The Role of Government in Aviation

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Federal Regulation of Air Commerce
Since the first commercial use of airplanes in the 1920s to carry mail for the U.S. Postal Service, the federal government has been, and continues to be, heavily involved in promoting and regulating the aviation industry. The air mail and commerce acts in the 1920s and 1930s were the beginning of the government role in aviation. The military use of all types of aircraft as weapons, starting with the U.S. entry in World War I and later in World War II and beyond, transformed the aviation industry into one of the biggest and most important industries on the planet.

The early court cases and legal interpretations resulting from the new aviation industry established that “air commerce” is broadly defined as any operation of anything that flies. The legal definition allowed the federal government to preempt state governments in regulating aviation whether the flight operations are private or for commercial purposes.

By the mid-1920s, a system of regulations was developed first under the U.S. Commerce Department and later under the Civil Aviation Administration, and then the Federal Aviation Agency, and now the Federal Aviation Administration, covering the certification of pilots, mechanics, aircraft, manufacturers, and other aspects of aviation. As the industry developed with improved aircraft capabilities, the number of federal regulations grew as well. Not only were safety regulations put in place, but early on the economics of commercial transportation were regulated by the federal government. Certain economic aspects of aviation continue to be regulated by the federal government today, such as the approval of international air carriers and the requirements for insurance in commercial transportation.

The Department of Transportation was created in the executive branch of the federal government in 1966 by an act of Congress, and the Federal Aviation Agency was renamed the Federal Aviation Administration and became a part of the Department of Transportation. The Secretary of Transportation is a presidential cabinet position. The mission of the Department is to: “Serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.” [1]

The Secretary of Transportation is the principal adviser to the President in all matters that relate to the federal transportation program. Assisted by the Deputy Secretary, the Office of the Secretary of Transportation (OST) is responsible for the formulation of national transportation policy and promotes intermodal transportation. This office also negotiates and implements international transportation agreements. The office ensures that the airlines are able to provide a safe and adequate service and enforces airline consumer protection regulations, and other regulations preventing illegal use of alcohol and drugs in any type of transportation system. The office also prepares transportation legislation.

The Federal Aviation Administration (FAA) is charged with the functions of: Promoting aviation, establishing and maintaining the air traffic system, enforcing safety regulations, educating, certifying personnel and regulating international transportation.
“The Federal Aviation Administration (FAA) oversees the safety of civil aviation. The safety mission of the FAA is first and foremost and includes the issuance and enforcement of regulations and standards related to the manufacture, operation, certification and maintenance of aircraft. The agency is responsible for the rating and certification of airmen and for certification of airports serving air carriers. It also regulates a program to protect the security of civil aviation, and enforces regulations under the Hazardous Materials Transportation Act for shipments by air. The FAA, which operates a network of airport towers, air route traffic control centers, and flight service stations, develops air traffic rules, allocates the use of airspace, and provides for the security control of air traffic to meet national defense requirements. Other responsibilities include the construction or installation of visual and electronic aids to air navigation and promotion of aviation safety internationally. The FAA, which regulates and encourages the U.S. commercial space transportation industry, also licenses commercial space launch facilities and private sector launches.” [2]

A closer look at some of the FAA offices and functions will help you to understand how much the federal government is involved in this vital industry.

The **FAA Administrator** is the top administrator of the FAA and provides the technical information and advice to the Secretary of Transportation. When airman certificates are issued, the name and signature of the FAA Administrator is found on the certificate as the authority of the FAA to certify.

![Regions and Aeronautical Center Operations](image)

The **Assistant Administrator for Regions and Center Operations** (ARC) reports directly to the FAA Administrator and leads a nation-wide organization through a headquarters office in Washington, D.C., nine regional offices strategically located across the country, and the Mike Monroney Aeronautical Center in Oklahoma City. [4]
The **FAA Office of the Chief Counsel** serves the FAA by providing legal services to the FAA Administrator and other organizations in the FAA at the Headquarters, Regional, and Center levels. Chief Counsel legal services include a variety of areas such as airports and environmental law, ethics, and regulations.

