Airport terminal

8. The Future

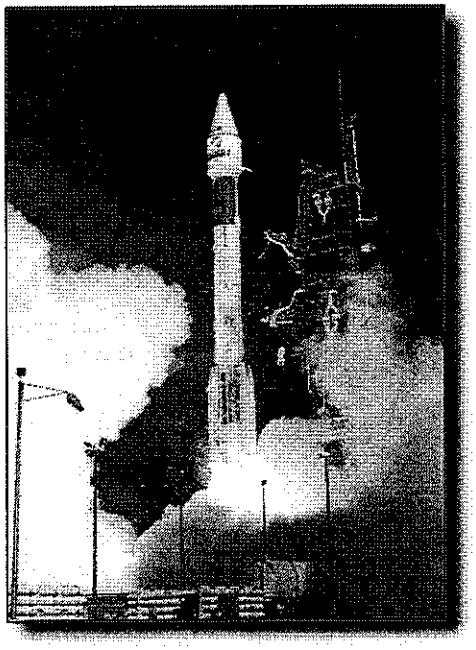
Aviation plays a vital role in the U.S. and global economies. The NAS must support the needs of the aviation community. The FAA is committed to meeting NAS user needs through modernization; the FAA will deploy systems and implement procedures per the NAS Architecture to provide enhanced services.

Research & Development (R&D)

NASA is a key partner with the FAA. Portions of the OEP reflect this partnership. NASA provides crucial R&D on ATM technologies. FAA and NASA develop advanced ATC support tools, improve training efficiency, enhance safety through human factors research, and develop and test advanced CNS systems.

NASA researches, develops, and verifies new technology that the FAA may introduce into the NAS. The FAA is working on technologies to help with aircraft flow, including high-altitude aircraft, into busy airports. Additionally, a flexible SMS that will reduce arrival and departure delays is being investigated. These are just two examples of the many next-generation technologies being evaluated.

Commercial Space Transportation



Commercial space launch

Since the passage of the 1984 Commercial Space Launch Act and the ban of commercial payloads from flying aboard the Space Shuttle after the Challenger disaster in the mid-1980s, the U.S. commercial launch industry has emerged as a viable alternative for access to space for both commercial and government payloads. Today, commercial vehicles remain the only mode of transportation to space available in the U.S. for non-government payloads. U.S. launch vehicle manufacturers and service providers offer boosters of many sizes to accommodate a variety of lift-capacity needs and continue to introduce new vehicles into the market. The FAA conducted a study and documented the results of the economic impact of commercial space transportation on the U.S. economy (over $61.3 billion in 1999).

To support commercial space transportation, the FAA continues to work on the Space and Air Traffic Management System, the program for future integration of commercial space launch operations into the ATM system. In addition, the FAA evaluates proposed launch sites to issue licenses. The U.S. space launch ranges also support commercial space launches and are undertaking a series of programs to be upgraded and modernized.

Global Vision

The U.S. has the largest civil aviation infrastructure and the most civil aviation activities in the world. Yet, many other nations have developed unique aviation systems. International air travel requires compatibility between the U.S. and other nations in terms of CNS capabilities and technologies. This need will become more vital as modernization occurs throughout the world.

"A successful future for aviation requires community consensus on core goals and strategies, strategic investment in new aircraft and new avionics, improved and expanded facilities, new and enhanced technologies, and a trained, experienced workforce in the air and on the ground."

Charles E. Keegan,*
Associate Administrator
Research and Acquisitions

The FAA also continues to work closely with the ICAO and its other members in establishing international standards that make global air travel safe and efficient. Currently, work is being done to implement Required Navigation Performance, develop Required Communications Performance and Required Surveillance Performance, standardize data link structure, and promote worldwide application of GPS.

The FAA has always been an active participant in developing new capabilities for civil aviation and will continue to play a major role in providing technology and training to many nations of the world.