Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: Status of the Aviation Rulemaking Committee’s 77 Initiatives for Reducing Delays in the New York Area
Federal Aviation Administration
Report Number AV-2010-003

Date: October 21, 2009

From: Lou E. Dixon
Assistant Inspector General
for Aviation and Special Program Audits

Reply to Attn. of: JA-10

To: Federal Aviation Administrator

Following the record-breaking flight delays of summer 2007, the Secretary of Transportation established the Aviation Rulemaking Committee (ARC) to identify ways to reduce delays and congestion at the New York (NY) area airports. According to the Secretary “…one-third of the Nation’s air traffic goes in, out, or over New York airspace every day—accounting for three-quarters of all chronic airline delays.” Even though air traffic has dropped since 2007, the NY airports continue to face challenges, with nearly 36 percent of all flights delayed or cancelled in the first 6 months of 2009. The Federal Aviation Administration (FAA) has stated that NY delays impact the entire national airspace system due to those airports’ high volume, complex traffic patterns, and airspace management problems.

On December 13, 2007, the ARC issued its report highlighting 77 initiatives for improving aviation operations and infrastructure.1 This report presents the results of our review examining FAA’s actions in response to the ARC’s recommendations. We conducted this audit at the request of the Chairman of the House Subcommittee on Aviation, who expressed the Subcommittee’s concern about the effectiveness of delay-reduction efforts at the NY airports. Our audit objective was to examine FAA’s progress in implementing the 77 ARC initiatives. We conducted the audit from November 2008 through July 2009 in accordance

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1 The ARC report also addressed four other topics for addressing NY delays: slot auctions, gate utilization, air traffic priorities, and scheduling practices.
with government auditing standards prescribed by the Comptroller General of the United States. Exhibit A details our audit scope and methodology, and exhibit B lists the locations visited or contacted.

RESULTS IN BRIEF

Since December 2007, FAA has reported completing 30 of the 77 initiatives. However, most of these are not being used or are used infrequently. As a result, delays and congestion in the NY area have only minimally been reduced. Several factors have hampered their usage, including limited tactical need, operational and technical problems, unfinished testing, and controller and airline issues (see table).

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Benefits Seen</td>
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<tr>
<td>Limited Tactical Use</td>
<td>9</td>
</tr>
<tr>
<td>More Work Required</td>
<td>13</td>
</tr>
<tr>
<td>✓ Operational/Technical Problems</td>
<td>(5)</td>
</tr>
<tr>
<td>✓ Ongoing Testing</td>
<td>(3)</td>
</tr>
<tr>
<td>✓ Controller/Airline Issues</td>
<td>(5)</td>
</tr>
<tr>
<td>Discontinued</td>
<td>3</td>
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<tr>
<td>Total</td>
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FAA faces a number of challenges that could further impede the effectiveness of the remaining 47 initiatives, such as special equipment and training requirements, questionable practicality, and litigation. Many of the remaining initiatives are also part of larger, nationwide FAA programs (e.g., airspace redesign and NextGen) that will not be completed until 2012 or later.

In addition, FAA lacks an effective process for assessing the usefulness of individual initiatives—both before and after their implementation. As a result, many of the completed initiatives were implemented before FAA had identified baseline performance measures, validated their technical feasibility, or assessed anticipated operational benefits against implementation costs. While FAA is developing a process to evaluate all delay reduction efforts, much work remains to

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2 FAA’s Air Traffic Organization (ATO) considers the 30 initiatives as “complete” because the Agency has done all it can to make the initiative available for use. Although FAA testified on May 20, 2009, that it has “substantially completed” 30 of the 77 ARC initiatives, the Integration Office Director continues to examine these initiatives. The office has recently changed the status of nearly half of the 30 initiatives to “ongoing” until issues are resolved and benefits are seen.
be done. Without further evaluation, the Agency may continue to work on initiatives that are not viable or cost effective and do not measurably reduce flight delays. We are making a series of recommendations to assist FAA in evaluating and implementing the completed and remaining initiatives.

