a orderly transfer of operating functions to the reorganized entity; and,
- Continued ATC service to the Department of Defense, meeting national security requirements.

15.4 How to Spin Off Air Traffic Control--The Reason Foundation

Report author Robert Poole believes that air traffic control in the United States should be assigned to a government corporation. His August 1993 paper analyzes the need for a change, cites the success of ATC corporatization overseas, shows how such a corporation could work in the United States, emphasizing that workable user fees could be developed and safety adequately regulated, and proposes a specific plan.

The author proposes the creation of a federally chartered U.S. Airways Corporation. He describes it as follows:

"All current ATC-related staff, facilities, and equipment would be transferred to the new corporate entity. It would have a corporate charter and a normal corporate board of directors, with initial members appointed by the President and Congress, but with subsequent membership determined by the company itself. ... Initially, 100 percent of its shares would be held by the Federal Government, though possible user ownership... and/or investor ownership... should not be ruled out. The company would operate on a fully self-supporting, though not explicitly for-profit basis." (p.25)

The FAA would retain all other functions, including airport grants and safety regulation.

15.5 A Proposal for a Restructured, Independent Federal Aviation Administration, The FAA Conference of the Federal Managers Association

This proposal was made in June 1993 by a group of Federal managers who believe that the key to improving FAA is reorganizing it to allow more focus and stability. The report recommends that FAA's functions be limited "to oversight and regulation of the safety-related responsibilities associated with aviation. All non-designated responsibilities and functions should be reassigned" to the Department of Transportation. (p.4) The proposal is not specific about what functions would be reassigned, although it does state that operating the ATC system would continue to be an FAA responsibility.

The major reforms proposed here involve management and financing; they include:

- Presidential appointment of the FAA Administrator for a fixed five-year term. The Administrator would report directly to the Secretary of Transportation, who would report annually on his or her performance to Congress. (p. 5)
- Creation of an "advisory board of directors to assist in determining the scope and mission of the organization." (p.5) Members would be appointed in equal numbers by the President, Congress and the Secretary of Transportation and would represent "the various aviation organizations, employee groups, private industry, and organizations representing the public sector." (p. 6)
- The restructuring of "headquarters, regions and facilities ... to eliminate duplication, micromanagement and unnecessary staff." (p. 7)
- The establishment of "an office of procurement, with direct reporting relationships to the FAA Administrator." (p. 9) This office would have "financial control of all programs under development." (p. 9)
- FAA to "be supported by revenues from all segments of aviation" through fees collected "on a direct-benefit basis...based upon the use of the systems, frequency and level of services provided...placed in a public corporation account of the organization for the specific and restricted use of the FAA." (p. 8)

15.6 A Review of Federal Aviation Administration Financial and Acquisitions Systems, Phaneuf Associates Incorporated (PAI)

This review prepared for the National Aviation Associations Coalition considers alternatives for the finance and acquisitions systems of the FAA. Primary research was conducted in the form of interviews with FAA officials, representatives of aviation trade associations, contractors and consultants. The research team consisted of individuals with managerial experience in the FAA.

Although no recommendations are made, alternatives for acquisition and finance systems are reviewed. Among the finance alternatives examined are special treatment under budget agreements and/or Gramm-Rudman-Hollings sequestrations, additional RE&D funding, and increased support for both additional airport grants via "job bills" and operations funding. Acquisitions alternatives considered include legislative change, especially as relates to both the Brooks Act and the Competition in Contracting Act (CICA). The report shows by example how the acquisition of replacement hardware for the ATC system can easily take seven years or more from initial authorization of funds to final delivery. The major issues relating to future

prospects for the FAA as reported by PAI in this report are the continuity of leadership, financing, the acquisitions process, and the general autonomy of the FAA.

15.7 *Winds of Change: Domestic Air Transport Since Deregulation*, Transportation Research Board

Late in 1988 the Governing Board of the National Research Council approved a two-year study of the air transport industry since deregulation. *Winds of Change*, issued in 1991, cites three basic choices for organizational reform, ranging from fully public to private models. The report concludes, only a public corporation "would provide the authority and discretion needed to improve operational performance without severing links between regulatory and operational functions, which may compromise safety. The [Committee for the Study of Air Passenger Service and Safety Deregulation] recommends a publicly mandated study of change in the organization of the FAA by an independent group or organization that focuses on the relative merits and drawbacks of [assigning the ATC functions of the FAA or converting the entire FAA to a public corporation], with a report to the President and Congress within 2 years after the study gets under way." (p. 307).

Appendix B of this report provides an extensive review of various organizational forms and recommends that the entire FAA be converted into a public corporation. This section was not included in the main body of the study, however, because some of the Committee members did not share its conclusion. It stated that the year-to-year funding style of the Federal Government, as well as the short tenure of agency heads, impeded long-range planning. Further, numerous and serious shortcomings in the Civil Service laws were noted. The study also states "the case can be made that an organizationally separate regulatory overseer of ATC would enhance safety because it would not be faced with the same pressures to make compromises." (p. 349) In summation, the report stated the FAA "needs an organization whose values will continue to emphasize conservatism when it comes to the safety of aircraft operations, while seeking innovation and dynamism in responding to industry and technology changes. That can best be achieved by a change to a corporate-type entity." (p. 337)

15.8 *Safe Skies for Tomorrow: Aviation Safety in a Competitive Environment*, U.S. Congress, Office of Technology Assessment

This July 1988 report provides a broad overview of the status of aviation safety. The most relevant information on FAA structure and issues is in Chapter 1 (Summary) and Chapter 3 (Regulatory and Institutional Framework).

Safe Skies suggests that "Congress may wish to identify safety as FAA's sole and unique responsibility, especially for ATC and regulatory programs. Responsibility

for fostering economic development of the industry could be returned to the Secretary of Transportation." (p. 65) In addition, "OTA concludes that FAA's functions cannot be separated into regulatory and operating (ATC) components without diminishing the effectiveness of the entire system. Furthermore, without more emphasis on system safety at the very top, FAA agency-wide problems that have hampered the organization's capabilities are likely to continue." (p. 6)

The report uses as an example of the slow Federal process the fact that FAA did not become adequately staffed to handle the new entrants to the airline industry associated with deregulation until 1984, at which point the industry had entered a period of consolidation. Further, the report states "ATC system renewal has moved at glacial speed, slowed by inadequate system planning, technology development difficulties, and administration and congressional budget decisions." (p. 7)

15.9 Report on Independent ATC Corporation, Department of Transportation Working Group

The focus of this April 1988 study is the organizational options for restructuring the FAA and not on the definition of any problems with the existing FAA organization. However, the report notes five criteria established by DOT Secretary Burnley against which potential solutions must be measured:

- It must address the problem of rigid Federal personnel rules that prevent efficient deployment of key personnel.
- It must remove the burden of abstruse Federal procurement rules that prevent timely acquisition of new technology.
- The proposal must liberate the ATC system from the uncertainties of the Federal appropriations process and ensure adequate resources on a long-term basis.
- There must be adequate oversight and maximum accountability to ensure public safety.
- There should be consistency in both safe regulation and in the delivery of ATC services at every level of the organization.

The report provides a functional division of responsibilities between a recommended ATC corporation and the remaining FAA, a comparison between a private non-profit corporation and a government corporation responsible for the ATC system; and summaries of several existing private and government corporate structures. The report recommends that:

"All ATC operational and research functions be transferred to a monopoly non-profit ATC Corporation which would be legislatively charged with the responsibility for accepting, developing, operating, and maintaining the ATC system. The FAA will continue to regulate both civil and military operations in the interest of safety, while responsibility for operating and maintaining the ATC system will transfer to an ATC corporation." (p. 1)

Under this proposal, FAA would interface with the new ATC corporation and oversee its operation and safety. Further, the FAA will maintain its role as the focal point of national aviation policy, ensuring congressional oversight of significant policy changes, and would also retain its role of regulation and enforcement.

The report suggests that the Federal Government receive compensation for the transfer of government-owned equipment and real estate. This could be accomplished by first transferring some of the Aviation Trust Fund to the new corporation and then the corporation "will buy, as opposed to lease, the equipment." (p. 11)

15.10 Aviation Safety Commission: Final Report and Recommendations, Aviation Safety Commission

The Aviation Safety Commission was created by Congress to conduct an intensive inquiry into air safety, particularly as it is affected by FAA's organization and functions. The Commission's report, released in April 1988, recommends that "FAA be transferred from the DOT and be established as a user-funded authority which is:

- Overseen by a 9-member Board of Governors appointed by the President and confirmed by the Senate;
- Managed by an Administrator who is appointed and confirmed for a term of seven years;
- Subject to agency-wide regulatory oversight by a Director of Aviation Safety who is appointed and confirmed for a term of seven years;
- Freed from the constraints of the Federal civil service and procurement systems" (p.1; see also pp.25-30).

The report also states that instability and uncertainty in the budget may "distort choices between capital (hardware) solutions to problems versus labor (personnel) solutions." (p. 23) Further, the report notes that capital or technology-based solutions may be advantaged in that these solutions may be easier to sell in the political process. Finally, the commission found that because of public or political pressures the flow of new hires has tended to be uneven and in "lumps", which has made the effective use of new personnel difficult.

15.11 Privatization of Federal Aviation Administration Functions, Kenneth M. Mead, U.S. General Accounting Office

This December 1987 GAO report primarily summarizes findings of previous studies of ATC systems and aviation safety. It also makes some general statements about issues related to reorganization and privatization proposals. This testimony itself does not present an original proposal, though it does make broad suggestions regarding how a restructuring should proceed.

GAO's Mead states that a key criterion by which to judge any proposal is that it ensures accountability for aviation safety and protection of the public. Further, deregulation has combined with other factors to present FAA with "formidable challenges, and we believe these challenges cannot be overcome through structural changes alone." (pp. 1-2) As an example, Mead cites the delay of the modernization of the ATC system, "Because sophisticated technologies need to be developed and shown to work reliably, not because of funding shortages or procurement rules." (p. 7)

15.12 The Proposed National Aviation Authority: A First Review, Apogee Research, Inc.

This September 1986 study by Apogee Research, Inc. analyzes a proposal by the Air Transport Association to create a National Aviation Authority (NAA) to carry out all current FAA responsibilities except safety regulation. The report focuses heavily on the proposal's implications for the interests of airport operators, especially the ways in which it would affect airport grants and the completion of the National Airspace System (NAS) Plan.

The study raises two major concerns:

- How large will the Airport Improvement Program (AIP) be under the NAA? and,
- How can the airport operators influence the grant process so that safety and capacity concerns can be balanced?

The study proposes that the NAA replace most of the functions of the FAA, taking over the financial resources of the Trust Fund. NAA responsibilities would include operation of the air traffic control system, completion of the NAS Plan, research and development, and the airport grant program. The remaining FAA would be responsible only for setting and enforcing safety rules. (p. 2) The NAA would be a Federal corporation run by a director who "would be appointed to a single ten-year term by the President with the approval of the Senate." (p. 2) There would be two advisory panels: a Policy Advisory Board composed of cabinet members, Senators, and Representatives with aviation concerns; and a Technical Advisory Committee

including representatives from user groups and airport operators. The proposed NAA would collect user fees and have bonding authority.

15.13 *The Air Traffic Control System: Management by a Government Corporation, A Study for the Air Transport Association of America, National Academy of Public Administration*

In this March 1986 report, the National Academy panel concluded that, if properly chartered by Congress, a government corporation would offer substantial advantages over the current FAA in the management of the airports and airways program of the United States. This conclusion was based on interviews with "knowledgeable" officials at FAA, the Office of the Secretary of Transportation, the Office of Management and Budget, public interest groups, and others in the private sector. The panel expresses deep concern that breaking the FAA into several segments, one of them an ATC system, would lead to problems with coordination. (p. 23)

Their major organizational recommendation is that the Authority should report to the Secretary of Transportation, or have a single chief executive officer, appointed by the President with the consent of the Senate, or have an Advisory Board of members appointed by the President. (p. 29) The Panel did consider the option of a Board of Directors to administer the Authority, but rejected the idea because of their concerns about a division of authority and the composition of such a Board. (p. 29)

Finally, the Panel recommended that the Authority establish a corporate system of user charges in lieu of the present tax and Trust Fund mechanism. (p. 32)

15.14 *Federal Corporation Approach to the Management and Funding of the Air Traffic Control System, Air Transport Association*

This report, released in September 1985, was requested by the Air Transport Association (ATA) Board of Directors in response to concerns about the capacity and effectiveness of the ATC system. ATA staff prepared the report, which does not discuss existing problems so much as possible solutions and their benefits. Specifically, it focuses on solving problems with the budgeting process.

