# NextGen Neg Supplement

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# Politics links – Plan is controversial

**Fast tracking NextGen is controversial**

**Eno Center for Transportation NO DATE,** “Eno to Publish NextGen Paper Analyzing Costs, Benefits and Political Leadership” Politcal Hurdles http://www.enotrans.org/eno-brief/eno-to-publish-nextgen-paper-analyzing-costs-benefits-and-political-leadership  
Modernization efforts today are faced with political stagnancy. Despite congressional acknowledgment regarding the importance of NextGen, there has so far been a lack of political leadership to guide NextGen from the initial stages of policy infancy to a full-fledged funding plan. The failure to extend the FAA authorization this July caused 4,000 FAA employees to be furloughed, many of whom were directly involved with NextGen research and implementation. The Airport and Airway Trust Fund (AATF) that pays for NextGen received no tax revenues during the shutdown. As Congressional leaders bickered over an annual $16 million Essential Air Services Program, the trust fund lost $30 million daily for two weeks. Those are funds that could have been used towards NextGen. Recent reports by the Congressional Budget Office and the Government Accountability Office show that current AATF revenues are inadequate to fund NextGen. Furthermore, NextGen is not immune to recent budget cuts and fiscal austerity. Without a clear funding strategy for both continued infrastructural improvements as well as equipage, there is no guarantee that NextGen can be implemented in a timely and cost-effective manner.

# Not technically feasible – ADS-B

ADS-B will not be ready until 2020.

Carey on June 18, 2012 (‘FAA Approves Funding for ADS-B Rollout through 2020’, by  [BILL CAREY](http://www.ainonline.com/bill-carey)

<http://www.ainonline.com/aviation-news/ain-air-transport-perspective/2012-06-18/faa-approves-funding-ads-b-rollout-through-2020>, June 18, 2012)

The FAA has approved funding to continue the automatic dependent surveillance-broadcast (ADS-B) network rollout through 2020, the year that aircraft will be required to have ADS-B Out capability to broadcast their GPS-derived position to controllers on the ground. But the agency has put off until 2013 a decision on funding trials of ADS-BIn, the ability to display nearby air traffic in the cockpit. The FAA’s investment review board, known as the Joint Resources Council (JRC), recently approved $560 million to fund the ADS-B ground network deployment from 2014 to 2020, said Vincent “Vinny” Capezzuto, FAA director of surveillance and broadcast services. This adds to $1.4 billion the JRC approved in 2006 and 2007 investment decisions to support the first seven years of the program. The FAA awarded a contract to ITT (now ITT Exelis) in August 2007 to begin installing 794 ADS-B ground radio stations nationwide. “From my position, this was a big decision for the FAA. It demonstrates the commitment” to the program, Capezzuto said June 6, speaking at theRTCA Symposium in Washington, D.C.“We established with the industry that we would put the infrastructure in place [before anyone has] equipment on their aircraft.” The [agency has mandated that aircraft operators equip for ADS-B Out by 2020](http://www.ainonline.com/aviation-news/ainalerts/2010-05-27/faa-mandates-aircraft-ads-b-out-equipage-2020). But a follow-on requirement for ADS-B In [was sidetracked when an aviation rulemaking committee (ARC) recommended last fall](http://www.ainonline.com/aviation-news/ain-air-transport-perspective/2011-11-21/committee-ads-b-not-currently-justified) that the investment by airline and general aviation operators cannot currently be justified**.** After consulting with Boeing and Airbus, the ADS-B In ARC estimated that airlines would have to spend between $130,000 and $290,000 to forward fit and between $270,000 and $425,000 to retrofit each aircraft for the capability. The JRC has instructed the ADS-B program to return in 2013 to apply for funding of ADS-B In operational trials. Those trials will inform the development of minimum operational performance standards that guide avionics designers and manufacturers in building the necessary equipment. The JRC is requiring “a more mature business case,” Capezzuto said. “We needed to get this a little more solidified with a stronger strategy.” Meanwhile, the ground network rollout continues apace. Under the original contract, the radio station network is to be completed by late next year. Capezzuto said funding through 2020 will support a small expansion of the network in the Gulf of Mexico and the provision of in-trail procedures, an ADS-B In application, by the FAA’s oceanic ATCautomation platform. “We’re at about $900 million in expenditures at this point,” he said. “We’ve put in a large piece of the infrastructure. That includes all radio infrastructure hooked up to all automation systems, and including training for controllers and technicians and certification methodologies. That’s a big piece of the puzzle.”