BACKGROUND

On September 27, 2007, the Secretary of Transportation tasked the ARC to identify options for reducing congestion and allocating scarce capacity in the NY region. Members of the ARC included officials from the Department of Transportation (DOT), FAA, the Port Authority of New York and New Jersey (the Port Authority), airlines, and other aviation stakeholders. These officials prioritized a large number of short-, mid-, and long-term improvement options—ranging from changes to air traffic procedures and taxiways to significant technological enhancements as part of nationwide FAA programs (such as NextGen). These improvements were previously reported by the Port Authority’s 2007 Flight Delay Task Force, which included many of the same stakeholders as the ARC. For the most part, the ARC initiatives represented a compilation of ideas, including several that were either more than 10 years old, previously used at NY airports, or already being addressed by FAA.3

The ARC also recommended that FAA establish a new position—the Director, NY Area Program Integration Office (Integration Office)—to provide executive level coordination and integration of all activities to address congestion and flight delays in the NY metropolitan area. FAA established this position in April 2008.

FINDINGS

Completed ARC Initiatives Are Not Being Used or Are Used Infrequently by FAA and the Airlines

Since December 2007, FAA reports having substantially completed 30 of the 77 initiatives. While indicating some progress, many factors contribute to the initiatives being used infrequently or not at all. Specifically, we found that nine of these initiatives are only used to address specific situations such as severe weather or highly saturated airspace. Another 13 require further work due to operational and technical problems, unfinished testing, and controller/airline issues relating to arrival and departure procedures. As a result, the initiatives are incomplete or incapable of delivering full benefits. Finally, three of the initiatives were discontinued by FAA—at the request of several airlines—due to concerns over cost, complexity, and equity (i.e., equal distribution of delays among airlines).

3 Seventeen of the 77 initiatives were already underway before the ARC was established.
Since these issues affect over half of the 30 initiatives, we question their viability as effective delay reduction solutions. (Exhibit C lists the 30 initiatives and their current status.)

**Limited Tactical Use**

Nine completed initiatives have been used infrequently due to the limited number of situations in which they were needed. For example, one initiative created a new departure route into Canada but will only be used when severe weather blocks access to other heavily used westbound routes. Although this can reduce departure delays, airlines ultimately may choose not to take advantage of this option because it increases airline fuel costs, equipage requirements, and operational costs. Other initiatives to reduce airspace congestion by separating overhead traffic are only used when the airspace becomes highly saturated. For instance, two new airspace sectors were only open for 15 and 69 hours, respectively, in January 2009. Essentially, their benefits are limited by the conditions that would require their use.

**Operational and Technical Problems**

Five initiatives will not deliver benefits until operational or technical problems are resolved. For example, two of these, which establish Area Navigation (RNAV) arrival and departure procedures, require modifications before they can be fully used. RNAV arrival and departure procedures allow pilots to fly more precise paths into and out of airports. RNAV procedures also give controllers more flexibility to sequence aircraft that are landing and departing. Although RNAV procedures can help reduce flight delays, the process for developing or refining procedures can be time consuming and must be coordinated among several FAA offices. As a result, these procedures will not be available until late 2009 and early 2010. Airline representatives who participated in FAA’s June 2009 stakeholder meeting to evaluate the 30 “completed” ARC initiatives stated that a third RNAV visual procedure (developed for a specific airline) needs to be made available to other airlines to expand its use.

**Ongoing Testing**

Three initiatives are still undergoing testing and therefore should not be considered complete until they are fully available and routinely used. Specifically, FAA continues to test the benefit of one initiative that reroutes northbound traffic to Boston. FAA has yet to quantify whether this reroute measurably reduces congestion as testing has been affected by low traffic volumes. FAA is testing another initiative to expedite international departures out of New York by establishing random eastern routes. While it appears to be delivering benefits (e.g., fuel savings, reduced emissions, and fuel burn), FAA has yet to make it routinely available. Finally, FAA is refining and testing an automated planning...
tool called for in another initiative that will identify alternate departure routes during severe weather. Until these actions are completed, it is unclear what benefits these initiatives will have in reducing delays and congestion.

Controller and Airline Issues

Five initiatives intended to improve arrival and departure efficiency, such as allowing simultaneous or dual approaches at John F. Kennedy and Newark airports, are opposed by controllers because of perceived safety factors, workload requirements, and insufficient benefits. Controllers note that such approaches at John F. Kennedy airport require a second staffed position and believe that benefits from this procedure are reduced by existing operational complexities. Airlines, however, fully support these approach procedures, stating that they provide clear benefits and should be used more often. Controllers also oppose FAA’s efforts to reduce excessive spacing between aircraft on final approach for fear of incurring operational errors. However, airlines state that reducing excessive spacing on final approach would significantly improve the number of arrivals.