The ATA report states that, as "applied to the ATC system, a Federal corporation would reflect the predominantly commercial nature of the services provided, and would facilitate dealing with the users in a business-like manner." (p.10) It mentions specifically that personnel, financing/borrowing, and procurement would benefit from operating in a business-like manner.

The ATA report also asserts that elements of the FAA should be retained as government function and funded from general revenues. These functions include:

- Administration of aviation flight safety and standards programs, except for the flight inspection program which directly supports the ATC system;
- Planning, direction and evaluation of research, engineering and development programs not related to ATC;
- Civil aviation security;
- International and planning functions unrelated to ATC; and,
- Non-ATC-type training and testing.

15.15 Conclusion

After reviewing past studies' discussions of the current problems at FAA and the proposed organizational options, the question remains as to how these alternative structures might alleviate these problems. Figure 15-2 summarizes the considerations and recommendations of each study. Although six of the studies considered the option of reforming the FAA without undertaking any structural change, only one of them (the OTA study) finally recommended that strategy. Of the 13 studies reviewed, eight proposed some form of reorganization, and seven of the eight recommended that a government corporation be established for all or part of FAA. Five of the seven studies recommended that the corporation be established for ATC and not for the entire FAA.

Figure 15-2

PROPOSED TYPES OF ORGANIZATIONS IN PRIOR STUDIES

Report	Create FAA Government Corporation	Create ATC Government Corporation	Change FAA from within
National Performance Review (NPR) <i>From Red Tape to Results: Creating a Government that Works Better & Costs Less</i> September 1993		X	
National Commission to Ensure a Strong Competitive Airline Industry (AIRC) <i>Change, Challenge and Competition: A Report to the President and Congress</i> August 1993		X	
Reason Foundation Policy Study (REA) <i>How to Spin Off Air Traffic Control</i> August 1993	✓	X	
FAA Conference of the Federal Managers Association (FMA) <i>A Proposal for a Restructured, Independent Federal Aviation Administration</i> June 1993			✓
Phaneuf Associates Incorporated <i>A Review of Federal Aviation Administration Financial and Acquisition Systems</i> March 1992			✓
Transportation Research Board (TRB) <i>Winds of Change: Domestic Air Transport Since Deregulation</i> 1991	✓	✓	✓
Office of Technology Assessment (OTA) <i>Safe Skies for Tomorrow: Aviation Safety in a Competitive Environment</i> July 1988			X
Department of Transportation (DOT) <i>Report on Independent ATC Corporation</i> April 1988		X	
Aviation Safety Commission (ASC) <i>Aviation Safety Commission: Final Report and Recommendations</i> April 1988	X		✓
General Accounting Office (GAO) <i>Privatization of Federal Aviation Administration Functions</i> December 1987	✓	✓	✓
Apogee Research, Inc. (APOG) <i>The Proposed National Aviation Authority: A First Review</i> September 1986	✓		
National Academy of Public Administration (NAPA) <i>The Air Traffic Control System: Management by a Government Corporation, A Study for the Air Transport Association of America</i> March 1986	X		
Air Transport Association (ATA) <i>Federal Corporation Approach to the Management and Funding of the Air Traffic Control System</i> September 1985		X	✓

X = Recommended by the study

✓ = Considered in the study

NB: TRB, GAO, and ATA are the only studies to discuss privatization of ATC, but none recommend privatization.

FAA is the only study to discuss both profit and non-profit government corporations.

FMA proposes setting FAA up as an independent agency, separate from DOT.

16. INTERNATIONAL OBLIGATIONS AND A U.S. ATS CORPORATION

16.1 Introduction

The U.S. Government would retain the responsibility for upholding all current and future obligations in international aviation agreements with the transfer of air traffic control (ATC) to a government corporation. These obligations include those arising from the Convention on International Civil Aviation ("The Chicago Convention"), from multilateral specialized bodies related to air navigation, and from bilateral air services agreements (ASAs).

The development of an ATS Corporation by the U.S. must consider two basic international issues: coordination of air traffic management (ATM) systems development and standards with other countries, and financing the U.S. ATC system consistent with international agreements.

Coordination entails making sure that changes to the ATM system or operating procedures are addressed at the inter-governmental level to ensure that global air navigation continues to be safe and efficient. Financing issues relate to non-discriminatory treatment of foreign users and linking user fees to the costs of service provided. Financing mechanisms that violate these principles could be legitimately challenged by the international community. As noted in Section 13 above, there is a trend toward increased use of businesslike "designated authorities" to provide ATC services. Their experience indicates that the use of a federal corporation to provide ATC services should not create unmanageable problems for the U.S. in meeting international obligations. However, there are considerations that may limit the latitude of the ATS Corporation, principally in charging international flights for ATC services.

16.2 The Chicago Convention and Related Agreements: National Obligations to Provide Air Traffic Services

The Chicago Convention accepted unconditionally the principles of national sovereignty over airspace and each nation's obligation to operate its airspace consistent with broad international practice. The Convention also put into place mechanisms to implement these principles as well as elements of flexibility in their application. The Convention and related agreements address access to airspace, enforcement authority of States, user charges, and innovation/development of the global air navigation system.

Access refers to the right of both non-scheduled and scheduled civil aircraft of foreign registry to use national airspace and make needed technical stops subject to following certain national rules. All signatory countries have agreed to make available the necessary information and facilities to enable foreign aircraft to comply.

Authority of States refers to the requirement that operators obey rules of the air imposed by national authorities. Government has the prerogative to delegate its authority to administer airspace to another government or regional body, or to an independent authority or private company, as long as the national government retains underlying sovereign responsibility.

The agreements also require that air traffic control services be open to all traffic under uniform conditions, and establish basic standards and procedures for fees and notification of fees. These provisions seek to ensure minimum national practices worldwide.

The International Civil Aviation Organization (ICAO) also has become an important element in worldwide aviation development and innovation, notably by encouraging leading national systems to build and improve their capabilities.

16.3 The Role of Specialized Bodies, Annexes and Designated Authorities

ICAO's Air Navigation Commission (ANC), special panels, working groups, and regional organizations have created an international framework of detailed standards and practices.

Regional groups are one way that ICAO member countries facilitate transit of direct borders and deal with oceanic airspace. The ICAO system recognizes the virtues of these and other specialized organizations for providing services required by the aviation industry. The ICAO Annexes explicitly permit countries to designate an agent to provide air traffic services or other aviation services, as long as all international standards are met. As such, the U.S. would designate the ATS Corporation as its provider of ATC services.

16.4 The Role of Bilateral Agreements

The United States has entered into many bilateral agreements that deal with both technical issues (called Airworthiness Agreements) and economic issues (Air Services Agreements, or ASAs). ASAs affect air traffic services by requiring adherence to national rules establishing standards for user fees. Although the Chicago Convention contains some enforcement procedures, bilateral agreements use language that makes Chicago Convention obligations explicit and enforceable as between the two parties, using the stronger mechanisms found in bilaterals. The U.S. has led the move toward more vigorous enforcement of these provisions.

Enforceable bilateral agreements provide the U.S. with a strong legal basis for taking action against foreign violations. These functions would stay with the Department of Transportation and the remaining FAA. The ATS Corporation, if it detected violations, would refer these to the remaining FAA for resolution. Conversely, if a foreign government

were to have a grievance with the ATS Corporation, the country would deal with the U.S. Government. As a result, the Federal Government must retain some form of ATC oversight to uphold its responsibilities under international agreements. These functions will continue to be lodged in DOT, which has these responsibilities today. As such, there should be no differences from the current situation, especially as seen by other countries.

16.5 International Guidelines on ATC User Fees

New systems of raising revenue for an ATS Corporation must be consistent with Article 15 of the Chicago Convention, Article 1 of the International Air Services Transit Agreement ("Transit Agreement"), and with various bilateral air services agreements. Article 15 establishes national treatment, i.e., charges cannot discriminate between U.S. and foreign aircraft engaged in similar international operations; and states that no fees shall be imposed solely on the right of transit over, entry into or exit from U.S. territory. The latter requirement has been interpreted as not allowing a fee that is unrelated to the cost of providing the air traffic service. The Transit Agreement requires that charges on scheduled services for overflight or technical stops be just, reasonable, and non-discriminatory. In addition to prohibiting discrimination, bilateral agreements typically require charges to airlines to be just, reasonable, equitably apportioned among categories of users, and to be based on no more than an equitable portion of the cost of providing a facility or service. Bilateral air service agreements also require the U.S. Government to encourage consultations between users and charging authorities, as well as to encourage charging authorities and users to exchange information necessary to establish the reasonableness of the charges. Also, reasonable notice is to be given prior to changing user charges.

ICAO has developed guidelines (Council Statement) to aid in determining how fees should be established.¹ These guidelines, while not binding, are based on the principles of Article 15 of the Chicago Convention and are consistent with broadly accepted international practices. Not all of the ICAO guidelines are relevant to the United States; some, for example, were designed to address particular circumstances of developing countries. Others, e.g., the endorsement of aircraft weight as an element of charging formulae, reflect policy positions with which the United States has consistently disagreed over the years. Taken as a whole, however, the ICAO Council Statement provides a reliable guide for interpretation of the obligations inherent in Article 15 of the Convention.

The Council Statement's central, guiding principle is that where air navigation services are provided for international use, users may be required to pay their share of the related costs, but international civil aviation should not pay for costs which are not properly allocable to it. It recommends that several steps be followed in establishing an equitable cost recovery system:

¹International Civil Aviation Organization, "Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services," Fourth Edition 1992 (DOC 9082/4).

- An accounting of total air navigation services costs incurred on behalf of aeronautical users;
- An allocation of these costs among categories of users; and,
- Development of a charging or pricing policy system.

In determining total costs to be recouped, the Statement provides an inventory of typical air navigation services: air traffic services (approach control, aerodrome control, en route and area control, flight information, alerting services); communication facilities and visual, radio and satellite navigation aids; meteorological services; and ancillary services allocable to civil aviation, e.g., search and rescue, accident investigation, aeronautical charts and information services.

16.5.1 Cost Basis for Charges

The full cost basis for ATC charges includes operations, maintenance, management and administration, interest on capital investment, and depreciation of assets. Costs should be assessed in relation to facilities and services provided under ICAO Regional Air Navigation Plans, with necessary additional services and facilities as approved by the Council. Other facilities and services, unless requested by users, as well as any excessive construction, operation or maintenance costs, should be excluded. Costs of approach and aerodrome (airport) control services should be identified separately from en route costs. Revenues may provide for a reasonable return element to contribute towards necessary capital improvements.

16.5.2 Cost Allocation

Costs should be allocated in a manner equitable to all users, to ensure that international civil aviation and other users (e.g., domestic civil aviation, State or other exempted aircraft, non-aeronautical users) are not burdened with costs not properly allocable to them according to sound accounting principles. States should acquire basic utilization data, e.g., number of flights by user category, where such information is relevant to cost allocation and the cost recovery system.

16.5.3 Charging Systems

Any charging system should be as simple and equitable as possible, and the administrative cost of collection should not exceed a reasonable proportion of the charges collected. The following represent desired features of ATC charging systems for international flights:

- Charges should not be imposed in a way that discourages the use of facilities and services necessary for safety or for the introduction of new aids and techniques.
- The system of charges must be non-discriminatory between national and foreign users engaged in similar international operations, and between two or more foreign users.
- Any charging system should take into account the cost and effectiveness of services, and should take account of the financial situations of both users and service providers.
- Any under-recovery of costs due to preferences, rebates or other reductions in charges extended to particular categories of users should not be charged to other users.
- No facility or service should be charged for twice with respect to the same utilization; where there is dual utilization (e.g., a facility providing approach as well as en route control) the costs should be equitably distributed.
- Charges for international general aviation should be reasonable, with regard to the cost of the facilities needed and the goal of promoting the development of international civil aviation as a whole.

