



**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**

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May 25, 2012

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**MEMORANDUM**

**TO:** Members, Subcommittee on Aviation

**FROM:** The Honorable Thomas E. Petri, Chairman, Subcommittee on Aviation

**SUBJECT:** A Review of FAA's Efforts to Reduce Costs and Ensure Safety and Efficiency through Realignment and Facility Consolidation

**PURPOSE**

The Subcommittee on Aviation will receive testimony from witnesses regarding the Federal Aviation Administration's (FAA) facility consolidation and realignment plans and efforts. The Subcommittee will also receive testimony on the need for FAA action given the age and condition of FAA facilities; the state of the Federal budget; the need for cost savings; expected facility and infrastructure needs with the implementation of NextGen; and planning requirements included in the recently enacted FAA Modernization and Reform Act of 2012.

**BACKGROUND**

There are nearly 60,000 National Airspace System (NAS) operational facilities that support Air Traffic Control (ATC) and over 500 large buildings that house major ATC functions.<sup>1</sup> This includes 561 manned air traffic control (ATC) facilities—21 en-route centers and 542 terminal radar approach control facilities (terminal facilities).<sup>2</sup> The FAA is responsible for operations (i.e. controlling traffic) at all 542 terminal facilities. The FAA uses its own staff at 292 of the facilities and contractors at the 250 contract towers. FAA is responsible for physically maintaining or replacing 402 of the 542 facilities. The remaining 140 facilities are the

<sup>1</sup> National Airspace System Capital Investment Plan FY 2012-2016, p. 7 (2011).

<sup>2</sup> Air Traffic Control Towers (ATCT) are located at the airport and handle all takeoffs, landings, and ground traffic. En-Route Traffic Control Centers (En-route centers) handle 'en route' traffic, generally flying on instrument flight plans, at high altitudes as they move across the United States. Terminal Radar Approach Controls (TRACONs or terminal facilities) control aircraft, typically when they are within 40 miles of the airport, or transiting airspace near the airport.

responsibility of someone else (i.e. an airport authority, local government, private company, etc.). Of the 402 facilities that the FAA is responsible for maintaining, the FAA owns 338 and has agreements to maintain 64 facilities that are staffed by FAA employees.

### FAA Facility Conditions

In 2008, the Department of Transportation's Office of Inspector General (DOT OIG) reported that while the average facility has an expected useful life of approximately 25 to 30 years, 59 percent of FAA facilities were over 30 years old.<sup>3</sup> As of 2012, the average age of an en-route center is 49 years. The average age of a terminal facility is 28 years. According to the FAA, the estimated cost to replace 402 terminal facilities is \$10.6 billion. The estimated annual cost to sustain 402 terminal facilities is \$99.3 million.

During its 2008 audit, the DOT OIG observed obvious structural deficiencies and maintenance-related issues at several locations. These included water leaks, mold, tower cab window condensation, deterioration due to poor design, and general disrepair.<sup>4</sup> In 2010, the FAA conducted an infrastructure analysis that found that 83 percent of its facilities were in either poor or fair condition and that some would not be able to support NextGen and other modernization efforts.

In 2008, the DOT OIG found problems with the FAA's facility maintenance program. Recurring maintenance needs, such as plumbing and electric repair, often went unfunded as scarce Operations funds were used almost entirely for budget items such as employee salaries and benefits.<sup>5</sup> Further, the lack of control over funds contributed significantly to the deterioration of FAA's facilities and resulted in a deferred maintenance backlog of \$240 million, which was expected to climb to over \$380 million by 2020.<sup>6</sup>

In 2006, the FAA indicated that 33 terminal facilities required replacement. Of the 33 facility replacements identified in 2006, the FAA indicates that as of today 9 have been replaced, 14 are currently under construction, and the remaining sites are in analysis to determine the appropriate alternative of sustain, modernize, or replace. Currently, 332 facilities require renovation or modernization.<sup>7</sup> According to the FAA, as of May 2012, 320 facilities have projects planned or underway.

### NextGen Future Facilities Special Program Management Office (SPMO)

In 2010, the FAA established the NextGen Future Facilities Special Program Management Office (SPMO).<sup>8</sup> This office is responsible for planning large-scale facility realignments and consolidation, developing requirements for these facilities, conducting relevant analyses, and coordinating these efforts with the Agency's other modernization offices. SPMO reports directly to the Air Traffic Organization's (ATO's) Chief Operating Officer (COO) and

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<sup>3</sup> "FAA's Management and Maintenance of Air Traffic Control Facilities," Report Number: AV-2009-012, December 15, 2008.