The **Airports** organization has the goal of a safe and efficient national airport system in the country and thus provides leadership over the many programs related to airport safety, airport design and development, and construction and operation. Fees are collected from the passengers using the air transportation system to help fund airport development and improvements. This office awards, at the time of writing, about $3.5 billion in airport grants. The office also sets up a national airport planning process that meets environmental and social requirements in addition to establishing policies affecting airports.

The **Air Traffic** organization has the purpose of safely and efficiently moving air traffic consisting of private and commercial aviation and military across the country. The providers of this service includes the 35,000 controllers, technicians, engineers, and support personnel who work daily to keep aircraft moving. Each year the air traffic system handles over 660 million passengers and 37 billion cargo revenue miles. Every day about 50,000 aircraft are safely guided through national airspace system.

**Aviation Safety** is the organization that is responsible for the aircraft production approval and certification to airworthiness standards and the certification of personnel in safety-related positions, such as pilots and mechanics.

Aviation Safety is also responsible for:

- Certification of all operational and maintenance enterprises in domestic civil aviation
- Certification and safety oversight of approximately 7,300 U.S. commercial airlines and air operators
- Civil flight operations
- Developing regulations

The **Office of Civil Rights** advises, represents, and assists the FAA Administrator on civil rights and equal opportunity matters that work to eliminate unlawful discrimination based on such things as race, color, or age.

The **Office of Commercial Space Transportation** encourages, facilitates and promotes U.S. commercial space transportation while protecting the public, property, and the national security and foreign policy interests of the U.S. during commercial launch or reentry activities.

**International Field Offices (IFO) and International Field Units (IFU)** authorize operations to the United States by foreign air carriers. The IFOs and IFUs certify and monitor foreign air carriers operating in the United States and U.S. Foreign Repair Stations for assigned geographic areas and services.

The **Office of Policy, International Affairs, and Environment** leads in the setting of policies that increase safety and capacity of the global aerospace system in harmony with the environment. The office leads
the FAA's strategic policy and planning efforts in areas such as aviation activity forecasts, aircraft noise and emissions research, and aviation insurance.

The **Office of Aviation Policy and Plans** develops policies, goals and priorities, forecasts future aviation technology and demand and analyzes the economic impact of regulations while the **Office of International Affairs** provides leadership of the agency's international programs for harmonization of global standards, technical assistance, training and infrastructure planning. The **Office of Environment and Energy** develops, recommends, and coordinates national aviation policy relating to environmental and energy matters, which includes noise and emissions.

**Flight Standards District Offices**
The Flight Standards District Offices (FSDOs) are located in every state and handle FAA matters in their local areas including airmen certification (licensing) for pilots, mechanics, repairmen, dispatchers, and parachute riggers. The FSDOs handle enforcement issues associated with airmen and aircraft regulations in their area. For example, the FSDO would investigate a report of a low-flying aircraft or work through operational issues with aircraft operators in their area.

**Department of Homeland Security and Transportation Security Administration**
The Department of Homeland Security was created after the terrorist attacks of 9/11 with the mission to secure the nation from the many threats the nation faces, such as threats from terrorist attacks. Over 230,000 employees work in jobs such as aviation, border security, and cyber security with the goal to keep America safe.