16.5.4 Approach and Aerodrome Control Charges

Where levied, charges for approach and aerodrome (airport) control should be a single element of the landing charge or a single charge per flight.

16.5.5 En Route Charges

Multiple charges per flight should be avoided. While the Statement generally recommends basing the charge essentially on the distance flown and the aircraft weight, it recognizes that the character of a given airspace (e.g., type of traffic, distance flown and aircraft characteristics) will determine the most appropriate charging method.

16.5.6 Charges for Services Used by Aircraft When Not Over the Provider State

Service providers may recoup the relevant costs for services provided to flights not passing over the provider State (e.g., ATC services in oceanic sectors operated by a provider state).

16.5.7 Consultation with Users

Consultation in advance of significant changes in the structure or level of charges, as well as during the planning stage of major new air navigation services, is highly desirable. General agreement between providers and users on proposed charges is encouraged although not required. Users also should be provided with adequate financial information, and reasonable advance notice of changes in charges.

16.5.8 Non-Civil Use of the System

In developing a new user fee system, a detailed analysis will need to be performed to accurately account for the cost of military and civil use of the system. ICAO guidelines state that in determining the allocable costs of the system, costs for military or other federal functions should be excluded. Where both civil and military are served, the cost share allocable to civil aviation should be determined to ensure that no military costs are included in the cost base.

16.6 Implications for the Existing FAA International Program and Policy Activity

The international nature of ATM will effectively require continued U.S. Government participation. These would remain within existing functions in DOT and FAA. Government can delegate operating and other procedures, but not its ultimate authority over airspace. This is one reason why the EOC has recommended that the Administrator retain the ultimate authority in airspace regulations, while delegating much of the rulemaking process to the ATS Corporation.

Given that some degree of government involvement in international aviation must continue, it is important to examine how the existence of a corporation would affect FAA's current functions and to consider possible ways of dividing these functions between the government and the corporate entity. One possibility is for all of FAA's International Office and overseas representation to remain in government. Technical issues, however, would logically require participation by the ATS Corporation.

In a practical sense, the ATS Corporation would be part of the U.S. presence in the international ATM environment, with appropriate formal and policy leadership from the government (representing the public interest). For example, decisions on whether to commit technical resources to support particular countries or programs require policy review and perhaps direct management by the government, though there is no reason the corporation would not carry out these activities. The EOC recommends that the enabling legislation for the ATS Corporation allow it to receive reimbursement for such services directly from the foreign government or on behalf of the foreign government from an international organization or the U.S. government.

16.7 Summary

The existing international agreements will require that the U.S. Government provide oversight of the ATS Corporation's rates and charges related to international aircraft operations. Because the U.S. Government is the signatory to international ATC agreements, foreign governments will look to it to assure that the ATS Corporation follows accepted practices, including user consultations, in establishing rates and charges for ATC services provided to aircraft in international operations. It is likely that the ATS Corporation will have to establish cost bases for international ATC services so that these types of users are not required to bear costs not properly allocable to them. In other areas, procedures will be developed for coordination between the ATS Corporation and DOT so that the U.S. Government can discharge its obligations under existing and future international agreements.

17. TRANSITION TO THE ATS CORPORATION

17.1 Introduction

The EOC recognizes that the transition to the ATS Corporation must have no adverse effect on the day-to-day operation of the ATC system or on aviation safety. The EOC also recognizes the need for an expeditious transition so that the corporation can begin to function as an independent organization. To meet these goals, FAA and the ATS Corporation must develop a comprehensive transition plan and have sufficient time to implement that plan. The transfer of National and Dulles Airports from FAA to the Metropolitan Washington Airports Authority took less than eight months of intensive effort. This was a smaller organization than FAA and it was transferred intact; therefore, the EOC recommends that one year be provided for the transition. The FAA Administrator would have to certify that all necessary actions have taken place for the corporation to commence operation of the ATC system. The EOC recommends that the President appoint an interim chief executive officer within 30 days of the enactment of the ATS Corporation's enabling legislation. The CEO will function during transition and serve until the Board is appointed.

The EOC has identified the major issues that must be addressed during the transition. These issues have been divided into three categories, as follows:

- Issues that must be addressed immediately by FAA to lay the groundwork for restructuring the ATC system;
- Issues that must be addressed during the one-year transition period to provide the detailed structure for the new organization and to prepare for the actual transfer of equipment, personnel and functions to the ATS corporation; and,
- Longer-term issues that can be addressed once the corporation is in operation.

17.2 Preliminary Issues and Actions

Some issues can be evaluated before the ATS Corporation is formally established. These preliminary actions include the following:

- Develop procedures for dealing with the transfer, lease, or purchase of real property and related assets; and,

- Determine the extent to which current interagency agreements can continue under a new structure and draft modifications to agreements as needed.
- Conduct a study of the allocation of FAA costs to its lines of business and services within lines of business; and,
- Conduct a study of FAA services provided to DOD and other public users and the associated costs of these ATC services. The study should also include an analysis of the usage and the costs of DOD providing ATC services to civil aviation.

17.3 Transition Issues and Actions

These transition issues can be undertaken by FAA (and once appointed, the interim CEO) when enabling legislation is passed. These actions involve the implementation of the EOC's recommendations, and include the following:

General

- Engage transition support contractors to assist in developing new systems for the personnel, accounting and finance functions of the corporation. Many FAA systems are intertwined with the rest of DOT and the transition will need to include the other organizations affected.
- Develop a proactive plan for effective communications with all elements of the work force, including the unions--early, continuously, and in sufficient detail for employees to understand the nature of the changes and how the changes will affect them.

Governance

- Within 30 days of the enactment of the corporation's enabling legislation the President will appoint the CEO of the Corporation to handle the transition in advance of the formation of the Board. The appointment of the interim CEO should not require Senate confirmation.
- Carry out speedy Presidential nomination and Senate confirmation of the members of the Board of Directors so that they can be fully involved in shaping and setting the direction of the Corporation during the transition.
- Establish general responsibilities for the Board of Directors, CEO and the Safety Committee,

- Develop procedures for the safety regulation of the ATS Corporation, including establishment of the reorganization and staff to carry this out.

Financial

- Develop and implement an interim user charge system. These charges would be imposed on the same basis as the existing taxes. Any modification of these fees would await the action of a fully constituted Board of Directors;
- Identify committed trust fund balances for ATC functions to be transferred to the corporation, including acquisition and research programs;
- Establish initial capitalization of the corporation through asset transfer, with initial working capital provided by borrowing from the Treasury.
- Determine environmental liabilities of facilities that would be transferred to the corporation;
- Contract with an independent party to appraise existing property and other ATC assets and develop procedures to transfer them to the corporation;
- Provide training for financial managers in corporate accounting.

Acquisition

- Evaluate acquisition and research projects and determine whether existing contracts should be transferred to the corporation or revised in some manner. Coordinate with DOD on joint projects.
- Develop rules and standards for the new acquisition system, with DOD support for interoperable equipment projects.
- Provide training for acquisition managers and employees in their responsibilities under the new system.

Personnel

- Develop new personnel systems for the corporation: one for employees remaining under a revised Federal system and one for new employees and design a process for a smooth, efficient changeover to a more flexible environment.

- Conduct detailed cost/benefit analysis and consideration of best industry practices of each major human resource system as new personnel systems are developed.
- Provide training for personnel managers and employees in their responsibilities under the new systems.

17.4 Implementation Issues

Once the ATS Corporation begins operation the full implementation of the systems and procedures designed during the transition phase would continue. In addition, the corporation would immediately have to undertake other tasks, including the following:

- Develop a permanent structure for user charges and related billing and collection systems once the ATS Corporation has conducted detailed analyses and projections of its costs to produce specific services for the various types of users. These activities will likely take one year and require the full involvement of the Board of Directors of the Corporation.
- The Secretary of Transportation, through public notice and comment procedures will establish the standards by which the ATS Corporation's fees will be reviewed.

ATTACHMENT A

EXECUTIVE OVERSIGHT COMMITTEE MEMBERSHIP

CORPORATION ASSESSMENT TASK FORCE MEMBERSHIP

EXECUTIVE OVERSIGHT COMMITTEE MEMBERSHIP

Frank Kruesi (Chair)	DOT Assistant Secretary for Transportation Policy
Mortimer L. Downey	Deputy Secretary of Transportation
Stephen Kaplan	DOT General Counsel
Steven Palmer	DOT Assistant Secretary for Governmental Affairs
Louise Stoll	DOT Assistant Secretary for Budget and Programs
David Hinson	FAA Administrator
Linda Daschle	Deputy FAA Administrator
Monte Belger	FAA Executive Director for System Operations
Mark Gerchick	FAA Chief Counsel
Barry Valentine	FAA Assistant Administrator for Policy, Planning and International Aviation
Dale McDaniel	FAA Deputy Assistant Administrator for Policy, Planning and International Aviation
Christopher Edley	Associate Director, Economics and Government Office of Management and Budget
Emmett Paige, Jr.	Assistant Secretary of Defense Command, Control, Communications, and Intelligence Department of Defense
Joseph E. Stiglitz	Member, Council of Economic Advisors
Stanford E. Parris	Administrator, Saint Lawrence Seaway Development Corporation
Robert Stone	Project Director, National Performance Review
Charles A. Richards	Deputy Assistant Secretary, U.S. Department of Labor
Alicia H. Munnell	Assistant Secretary for Economic Policy, U.S. Treasury Department
Richard Post	Director, Office of Personnel Management
Sandra Pianalto	First Vice President and Chief Operating Officer, Federal Reserve Bank of Cleveland
Craven J. Crowell	Chairman, Tennessee Valley Authority (represented by Jim Gray)
W. Bowman Cutter	National Economic Council (represented by Michael Deich)

CORPORATION ASSESSMENT AD HOC TASK FORCE MEMBERSHIP

<u>Name</u>	<u>Affiliation</u>
Ed Kelly (Chair)	FAA Deputy Associate Administrator for Airway Facilities
Lt. Col. Sheryl Atkins	Representative, DOD Policy Board on Federal Aviation
Dan Beaudette	FAA Deputy Associate Administrator for Regulation and Certification
Dorothy Berry	FAA Deputy Assistant Administrator for Human Resource Management
W. Robert Billingsley	Manager, Airports Division--FAA, Great Lakes Region
Carolyn Blum	FAA Associate Administrator for Contracting and Quality Assurance
R. Douglas Byron	National Association for Government Employees
Larry Covington	FAA Deputy Director, Office of Budget
Jim Craun	DOT Deputy Director, Office of Aviation Analysis
John Hennigan	FAA Deputy Director, Office of Aviation Policy, Plans and Management Analysis
CDR L.N. "Dutch" Homan	Representative, DOD Policy Board on Federal Aviation
David J. Hurley	FAA Director, Office of Air Traffic System Management
Howard E. Johannssen	President, Professional Airway Systems Specialists
Jerry Jones	FAA Office of Chief Counsel
Michael McAnaw	Representative, National Association of Air Traffic Specialists
George McDonald	DOT, Director, Office of Programs and Evaluation
Edward Murphy	Senior Economist, Department of Treasury
Lynne Osmus	FAA Director of Civil Aviation Security Operations
Marc Owen	Chief Counsel, St. Lawrence Seaway Development Corporation
Russell Pittman	Chief, Competition Policy Section, Department of Justice
Jeeyang Rhee	Examiner, Office of Management and Budget
John F. Thornton	Senior Director, Legislative Affairs, National Air Traffic Controllers Association
David Tournquist	Examiner, Office of Management and Budget
Paul Weiss	DOT Deputy Assistant Secretary for Administration
Steve N. Zaidman	FAA Director, Research and Development Service

ATTACHMENT B
SUMMARY OF FLIGHT SAFETY
FOUNDATION REVIEW OF ATS CORPORATION SAFETY

ATTACHMENT C
SUPPORTING DATA FOR FY1993
COST ALLOCATION UPDATE

ALLOCATION OF ATC COSTS

C.1 Introduction

The method used to allocate costs in the 1993 FAA budget is based on results obtained from the 1985 FAA Cost Allocation Study (CAS). (The 1985 study reported on allocated costs in FAA's 1984 budget.) It is important to understand that the 1993 allocation is an update of the 1985 analysis and not an entirely new cost allocation. The basic CAS methodology involved the following steps:

- Identify FAA cost centers;
- Identify FAA user groups;
- Assign each item in the budget to a cost center;
- Determine which items represent avoidable costs by user group, and directly assign such costs to each user group in each cost center;
- Distribute remaining joint costs to user groups based on observed activity shares and/or relative demand elasticities.