Overall, controller opposition has led to limited use of some of these initiatives. Based on the airlines’ concerns, the Integration Office Director has changed the status of four of these initiatives to ongoing and plans to further evaluate these procedures.

Discontinued Initiatives

At the request of several airlines, FAA discontinued three initiatives because of cost, equity, and complexity concerns. Specifically, an initiative to reroute flights from the Caribbean to Newark airport was discontinued because of added mileage and increased operating costs. Another, intended to spread delays to other northeastern airports, was never implemented because of airline concerns that resulting delays would be unevenly distributed. The third initiative, which would have allowed reduced spacing between aircraft in a holding pattern, was discontinued during testing due to airline complaints about added mileage and increased fuel costs.

On May 20, 2009, we testified before the House Subcommittee on Aviation that FAA reported more than one-third of the initiatives as complete, even though most of them were not used or were used infrequently. Based on our testimony and input received from airlines and other key stakeholders, the Integration Office Director has re-categorized half of the initiatives that were previously reported as

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4 An operational error occurs when an air traffic controller allows aircraft to come too close together and can result in disciplinary action.

complete. Specifically, the Director changed the status of 13 “completed initiatives” to “ongoing” and dropped 2 of the 3 initiatives that we identified as “discontinued.”

**FAA and Stakeholders Must Address Various Challenges Before the Remaining Initiatives Can Be Implemented**

FAA faces challenges that need to be addressed before it can complete and fully utilize the remaining 47 initiatives. Challenges include equipage and training requirements, unfavorable benefit-cost ratios for some projects, and ongoing litigation surrounding airspace redesign efforts. Complicating these challenges is the fact that most of the remaining initiatives are part of larger, nationwide FAA programs (e.g., airspace redesign and NextGen) and will not be completed until 2012 or later, pushing out anticipated benefits for many years.

**RNP Initiative Requires Specially Equipped Aircraft and Aircrew Training**

One initiative would require airlines to upgrade or install additional equipment in order to use new Required Navigation Performance (RNP) procedures. These procedures aim to reduce spacing requirements between aircraft landing on parallel and converging runways. RNP is a form of RNAV that adds on-board navigation monitoring and alerting capabilities to guide aircraft more precisely to and from airports. Consequently, participating airlines may need to upgrade or install additional equipment that can cost up to $500,000 per aircraft (especially for older models). Airlines would also have to ensure their aircrews are trained on the new procedures. Although 36 percent of commercial aircraft in the NY area are currently equipped to fly RNP approaches, only 12 percent are authorized to use them. FAA is conducting a study to determine the feasibility of developing additional RNP procedures for aircraft flying into NY airports; however, implementation would not occur until at least 2011 to 2015.

**Some Initiatives May Be Impractical To Implement**

Both FAA and stakeholders question the practicality and benefits of six of the remaining initiatives. For example, one initiative could require tunneling under a runway safety area and rerouting an access road at LaGuardia airport to improve the flow of departing aircraft. Another would require purchasing the property rights from a hotel and another business near Newark airport to install an approach lighting system—FAA terminated a similar project nearly 10 years ago. A third initiative would relocate a cement factory near LaGuardia airport. For each of

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6 The OIG recently testified on challenges with RNP and RNAV. OIG Testimony Number CC-2009-086, “Challenges in Implementing Performance-Based Navigation in the U.S. Air Transportation System,” July 29, 2009. Later this year, the OIG plans to issue a report on FAA’s oversight of RNAV/RNP procedures that are being developed by third-party contractors.
these projects, FAA officials question whether the anticipated benefits would warrant the multimillion-dollar investment.

**Ongoing Litigation May Delay Initiatives Tied to NY Airspace Redesign**

The New York/New Jersey/Philadelphia airspace redesign—which impacts eight ARC initiatives—has been challenged by a number of individuals and localities in court. The petitioners argued that FAA violated Federal environmental laws in developing the airspace redesign. The petitioners also claimed that the redesign will increase safety risks, noise, and air pollution as well as lower property values. FAA prevailed before the U.S. Court of Appeals for the District of Columbia (DC) Circuit, but Connecticut’s Attorney General, who argued the case before the DC Circuit, publicly signaled his intent to appeal to the U.S. Supreme Court. If the Supreme Court accepts the case and decides in favor of the petitioners, FAA’s redesign efforts may be significantly delayed.