The Transportation Security Association (TSA) under the Department of Homeland Security has the mission of protecting the nation’s transportation system. The TSA initiates measures to maintain security and safety in all modes of transportation and especially the air transportation system. The TSA fully implemented the Secure Flight program that was a key part of the 9/11 Commission’s recommendations. The Secure Flight program screens 100 percent of passengers on flights from, within, or bound for the United States against government terrorist watch lists. The TSA has employed new technologies to detect threats that are developing including Advanced Imaging Technology (AIT) units, Explosive Detection Systems, Explosives Trace Detection units, Advanced Technology X-Ray systems, and Bottled Liquid Scanners. Advanced security measures are being employed for all air carriers with international flights to the United States that increases the safety and security of all passengers. The TSA also approves alien flight students for initial flight training in the United States and requires all initial student pilots to provide proof of U.S. citizenship before starting flight lessons.
TSA X-Ray Screening Technology

**FAA.GOV**

The FAA.GOV website is the portal to all authoritative information for the aviation industry which includes the current regulations in effect. Links to other government websites are found at this main website. Federal Aviation Regulations (FARs) are found in Title 14 of the Civil Federal Regulations, mostly in Parts 1-199. For example, Part 61 covers the certification of pilots and flight instructors and Part 91 covers general flight rules. Airworthiness Directives (ADs) are issued by the FAA for problems with aircraft that must be addressed in a certain way to maintain airworthiness for safe and legal flight. The current and past ADs can be searched and found from within the main FAA website. Many training resources in the form of handbooks and Advisory Circulars (ACs) can be downloaded free of charge from the government website. Also, all the forms needed in aviation can be downloaded.

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**Electronic Code of Federal Regulations - Title 14 [7]**

The FAA maintains a database of aircraft, certificate holders such as pilots, mechanics, and flight instructors. This computer system enables applications for pilots and other certificates to be completed.
totally online and the information to be verified electronically. The internet has truly enabled the FAA to provide a much more enhanced service to the aviation community at a lower cost to the taxpayers.

**NASA**
The National Aeronautics and Space Administration (NASA) is the government entity that has the vision: “To reach for new heights and reveal the unknown so that what we do and learn will benefit all humankind.” [8]

To do that, thousands of people have been working around the world -- and off of it -- for 50 years, trying to answer some basic questions. What's out there in space? How do we get there? What will we find? What can we learn there, or learn just by trying to get there, that will make life better here on Earth?” [8] In 1958, NASA developed out of the National Advisory Committee on Aeronautics (NACA), which had been researching flight technology for more than 40 years. NASA is famous for accomplishing President John F. Kennedy’s vision of putting men on the moon before the end of the decade of the 1960s. NASA has been involved in many programs over the years such as the Space Shuttle program and the Mars Pathfinder. NASA also benefits the aviation industry with research programs that help to prevent aircraft accidents such as was accomplished with the Airframe Icing Research Program in the 2000 decade.

NASA has great educational programs to share the large volume of research information. The NASA website provides access to huge volumes of resources and information for the public, educators, students, media, policy makers, and research scientists.

**National Transportation Safety Board (NTSB)**
The National Transportation Safety Board (NTSB) is a government agency charged with the responsibility to determine the probable cause of transportation accidents and to share the valuable information gathered with the public and industries to help prevent similar types of accidents in the future. The NTSB makes recommendations to the transportation industries, to the FAA, and to members of Congress and the President in transportation safety matters including air transportation. The NTSB has no legal power to legislate or administrate transportation law; but their recommendations greatly affect the decisions made in the legislative and executive branches of the federal government.

**Non-Combat Military Aviation**
The military, which is a government entity, provides many services to the country other than combat. The military assists in defending the homeland from terrorists’ attacks with activities such as the intercept of aircraft intruding into protected airspace, like in and around the nation’s capital, and the surveillance of activities, foreign or domestic, that could be harmful.

The military is called upon to assist in search and rescue missions during and after national and even international disasters such as earthquakes or floods. People are sometimes transported out of harm’s way from foreign threats. The military flies the President of the United States and other officials in Air Force One.
Air Force One over Mount Rushmore in Rapid City, S.D.

In summary, the government is involved in every aspect of transportation public and private. The greater the size of an aviation operation, the greater is the FAA government involvement in the form of surveillance and regulations.

Online Resources
1. “Department of Transportation”: http://www.dot.gov/about.html

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