Four types of ATC facilities were considered—air route traffic control centers (ARTCCs), terminal radar approach control facilities (TRACONs), other air traffic control towers (ATCTs), and flight service stations (FSSs). In addition, four user groups were identified—air carriers, commuter/air taxi, general aviation, and military. User shares of operating costs in the 1985 study were computed based on statistical cost functions tying site-specific costs with activity measures. Site-specific costs included ATC labor, maintenance labor and leased communications. The facility types and associated activity measures used were as follows:

- ARTCCs - total aircraft handles
- TRACONs - total operations plus seconds plus overs
- Other ATCTs - total operations
- FSSs - pilot briefs, IFR flight plans, VFR flight plans and air contacts

C.2 1993 Update

For the 1993 cost allocation, the 1993 budget items were first assigned to the same major categories used in the prior CAS. The cost functions were then updated to reflect 1993 prices, and 1993 activity levels were used to compute operating cost

allocations for 1993. Finally, these cost allocations were scaled to match the budgeted 1993 totals.

Data on ARTCC handles and FSS outputs for 1993 were obtained directly from the FAA Aviation Forecasts. The forecasts on operations, seconds and overs do not adequately break out TRACONs from other ATCTs. Thus, FAA's Air Traffic Activity databases were used which are kept for individual TRACONs and towers. Data on total itinerant plus local operations were obtained directly; the same holds true for TRACON seconds and overs, except for large towers which are assigned to independent TRACONs (e.g., O'Hare and Midway are considered Limited Radar towers assigned to the Chicago TRACON). For these cases, the seconds and overs tabulated at the individual airports are sporadic and not indicative of total activity; therefore, the analysis allocated the parent TRACON's seconds and overs based on the share of total operations at each individual facility.

It is important to recognize that the FAA expenditures considered in the cost functions described above do not represent the entire cost of providing ATC services. In particular, the costs of ATC R&D, F&E, navaid maintenance and non-site overhead could not be assigned to individual sites. These represent well over 50% of total ATC costs. The CAS used a variety of methods to allocate these and the site-specific fixed costs to different user groups. An important assumption made in the CAS was to take observed output levels as fixed when allocating costs. This allowed for sequential allocations. In particular, the avoidable cost concept was used first, where possible, to identify budget items that could be assigned to particular facility types and/or user groups. Inverse elasticity rules were then employed to make the final allocations to specific facility/user pairs. For those costs not assignable to either a single facility type or a single user group, the inverse elasticity method was used directly. For the 1993 update, all costs not associated with operations were allocated based on their shares as shown in the 1985 CAS.

C.3 Discussion of Methodology Attributes

There are a number of advantages associated with employing the methodology described above. First, it accounts for both inflation and changes in the total cost of ATC services between 1984 and 1993. Second, it partially accounts for changes in the overall level of ATC services and corresponding user shares by employing information on 1993 activity levels. Third, it has the advantage of only modest computational requirements.

The method also entails a number of limitations. First, it does not account for possible changes in the cost structures for ARTCCs, TRACONs, ATCTs or FSSs. In other words, if a primary air carrier operation at a TRACON cost \$20 in 1984, it is assumed to cost the same (after adjusting for inflation) in 1993. Second, it does not

account for relative changes in FAA expenditures not related to operations which benefit specific user groups, i.e., if certain FAA programs which primarily benefit GA users were a higher proportion of the budget in 1993 than in the CAS, this would not be reflected in the 1993 cost allocation estimates.

C.4 Unit and Total Costs of ATC Services by Activity

As noted above, the CAS identified three components making up total ATC costs—marginal site costs, fixed site costs and all other costs. The markup from marginal site costs to total costs is referred to as the Total Cost Factor. Across all services and user groups, marginal site costs represent about 25% of total ATC costs, so the Total Cost Factor is about 4. The calculation of total costs used the following formulation:

$$\text{Unit ATC Cost} = 1993 \text{ Unit Marginal Cost} \times \text{Total Cost Factor}$$

For ARTCC departures, this should be multiplied by 2. Marginal costs for 1993 were estimated to be:

Estimated Marginal Costs of ATC Services, 1993				
	Air Carrier	AT/Commuter	GA	Military
ARTCC	\$19.16	\$19.16	\$17.37	\$29.30
TRACON	\$17.61	\$17.61	\$4.73	\$17.61
ATCT	\$10.88	\$2.56	\$1.98	\$6.12
FSS	\$5.53	\$5.53	\$5.53	\$5.53

The total cost factor and corresponding unit total costs are shown below:

Estimated Unit Total Costs of ATC Services, 1993				
	Air Carrier	AT/Commuter	GA	Military
Total Cost Factor:	4.63	3.77	3.12	4.05
ARTCC: IFR Dep Over	\$177.60 \$88.80	\$144.29 \$72.15	\$108.30 \$54.15	\$237.47 \$118.73
TRACON: Op, Second or Over	\$81.60	\$66.29	\$14.75	\$71.35
ATCT: Operation	\$50.42	\$9.63	\$6.17	\$24.81
FSS: Pilot Brief, Flight Plan or Air Contact	\$25.62	\$20.82	\$17.23	\$22.41

By multiplying the unit total costs by the 1993 activity levels, we obtain estimates of the total cost of ATC services by activity type:

Estimated Total Cost of ATC Services, 1993 (\$mil)					
	Air Carrier	AT/Commuter	GA	Military	Total
ARTCC	\$1,661	\$447	\$406	\$606	\$3,120
TRACON	\$1,191	\$678	\$350	\$330	\$2,549
ATCT	\$16	\$21	\$150	\$25	\$211
FSS	\$5	\$15	\$357	\$9	\$385
Total	\$2,872	\$1,160	\$1,262	\$969	\$6,264

ATTACHMENT D

**SUPPORTING DATA FOR
INCREASED INVESTMENT SCENARIO**

EFFECTS OF POTENTIAL FUNDING ON CIP BENEFITS
A TECHNICAL NOTE FOR THE CORPORATION ASSESSMENT TASK FORCE
March 7, 1994

Introduction

This paper examines F&E projects in the Capital Investment Plan that could deliver benefits to aviation users and the FAA sooner under a conceptual framework of an ATC corporation that would be freed from the traditional governmental discretionary spending caps. The findings suggest that greater flexibility in investment spending could accelerate roughly \$5.3 billion in present value benefits in user efficiency, safety and FAA productivity.

Historically, FAA formulates its investment priorities between ATC infrastructure needs and new technology introduction with funding constraints in mind. In this context, the appropriations often fall short of fully funding the identified investment needs. As an ATC corporation, it is assumed that the hypothetical entity would be free to budget its investment spending as high as it can convince aviation users to support in fees as well as raise needed capital in financial markets. This key assumption is drawn from the discussions and papers on ATC corporation financing concepts presented before the Executive Oversight Committee over the past two months.

Approach

Guidance and criteria stipulated in OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs", October 1992, was used to evaluate the present value benefits and costs of CIP projects funded under the traditional governmental discretionary spending structure (constrained funding) and the ATC corporation concept (unconstrained funding). A key guideline on discount rate policy is the use of real discount rates to derive present value benefits and costs. A real discount rate in effect translates future year benefits and cost, expressed in constant year purchasing power, into present value terms.

Using the discount rate criteria specified in A-94, a real discount rate of 7 percent was applied to evaluate projects that will generate benefits to users and a 4.5 percent rate, approximating a long-term real Treasury borrowing rate, for projects that produce only governmental savings. According to A-94, the 7 percent discount rate should be applied to Federal investment programs that yield external social benefits and the rate approximates the marginal pretax rate of return on an average investment in the private sector in recent years.

The government funding profile for the out years is based on the F&E level in the President's FY 1995 Budget adjusted for inflation. For the purposes of this analysis, the ATC corporation is assumed to be free to fully fund its investment needs. By comparing the present value benefits and investment costs under the two funding structures, the incremental gains in benefits and costs between the corporation and the governmental structure was determined.

The analysis conducted herein expands on the prior work that was documented in a working paper, "ATC Corporation: Project Benefits, Costs and Schedule Acceleration", dated February 15, 1994. This analysis in effect extends the prior micro-analysis of project benefits and costs into a macro-analysis view of the overall effects of potential aggregate F&E funding levels on CIP benefits.

Analysis

The government and corporation potential F&E funding profiles and likely effects on the CIP benefits are summarized in Table 1. In the aggregate, both funding structures are projected to generate present value benefits of at least \$50 billion from 25 projects to users and FAA. More specifically, the corporation's higher funding levels in the near-term are estimated to generate \$59.8 billion in present value benefits compared to the \$54.5 billion benefit expected with the lower government funding levels. As a rough measure of the marginal return on investment, the corporation concept is estimated to generate incremental present value benefits of \$5.3 billion against an incremental present value investment cost of \$1.9 billion.

TABLE 1: F&E FUNDING AND BENEFITS

	F&E Funding FY 1996-2003 (billions of then year dollars)							Benefits for Top 25 Projects (billions of present value dollars)			
	FY 96	97	98	99	2000+	Total	PV	User Efficiency	User Safety	FAA Savings	Total
Corporate	\$3.6	\$3.8	\$3.6	\$3.0	\$6.6	\$20.6	\$14.9	\$50.1	\$2.6	\$7.1	\$59.8
Government	2.3	2.3	2.4	2.5	9.7	19.1	13.0	\$45.9	\$2.1	\$6.6	\$54.5
Difference	1.3	1.5	1.2	0.5	(3.1)	1.5	1.9	\$4.2	\$0.6	\$0.5	\$5.3

PV = Present Value

It should be recognized that the funding levels shown above cover identified F&E requirements for established CIP projects and new mission needs for implementing new technologies and ATC infrastructure replenishments and upgrades through FY 2003. The bottoms-up funding levels shown, for example, do not yet account for the possibility of implementing future viable R,E&D projects, potential implementation of the Future Air Navigation System (FANS) concept, and expanded satellite-based applications in communication, surveillance, navigation and landing.

Looking broadly ahead, it is possible that incorporating these promising initiatives into the F&E requirements, coupled with the continued need to upgrade the infrastructure to meet forecasted traffic growth, could necessitate an annual funding need at a \$3.0 billion level into the next decade. Under the presupposition that an ATC corporation is likely to have greater financial latitude to fund economically viable projects than a governmental entity that is subject to the budgetary constraints of the Budget Enforcement Act (BEA) caps, a top-level F&E funding projection for the ATC corporation is shown in Figure 1.