**Initiatives Linked to Larger, National FAA Programs Will Take Years To Implement**

Since many of the remaining ARC 77 initiatives are part of larger programs such as NextGen, airspace redesign, or major capital improvements, they will not be completed for many years. These include efforts to redesign the NY airspace (2007 to 2012), establish RNAV procedures (2009 to 2012), construct taxiways at JFK (2009 to 2014), and implement mid-term NextGen goals (2012 to 2018). For example, three RNAV initiatives will be implemented in stages of the airspace redesign effort. This effort involves the redesign of the NY airspace and its integration with portions of the Boston; Philadelphia; and Washington, DC, airspace. Additionally, initiatives related to capital infrastructure projects must undergo time-consuming environmental reviews, which can take up to 10 years or more.

**FAA Has Not Fully Established Processes for Evaluating Initiatives, Ensuring Timely Completion, and Measuring Their Effectiveness**

FAA began implementing many of the ARC’s 77 initiatives before it had validated their technical feasibility, assessed anticipated operational benefits against implementation costs, or identified baseline performance measures. In fact, many of the 30 “completed” initiatives were underway before the ARC was created and therefore did not undergo a full operational assessment to identify delay-reduction expectations. This has caused stakeholders to question the initiatives’ timely usage and benefits. To avoid these problems, it will be important for FAA to

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7 On June 10, 2009, a panel of the U.S. Court of Appeals for the District of Columbia Circuit dismissed the challenges. On August 19, 2009, the full DC Circuit denied the petitioners request for a rehearing.
establish an integrated process to validate the operational benefits of all completed initiatives and assess the remaining ones to determine whether they warrant implementation. Unless such actions are taken, FAA will continue to have difficulty reaching consensus on the benefits of initiatives. Moreover, without this process in place, FAA could potentially pursue initiatives that may not be viable or cost effective.

**The NY Integration Office Has Made Progress in Assessing Initiatives**

The Integration Office has taken several important steps toward assessing the completed and remaining initiatives. First, the 30 “completed” initiatives were thoroughly reviewed—with 15 initiatives subsequently re-categorized (i.e., 13 as “ongoing” and 2 as “dropped”). Second, on June 26, 2009, the office issued standard operating procedures for developing a delay-reduction plan and an integrated master schedule for addressing the remaining 47 initiatives (as well as those completed initiatives still under review). Although these tools have yet to be finalized, they will create a critical framework for evaluating operational benefits, conducting technical feasibility studies, performing cost/benefit analyses, tracking implementation, and reporting on progress. Overall, the plan and schedule will go far in identifying initiatives that should not be pursued, prioritizing initiatives for implementation if they can measurably reduce delays, and incorporating additional options beyond the ARC 77.

**Successful Implementation of Initiatives Depends on Seamless Coordination Among Relevant FAA Organizations**

The Integration Office’s new standard operating procedures create a framework for coordinating the evaluation and implementation of the ARC initiatives among various key stakeholders—including FAA organizations, airports, and airlines. Such coordination is critical because of the shared responsibilities these stakeholders have in identifying, evaluating, funding, testing, and using the various initiatives. This office was established to implement delay-reduction initiatives across FAA’s organizations (including the Air Traffic Organization, or ATO; Aviation Policy, Planning, and Environment; Airports; and Aviation Safety). However, the Integration Office has no direct authority over these organizations or non-FAA stakeholders. It is important, therefore, that all stakeholders support the Integration Office’s efforts to establish an effective process for evaluating and implementing the initiatives.

During our review, it became apparent that ATO support for these efforts is not consistent among its senior officials. For instance, the ATO Chief Operating Officer has expressed support and agreed to provide the Integration Office with a wide range of system performance and operational data (e.g., airspace, capacity, delays, and operational benefits evaluations). He stated that delay-reduction
initiative proponents within ATO would cooperate to provide funding in support of these services. The Integration Office Director noted that this information will greatly assist efforts to establish performance baselines, measure operational impacts, and communicate results for initiatives.

Yet, other senior ATO officials do not support elements of the Integration Office’s process as outlined in the June 2009 standard operating procedures. Those officials believe that the responsibility for determining which initiatives should be pursued, funded, and evaluated lies within the ATO. Nevertheless, many of the ARC initiatives involve or impact FAA organizations outside the ATO, which means an integrated approach will be required to oversee NY delay reduction activities.

