

# **AIRSPACE REDESIGN: YARDLEY/ROBBINSVILLE FLIP-FLOP**

*Federal Aviation Administration*

*Report Number: AV-2003-042*

*Date Issued: May 20, 2003*



**U.S. Department of  
Transportation**

Office of the Secretary  
of Transportation  
Office of Inspector General

# Memorandum

Subject: ACTION: Yardley/Robbinsville Flip-Flop  
Report No. AV-2003-042

Date: May 20, 2003

From: Alexis M. Stefani  
Principal Assistant Inspector General  
for Auditing and Evaluation

Reply to: JA-10:x60500  
Attn. of:

To: Federal Aviation Administrator

At the request of Congressman Mike Ferguson, we reviewed the Federal Aviation Administration's (FAA) actions to inform Members of Congress and the public about the Yardley/Robbinsville "Flip-Flop." We specifically examined the adequacy of FAA's answers to four questions on a Preliminary Environmental Review Checklist. Our review was conducted in accordance with Government Auditing Standards as prescribed by the Comptroller General of the United States (see exhibit A). A copy of our response to Congressman Ferguson is attached as exhibit B for your information and use. We are transmitting recommendations based on the results of our work.

We provided FAA a discussion draft report and on May 2, 2003, we met with the Associate Administrator for Air Traffic Services, the Director of Air Traffic, and the Program Director for the Air Traffic Airspace Management Program to discuss our results and recommendations. We have incorporated their comments in this report.

The Flip-Flop was implemented on December 27, 2001, as part of FAA's National Choke Points Initiative to reduce airline delays that reached intolerable levels in the summer of 2000. The Flip-Flop involves adjusting airspace and procedures for air traffic flows from the south into Newark International and LaGuardia International Airports.

Although not required, FAA decided that it would engage the Congress and the public on the Flip-Flop. Further, FAA stated on the environmental review

checklist that it had informed Members of Congress and the public about the Flip-Flop (and its potential impacts) and that no one objected to the airspace change.

Our review found that FAA embedded its outreach efforts to the Congress and the public on the Flip-Flop with a much larger initiative to redesign New York/New Jersey/Philadelphia airspace planned for 2005. While FAA was working to inform the Congress and the public about the larger effort, the agency did not provide a clear pattern of detailed information to New Jersey officials specifically on the Flip-Flop and its impacts.

Our review of agency records does not support agency statements on the checklist that it briefed Members of Congress, community leaders, and affected citizens about the Flip-Flop. FAA's records are incomplete with respect to the content of briefings given specifically to Members of Congress, who attended the briefings, and the concerns those in attendance raised.

FAA Headquarters and regional officials involved in this matter recognize that they should have been clearer in their presentations to Congress about the Flip-Flop, including exactly what the airspace changes would entail. Problems in communicating the Flip-Flop were exacerbated by moving on a "fast-track" and attempting to work the Flip-Flop in conjunction with the much larger New York/New Jersey/Philadelphia airspace redesign effort.

FAA misjudged the reaction the Flip-Flop would generate with elected officials and citizens of New Jersey. The reaction to the Flip-Flop illustrates how even modest airspace changes can impact the public when aircraft noise is shifted from one location to another. FAA must document how it determines whether or not an airspace change is controversial and do a better job of documenting its meetings with Congress.

Accordingly, we recommend that FAA:

1. Avoid combining airspace redesign efforts that have vastly different implementation schedules, levels of review, need for public involvement, and anticipated impacts.
2. Document how it determines whether or not a proposed airspace change is controversial.
3. Document and maintain lists of invitees, attendees, and FAA staff (including contractors), as well as copies of all presentations given at environmental related meetings with the public and congressional representatives.

In accordance with Department of Transportation Order 8000.1C, we would appreciate receiving your written response within 30 calendar days. If you concur

with our recommendations, please indicate for each recommendation the specific actions taken or planned and target dates for completion of these actions. If you do not concur, please provide your rationale. Furthermore, you may provide alternative courses of action that you believe would resolve the issues presented in this report.

If I can answer any questions or be of any further assistance, please call me at (202) 366-1992 or David A. Dobbs, Assistant Inspector General for Aviation Audits, at (202) 366-0500.