# Not technically feasible – ADS-B

## ASDE-X-key element of NextGen- is behind schedule and nowhere near the testing stage

U.S. Department of Transportation, April 18, 2008 (USDOT, report issued to review the FAA’s movement towards next generation airports to assess progress and fund management, “AIR TRAFFIC CONTROL MODERNIZATION: FAA FACES CHALLENGES IN MANAGING ONGOING PROJECTS, SUSTAINING EXISTING FACILITIES, AND INTRODUCING NEW CAPABILITIES Federal Aviation Administration Report Number: AV-2008-049 Date Issued: April 14, 2008) http://web.cs.wpi.edu/~hofri/Readings/faa08.pdf

ASDE-X (helps controllers track aircraft and vehicle movement at airports): FAA intended ASDE-X as a low-cost alternative to its legacy radar system for small- to medium-sized airports. In 2005, FAA increased ASDE-X costs by $44.6 million and extended the 2007 completion date by 4 years, refocusing the program on upgrading legacy radar at larger airports. Since the re-baseline, however, FAA has increased costs by $94 million for some ASDE-X activities and has only commissioned 12 of the 35 sites. Further, FAA has not resolved operational performance issues with key safety capabilities. In October 2007, we recommended that FAA develop realistic cost estimates for implementation and resolve operational performance issues before deploying ASDE-X safety capabilities at remaining airports. 7 FAA’s cost and schedule metrics are useful tools, but do not fully assess progress with major acquisitions. FAA reports in the FY 2007 Flight Plan and its most recent Performance and Accountability Report that 100 percent of its critical acquisitions were within 10 percent of budget estimates and 97 percent were on schedule for 2006. In FY 2006, FAA tracked about 29 projects, such as the acquisition of new radars. However, FAA’s cost and schedule metrics have limitations that decision makers must understand to properly assess the overall status of FAA’s acquisition portfolio. • First, these metrics are “snapshots” in time and do not address changes in requirements, reductions in procured units, or shortfalls in performance. As noted earlier, there have been significant changes in requirements in terms of systems to be procured and deployment plans with respect to the ASR-11 and STARS/TAMR efforts. • Second, FAA’s budget metrics compare cost estimates taken during the current fiscal year using updated cost figures, not estimates from the original baseline. This is why the Wide Area Augmentation System (a satellite-based navigation system) is considered “on budget” even though costs have grown from $892 million to over $3 billion since 1998. • Third, several schedule metrics focus on interim steps or task completion instead of whether systems meet operational performance goals. For example, ASDE-X metrics focused on the delivery of two systems instead of whether the systems entered service or operated as planned. There are no written standards for selecting or reporting program milestones, and FAA needs to develop criteria for program offices to improve milestone reporting. Re-baselining a project is important to maintain reliable cost and schedule parameters and is consistent with Office of Management and Budget (OMB)

## FAA can’t guarantee the stability of ADS-B because it is privately owned technology. This is a huge strain to aviation safety

TOM BRANTLEY, PRESIDENT PROFESSIONAL AVIATION SAFETY SPECIALISTS, AFL-CIO BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE – SUBCOMMITTEE ON AVIATION ON ATC MODERNIZATION AND NEXTGEN: NEAR-TERM ACHIEVABLE GOALS. March 18th, 2009. http://www.passnational.org/homedocs/Testimony031809.pdf