ATO’s full support is particularly important since it has a primary role in evaluating and implementing many of the initiatives. Ultimately, without the full support of all involved FAA organizations and stakeholders, the Integration Office will be unable to establish processes needed to achieve meaningful and measurable reductions in NY area flight delays.

**CONCLUSION**

Almost 2 years after the ARC issued its December 2007 report the NY metropolitan airports continue to experience high levels of delays. FAA’s difficulty in mitigating this situation is due, in part, to insufficient understanding and assessment of the potential benefits and implementation challenges associated with the 77 initiatives. As a result, many of the completed initiatives are either unused or used infrequently and most remaining initiatives face obstacles that will further delay their completion. While FAA has begun addressing these issues, much work remains to be done to ensure these efforts help reduce flight delays and congestion in the NY area.

**RECOMMENDATIONS**

We recommend that FAA:

1. Reassess completed initiatives and evaluate remaining initiatives to determine what, if any, benefits they provide and whether they should be continued. Those still being developed, tested, or discontinued due to technical or operational problems should be reported as ongoing, suspended, or cancelled.

2. Resolve remaining technical and operational problems, as well as controller and airline issues affecting 13 of 30 completed initiatives.
3. Fully operationalize the NY Area Delay Reduction Plan and Schedule by establishing performance baselines and cost/benefit analyses; coordinating activities across relevant FAA organizations; and identifying funding needs, technical requirements, and performance measures.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided FAA with our draft report on August 19, 2009. On October 1, 2009, FAA provided us with its formal response to our recommendations, which is included in its entirety in the appendix to this report. FAA concurred with the first two recommendations and partially concurred with our third recommendation. Specifically, FAA agreed to establish performance baselines, analyze costs and benefits, and coordinate activities but intends for officials within responsible lines of business, rather than the Integration Office Director, to be primarily responsible for overseeing the status of their respective initiatives.

We consider FAA’s planned actions and target completion dates to be responsive and consider all three recommendations as addressed but open pending completion. We appreciate the courtesies and cooperation of FAA representatives during this audit. If you have any questions regarding this report, please contact me at (202) 366-0500, or Darren Murphy, Program Director, at (206) 220-6503.

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cc: FAA Deputy Administrator
Chief Operating Officer, Air Traffic Organization
Associate Administrator for Airports
Director, New York Area Program Integration Office
Anthony Williams, ABU-100
Martin Gertel, M-1
EXHIBIT A. SCOPE AND METHODOLOGY

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. The audit was conducted between November 2008 and July 2009.

To assess FAA’s progress in implementing the ARC 77 initiatives, we reviewed documentation showing the status of each of the initiatives based on information obtained from the Integration Office and ATO System Operations. We also interviewed officials from the Integration Office, the Air Traffic Control System Command Center in Herndon, Virginia, and representatives from various stakeholder organizations (see exhibit B for a complete list of stakeholders contacted). Additionally, we attended a February 2009, FAA-sponsored Customer Focus Seminar at the NY Air Route Traffic Control Center to discuss FAA’s progress in implementing the initiatives. At this seminar, we also met with representatives from the Boston and New York Air Route Traffic Control Center, Continental Airlines, Delta Airlines, and the International Air Transport Association. Finally, we conducted site visits to air traffic control facilities in the NY area where we interviewed Agency officials, union representatives, and aviation stakeholders to validate FAA’s progress and determine whether completed initiatives were used and delivering benefits.

To identify challenges facing the implementation of both completed and yet to be completed initiatives, we interviewed FAA officials and reviewed applicable documentation provided by the responsible lines of business. Specifically, we interviewed officials from the (1) RNAV/RNP Program Office responsible for procedure development, (2) New York/New Jersey/Philadelphia Airspace Redesign to assess the impact of ongoing litigation, and (3) NY regional and district airport offices and the Port Authority of New York and New Jersey to review capital infrastructure projects. We also obtained and reviewed the NextGen Implementation Plan to identify the status and priority of NY-related initiatives.
EXHIBIT B. FACILITIES VISITED OR CONTACTED

FAA Headquarters, Washington DC

- Air Traffic Organization
  - Terminal Services
  - En Route and Oceanic Services
  - System Operations Services
- Office of Aviation Policy and Plans

