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Highlights

Highlights of [GAO-10-286T](#), a testimony before the Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

Since GAO reported on the commercial space launch industry in 2006, the industry has evolved and moved further toward space tourism. Commercial space tourism promises to make human space travel available to the public for the first time. The Federal Aviation Administration (FAA) oversees the safety of commercial space launches, licensing and monitoring the safety of such launches and of spaceports (sites for launching spacecraft), and FAA promotes the industry. FAA is also responsible for overseeing the safety of space tourism, but it may not regulate crew and passenger safety before 2012 except in response to high-risk incidents, serious injuries, or fatalities.

This testimony addresses (1) recent trends in the commercial space launch industry, (2) challenges that FAA faces in overseeing the industry, and (3) emerging issues that will affect the federal role. This statement is based on GAO's October 2006 report on commercial space launches, updated with information GAO gathered from FAA, the Department of Commerce, and industry experts in November 2009 on industry trends and recent FAA actions.

In past work, GAO recommended that FAA take several actions to improve its oversight of commercial space launches, including assessing its future resource needs. FAA has taken some steps to address the recommendations.

View [GAO-10-286T](#) or [key components](#). For more information, contact Gerald L. Dillingham at (202) 512-2834 or dillinghamg@gao.gov.

COMMERCIAL SPACE TRANSPORTATION

Development of the Commercial Space Launch Industry Presents Safety Oversight Challenges for FAA and Raises Issues Affecting Federal Roles

What GAO Found

Recent Trends. Historically, the commercial space launch industry focused primarily on putting payloads, such as satellites, into orbit, using launch vehicles that did not return to earth. Such launches have, however, dropped off, and the industry is increasing its focus on space tourism. Since five manned commercial flights demonstrated the potential for commercial space tourism in 2004, companies have pursued research and development and are further developing reusable vehicles for manned flights. Concurrently, companies and states are developing additional spaceports to accommodate anticipated increases in commercial space launches. States have provided economic incentives, and FAA has provided some funding for development.

Oversight Challenges. In overseeing the commercial space launch industry, including the safety of space tourism, FAA faces several challenges. These include maintaining a sufficient number of staff with the necessary expertise to oversee the safety of launches and spaceport operations; determining whether FAA's current safety regulations are appropriate for all types of commercial space vehicles, operations, and launch sites; developing information to help FAA decide when to regulate crew and passenger safety after 2012; and continuing to avoid conflicts between FAA's regulatory and promotional roles.

Emerging Issues. The U.S. commercial space launch industry is expected to expand as space tourism develops and the National Aeronautics and Space Administration starts to rely on the commercial sector for space transportation. This expansion will affect the federal role. For example, FAA will face increases in its licensing and regulatory workload, and federal agencies and Congress will face decisions about whether to support the U.S. industry by continuing to provide liability indemnification to lower its costs. Additionally, FAA will face policy and procedural issues when it integrates the operations of spacecraft into its next generation air transportation system. Finally, coordinating the federal response to the commercial space industry's expansion is an issue for the federal government in the absence of a national space launch strategy for setting priorities and establishing federal agency roles.



Source: Scaled Composites. SpaceShipOne