**FIGURE 1: PROJECTED ATC CORPORATION F&E NEEDS
FY 1996-2003**

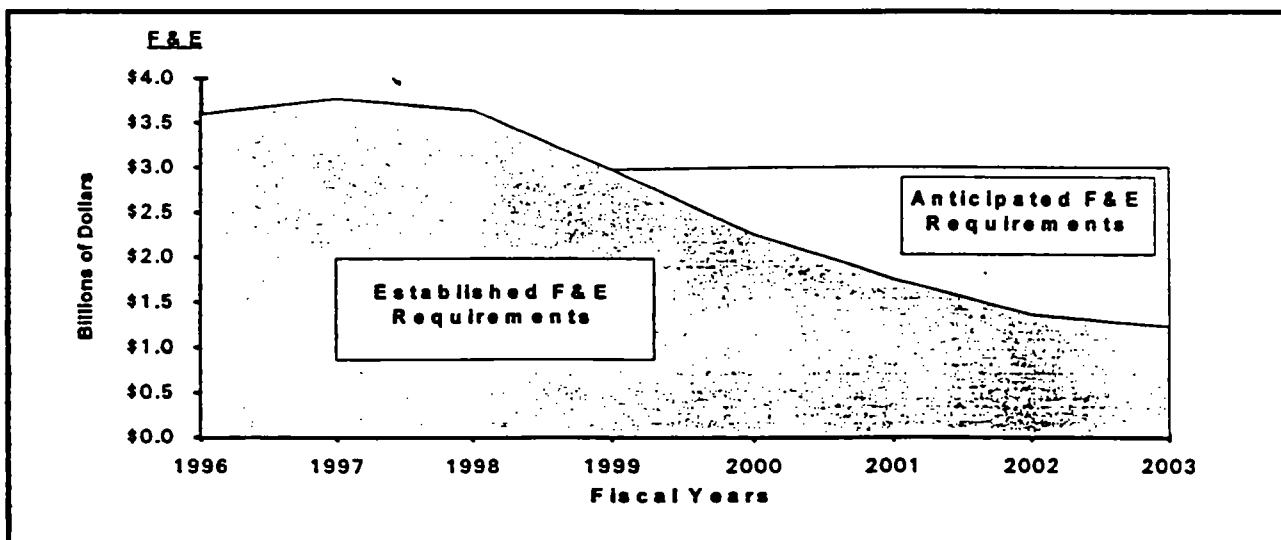
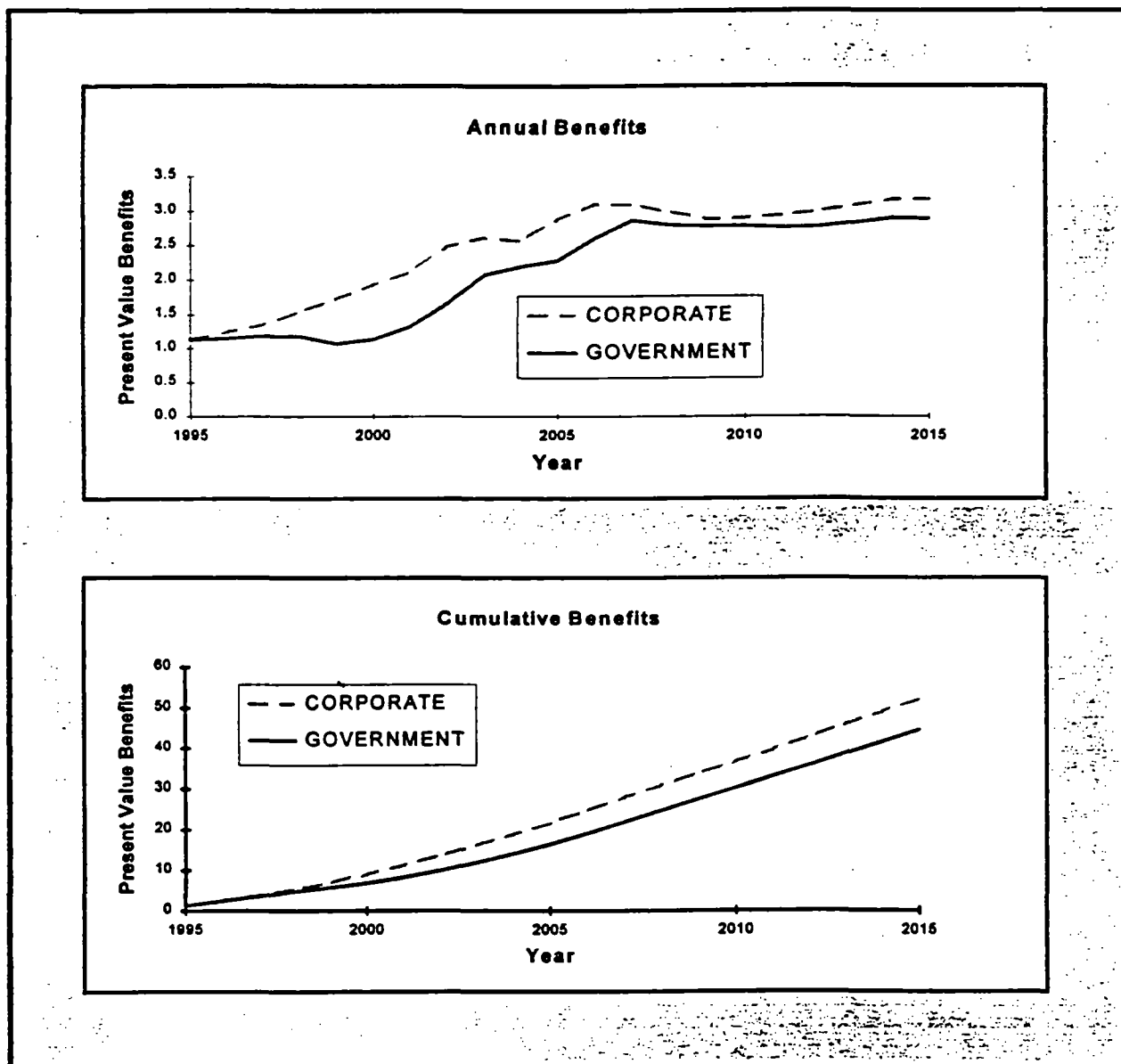


Figure 2 contains two charts that illustrate the projected annual and cumulative benefits for the top 25 CIP projects attributable to the corporation and government funding levels shown in Table 1. The area between the two curves in each chart represents the marginal benefits between the two funding structures.

From the standpoint of the incremental benefits of \$5.3 billion derived from established F&E requirements, 81.5 percent accrue to users in the form of increased operational efficiency and another 11 percent in safety improvements plus a 7.5 percent gain in FAA savings. Overall, 92.5 percent of the marginal gains in benefits associated with the corporation funding levels are estimated to accrue to users.

FIGURE 2: PROJECTED CIP BENEFITS
(billions of present value dollars)



Users, consisting of the airlines, general aviation and passengers, are expected to realize efficiency benefits from reduced delays, expanded preferred routes and altitudes and avionics cost savings. Projects such as Global Positioning System, Advanced Automation System, Oceanic Automation System and weather projects are examples of major contributors to the user efficiency benefits. Overall, it is estimated that implementing these capabilities sooner in the absence of funding constraints could provide present value fuel savings of roughly \$750 million to

users. Airport surface detection initiatives, approach lighting systems and weather projects are examples of major contributors to improved safety. The Remote Maintenance and Monitoring System, Metroplex facilities and GPS are projects that are expected to produce operating and maintenance efficiencies to the FAA.

Conclusion

There are substantial benefits to be derived from the F&E investments associated with modernizing the ATC system. This analysis shows that there are further economic returns to users and the FAA from an accelerated level of F&E funding assumed under a conceptual corporation framework. Of the estimated present value benefits of \$5.3 billion, users will realize over 92 percent of the benefits from safety improvements and increased operational efficiencies. The additional F&E funding between FY 1996-2003 to support the accelerated benefits is estimated to be \$1.5 billion.

Table 2:
FAA ATC Corporation Project Benefits,
Costs & Schedule Acceleration

		Incremental Analysis			
		FAA ATC Corporation vs Traditional Government Structure			
		Years	(Millions of Present Value \$)		
CIP	PROJECT NAME	SCHEDULE GAIN	BENEFITS	BENEFITS w/o PTS	LIFE CYCLE COSTS
1	63-21 INTEGRATED TERMINAL WEATHER SYSTEM (ITWS)	4	\$472	\$147	\$33
2	61-23 OCEANIC AIRPORTS	4	421	250	31
3	64-05 AUGMENTED SYSTEMS FOR GPS	4	415	273	110
4	34-09 ESTABLISHMENT OF NAVAL AIRS FOR NEW AIRCRAFT	4	196	129	34
5	3X-X2 AIRCRAFTS EXPENDING ARC	4	185	185	29
6	26-01 REMOTE PERFORMANCE MONITORING SYSTEM	4	88	88	39
7	34-08 RUMBLE RANGE (RVR) ESTIMATION	4	38	12	15
8	63-22 AIRCRAFTS PRODUCTS (C/AMP)	3	317	144	51
9	32-24 ON-PROFLEX	3	51	24	14
10	62-23 AIRPORTS AREA SYSTEM (AMAS)	3	11	11	7
11	43-02 AIRCRAFTS RADAR (ARF)	2	282	97	13
12	56-61 AIRCRAFTS INFORMATION SYSTEMS	2	128	128	31

NOTES:

- 1) INCREMENTAL REQMTS represents the additional funding during this period which arise from accelerating requirements from post 2000 years and/or higher investment needs in the 1996-2000 time frame.
- 2) PTS = ~~PTS~~ Time Savings.

Table 2:
FAA ATC Corporation Project Benefits,
Costs & Schedule Acceleration

		Incremental Analysis				
		FAA ATC Corporation vs Traditional Government Structure				
		Years	(Millions of Present Value \$)			
CIP	PROJECT NAME	SCHEDULE GAIN	BENEFITS	BENEFITS w/o PTS	LIFE CYCLE COSTS	
13	63-05	AERONAUTICAL DATA LINK COMM & APPLICATIONS	2	\$123	\$90	\$58
14	44-33	ALSP CONTINUATION	2	34	34	13
15	32-36	NORTHERN CALIFORNIA METROPLEX	2	34	18	23
6	56-51	AVIATION SAFETY ANALYSIS SYSTEM (ASAS)	2	21	21	7
	32-16	ESTAB/EXPD DIG BRIGHT RADAR INDICATOR TOWER EQ	2	12	5	9
18	43-22	FEAS OPERATIONAL & SUPPORTABILITY IMPLEMEN. SYS.	2	10	10	4
19	21-12	ADVANCED AUTOMATION SYSTEM (AAS)	1	1,928	581	81
20	21-06	TRAFFIC MANAGEMENT SYSTEM (TMS)	1	239	141	5
21	32-22	DALLAS/FORT WORTH METROPLEX	1	95	28	13
22	32-27	DOO/FAA ATC FACILITY TRANSFER/MODERNIZATION	1	51	51	22
23	62-20	TERMINAL ATC AUTOMATION (TATCA)	1	42	15	4
24	56-11	AIRCRAFT FLEET MODERNIZATION	1	36	36	29
25	32-34	POTOMAC METROPLEX	1	27	15	16
TOTALS			\$5,260	\$2,535	\$691	

ATTACHMENT E
PROJECTED FINANCIAL STATEMENTS AND ACCOMPANYING NOTES

AIR TRAFFIC SERVICES CORPORATION

PROJECTED BALANCE SHEET

as of the Transition Date, October 1, 1995

and

PROJECTED FINANCIAL STATEMENTS

as of September 30, 1996 through September 30, 2005

***PRELIMINARY DATA --
SUBJECT TO CHANGE***

FAA CORPORATION ASSESSMENT

ATS CORPORATION

**ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast**

ATS CORPORATION
FINANCIAL INPUTS

PRELIMINARY DATA --
SUBJECT TO CHANGE

ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast

Years Ending September 30,	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
(in millions of dollars)										
SOURCE OF FUNDS										
BEA Baseline										
User taxes	6,179	6,634	7,117	7,618	8,202	8,826	9,487	10,187	10,929	11,709
General fund	2,217	2,233	2,248	2,342	2,441	2,543	2,650	2,762	2,877	2,995
Total, BEA Baseline	8,395	8,867	9,365	9,960	10,642	11,369	12,137	12,949	13,806	14,704
Accelerated-Investment Scenario										
User revenues	6,198	6,643	7,121	7,545	7,995	8,472	8,977	9,513	10,081	10,683
Debt incurred	0	723	1,300	1,129	992	593	618	532	439	85
General fund	611	634	656	679	734	772	810	863	894	936
Total source of funds	6,809	8,000	9,077	9,353	9,721	9,837	10,405	10,908	11,414	11,703
APPLICATION OF FUNDS (Budget Authority)										
BEA Baseline										
Operations	4,779	4,852	4,924	5,170	5,429	5,700	5,985	6,284	6,599	6,929
Facilities and equipment	2,134	2,131	2,126	2,195	2,267	2,340	2,416	2,495	2,576	2,659
Grants-in-aid for airports	1,697	1,691	1,685	1,738	1,792	1,847	1,904	1,963	2,024	2,087
Research, engineering and development	257	257	257	266	275	285	295	305	316	327
Total application of funds	8,866	8,932	8,993	9,369	9,762	10,173	10,601	11,047	11,514	12,002
Accelerated-Investment Scenario										
Operations	4,493	4,513	4,414	4,346	4,623	4,704	5,249	5,599	5,949	6,072
Facilities and equipment	3,600	3,800	3,600	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Grants-in-aid for airports	1,695	1,675	1,648	1,933	1,994	2,079	2,155	2,135	2,311	2,382
Research, engineering and development	276	285	295	306	316	327	339	351	363	376
Total application of funds	10,064	10,273	9,957	9,585	9,933	10,110	10,743	11,085	11,623	11,830