Air Traffic Control Facilities

- Air Traffic Control System Command Center, Herndon, VA
- Air Traffic Control Towers
  - Newark, NJ
  - John F Kennedy International, NY
  - LaGuardia, NY
- New York TRACON, Westbury, NY
- New York Air Route Traffic Control Center, Ronkonkoma, NY

Eastern Region Facilities

- New York Airports District Office, Garden City, NY
- New York Area Program Integration Office, Jamaica, NY

Aviation Stakeholders

- Port Authority of New York/New Jersey, New York, NY
- National Air Traffic Controllers Association Washington, DC
- Air Line Pilots Association, Herndon, VA
- Airports Council International, Washington, DC
- RTCA, Inc., Washington, DC
- Mitre Corporation, McLean, VA
- Air Transport Association, Washington, DC
- JetBlue Airways, New York
- Delta Air Lines, New York
- Continental Airlines, New York
- International Air Transport Association, New York

Exhibit B. Facilities Visited or Contacted
EXHIBIT C. 30 “COMPLETED” INITIATIVES

Note: In May 2009, FAA testified that these 30 initiatives were “substantially complete.”

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<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Implementation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Reduces departure restrictions for airports more than 500 miles from NY.</td>
<td>Restrictions have been reduced at three of the five identified airports.</td>
</tr>
<tr>
<td>10</td>
<td>Transfers control of airspace from NY Center to Potomac TRACON.</td>
<td>Increased traffic throughput by utilizing the TRACON’s reduced separation requirements.</td>
</tr>
<tr>
<td>33</td>
<td>Adds a new RNAV arrival procedure for Teterboro Airport.</td>
<td>1,500 monthly arrivals use the new RNAV approach.</td>
</tr>
<tr>
<td>38</td>
<td>Increases use of alternate JFK departure runway.</td>
<td>Departure alternative has been used to balance departure demand.</td>
</tr>
<tr>
<td>50</td>
<td>Develops a RNAV arrival procedure for Newark.</td>
<td>5,000 flights used this procedure in January and February 2009.</td>
</tr>
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<tr>
<th>No.</th>
<th>Description</th>
<th>Implementation Status</th>
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<tbody>
<tr>
<td>4</td>
<td>Develops an additional severe weather route through Canada.</td>
<td>This initiative is available but has seen little use.</td>
</tr>
<tr>
<td>6</td>
<td>Provides air traffic control towers alternative departure routes.</td>
<td>Airlines have requested other alternative routes be identified.</td>
</tr>
<tr>
<td>7</td>
<td>Eliminates restrictions for departures not impacted by weather.</td>
<td>Airlines question the extent to which this procedure is being used.</td>
</tr>
<tr>
<td>8</td>
<td>Allows westbound departures to use an eastbound arrival route.</td>
<td>Requires controllers to divert arriving traffic. Procedure is available but it has not been used.</td>
</tr>
<tr>
<td>11</td>
<td>Creates a high-altitude airspace sector to reduce overhead traffic complexity.</td>
<td>Dependent on high traffic volume. Since traffic levels have been down, use has been limited.</td>
</tr>
<tr>
<td>12</td>
<td>Provides access to alternate westbound routes.</td>
<td>Airlines want to see increased use of alternate routes on high volume days; primarily used during severe weather.</td>
</tr>
<tr>
<td>14</td>
<td>Creates a new airspace sector to reduce overhead traffic complexities.</td>
<td>Dependent on high traffic volume. Since traffic levels have been down, use has been limited.</td>
</tr>
<tr>
<td>15</td>
<td>Shifts overhead traffic to allow for unrestricted departures.</td>
<td>Due to additional miles flown, this initiative is used infrequently.</td>
</tr>
<tr>
<td>47</td>
<td>De-conflicts domestic and international arrivals.</td>
<td>Usage is limited to 12AM to 6AM due to traffic volume constraints.</td>
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## More Work Required

