



What Every Candidate Should Know About the National Airspace System & NextGen

Our nation's civil aviation infrastructure is the most complex in world and is critically important for our gross domestic product (GDP), productivity, and quality of life. The U.S. operates the largest, most complex and safest aviation system in the world, is the leading innovator in new operational procedures, and is the home to the world's largest manufacturers of air traffic equipment. However, the Federal Aviation Administration's (FAA) air traffic control infrastructure is technologically obsolete and its facilities are outdated. To address these issues and accommodate future growth in the system, the FAA has begun a multi-year infrastructure transformation called NextGen. Modern hardware and software, satellite-based navigation and surveillance systems, and better weather information will allow both pilots and controllers to achieve unparalleled situational awareness improving our airspace's efficiency and safety.

Since the end of World War II, U.S. investments in our air traffic control infrastructure have been critical to our nation and positioned the U.S. as the global leader in aerospace. Currently, civil aviation:

- accounts for 5.4% of our GDP;
- contributes \$1.5 trillion in total economic activity; and
- Supports 11.8 million jobs.

Further, aviation continues to be the nation's top net exporter within the manufacturing sector, providing tens of thousands of jobs to American workers through tremendous success in a highly competitive global marketplace.

We must protect U. S. leadership and grow aviation sector by:

- > **Recognizing the critical importance of a Modern Air Traffic Control System (ATC) for the U. S. Economy is important to long-term budgeting, planning and cost-effective management of complex infrastructure programs like NextGen.**
- > **Encourage Processes Allowing Long-Term Capital Planning and Budgetary Flexibility at the FAA**
- > **Protect Today's Aviation Financing System for General and Business Aviation**
- > **Accelerate Reasonable Rules That Foster the Safe Integration of Unmanned Aircraft and Commercial Spacecraft into our National Airspace**

Key Facts about the United States and NextGen

Our ATC system serves not only passengers who use it directly, but countless others who never leave the ground.

Tourism, package delivery, and just-in-time logistics are just two examples of how our ATC system positively affects Americans each day. However, there are distinct user groups that are critically dependent on this infrastructure.

Commercial Aviation includes airlines carrying both passengers and cargo. U.S. air carriers:

- operate more than 30,000 daily flights in the U.S.;
- drive nearly \$1.5 trillion annually in U.S. economic activity;
- directly employ more than 580, 000 people and have created nearly 11.3 million U.S. jobs; and
- are responsible for \$807.1 billion (or 5.1%) of the U.S. Gross Domestic Product (GDP).

General and Business Aviation includes recreational and private pilots, corporate aircraft, and other non-scheduled operations. General aviation (GA) operations in the U.S.:

- contributed \$109 billion to the U.S GDP; and
- support more than 1.1 million domestic jobs, producing \$69.1 billion in labor income in the U.S. economy.

Continued progress on NextGen will allow private and business pilots safer and more efficient flight planning, in urban as well as rural areas. This segment of the aviation system knits America's small businesses and communities into the fabric of our nation, keeping them connected with the larger cities and hubs of our economy.

National Defense and Law Enforcement includes military and other government users of our airspace system. In addition to Department of Defense operations, these include law enforcement, homeland security, immigration, and other critical functions. NextGen will provide these users increased safety through better situational awareness, more efficient flight paths, and more flexible use of the airspace for military training exercises and operations.

Emerging airspace users include:

Unmanned Aircraft Systems (UAS) technology is the fastest emerging technology that aviation has seen in decades and is leading policymakers and the general public to rethink and reimagine aviation's potential for societal benefits. The U.S. is currently the global leader in UAS technology. The FAA projects that roughly 7,500 larger, more complex unmanned systems will be operational in the United States within five years. The advanced avionics on these aircraft will depend on NextGen infrastructure to deliver many of the benefits they promise

Commercial Space regulation falls under FAA and comprises those private enterprises that own or operate space capabilities, such as satellites and ground systems to provide products or services including satellite broadcasting and a wide range of telecommunications. It also includes the launching of spacecraft on a commercial basis. There is an increasing amount of entrepreneurial activity, investment and new business creation in this sector. The capabilities that NextGen is bringing into use will more easily allow commercial space operations, which transit through the NAS between launch/landing and orbit, to safely and efficiently share airspace with current users.

U.S. Leadership in Air Transportation Systems is at Risk

Despite the benefits civil aviation has given our nation, maintaining our aviation leadership will be challenging in the face of increasing global competition:

- Although civil aircraft manufacturing continues to be a top net exporter with a positive trade balance of \$54.3 billion, foreign competitors are developing more sophisticated aircraft with an eye on markets currently dominated by the United States.
- NASA and DOD have been FAA's partners in research and development (R&D) for NextGen, UAS, and other efforts that will enhance the nation's air transport infrastructure. However, U.S. government R&D as a percentage of our GDP has fallen by 60 percent since 1964. In particular, after adjusting for inflation, NASA's purchasing power is below what it was in the early 1990s. By contrast, other nations including China are raising their R&D investment much faster than the United States.

What is needed?

> Recognize the Critical Importance of a Modern Air Traffic Control System for the U. S. Economy

Long-term budgeting, planning and cost-effective management of complex infrastructure programs like NextGen are severely hampered by future funding levels under the Budget Control Act of 2011. The cloud of uncertainty caused by potential sequestration of FAA resources undermines critical investments, and impacts private sector investment

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