Unfortunately, in PASS’s view, the approach being used by the FAA to deploy ADS-B is flawed because it dismisses decades of responsibly ensuring the safety of the flying public and has the potential to negatively impact aviation safety. ADS-B will be entirely owned by a private corporation, which is a significant change from past practices. The Department of Transportation Inspector General (IG) has expressed concern that as a result the FAA “could find itself in a situation where it knows very little about the system that is expected to be the foundation of NextGen” and encouraged the agency to “take steps to ensure it effectively addresses this risk.”2 Additionally, one must question the prudence of placing the heart of our air traffic control system in the hands of the private sector after watching the collapse and resulting bailouts of so many corporations in the past year. Aviation safety should never be at risk of being adversely affected by catastrophic economic upheavals.

# Not technically feasible – ADS-B

## FAA can’t properly certify the safety of ADS-B technology

TOM BRANTLEY, PRESIDENT PROFESSIONAL AVIATION SAFETY SPECIALISTS, AFL-CIO BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE – SUBCOMMITTEE ON AVIATION ON ATC MODERNIZATION AND NEXTGEN: NEAR-TERM ACHIEVABLE GOALS. March 18th, 2009. http://www.passnational.org/homedocs/Testimony031809.pdf

Certification is the process in which a certificated FAA technician checks and tests systems or pieces of equipment on a periodic basis in order to ensure that they can safely remain in, or be returned to service and not negatively impact any aspect of the National Airspace System (NAS). The FAA’s certification process has been successful for decades and is a key element in maintaining the safest and most efficient air transportation system in the world. Despite the success of its certification program, the agency is making radical changes to its policy that PASS and the FAA technicians it represents believe will impact the safety of our aviation system. For years, the criteria established by FAA policy for determining which NAS systems and services require certification stated, “NAS systems, subsystems, and services directly affecting the flying public shall be certified.”3 However, in drastic change to its policy, effective September 28, 2007, just a few weeks before the agency awarded ITT a contract to develop and deploy ADS-B, the agency changed its policy to read, “FAA owned NAS systems, subsystems, and services directly affecting the flying public shall be certified” (emphasis added).4 In other words, the FAA has not only changed its criteria to allow systems and services to be deployed without requiring certification, it has changed the policy to actually prohibit certification of systems it does not own.

# Not technically feasible – ERAM

The critical ERAM software is behind schedule and has yet to be linked with other key flight administration systems.

NextGov, April 2010 FAA's NextGen slowed by lack of leadership, poor coordination http://cdn.nextgov.com/nextgov/interstitial.html?rf=http%3A%2F%2Fwww.nextgov.com%2Fdefense%2F2010%2F04%2Ffaas-nextgen-slowed-by-lack-of-leadership-poor-coordination%2F46518%2F

Scovel said he is concerned about the $2.1 billion En-Route Automation Modernization system, which provides flight information to terminal control facilities and traffic management systems. It is experiencing software problems that cost FAA $14 million a month to fix. The technology, currently operating in Salt Lake City, has had radar processing failures, difficulties in passing traffic between controllers and problems assigning identifying information to specific aircraft. So far, FAA has been unable to properly diagnose and fix the problem, and the system is unlikely to be deployed nationwide by the end of the year as scheduled, he added. ERAM is essential for future data communications, Scovel said, particularly the Automatic Dependent Surveillance Broadcast system, which relies on GPS to transmit a plane's location to towers on the ground and to other aircraft. "As dates slip, the ability for controllers to make the most effective use of data communications and ADS-B will also fall down the calendar," he said. If these problems aren't addressed, aviation will shut down, said committee chairman James Oberstar, D-Minn., adding the recent volcano eruption in Iceland should be a reminder of what could happen without clear guidance