<table>
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<tr>
<th>Initiative No.</th>
<th>Description</th>
<th>Implementation Status</th>
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<tr>
<td><strong>Technical/Operational Issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Creates a second (dual) westbound J80 departure route.</td>
<td>Additional access point will be added during airspace redesign.</td>
</tr>
<tr>
<td>49</td>
<td>Establishes an RNAV visual approach procedure to Newark.</td>
<td>Used by only one airline, availability needs to be expanded to all airlines.</td>
</tr>
<tr>
<td>51</td>
<td>Establishes an RNAV procedure for dispersing Newark departures westbound.</td>
<td>Procedure requires more work and will be republished.</td>
</tr>
<tr>
<td>52</td>
<td>Establishes an RNAV departure procedural to allow Newark flights to climb over LaGuardia arrivals.</td>
<td>Procedure requires more work and will be republished.</td>
</tr>
<tr>
<td>55</td>
<td>Develops visual procedure for dual arrivals for Newark runways.</td>
<td>Airlines stated that this initiative was not implemented as intended and will require revision.</td>
</tr>
<tr>
<td><strong>Undergoing Testing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Shifts overhead traffic bound for Boston.</td>
<td>The Integration Office Director plans to conduct an Operational Benefits Analysis to support its implementation.</td>
</tr>
<tr>
<td>22</td>
<td>Allows random eastbound routes for international traffic.</td>
<td>FAA extended testing until September 30, 2009. Airlines would like to see its routine use.</td>
</tr>
<tr>
<td>58</td>
<td>Upgrades Route Availability Planning Tool for use during severe weather.</td>
<td>Software continues to be refined and user training is ongoing.</td>
</tr>
<tr>
<td><strong>Controller Concerns</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Reduces excessive spacing on final approach to improve arrival rates.</td>
<td>Controllers mistrust FAA’s new monitoring tool and policy change intended to alleviate controller concerns about operational errors.</td>
</tr>
<tr>
<td>16</td>
<td>Uses simultaneous departure runways at JFK and Newark.</td>
<td>Controllers identified safety concerns regarding its use during unsafe wind conditions. The initiative has been completed at JFK only.</td>
</tr>
<tr>
<td>37</td>
<td>Uses simultaneous instrument approaches at JFK.</td>
<td>Requires that FAA staff a second position at the TRACON. Controllers question the operational benefits.</td>
</tr>
<tr>
<td>45</td>
<td>Allows dual arrivals on intersecting runways at Newark.</td>
<td>Use of this initiative conflicts with operations at another airport, thereby limiting operational benefits.</td>
</tr>
<tr>
<td>46</td>
<td>Uses simultaneous visual approaches at Newark.</td>
<td>Controllers concerned with increased complexity and workload demands.</td>
</tr>
</tbody>
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*Exhibit C. 30 “Completed” Initiatives*
## Discontinued

<table>
<thead>
<tr>
<th>Initiative No.</th>
<th>Description</th>
<th>Implementation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Uses FAA’s Airspace Flow Program to allow unrestricted NY departures by restricting aircraft departing other Northeast airports.</td>
<td>Airlines were concerned the initiative would affect some airlines and airports more than others.</td>
</tr>
<tr>
<td>5</td>
<td>Transfers a holding pattern from the NY Center’s control to the TRACON.</td>
<td>An airline objected due to added mileage requirements.</td>
</tr>
<tr>
<td>48</td>
<td>Reroutes Caribbean traffic to manage Newark arrivals.</td>
<td>An airline objected due to added mileage requirements.</td>
</tr>
</tbody>
</table>

Exhibit C. 30 “Completed” Initiatives
## EXHIBIT D. MAJOR CONTRIBUTORS TO THIS REPORT

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Darren Murphy</td>
<td>Program Director</td>
</tr>
<tr>
<td>Jerrold Savage</td>
<td>Project Manager</td>
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APPENDIX. AGENCY COMMENTS

Memorandum

Date: October 1, 2009
To: Lou E. Dixon, Assistant Inspector General for Aviation and Special Program Audits
From: Ramesh K. Punwani, Assistant Administrator for Financial Services/CFO
Prepared by: Anthony Williams, x79000
Subject: OIG Draft Report: Status of Aviation Rulemaking Committee’s (ARC) 77 Initiatives for Reducing Delays in the New York Metropolitan Area

The Federal Aviation Administration (FAA) recognizes the impact of New York (NY) area delays on the national airspace system and has made significant progress in evaluating and implementing the ARC initiatives. We remain committed to improving operational performance in the NY metropolitan area using a multi-tiered approach to 1) increase tactical performance and accountability, 2) build on those improvements with near-term initiatives like NY/NJ/PHL Airspace Redesign and implementation of new RNAV-based procedures and 3) deploy mid to long-term NextGen solutions.

