Today’s air routes follow radio beacons installed in the very spots where bonfires burned that directed Lindbergh-era pilots in the 1930s. Change is way overdue.
The Next Generation Air Transportation System (NextGen) transforms the National Airspace System to meet future safety, security, capacity and environmental needs. The full implementation of NextGen will fundamentally change air traffic management by combining new technologies for surveillance, navigation and communications with procedural changes and airfield development.

Satellites will take the place of 1960s-era radars for navigation and surveillance, increasing the accuracy of location information, enabling planes to safely fly closer together and providing pilots a complete, real-time picture of all air traffic. The satellite technology will also help airport flow, allowing planes to land and depart faster, quieter and greener. Satellite navigation, moreover, will enable pilots to choose more direct routes, no longer limiting them to zigzagging over ground-based radar stations. The results? Safer and more efficient flights, fewer weather delays and reduced emissions and noise.

**The Benefits of NextGen**

- Air travel and shipping will be safer, more reliable and beneficial to the environment.
- The airspace will accommodate more than two times today’s traffic.
- Total flight delays will be reduced by up to 21 percent by 2018.
- Fuel usage will drop by nearly a billion gallons in that period.
- Greenhouse gas emissions will be drastically reduced.

**ECONOMIC – NextGen Provides Economic Stimulus**

"Aviation is the glue that keeps the global economy together. Without widely accessible and well-priced air travel, the global economy will quickly become less global."

– Moody’s Economy.com
Chief Economist Mark Zandi

The FAA estimates that by 2018 NextGen will reduce total flight delays by better than 21 percent while providing $22 billion in cumulative benefits to the traveling public, aircraft operators and
the FAA. Businesses related to or dependent on aviation risk losing as many as two million jobs every five years if the nation doesn’t implement NextGen.

Depending on the pace of investment, NextGen could pay for itself in three years. It would be difficult to match that return on any other infrastructure investment.

Civil aviation is an economic engine directly and indirectly contributing more than $1.2 trillion — or 5.6 percent of gross domestic product — to the U.S. economy. It supplies nearly 11 million jobs with a payroll of $369 billion. Civil aviation contributes positively to the U.S. trade balance, creates high paying jobs, keeps just-in-time business models viable and connects all Americans to friends, family and business opportunities.

ENVIRONMENT – NextGen Can Reduce Carbon Emissions

In 2008, the U.S. Government Accountability Office advocated deployment of NextGen as soon as practicable to realize environmental benefits. NextGen’s efficiencies will reduce noise, fuel consumption and carbon dioxide emissions, as well as other air pollutants. The FAA estimates that full implementation of NextGen could reduce aircraft greenhouse emissions by as much as 12 percent by 2025 — a carbon dioxide reduction equivalent to removing 2.2 million cars from the roads for one year.

How To Accelerate NextGen

NextGen is a national transportation infrastructure priority. The Transportation Department and the White House are looking at ways to accelerate NextGen implementation by up to eight years. This will only be possible with robust federal funding support — not just for FAA programs and infrastructure, but also for avionics equipment in the aircraft that will transport passengers and cargo around the United States and the world.

The civil aviation industry — both commercial and general aviation — is experiencing the worst economic period in its history. For less than the cost of one high-speed rail project, every aircraft that flies into and out of the 35 busiest airports in the United States could be equipped with the avionics needed to transition to NextGen. And many NextGen capabilities, such as performance-based navigation, can be implemented in the short term while the full array of services and technologies of the air traffic system of the future are certified and produced. Timely implementation of these capabilities will not only improve the business case for operators’ investment, but will vastly improve the overall flying experience for the public.

Here are just a few NextGen environmental benefits:

- Satellite-enabled direct routing by En Route Automation Modernization for a coast-to-coast flight would save about six million tons of carbon dioxide emissions annually and reduce flight time by three percent.
- Continuous Descent Arrivals to airports would save 3.75 million tons of carbon dioxide emissions annually at the top 10 U.S. airport communities.
- Performance-based navigation procedures at airports would save two million tons of carbon dioxide annually at the top 10 U.S. airport communities.
“If we can upgrade those [air traffic control] technologies, then we could reduce delays. We could reduce cancellations, we could reduce the amount of time that it takes when there’s bad weather for planes to land.”

– President Barack Obama