# Will fail – FAA leadership

## Leadership issues and synchronization problems between organizations will delay the fast tracking of NextGen

NextGov, April 2010 FAA's NextGen slowed by lack of leadership, poor coordination http://cdn.nextgov.com/nextgov/interstitial.html?rf=http%3A%2F%2Fwww.nextgov.com%2Fdefense%2F2010%2F04%2Ffaas-nextgen-slowed-by-lack-of-leadership-poor-coordination%2F46518%2F

One concern is the lack of consistent leadership, witnesses told the subcommittee. The JPDO has its fourth director in seven years, and FAA only recently announced that the position of deputy administrator, when filled, will oversee NextGen's rollout. Some progress is being made in partner agencies, panelists said. NASA's Airspace Systems Program has aligned its research and development efforts with NextGen priorities, and the Defense Department has requested $200 million in fiscal 2011 to fund NextGen capabilities. Uncertainties remain over which agencies will fund and conduct the research and development for some NextGen programs, however. For example, FAA wants to tap into the National Oceanic and Atmospheric Administration's 4D weather cube currently in development, which is a database that combines weather data from three spatial dimensions and time. About 70 percent of all flight delays are caused by weather. But officials have disagreed over what information should be made available, said Calvin Scovel, inspector general at the Transportation Department. Witnesses and lawmakers agreed the lack of coordination among agencies and the limited effectiveness of oversight groups have slowed FAA in addressing serious problems in NextGen's short- and long-term deployment. "Clearly there is a need that all of these plans and councils be synchronized," said Gerald Dillingham, director of physical infrastructure issues at the Government Accountability Office. "At this point, since things are so new, it is still to be determined if this is going to work."

## FAA lacks leadership capability to successfully complete/ or fast track NextGen

NextGov, April 2010 FAA's NextGen slowed by lack of leadership, poor coordination http://cdn.nextgov.com/nextgov/interstitial.html?rf=http%3A%2F%2Fwww.nextgov.com%2Fdefense%2F2010%2F04%2Ffaas-nextgen-slowed-by-lack-of-leadership-poor-coordination%2F46518%2F

Poor interagency coordination and unclear leadership roles are hindering the Federal Aviation Administration's ability to address problems in its overhaul of the nation's air traffic control system, witnesses told lawmakers on Wednesday. In a hearing before the House Transportation Aviation subcommittee, panelists said the success of NextGen, which replaces the current aviation system with more advanced technology, requires better management of projects various agencies conduct and the involvement of key stakeholders, such as air traffic controllers, in the program's development. "The more productive these cooperative efforts are, the better service FAA can provide to the traveling public," said Karlin Toner, director of FAA's Joint Planning and Development Office, which is responsible for managing the transition to NextGen and coordinating efforts with NASA, the White House Office of Science and Technology Policy, and the Commerce, Defense, Homeland Security and Transportation departments. One concern is the lack of consistent leadership, witnesses told the subcommittee. The JPDO has its fourth director in seven years, and FAA only recently announced that the position of deputy administrator, when filled, will oversee NextGen's rollout.

# Will fail – FAA leadership

FAA lacks leadership capacity to fast track NextGen – monitoring and synchronization efforts are especially critical if we try to advance deployment dates of the system.

Dr. Gerald Dillingham of the GAO testified on May 9, 2007 House Committee on Transportation and Infrastructure's Subcommittee on Aviation [GAO-07-784T] on the status of the NextGen initiative http://www.gpo.gov/fdsys/pkg/CHRG-110hhrg44270/html/CHRG-110hhrg44270.htm