In December 2007, the Port Authority of New York and New Jersey (PANYNJ) Task Force and ARC delivered their final reports, identifying nearly identical lists of 77 initiatives. The New York Area Program Integration Office (NYAPIO) was established to oversee the integration of activities related to congestion and delay reduction in the NY/NJ area. This FAA response establishes a process to address the Department of Transportation, Office of Inspector General’s (OIG) concern that many of the original 77 initiatives (the “ARC-77”) were included without fully assessing their technical feasibility, operational benefits or costs. The review process will ensure that organizations responsible for each initiative are accountable for their individual program integration and results, while clarifying the NYAPI’s role in maintaining the integrated master schedule, tracking progress and reporting status, as well as assuring the portfolio of initiatives are integrated across all internal lines of business and external stakeholders.

The following is FAA’s response to each recommendation contained in the OIG report:

Appendix. Agency Comments
**OIG Recommendation 1**: Reassess completed initiatives and evaluate remaining initiatives to determine what, if any, benefits they provide and whether they should be continued. Those still being developed, tested, or discontinued due to technical or operational problems should be reported as ongoing, suspended, or cancelled.

**FAA Response**: Concur. FAA reported to Congress in May 2009 that 30 of the ARC-77 initiatives were substantially complete based on an agreement reached by the stakeholder group. The status of 14 of those initiatives was subsequently changed to “ongoing” to reflect requests for additional follow-up received at a stakeholder meeting in June. A reassessment of the 30 initiatives that were deemed substantially complete was recently completed by the NYAPIO and a matrix team which consists of members from ATO, Airports, Aviation Safety, and Aviation Policy, Planning and Environment. The evaluation concluded that 16 are complete and require no additional action (see attachment). The remaining 14 that were originally identified as substantially complete and the other 47 initiatives will be included in a comprehensive agency review, to be completed no later than January 31, 2010 (see response to OIG Recommendation 3). Those initiatives determined to be appropriate for continuation based on evaluation of potential benefit, obstacles to implementation, and cost will be incorporated into the results of the Agency’s review of the RTCA Task Force 5 recommendations, and become the basis of future FAA/stakeholder deliberations regarding operational improvements planned for the NY area. The review process will also ensure that organizations responsible for each initiative are accountable for their individual program integration and results, while clarifying the NYAPIO’s role in maintaining the integrated master schedule, tracking progress and reporting status, as well as assuring the portfolio of initiatives are integrated across all internal lines of business and external stakeholders.

**OIG Recommendation 2**: Resolve remaining technical and operational problems, as well as controller and airline issues affecting 13 of 30 completed initiatives.

**FAA Response**: Concur. The NYAPIO and stakeholders have agreed that four of the 13 initiatives are complete. The remaining 9 will be included in a comprehensive FAA review of all open ARC-77 initiatives, to be completed no later than January 31, 2010 (see response to OIG Recommendation 3).

**OIG Recommendation 3**: Fully operationalize the New York (NY) Area Delay Reduction Plan and Schedule by establishing performance baselines and cost/benefit analyses; coordinating activities across relevant FAA organizations; and identifying funding needs, technical requirements, and performance measures.

**FAA Response**: Partially concur. FAA has identified considerable overlap between the ARC-77 initiatives, NY/NJ/PHL Airspace Redesign, the NextGen Implementation Plan, the recently announced recommendations from Task Force 5 and several ongoing agency programs. FAA will conduct a comprehensive review of all open ARC-77 initiatives, no later than January 31, 2010, to improve tracking, integration and accountability. Affected lines of business will assess initiatives for which they are responsible, and report the status of each as completed, ongoing, suspended, or cancelled. The review will also identify those initiatives that are being addressed tactically, as elements of core business or as components of NextGen and discontinue tracking

Appendix. Agency Comments
them as distinct New York area initiatives. FAA will establish performance baselines and cost/benefit analyses; coordinate activities across relevant FAA organizations; and identify funding needs, technical requirements, and performance measures for each of the initiatives that result from FAA/stakeholder consideration of RTCA Task Force 5 recommendations (including any continued ARC initiatives). The NYAPIO will be responsible for maintaining a Master Schedule to integrate and track the status of the portfolio of initiatives that apply specifically to the New York area, as reported by the accountable lines of business.