<sup>4</sup> Id. at p.2.

<sup>5</sup> Id. at p. iv.

<sup>6</sup> Id. at p. 9.

<sup>7</sup> The list of FAA facilities needing renovation or modernization is a dynamic list that is constantly changing.

<sup>8</sup> FAA National Policy Order 1110.154, "Establishment of Federal Aviation Administration Next Generation Facilities Special Program Management Office," September 1, 2010.

FAA Deputy Administrator. According to the 2010 Order, the FAA's goal is to incorporate NextGen technologies into air traffic management facility design to provide future services in fit-for-purpose facilities. The objectives and scope of the SPMO are to elicit requirements for future facilities from all agency lines of business and the operations community. The SPMO also solicits requirements from program partners, stakeholders, customers and users. After capturing requirements, the SPMO analyzes and aggregates findings, identifies appropriate technologies and capabilities under development, integrates these findings into cohesive design plans, and vets design plans with senior agency leadership and key partners as appropriate. The SPMO evaluates design plans and coordinates with other agency initiatives to identify alternatives for new facilities.

Since the SPMO was created in 2010, they have developed the large-scale realignment and consolidation concept and have had this concept approved by FAA's Joint Resources Council (JRC), in November 2010. They have also started detailed planning for the first integrated facility at Newark Liberty International Airport (Liberty).

As of May 2012, the SPMO has been reorganized into the Air Traffic Organization's (ATO) Technical Operations group under the Air Traffic Facilities Directorate. According to the head of the Directorate, FAA intends to modify the existing SPMO charter to recognize the realignment to Technical Operations, re-enforce the agreements with other lines-of-business for continued support of the Future Facilities program, and will report all activities up to the ATO COO office. The FAA has also reorganized the Terminal and En-Route planning groups to the Air Traffic Facilities Directorate.

### **REALIGNMENT/CONSOLIDATION AND NEXTGEN:**

Over the years, the FAA has conducted numerous studies indicating the need to realign, consolidate and collocate air traffic control facilities as the air traffic control system is modernized (NextGen). In his July 2007 testimony before the House Aviation Subcommittee, Bruce Johnson, FAA Vice President of Terminal Services, stated,

“A key element of the FAA's transformation into NextGen is consolidation of our facilities. The number and specific locations of many existing FAA facilities were determined by the capabilities and limitations of 1960's technology. In the subsequent four decades, the available technology has vastly improved, rendering the long-existing pattern of FAA facilities no longer the best configuration. Without consolidation, the FAA is tied to maintaining outdated facilities with outdated technology based on outdated 1960's radar boundaries. Further, consolidation lowers infrastructure costs, and helps improve safety and efficiency by making new technologies available for controllers. These savings and improvements mean fewer air traffic delays and lower costs for air travelers.”<sup>9</sup>

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<sup>9</sup> Statement of Bruce Johnson, Vice President of Terminal Services before the Committee on Transportation and Infrastructure, Subcommittee on Aviation, on FAA's Aging ATC Facilities: Investigating the Need to Improve Facilities and Worker Conditions, July 24, 2007.

According to the Department of Transportation Inspector General Scovel (DOT IG) in testimony before the House Aviation Subcommittee on April 21, 2010, “A major factor in both capital and operating costs for NextGen is the degree to which the Agency eliminates or consolidates FAA facilities.”<sup>10</sup> The DOT IG pointed out that the “FAA must make critical decisions on facility requirements, which in turn will significantly impact the type and number of systems needed to support NextGen.”<sup>11</sup> He further indicated that “continued delays in developing requirements and in making key program decisions will slow NextGen’s progress...” and raise costs significantly.<sup>12</sup>

In 2010, the FAA indicated that the following realignments to support NextGen were in process:

- Dayton to Columbus
- Reno to Northern California
- West Palm Beach to Miami
- Abilene to Dallas Fort-Worth
- Muskegon, Lansing, Grand Rapids to Kalamazoo
- Mansfield, Youngstown, Toledo, Akron-Canton to Cleveland
- Champaign to Chicago

In June 2010, the DOT IG reported that the FAA’s business case supporting its proposed transfer of terminal facility (or TRACON) services from Boise to Salt Lake City was “flawed and lacked transparency”,<sup>13</sup> and recommended that the FAA periodically reassess the business cases for consolidating air traffic facilities throughout the system.<sup>14</sup> The DOT IG’s letter stated–

“Facility realignments and consolidations will assume greater importance as FAA moves forward with the Next Generation Air Transportation System. Therefore, the Agency’s processes for estimating the costs and expected benefits of realignment efforts will warrant greater oversight. We discussed the results of our work with FAA’s Chief Operating Officer, and he agreed that it will be important to have sound business cases in the future for realigning and consolidating FAA facilities.”<sup>15</sup>

The FAA cancelled the proposed Boise/Salt Lake City consolidation in 2010.