[Dr. Dillingham, one of the hearing witnesses, participated in the study and will be able to provide an update]. Some of the main points made by Dr. Dillingham were as follows: ``JPDO has continued to make progress in furthering its key planning documents. JPDO has experienced delays in the release of key documents, but currently plans to have initial versions of these documents released by July 2007. JPDO has been working since 2005 to establish a memorandum of understanding between its partner agencies, although as of May 4, 2007, the memorandum had been signed by the Departments of Transportation and Commerce and NASA, but was not yet signed by the Departments of Defense and Homeland Security.'' ``FAA and JPDO continue to face a number of challenges in moving toward NextGen, including questions about FAA's technical and contract management expertise; FAA's ability to maintain a number of existing systems, including monitoring and addressing equipment outages to ensure the safety of these existing systems as it transitions to NextGen; and conducting necessary human factors research.'' ``In addition, while JPDO recently estimated that the total federal cost for NextGen infrastructure through 2025 will range between $15 billion and $22 billion, questions remain about which entities will fund and conduct the necessary research, development, and demonstration projects that will be key to achieving certain NextGen capabilities.'' ``Also, JPDO faces a continuing challenge in ensuring the involvement of all key stakeholders, such as active air traffic controllers and system technicians, in its NextGen planning efforts.''

# No solvency – Air Traffic Control Consolidation

## Plan can’t be done for two decades because of air traffic control consolidation issues. Fast-tracking NextGen without these consolidations will set the system back.

Chicago Tribune, June 1 2012**.** “FAA's $40 billion overhaul plan lags”. <http://triblive.com/usworld/nation/1895889-74/faa-facilities-plan-traffic-control-agency-grizzle-aviation-congress-consolidate>

Aviation officials told lawmakers on Thursday that they haven't reached agreement on a plan to close, consolidate or realign more than 400 air traffic-control facilities across the country, many of which are more than 50 years old and have fallen into disrepair. NextGen, a satellite-based air-traffic control system that's to replace the current radar-based one, is intended to make the skies safer and more efficient. It's supposed to be complete by 2025, but its implementation depends on the consolidation of air traffic control buildings and facilities, a process that could take two decades. As part of a multiyear reauthorization of the FAA that was signed into law in February, Congress gave the agency 120 days to submit its plan. Officials from the FAA and the union that represents air traffic controllers will meet on Tuesday to discuss the plan, said Paul Rinaldi, the president of the National Air Traffic Controllers Association. That's nine days before it's due. "Nine days is clearly not enough," Rinaldi said. "But it's certainly a start." David Grizzle, the FAA's operating chief for air traffic organization, said the plans were complex because they involved changing flight patterns, and the agency wanted to make accurate decisions even if it took more time. "We can't make light decisions," Grizzle said. "If we merely consolidate facilities without restructuring airspace, we may very well set ourselves back."

# No solvency – Airlines can’t fastrack

## Global aviation companies can’t afford the cost of fast tracking nextgen – their profitability is balancing on a knifes edge.

Joe Mcdonald| The Associated Press Last Updated Jun 15 2012 12:39 pm Global airlines’ profits thin this year http://www.sltrib.com/sltrib/money/54282431-79/airlines-carriers-european-global.html.csp

Global aviation should make a total profit this year of $3 billion on revenue of $631 billion — a 0.5 percent margin, IATA said. The group represents 240 airlines that carry 84 percent of passengers and cargo worldwide but its forecast covers the whole industry."The industry’s profitability is balancing on a knife edge," said the IATA’s executive director, Tony Tyler.

## NextGen can’t work without over 80% airline compliance and the airlines can’t afford that quickly

Ashley Halsey III July 4, 2011 “Cost could delay air traffic control overhaul” A host of obstacles [www.cbsnews](http://www.cbsnews).com/2100-502223\_162-20076623.html?pageNum=3&tag=contentMain;contentBody

