October 2, 2007

We Need NextGen This Gen

By Brian Dubie

On a mid-September evening in 2006, I stood on a rooftop overlooking the city of Baghdad with a U.S. Air Force Commanding General. I was deployed to Iraq as an Air Force reservist and member of an Air Force field assessment team. The city was beautiful at night, but it was not peaceful.

The General turned to me and said, "Brian, America has to find ways to use less oil -- especially oil that comes from dangerous parts of the world."

Late that same night, in a Blackhawk helicopter flying at very low altitude, we left Baghdad for northern Iraq. I looked down as we passed over sleeping Iraqi villages, and I thought about the general's words. "When I get home," I thought, "I will make it a priority to find ways to use less oil."

The FAA's Joint Planning and Deployment Office (JPDO) estimates that delays in our air transportation system result in 22 billion dollars in lost productivity and billions gallons of wasted fuel. Modernizing our outdated Air Traffic Control system is one way our aviation sector could use less oil. The FAA Air Traffic Management modernization initiative is called NextGen, and is a component of the FAA reauthorization legislation, which Congress is currently debating. Much of the debate has focused on who will pay for the FAA and how will they pay -- on "who wins and who loses". We need to redirect the focus toward what NextGen can save -- in jet fuel, in time and productivity. How much will the FAA save by eliminating current costly ground components under modernization? How much will the airlines and general aviation save in fuel? How much will our economy save? How much will we gain?

The goal of NextGen is to handle triple the air traffic by the year 2025. This projected growth will make infrastructure upgrades like NextGen a necessity. NextGen is not just about better technology. It's about providing pilots and air traffic controllers with the tools they will need to manage the projected growth in our skies and at our airports. Ultimately, it's the human factor -- our pilots and air traffic control professionals -- utilizing the NextGen system technology, to achieve better service for the public.

NextGen enables aircraft to fly more precisely, and enhance the air traffic control system through the use of on-board systems. For example, NextGen enhancements have already been implemented at Louisville International Airport in Kentucky. The FAA, working with UPS Airlines, has designed what is called a "Continuous Descent Approach". These procedures are significantly quieter and save up to 500 lbs. of fuel per flight.

In another partnership, the FAA, Southwest Airlines and Naverus are developing RNP (Required Navigation Performance), which combines the accuracy of GPS (Global

Positioning System), the capabilities of advanced aircraft avionics, and new flight procedures to achieve safer, more efficient, and environmentally friendly flight operations. "RNP is a cornerstone of the FAA's Next Generation Air Traffic System," said Mike Van de Ven, Southwest EVP and Chief of Operations. "We applaud the FAA's forward thinking and are eager to work with them as we deploy RNP and provide our industry with operational efficiencies including reduced fuel burn, lower greenhouse gas emissions, less congestion and fewer delays." NextGen savings like these are projected to reduce jet fuel usage by 146 million barrels a year, in turn eliminating 57.5 million metric tons of CO2 emissions per year.

These are important efforts, but the projected growth in aviation will require more than what NextGen system enhancements can achieve.

Collaboration between the FAA, passenger and cargo airlines, and business and general aviation is essential. We must all work together to better utilize our airports and airspace to reduce delays. Better coordination and utilization is critical to enhance our system capacity. Over this past year, Delta has worked to improve the flow into and out of Atlanta airport, racking up savings of 2 million gallons of fuel and 128,000 minutes saved in delays. Delta utilized a process improvement program called "Attila". According to Joe Kolshak, Delta's executive vice president for operations, "The Attila program allows us to maximize our airspace efficiency, which is a technical way of saying our customers will experience fewer take-off delays from their origination city and less time sitting in a holding pattern upon arrival into Atlanta." With oil topping 80 dollars a barrel, airlines are employing many methods to reduce their fuel use. Growth projections will demand the FAA to facilitate collaborations between airlines and business aviation to better manage traffic, especially in regions like the northeast.

I serve as Vermont's Lt. Governor and as chair of a national group called Aerospace States Association (ASA). I am also a commercial airline pilot.

Those of us in the aviation industry recently reflected on the sixth anniversary of the murder of our friends, coworkers and thousands of other Americans who died as a result of the attacks of 9/11. It is my belief that NextGen must also enhance our nation's security by increasing interoperability between FAA, the Department of Defense, Homeland Security and our nation's aviation fleet. Working together, Congress and the Administration can act to make aviation safer.

In tribute to the courage and heroic action of Flight 93 passenger Todd Beamer, "let's roll" to enhance security for future air travelers.

Given our growth projections, the reality is that even while we're saving more fuel, the aviation sector will require more fuel still. So it is imperative that we continue to invest in research and development of synthetic fuels, and in new technologies such as fuel cells, solar energy, and radically more fuel-efficient aircraft. Collaboration, plus NextGen modernization must work together to improve the process of moving people and aircraft more efficiently.

The words of the Air Force general on the rooftop in Iraq should inspire us all to work together towards a new standard for air travel – a standard that is safer, more timely, and cleaner. Working together, we can find a way.

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Brian Dubie is Vermont's Lt. Governor (http://ltgov.vermont.gov) and Chair of Aerospace States Association (http://www.aerostates.org) The mission of ASA is to grow our aerospace sector and to promote the education of America's next generation.