In late 2010, the FAA and the National Air Traffic Controller Association (NATCA) established a work group to re-evaluate terminal facility (or TRACON) realignments. The group reviewed the original business cases while also taking into consideration non-quantitative issues such as the impact on employees. The work group provided recommendations to either

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<sup>10</sup> Statement of The Honorable Calvin L. Scovel III Inspector General U.S. Department of Transportation, before the Committee on Transportation and Infrastructure, Subcommittee on Aviation, on Challenges in Meeting FAA’s Long-Term Goals for the Next Generation Air Transportation System, page 5, April 21, 2010.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> The Honorable Calvin L. Scovel III, Inspector General U.S. Department of Transportation, Letter to the Honorable Mike Crapo, the Honorable Mike Simpson, the Honorable James E. Risch, the Honorable Walt Minnick (Jun. 30, 2010) at 2.

<sup>14</sup> *Id.* at 3.

<sup>15</sup> *Id.*

“continue” or “defer” the terminal facility realignments proposed by the FAA and produced consensus recommendations. The FAA adopted all recommendations by the work group.

Therefore, as of May 2012, all further consolidations are on hold, but FAA will move forward with plans to maintain or replace aging facilities. According to the FAA, the current statuses of the terminal facility realignments identified in 2010 are as follows:

- Dayton to Columbus Ohio (**completed** June 2011)
- Reno to Northern California (**completed** October 2010)
- West Palm Beach to Miami (**cancelled**, plan to build new at Palm Beach International)
- Abilene to Dallas/Ft. Worth (**continue** - maybe completed October 2012, but more likely next year)
- Muskegon, Lansing, Grand Rapids to Kalamazoo (**deferred/on-hold**)
- Mansfield, Youngstown, Toledo, Akron-Canton to Cleveland (**deferred/on-hold**)
- Champaign to Chicago (**deferred/on-hold**)

At this time, the FAA is planning to start the realignment/consolidation process in the New York City region. Specifically, the FAA is planning to address the long-standing concerns about aging air traffic facilities with the stand-up of a new, Integrated Control Facility (ICF) servicing New York. The new facility will combine operations from New York ARTCC (ZNY) and New York TRACON (N90), and will accommodate employees who perform both high-altitude and low-altitude separation. The new ICF will be extensible to allow for future realignments and/or consolidations. According to the FAA, the latest technologies and the new service delivery model in this facility will improve coordination of air traffic in heavily-used airspace, and will serve as the template for how FAA does business in the future. The FAA's FY 2013 budget included \$95M for the ICF.

## FUTURE FACILITIES INVESTMENT

The NextGen Future Facility program is responsible for defining FAA's long term strategy and approach to facility and service transformation.<sup>16</sup> The program's charter and activities are aligned to the goals of the FAA Reauthorization language in section 804 (see description of section 804 below). The FAA recently approved an initial plan to consolidate en-route centers and terminal facilities (TRACONS) over the next two decades.<sup>17</sup> The future facilities program seeks to upgrade and transform air traffic control facilities and sites to make them flexible, scalable and maintainable. FY 2013 is the first year the Agency requested funding for other than planning purposes.<sup>18</sup>

The FAA estimates that \$2.3 billion is needed to construct and equip the four integrated facilities planned for the first of six segments, but last year's Capital Investment Plan (CIP) only provides about \$700 million for the projects.<sup>19</sup> In order to complete the projects, another \$1.6 billion in funding is needed, with nearly \$1 billion of that by FY 2017 (see table below).

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<sup>16</sup> Budget Estimates Fiscal Year 2013, p.59.

<sup>17</sup> Id.

<sup>18</sup> Id.

<sup>19</sup> National Airspace System Capital Investment Plan FY 2012-2016 (2011).