Developing a vast network of new airplane routes to take advantage of NextGen is like building thousands of new superhighways: They all will go over a lot of back yards, and some of those homeowners will fight back. "Noise is a phenomenal issue," said Blakey, the former FAA admini strator who recalled how her office phones lighted up when neighborhoods got agitated over proposed new routes. When the FAA began to create new routes in airspace over New York City, New Jersey and Philadelphia, a full environmental impact study and ensuing lawsuits took eight years and cost $17 million to resolve, according to the Air Transport Action Group , an environmentally focused aviation organization. Most reviews require far less time and expense, but the need to do thousands of them will take time. Many of those new fuel-and-time-saving routes may have to be negotiated with the military, which restricts air traffic in about 11 percent of U.S. airspace. The ability to handle a vast increase of planes in the air must be met with new airport capacity, and a Government Accountability Office report last year warned that "building additional runways can take as long as a decade or more." The heart of NextGen is a GPS-dependent device commonly known as ADS-B (Automatic Dependent Surveillance Broadcast). Installing it in cockpits is estimated to cost airlines between $2.5 billion and $6.2 billion. Until an estimated 80 percent of planes are equipped with ADS-B, the system won't work as intended. The FAA has mandated that airliners be equipped with ADS-B transmitters by 2020. Sturgell, the former FAA official, recalls the last FAA mandate: that airlines install a cockpit collision warning system commonly referred to as TCAS (Traffic Collision Avoidance System). "They didn't equip until the end on TCAS either," said Sturgell, now an executive with Rockwell Collins. "It's not reasonable for us to expect all airlines to invest today when the program is just starting to get rolled out. So the FAA needs to get it in place, needs to change some of these procedures so that it is a benefit to airlines."

# No solvency – European planes

## Plan can’t solve – European airlines would have to participate and they are developing SESAR

John Sheridan October 31, 2008, 11:33 AM U.S. and Europe take different tacks on next-generation ATM Aviation International News http://www.ainonline.com/aviation-news/aviation-international-news/2008-10-31/us-and-europe-take-different-tacks-next-generation-atm

A September ICAO NextGen/Sesar Forum in Montreal underscored the fact that the U.S. and Europe are following different paths to a future air traffic management system. Officials managing the FAA’s NextGen and Europe’s Sesar–for Single European Sky ATM Research–agree that by 2025 traffic is expected to double, and maybe even triple, and that today’s control systems will not be able to handle the increase. There is also broad consensus that a satellite- and performance-based environment will be the way of the future. But the way that the two organizations are going about their business is quite different.The old political saw of “follow the money” applies While NextGen’s shape and direction have been determined through consultation with industry and various government bodies–including non-aviation entities such as the Department of Homeland Security–it is ultimately an FAA program, with its progress depending almost entirely on the will of Congress and its appropriations committees. And while legislators have so far been positive about the need to renew the nation’s ATC system, occasionally citing the future promise of satellites, 4-D trajectories and similar marvels, the political crunch can be expected to come when the current plans start to collide with possible future realities of, say, consolidating today’s nationwide 20 ARTCCs into one or two, or introducing rules that politically influential parts of the aviation community strongly oppose. Sesar, on the other hand, appears to be clear of political restraints, and seems much more operationally driven. Here, the money trail splits into three equal parts, respectively supported by the European Community (EC) on the political side, and by Eurocontrol and the broad aviation industry on the operational side. What’s more, while the EC primarily values Sesar for the air transportation improvements it will produce, it also recognizes the economic benefits of new technology research and production that will accrue to European industry.

European airlines can’t afford to modernize planes – European profits have collapsed, and some airlines are on the brink of going out of business.

Joe McDonald, 6-11-12 Profits predicted for airlines in U.S., but not in Europe http://travel.usatoday.com/flights/story/2012-06-11/Profits-predicted-for-airlines-in-US-but-not-in-Europe/55517874/1

The forecast European loss is nearly double IATA's March outlook. IATA economist Brian Pearce said that was due to Europe's financial turmoil. In addition to Malev's failure in February, smaller carriers in Germany and Spain have shut down."We've already seen some European airlines going out of business this year, and there is clearly a possibility that will continue," said Pearce.Airlines are likely to respond to tougher conditions by retiring older aircraft to improve fuel efficiency and pursuing cross-border partnerships, though most countries still prohibit outright mergers, Pearce said.