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED STATEMENTS OF OPERATIONS

PRELIMINARY DATA --
SUBJECT TO CHANGE

ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast

Years Ending September 30, (in millions of dollars)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Operating Revenues										
Total User Revenues	4,907	5,264	5,647	5,986	6,345	6,726	7,130	7,557	8,011	8,492
Operating Expenses										
Compensation and related benefits	2,972	3,033	3,003	2,943	3,075	3,117	3,451	3,688	3,927	4,008
Rent, communication and utilities	367	376	372	365	381	386	427	457	486	496
Depreciation	951	1,178	1,442	1,737	1,755	1,804	1,861	1,930	2,011	2,226
Amortization	0	(160)	(260)	(326)	(371)	(398)	(410)	(415)	(415)	(415)
Contracting services	588	715	796	809	825	820	863	896	933	948
Other expenses	313	354	378	380	390	391	418	438	459	468
Total Operating Expenses	5,190	5,496	5,731	5,908	6,055	6,121	6,609	6,994	7,402	7,732
Operating Revenues Over (Under) Expenses	(283)	(232)	(83)	78	290	605	521	563	609	759
Other Income (Expense)										
Interest income	33	27	22	21	21	21	22	24	26	27
Interest expense	0	(28)	(107)	(202)	(285)	(346)	(394)	(438)	(476)	(497)
Other Income (Expense), Net	33	(2)	(85)	(181)	(264)	(325)	(372)	(415)	(451)	(470)
Net Revenues Over (Under) Expenses	(250)	(234)	(168)	(103)	26	280	149	149	158	289

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED STATEMENTS OF CASH FLOWS

PRELIMINARY DATA --
SUBJECT TO CHANGE

ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast

Years Ending September 30, (in millions of dollars)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cash and Cash Equivalents Beginning of Year	553	484	347	336	320	327	327	361	388	415
Cash Flows from Operating Activities										
Net gain (loss)	(250)	(234)	(168)	(103)	26	280	149	149	158	289
Adjustments										
Depreciation	951	1,178	1,442	1,737	1,755	1,804	1,861	1,930	2,011	2,226
Amortization	0	(160)	(260)	(326)	(371)	(398)	(410)	(415)	(415)	(415)
Decrease (increase) in receivables	(605)	(44)	(47)	(42)	(44)	(47)	(50)	(53)	(56)	(59)
Increase (decrease) in accounts payable	396	24	20	15	11	5	37	29	31	26
Increase (decrease) in accrued payroll	114	2	(1)	(2)	5	2	13	9	9	3
Net Cash Provided By Operating Activities	607	767	984	1,279	1,382	1,646	1,600	1,650	1,740	2,071
Cash Flows from Investing Activities										
Additions to plant and equipment	(2,274)	(2,632)	(2,951)	(2,878)	(2,636)	(2,362)	(2,224)	(2,156)	(2,152)	(2,146)
Net Cash Used For Investing Activities	(2,274)	(2,632)	(2,951)	(2,878)	(2,636)	(2,362)	(2,224)	(2,156)	(2,152)	(2,146)
Cash Flows from Financing Activities										
Increase in cash contribution from customers	1,598	1,005	656	455	269	123	41	0	0	0
Net increase (decrease) in long-term debt	0	723	1,300	1,129	992	593	618	532	439	85
Net Cash Provided By Financing Activities	1,598	1,727	1,956	1,583	1,261	716	659	532	439	85
Net Increase (Decrease) in Cash and Cash Equivalents	(69)	(137)	(11)	(15)	7	(1)	35	26	27	10
Cash and Cash Equivalents End of Year	484	347	336	320	327	327	361	388	415	424

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED BALANCE SHEETS

PRELIMINARY DATA --
SUBJECT TO CHANGE

ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast

September 30,	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>(in millions of dollars)</i>											
ASSETS											
Current Assets											
Cash and cash equivalents	553	484	347	336	320	327	327	361	388	415	424
Receivables	0	605	649	696	738	782	829	879	932	988	1,047
Total Current Assets	553	1,089	996	1,032	1,058	1,110	1,156	1,240	1,319	1,402	1,471
Property, Plant and Equipment											
Property, plant and equipment	10,337	12,611	15,243	18,194	18,922	19,408	19,620	19,694	19,700	21,851	23,997
less: accumulated depreciation	(4,912)	(5,863)	(7,041)	(8,483)	(8,070)	(7,675)	(7,329)	(7,040)	(6,820)	(8,831)	(11,058)
Total Property, Plant and Equipment	5,425	6,748	8,202	9,711	10,852	11,733	12,291	12,653	12,879	13,020	12,940
Total Assets	5,978	7,837	9,197	10,743	11,911	12,842	13,447	13,894	14,199	14,422	14,411
LIABILITIES AND EQUITY											
Current Liabilities											
Accounts payable	0	396	421	440	456	466	471	508	537	568	595
Accrued payroll and benefits	0	114	117	115	113	118	120	133	142	151	154
Total Current Liabilities	0	511	538	556	569	585	591	641	679	719	749
Contributed Capital From Customers	0	1,598	2,443	2,838	2,967	2,865	2,589	2,219	1,805	1,390	976
Accrued Leave	203	203	203	203	203	203	203	203	203	203	203
Long-Term Debt	0	0	723	2,023	3,152	4,144	4,737	5,355	5,888	6,327	6,411
Total Liabilities	203	2,312	3,906	5,620	6,890	7,796	8,120	8,418	8,575	8,640	8,339
EQUITY											
Investments - U.S. Government	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775
Capital surplus	0	(250)	(484)	(652)	(755)	(729)	(449)	(300)	(151)	8	297
Total Capital	5,775	5,525	5,291	5,123	5,020	5,046	5,326	5,475	5,624	5,782	6,072
Total Liabilities & Equity	5,978	7,837	9,197	10,743	11,911	12,842	13,447	13,894	14,199	14,422	14,411

The accompanying notes are an integral part of these statements

AIR TRAFFIC SERVICES CORPORATION
SUMMARY OF SIGNIFICANT PROJECTION ASSUMPTIONS
AND ACCOUNTING POLICIES

As of the Transition Date, October 1, 1995

and

Fiscal Years 1996 through 2005

1. DESCRIPTION OF THE ENTITY

The Air Traffic Services (ATS) corporation would be a wholly government-owned, not-for-profit corporation. The projection assumes that Congress creates the ATS corporation in 1994 through a legislative act. The corporation would be effective as of the opening of business on October 1, 1995, the "transition date."

For projected financial reporting purposes, the ATS corporation is defined as activities that provide for controlling air traffic, maintaining air traffic control equipment, modernizing facilities and performing research into ATS corporation's system needs as authorized under the act. The ATS's projected financial statements were prepared by extracting and adjusting ATS-related data from the unaudited financial records and budgets of the Federal Aviation Administration (FAA).

These projected financial statements present, to the best of the FAA management's knowledge and belief, the expected financial position as of the projected date of transition, October 1, 1995, and as of September 30, 1996 through 2005 and for the years then ended. Accordingly, they reflect FAA management's judgment as of April 22, 1994, the date of this projection, of the expected conditions resulting from the transition described above.

The assumptions disclosed herein are those that the FAA management believes are significant to the projection. There usually will be differences between projected and actual results because events and circumstances frequently do not occur as expected and those differences may be material.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The projected financial statements have been prepared using accounting policies and estimates that attempt to present the accrual basis of accounting in accordance with generally accepted accounting principles (GAAP). As of the date of this projection, the historical financial statements of the FAA are not presented under GAAP. The FAA has made certain high-level adjustments to estimate the opening balance sheet of the ATS corporation under GAAP. The basis of accounting used in preparing these statements reflects the basis of accounting that is anticipated to be used to prepare the historical financial statements of the ATS corporation.

Significant Accounting Policies

Cash with U.S. Treasury -- It is assumed that the act will require that certain unexpended balances of appropriations be transferred to the corporation. Included in the projected balance sheet as of the transition date is the amount expected to be transferred on the transition date.

Property and Equipment -- It is assumed that the act will identify the property, equipment and construction in progress that will transfer to the corporation. When completed and placed into service, all construction in progress related to air traffic control would be capitalized by the ATS corporation. All property that transfers to the corporation would be recorded on the projected balance sheet at the FAA's historical cost, net of accumulated depreciation. The opening balance sheet assumes that the assets transferred would be 50 percent depreciated. Depreciation for new assets is calculated using the straight-line method over an average ten-year useful life with no residual value. The average ten-year useful life was derived by weighting the estimated useful lives of the major components of property and equipment using the 1993 asset values.

Property and Equipment Components	Percent of Total	Estimated Useful Life (years)
Buildings	15.60%	40
Other Structures	12.70%	20
Equipment	67.20%	7
Aircraft	4.30%	15
Aircraft Engines	0.10%	10
Leashold Improvements	<u>0.10%</u>	<u>10</u>
Total	100.00%	10.5*

* Weighted average life of depreciable assets

Property and equipment acquired in subsequent years is recorded at cost. Depreciation is calculated as described above beginning the year following acquisition.

Retirement Plan -- It is assumed that in the near term, the ATS corporation would continue to participate in the federal employee retirement plans and the liability for these costs would remain with the Office of Personnel Management. Under this assumption, the majority of the ATS corporation's employees would maintain eligibility in the Civil Service Retirements System (CSRS), to which the corporation would make matching contributions, which are projected to equal 7.0 percent of payroll. These benefits are the responsibility of the Office of Personnel Management. Therefore, the corporation is not responsible for the CSRS assets, accumulated plan benefits or unfunded liabilities, if any, applicable to employees. Nevertheless, the corporation's projected costs for each fiscal year is outlined below.

On January 1, 1987, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired before January 1, 1984, can elect either to join FERS and Social Security or remain in CSRS. A primary feature of FERS is that it offers a savings plan to which the ATS corporation automatically would contribute 1 percent of pay and match any employee contribution up to an additional 4 percent of pay. For most employees hired since December 31, 1983, the ATS corporation also would contribute the employer's matching share for Social Security.

However, employees may have the option to change plans. The financial-statement impact of adopting a new retirement plan would depend on the provisions of the plan and the make-up of the covered employees. The projections do not reflect the adoption of a new retirement plan. A new retirement plan would not have a material impact on the financial statements, if the pension expense for the new plan is similar to current contribution for existing federal plans. A pension liability would need to be recorded to the extent that the new plan is underfunded. The financial impact of any new pension plans would be greater in later years as more employees are covered by these plans.

Capital Contributions from the Customer -- Assets of the Aviation and Airways Trust Fund that are transferred to the ATS corporation would be recorded as a deferred credit for Contributed Capital from Customers. This account, a liability, is amortized over ten years to offset the associated depreciation expense of purchased assets.