	FY11–FY17	FY18–Beyond	Total
Estimated Facility Construction and Equipage Costs	\$1,556.9	\$751.2	\$2,308.1
Previous CIP Funding Levels	<u>\$557.7</u>	<u>\$144.1</u>	<u>\$701.8</u>
<b>Difference</b>	<b>\$999.2</b>	<b>\$607.1</b>	<b>\$1,606.3</b>

Source: Initial Business Case for Next Generation Air Transportation System (NextGen) Facilities Program Segment 1 (November 2011).

## **COST SAVINGS/COST AVOIDANCE RESULTING FROM FACILITY REALIGNMENTS**

The FAA has studied advantages of facility realignment, including cost savings and cost avoidance. With fewer infrastructure inventories, the FAA would have less to maintain, thereby achieving cost savings. Additionally, other cost savings and/or cost avoidances that could result from facility realignments include:

- Avoiding unnecessary investment costs for new buildings by using available space in other existing buildings in the FAA inventory;
- Realigning older, smaller facilities into one new facility, thereby achieving more efficient use of common space square footage;
- Saving on building maintenance and operation costs by reducing space inventory or by avoiding the increase of space inventory;
- Avoiding unnecessary investment costs for new automation equipment by leveraging state of the art automation system capabilities to upgrade facilities which still operate with an older Automated Radar Terminal System (ARTS); and
- Avoiding technical refreshment costs by managing automation equipment and leveraging existing automation capabilities.<sup>20</sup>

### **FAA FACILITY MANDATES IN THE FAA MODERNIZATION AND REFORM ACT OF 2012**

#### National Facilities Realignment and Consolidation Report (Section 804)

The recently enacted FAA Modernization and Reform Act of 2012 (“Reform Act”) includes a provision which requires the Administrator to develop, in conjunction with the Chief NextGen Officer and Chief Operating Officer, a National Facilities Realignment and Consolidation Report within 120 days of enactment.<sup>21</sup> The purpose of this report is to support

<sup>20</sup> Source: Federal Aviation Administration, August 2010.

<sup>21</sup> P.L. 112-95, Section 804, *Consolidation and realignment of FAA services and facilities*

the transition to NextGen and to reduce capital, operating, maintenance, and administrative costs of the FAA without adversely effecting safety. The report must include justifications for each recommendation and project costs and savings. The report is to be developed with the participation of: 1) representatives of labor organizations representing operations and maintenance employees of the air traffic control system; and 2) industry stakeholders. The public is to be given 45 days to submit comments on the report. The Administrator must then submit the report to Congress within 60 days after the last day of the public comment period. Unless a joint resolution of disapproval is enacted within 30 days of submission of the report to Congress, the Administrator is directed to follow the recommendations taken in the report during the realignment process.

#### FAA facility conditions study (Section 610)

The Reform Act also requires the U.S. Government Accountability Office to conduct a study of the conditions of a sampling of FAA facilities across the U.S., including towers, centers, offices and Terminal Radar Approach Control Facilities (TRACONs). The study will include reports from employees relating to health conditions resulting from exposure to mold, asbestos, poor air quality, radiation and facility-related hazards in FAA facilities; conditions of facilities that could interfere with employee's ability to perform their duties; the ability of managers and supervisors to promptly document and seek remediation for unsafe facility conditions; whether employees of the Administration who report facility-related illness are treated appropriately; and utilization of scientific remediation techniques to mitigate hazardous conditions. Its findings must be submitted to the FAA and Congress. Based on the results of the GAO study, the GAO is directed to make recommendations on which facilities are in need of immediate attention, and assist the Administration in making programmatic changes so that aging facilities do not deteriorate to unsafe levels. The GAO is required to submit its report to Congress within one year of enactment.

### **SUMMARY**

Despite its understanding of the need to make decisions on facility requirements and to move ahead with realignments and consolidations, the FAA has previously met parochial political resistance from Congress, and at times, its own workforce. If the FAA is to successfully implement NextGen and achieve the expected cost savings, cost avoidances, and safety improvements, it must work with labor, industry and other stakeholders to develop clear facility requirements and sound business cases; comply with the mandates of the recently enacted Reform Act; and move ahead with needed realignments, consolidations, and/or maintenance plans in an expedited fashion.

**Witnesses:**

The Honorable David Grizzle  
Chief Operating Officer  
Air Traffic Organization  
Federal Aviation Administration

Ms. Lou E. Dixon  
Principal Assistant Inspector General for Auditing and Evaluation  
Office of the Inspector General  
U.S. Department of Transportation

Mr. Paul Rinaldi  
President  
National Air Traffic Controllers Association