Equity Capital -- The transfer of assets at book value net of any liabilities at inception would be recorded as Investment of the U.S. Government and would be included equity account.

Revenue Recognition / Cost Recovery -- Projected revenues are recognized as earned on the accrual basis, when services are rendered to customers.

It is assumed that the initial user fee rates would be prescribed in the act as follows:

<u>ATS Corporation User Fees</u>	
Passenger User Fee	8.0%
Waybill User Fee	5.0%
International Departure Tax	\$4.80 / departure

The corporation's board of directors would consider establishing fees that are more closely related to the costs of providing services and that conform to other guidance and criteria established in the corporation's enabling legislation. These new fees could be instituted after the one year transition.

Accrued Liabilities and Commitments -- It is assumed that the act would retain in the FAA liabilities for all contingencies for events that occurred before the transition date. These include legal claims, union

claims, prior costs for pension and other employee benefit plans, workers' compensation cases and environmental claims.

Workers' Compensation Cost -- Workers' compensation costs would be self-insured by the ATS corporation and administered by the Department of Labor. Such costs, which include both medical and wage continuation costs, are recorded as an operating expense in the year of payment. The current treatment is not GAAP. To record this transaction in accordance with GAAP, the ATS corporation would be required to accrue the liability for the estimated cost of all events that had occurred that would ultimately result in a workers' compensation claim. This liability would include reported claims and claims that had been incurred but not reported. Each year the change to this liability would be recorded as a current-year expense. The net effect on expenses is assumed not to be materially different from the current treatment. It is assumed that the act would exclude from the ATS corporation any claims for events that occurred before the transition date.

Postretirement Benefits Other Than Pensions -- Substantially all employees of the ATS corporation would be covered under postretirement health and life insurance benefits plans. It is assumed that the Office of Personnel Management would continue to be responsible for the future payments of these benefits and therefore, no liability has been projected for the corporation. See the discussion of retirement plan benefits above.

Legal Claims and Related Costs -- It is assumed that the ATS corporation will reimburse the Justice Department settlement fund for air traffic settlements and related legal costs.

Income Taxes -- It is assumed that the act would stipulate that the ATS corporation is not subject to federal and state income or property taxes except that unemployment compensation, and social security contributions, shall be paid; therefore, no accruals for current or deferred federal or state income taxes are reflected in the projected balance sheet.

3. SUMMARY OF SIGNIFICANT PROJECTION ASSUMPTIONS

The model contemplates two scenarios for the government corporation. Under the base-case scenario, the results are projected with no significant changes to the operating expenses from the current budget estimates for the government agency. Under the accelerated-investment scenario, the

results are projected assuming a more rapid schedule of capital investment. The following assumptions describe the methods used in projecting the balance sheets, and statements of operations and cash flows.

- A. *Transferred Assets* -- Existing net property, plant and equipment are transferred to the corporation and recorded as an equity investment of the U.S. government. Under this assumption depreciation on transferred assets is recovered in revenues to present a viable corporation. To support this assumption, one must contend that users are not being "double charged" for these assets. Prior excise taxes did not give the users rights to these assets but were meant to supplement the government's cost of providing services. In the past, user taxes did not fully finance ATS operations. As in most monopoly rate-making situations, the users' rights run to the services derived from the assets, not to the assets themselves.
- B. *Capital Contributions from Customers* -- Capital contributions from customers would represent reimbursements to the corporation from the trust fund to pay for outlays for committed capital projects as of October 1, 1995. These funds are recorded as a liability when received and amortized over ten years to match the useful life of the assets purchased. Therefore, depreciation of these purchased assets would have no net effect on the statement of operations and would not be recovered through revenues. This treatment reflects the assumption that the transfers from the trust fund are prepayments from customers rather than an equity contribution of the U.S. government. If they were treated as an equity contribution from the U.S. government, users might contend that they were being "double charged" by financing the purchased assets and having to pay for depreciation expense in revenues.
- C. *Return of Equity Investment of U.S. Government* -- All private corporations and some government corporations provide for a return on equity capital. Because this is a wholly government-owned, not-for-profit corporation, however, the task force has made the assumption that no return on the equity investment of the U.S. government is required.
- D. *User Fee Revenues* -- Overall, user fees are assumed to be set at a level to have the ATS corporation revenues approximately equal expenses over the ten-year period. Revenues are based on multiplying the initial user-fee rates as previously described by the usage projection (for example, passenger ticket revenues).

Naturally, a lower growth rate in the usage base would result in lower revenues for the ATS corporation. In order for the corporation to remain viable, these lower usage projections would need to be made up through higher user fee rates or reduced expenses.

- E. Public Users* -- The projections assume that public users, primarily the Department of Defense, would not accept payments for services they provide or make payments for ATS services. A thorough study will determine, however, the cost of these services.
- F. Allocation of Business Between the ATS and Remaining FAA* -- Certain assumptions have been made regarding the mission of the ATS corporation versus that of the remaining FAA.
- G. Capital Expenditures* -- All of the property and equipment budget-object classes for the operations and research, engineering and development programs and 80 percent of the total facilities and equipment programs related to the ATS corporation are capitalized under the current model. This assumption is an estimate of assets to be capitalized in accordance with GAAP. For the base-case scenario, capital expenditures have been projected using current budget projections from the FAA.

The historical average outlay profile for capital projects that have been approved shows a pattern of expenditures over an eight-year period with a majority of the money spent in the first few years. Consistent with the assumption of streamlining the acquisition process, the outlay pattern for capital projects has been projected to be reduced from eight years to five years. The accelerated-investment scenario increases capital expenditures from this base projection by approximately \$4.0 billion from fiscal 1996 through 2005.

- H. Operating Expenses Excluding Depreciation and Amortization* -- Operating expenses match outlays for budget projections under the base-case scenario. Budget projections would result in a nominal growth of 1 percent in operating expenses from fiscal 1996 to 1999 and 4 percent thereafter. Under the accelerated-investment

scenario, cash operating expenses would be slightly lower than for the base-case scenario due to operating efficiencies from implementing new technology.

- I. *Use of Debt* -- Debt is used to finance capital expenditures as needed when financing from internally generated funds and capital contributions from customers have been depleted.
- J. *Exemption from Budget Enforcement Act* -- The accelerated-investment scenario includes an assumption that the corporation would be exempt from the Budget Enforcement Act, which would restrict the corporation from spending at these levels.
- K. *Working Capital* -- Working capital is composed of current assets and current liabilities. Certain assumptions have been made regarding the corporation's management of working capital. The assumptions have an impact on the level of financing projected in the balance sheet but would not affect the projected statement of operations because it is estimated on an accrual basis. The key working-capital assumptions include:
 - ❑ *Cash and Cash Equivalents* -- Minimum operating cash projected, based on one month's operating expenses with excess cash used to pay down debt.
 - ❑ *Accounts Receivable* -- Forty-five days, revenue in accounts receivable
 - ❑ *Accounts Payable* -- Thirty days, expenditures in accounts payable excluding payroll.
 - ❑ *Accrued Payroll* -- Approximately two weeks salary and benefits in accrued payroll.
- L. *Interest Income and Expense* -- Interest on cash balances is projected at 5.9 percent. This percentage is equal to the average of the short-term and the long-term interest rates cited in the president's budget for fiscal 1994. Long-term debt interest expense is projected at a rate of 8 percent reflecting the long-term cost of borrowing for high quality corporate debt.

**REMAINING FAA AND THE AIRPORT AND
AIRWAY TRUST FUND**

Projected Sources and Uses of Funds

Fiscal Years 1996 through 2005

**REMAINING FAA
PROJECTED SOURCES AND USES OF FUNDS**

**PRELIMINARY DATA --
SUBJECT TO CHANGE**

**ATS CORPORATION
ACCELERATED-INVESTMENT SCENARIO**

September 30,	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>(in millions of dollars)</i>										
Source of Funds										
General Fund	611	634	656	679	734	772	810	863	894	936
Airport and Airway Trust Fund										
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total Airport and Airway Trust Fund	2,069	2,059	2,048	2,073	2,194	2,284	2,375	2,447	2,521	2,630
Total Funds	2,680	2,692	2,705	2,752	2,927	3,056	3,184	3,310	3,415	3,566
Use of Funds										
Operations: Airports	40	39	38	38	39	40	41	42	44	45
Operations: Other	571	595	618	642	695	732	769	821	850	891
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total Outlays	2,680	2,692	2,705	2,752	2,927	3,056	3,184	3,310	3,415	3,566

The accompanying notes are an integral part of these statements

**AIRPORT AND AIRWAY TRUST FUND
PROJECTED SOURCES AND USES OF FUNDS**

**PRELIMINARY DATA --
SUBJECT TO CHANGE**

**ACCELERATED-INVESTMENT SCENARIO
Growth Revenue Forecast**

September 30, (in millions of dollars)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cash Balance at Beginning of Year	12,619	10,369	9,220	8,478	7,955	7,556	7,285	7,089	6,955	6,851
Source of Funds										
Excise taxes	1,291	1,379	1,473	1,559	1,650	1,746	1,848	1,956	2,070	2,191
Interest on investments	736	627	566	526	496	475	460	449	442	435
Total Income	2,027	2,006	2,040	2,085	2,146	2,221	2,308	2,405	2,512	2,626
Use of Funds										
Prior Commitments to ATS Corporation	2,135	1,021	656	455	269	123	41			
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Other outlays	73	76	78	80	82	85	88	91	95	98
Federal Aviation Administration										
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total FAA	335	343	357	359	357	350	352	359	371	383
Total Outlays	4,277	3,156	2,782	2,607	2,545	2,492	2,504	2,538	2,616	2,728
Cash Balance at End of Year	10,369	9,220	8,478	7,955	7,556	7,285	7,089	6,955	6,851	6,749
Commitments										
Prior year authorizations	4,114	2,269	1,205	548	182	45				
New authorizations	1,604	2,382	2,742	3,167	3,431	3,602	3,754	3,822	3,997	4,139
Total Commitments	5,718	4,651	3,947	3,715	3,612	3,647	3,754	3,822	3,997	4,139
Uncommitted Balance at End of Year	4,651	4,568	4,531	4,240	3,944	3,638	3,334	3,133	2,854	2,611

The accompanying notes are an integral part of these statements

**REMAINING FAA
AND THE AIRPORT AND AIRWAY TRUST FUND
SOURCES AND USES OF FUNDS**

Summary of Significant Assumptions

1. These statements are not prepared under GAAP. They are intended to project the sources and uses of funds on an estimated cash basis by converting projected budget authority to estimated cash receipts and outlays. The budget spending authority represents the remaining FAA's portion of the president's most recent budget for the FAA as follows:

<u>FAA Budget</u>	<u>Remaining FAA Portion</u>	<u>ATS Corporation Portion</u>
Operations	13.0%	87.0%
Facilities and Equipment (F&E)	10.0%	90.0%
Research, Engineering and Development (RE&D)	40.0%	60.0%
Airport Improvement (AIP)	100.0%	0.0%

2. General Fund Appropriations -- The General Fund would pay for the operations budget for the remaining FAA.
3. Except for the committed balances for the ATS corporation at October 1, 1995, the trust fund would be dedicated to funding the remaining FAA.
4. The enabling legislation would include a reduction in existing excise taxes as follows:

	<u>Current Excise Taxes</u>	<u>New Excise Taxes Effective October 1, 1995</u>
Passenger Ticket Tax	10.0%	1.85%
Waybill Tax	6.25%	1.25%
International Departure Tax	\$6.00 / departure	\$1.20/departure
AV Gas Tax	\$0.15 / gallon	\$0.15 / gallon
Jet Fuel Tax	\$0.175 / gallon	\$0.175 / gallon

During the ten-year projection period, trust fund appropriations would exceed excise-tax receipts, resulting in a drawdown of the uncommitted trust fund balances. This meets an objective of the Corporation

Assessment Task Force. Because the growth in excise tax receipts is greater than the level of appropriations needed to support the remaining FAA, the trust fund receipts are roughly equal to outlays by the end of the projection horizon when the trust fund reached a stable level.

Beginning in fiscal 2000, the projections assume slightly increased excise taxes. These higher excise taxes are sufficient for trust fund receipts approximately to equal appropriations so that the trust fund is self-sustaining.

6. The following increases are projected for the budget authority of the remaining FAA:

	1996-1999	2000-2005
Operations	0.0%	5.0%
F&E	3.25%	3.25%
RE&D	3.5%	3.5%
AIP	0.8%	3.10%

These budget projections were provided by the FAA.

7. Prior commitments to the ATS corporation represent payment to the ATS corporation for operating and capital commitments outstanding as of October 1, 1995.

***PRELIMINARY DATA --
SUBJECT TO CHANGE***

FAA CORPORATION ASSESSMENT

ATS CORPORATION

**BASE-CASE SCENARIO
Growth Revenue Forecast**

**ATS CORPORATION
FINANCIAL INPUTS**

**PRELIMINARY DATA --
SUBJECT TO CHANGE**

**BASE-CASE SCENARIO
Growth Revenue Forecast**

Years Ending September 30,	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>(in millions of dollars)</i>										
SOURCE OF FUNDS										
BEA Baseline										
User taxes	6,179	6,634	7,117	7,618	8,202	8,826	9,487	10,187	10,929	11,709
General fund	2,217	2,233	2,248	2,342	2,441	2,543	2,650	2,762	2,877	2,995
Total, BEA Baseline	8,395	8,867	9,365	9,960	10,642	11,369	12,137	12,949	13,806	14,704
Base-Case Scenario										
User revenues	6,198	6,556	7,027	7,445	7,502	7,949	8,423	8,925	9,458	10,022
Debt incurred	0	0	174	330	715	739	719	765	663	585
General fund	611	634	656	679	734	772	810	863	894	936
Total source of funds	6,809	7,189	7,857	8,455	8,951	9,460	9,952	10,553	11,015	11,543
APPLICATION OF FUNDS (Budget Authority)										
BEA Baseline										
Operations	4,779	4,852	4,924	5,170	5,429	5,700	5,985	6,284	6,599	6,929
Facilities and equipment	2,134	2,131	2,126	2,195	2,267	2,340	2,416	2,495	2,576	2,659
Grants-in-aid for airports	1,697	1,691	1,685	1,738	1,792	1,847	1,904	1,963	2,024	2,087
Research, engineering and development	257	257	257	266	275	285	295	305	316	327
Total application of funds	8,866	8,932	8,993	9,369	9,762	10,173	10,601	11,047	11,514	12,002
Base-Case Scenario										
Operations	4,555	4,555	4,555	4,555	4,792	5,021	5,272	5,635	5,811	6,101
Facilities and equipment	2,340	2,416	2,495	2,576	2,659	2,746	2,835	2,927	3,022	3,121
Grants-in-aid for airports	1,695	1,675	1,648	1,933	1,994	2,079	2,155	2,135	2,311	2,382
Research, engineering and development	276	285	295	306	316	327	339	351	363	376
Total application of funds	8,866	8,932	8,992	9,369	9,762	10,173	10,600	11,048	11,507	11,979

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED STATEMENTS OF OPERATIONS

PRELIMINARY DATA --
SUBJECT TO CHANGE

BASE-CASE SCENARIO
Growth Revenue Forecast

Years Ending September 30, <i>(in millions of dollars)</i>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Operating Revenues										
Total User Revenues	4,907	5,176	5,553	5,886	5,852	6,203	6,575	6,970	7,388	7,831
Operating Expenses										
Compensation and related benefits	2,995	3,024	3,040	3,040	3,166	3,314	3,476	3,703	3,834	4,015
Rent, communication and utilities	370	374	376	376	392	410	430	458	475	497
Depreciation	951	1,154	1,357	1,569	1,514	1,508	1,529	1,573	1,640	1,847
Amortization	0	(160)	(260)	(326)	(371)	(398)	(410)	(415)	(415)	(415)
Contracting services	562	642	704	734	772	804	838	880	911	948
Other expenses	306	331	351	361	378	394	411	434	449	468
Total Operating Expenses	5,184	5,365	5,568	5,755	5,850	6,032	6,274	6,634	6,894	7,360
Operating Revenues Over (Under) Expenses	(277)	(189)	(14)	132	2	171	301	336	495	471
Other Income (Expense)										
Interest income	41	41	28	21	21	22	23	24	25	27
Interest expense	0	0	(7)	(26)	(67)	(124)	(181)	(239)	(294)	(343)
Other Income (Expense), Net	41	41	21	(6)	(46)	(102)	(158)	(215)	(269)	(317)
Net Revenues Over (Under) Expenses	(236)	(148)	7	126	(45)	69	143	121	225	155

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED STATEMENTS OF CASH FLOWS

PRELIMINARY DATA --
SUBJECT TO CHANGE

BASE-CASE SCENARIO
Growth Revenue Forecast

Years Ending September 30, <i>(in millions of dollars)</i>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cash and Cash Equivalents Beginning of Year	553	741	548	329	322	330	344	361	387	403
Cash Flows from Operating Activities										
Net gain (loss)	(236)	(148)	7	126	(45)	69	143	121	225	155
Adjustments										
Depreciation	951	1,154	1,357	1,569	1,514	1,508	1,529	1,573	1,640	1,847
Amortization	0	(160)	(260)	(326)	(371)	(398)	(410)	(415)	(415)	(415)
Decrease (increase) in receivables	(605)	(33)	(46)	(41)	4	(43)	(46)	(49)	(52)	(55)
Increase (decrease) in accounts payable	396	15	16	15	7	13	18	27	20	37
Increase (decrease) in accrued payroll	115	1	1	0	5	6	6	9	5	7
Net Cash Provided By Operating Activities	621	829	1,074	1,344	1,113	1,154	1,240	1,267	1,424	1,576
Cash Flows from Investing Activities										
Additions to plant and equipment	(2,032)	(2,026)	(2,123)	(2,136)	(2,089)	(2,003)	(1,983)	(2,006)	(2,071)	(2,139)
Net Cash Used For Investing Activities	(2,032)	(2,026)	(2,123)	(2,136)	(2,089)	(2,003)	(1,983)	(2,006)	(2,071)	(2,139)
Cash Flows from Financing Activities										
Increase in cash contribution from customers	1,598	1,005	656	455	269	123	41	0	0	0
Net increase (decrease) in long-term debt	0	0	174	330	715	739	719	765	663	585
Net Cash Provided By Financing Activities	1,598	1,005	830	785	984	862	760	765	663	585
Net Increase (Decrease) in Cash and Cash Equivalents	188	(193)	(219)	(8)	9	13	17	26	16	22
Cash and Cash Equivalents End of Year	741	548	329	322	330	344	361	387	403	425

The accompanying notes are an integral part of these statements

ATS CORPORATION
PROJECTED BALANCE SHEETS

PRELIMINARY DATA --
SUBJECT TO CHANGE

BASE-CASE SCENARIO
Growth Revenue Forecast

September 30,	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>(in millions of dollars)</i>											
ASSETS											
Current Assets											
Cash and cash equivalents	553	741	548	329	322	330	344	361	387	403	425
Receivables	0	605	638	685	726	721	765	811	859	911	966
Total Current Assets	553	1,346	1,186	1,014	1,047	1,052	1,109	1,172	1,246	1,314	1,390
Property, Plant and Equipment											
Property, plant and equipment	10,337	12,369	14,395	16,518	16,504	16,443	16,296	16,129	15,985	18,056	20,195
less: accumulated depreciation	(4,912)	(5,863)	(7,017)	(8,374)	(7,793)	(7,157)	(6,514)	(5,893)	(5,316)	(6,956)	(8,803)
Total Property, Plant and Equipment	5,425	6,506	7,378	8,144	8,711	9,286	9,781	10,235	10,668	11,100	11,392
Total Assets	5,978	7,851	8,564	9,158	9,758	10,338	10,890	11,407	11,915	12,414	12,782
LIABILITIES AND EQUITY											
Current Liabilities											
Accounts payable	0	396	410	427	442	449	462	480	508	528	564
Accrued payroll and benefits	0	115	116	117	117	122	127	134	142	147	154
Total Current Liabilities	0	511	527	544	559	570	590	614	650	675	719
Contributed Capital From Customers	0	1,598	2,443	2,838	2,967	2,865	2,589	2,219	1,805	1,390	976
Accrued Leave	203	203	203	203	203	203	203	203	203	203	203
Long-Term Debt	0	0	0	174	504	1,220	1,959	2,678	3,443	4,106	4,691
Total Liabilities	203	2,312	3,172	3,759	4,233	4,858	5,341	5,715	6,101	6,375	6,589
EQUITY											
Investments - U.S. Government	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775
Capital surplus	0	(236)	(383)	(376)	(250)	(295)	(226)	(82)	39	264	419
Total Capital	5,775	5,539	5,392	5,399	5,525	5,480	5,549	5,693	5,814	6,039	6,194
Total Liabilities & Equity	5,978	7,851	8,564	9,158	9,758	10,338	10,890	11,407	11,915	12,414	12,782

The accompanying notes are an integral part of these statements

**AIRPORT AND AIRWAY TRUST FUND
PROJECTED SOURCES AND USES OF FUNDS**

**PRELIMINARY DATA --
SUBJECT TO CHANGE**

**BASE-CASE SCENARIO
Growth Revenue Forecast**

September 30, <i>(in millions of dollars)</i>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cash Balance at Beginning of Year	12,619	10,369	9,220	8,478	7,955	7,556	7,285	7,089	6,955	6,851
Source of Funds										
Excise taxes	1,291	1,379	1,473	1,559	1,650	1,746	1,848	1,956	2,070	2,191
Interest on investments	736	627	566	526	496	475	460	449	442	435
Total Income	2,027	2,006	2,040	2,085	2,146	2,221	2,308	2,405	2,512	2,626
Use of Funds										
Prior Commitments to ATS Corporation	2,135	1,021	656	455	269	123	41			
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Other outlays	73	76	78	80	82	85	88	91	95	98
Federal Aviation Administration										
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total FAA	335	343	357	359	357	350	352	359	371	383
Total Outlays	4,277	3,156	2,782	2,607	2,545	2,492	2,504	2,538	2,616	2,728
Cash Balance at End of Year	10,369	9,220	8,478	7,955	7,556	7,285	7,089	6,955	6,851	6,749
Commitments										
Prior year authorizations	4,114	2,269	1,205	548	182	45				
New authorizations	1,604	2,382	2,742	3,167	3,431	3,602	3,754	3,820	4,000	4,155
Total Commitments	5,718	4,651	3,947	3,715	3,612	3,647	3,754	3,820	4,000	4,155
Uncommitted Balance at End of Year	4,651	4,568	4,531	4,240	3,944	3,638	3,334	3,135	2,851	2,594

The accompanying notes are an integral part of these statements

**REMAINING FAA
PROJECTED SOURCES AND USES OF FUNDS**

**PRELIMINARY DATA --
SUBJECT TO CHANGE**

**ATS CORPORATION
BASE-CASE SCENARIO**

September 30,	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>(in millions of dollars)</i>										
Source of Funds										
General Fund	611	634	656	679	734	772	810	863	894	936
Airport and Airway Trust Fund										
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total Airport and Airway Trust Fund	2,069	2,059	2,048	2,073	2,194	2,284	2,375	2,447	2,521	2,630
Total Funds	2,680	2,692	2,705	2,752	2,927	3,056	3,184	3,310	3,415	3,566
Use of Funds										
Operations: Airports	40	39	38	38	39	40	41	42	44	45
Operations: Other	571	595	618	642	695	732	769	821	850	891
Facilities and equipment	231	240	254	254	249	238	236	239	247	255
Grants-in-aid for airports	1,734	1,716	1,692	1,713	1,837	1,934	2,022	2,088	2,150	2,247
Research, engineering and development	104	103	103	105	108	112	116	120	124	128
Total Outlays	2,680	2,692	2,705	2,752	2,927	3,056	3,184	3,310	3,415	3,566

The accompanying notes are an integral part of these statements