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## **EXHIBIT A. OBJECTIVES, SCOPE, AND METHODOLOGY**

As requested by Congressman Mike Ferguson, we reviewed FAA's implementation of the Yardley/Robbinsville Flip-Flop. As agreed with the Congressman's office, our objective focused on the adequacy of FAA's answers on several questions on a Preliminary Environmental Review Checklist that relate to the actions taken by the agency to inform Members of Congress and the public about the Yardley/Robbinsville Flip-Flop before it was implemented.

We performed our work at FAA Headquarters and the FAA Eastern Region office between July 2002 and March 2003. Our review covered all pertinent activities between September 1999 and July 2002. All work was performed in accordance with Government Auditing Standards as prescribed by the Comptroller General of the United States.

- We reviewed applicable Federal regulations and FAA orders concerning environmental requirements.
- We examined the sequence of events leading up to implementation of the Flip-Flop and how it fit into the ongoing National Airspace Redesign effort for the New York/New Jersey/Philadelphia area.
- We obtained and analyzed available data from meetings, discussions, and presentations on the Flip-Flop and airspace redesign to determine how, when, and if the public and Congress was informed about the Flip-Flop.
- We interviewed FAA Headquarters airspace redesign management and staff; a member of the FAA Congressional Liaison staff; and the FAA Eastern Region Air Traffic Division manager, environmental specialist and staff. We also met with a member of the New Jersey Coalition against Aircraft Noise and of the New Jersey Citizens for Environmental Research.

## EXHIBIT B. LETTER TO CONGRESSMAN MIKE FERGUSON



**U.S. Department of  
Transportation**

Office of the Secretary  
of Transportation

The Inspector General

Office of Inspector General

Washington, DC 20590

May 16, 2003

The Honorable Mike Ferguson  
United States House of Representatives  
Washington, DC 20515

Dear Representative Ferguson:

As you requested, we reviewed the Federal Aviation Administration's (FAA) actions to inform Members of Congress and the public about the Yardley/Robbinsville "Flip-Flop," which adjusted air traffic flows to Newark International and LaGuardia International airports.

The Yardley/Robbinsville Flip-Flop was implemented on December 27, 2001, as part of the National "Choke Points" Initiative to reduce airline delays. Before the Flip-Flop was implemented, aircraft flying into Newark and LaGuardia airports passed through narrow sectors where aircraft heading to Newark Airport had to cross beneath the path of aircraft destined for La Guardia Airport. By swapping (flip-flopping) the arrival flows for Newark and La Guardia, FAA sought to reduce airspace complexity and increase the arrival streams into both airports. The change involves aircraft arrival patterns between 3,000 and 7,000 feet.

As agreed with your office, our objectives focused on the adequacy of answers on a Preliminary Environmental Review Checklist<sup>1</sup> (the checklist), dated August 3, 2001. The checklist was used to help determine the level of environmental study

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<sup>1</sup> The Preliminary Environmental Review Checklist is used by environmental specialists to determine the level of environmental study and documentation appropriate for the proposed air traffic action. It is intended to help determine the level of controversy an action may cause and whether or not an environmental assessment or environmental impact statement is warranted.

needed before implementing the Flip-Flop. FAA's responses on the checklist indicate that FAA communicated the Flip-Flop and its impact to Members of Congress, community leaders, and affected citizens; that they were supportive of the airspace change; that the airspace change would not be controversial; and that no one objected to the change on environmental grounds.

Our review found that the Flip-Flop was embedded in a much larger initiative to redesign New York/New Jersey/Philadelphia airspace planned for 2005. While FAA was working to inform the Congress and public about the larger effort, the agency did not provide a clear pattern of detailed information to New Jersey officials on the Flip-Flop and its impacts. Our review of agency records does not support agency statements on the checklist that it briefed Members of Congress, community leaders, and affected citizens specifically about the Flip-Flop. The Enclosure provides details of our analysis of FAA's responses.

FAA misjudged the reaction the Flip-Flop would generate with elected officials and citizens of New Jersey. The reaction to the Flip-Flop illustrates how even modest airspace changes can impact the public when aircraft noise is shifted from one location to another. Given FAA's past experience in the highly controversial effort to adjust aircraft patterns above New Jersey<sup>2</sup> in the late 1980's, FAA officials should have recognized the likelihood of controversy regarding the Flip-Flop and placed increased emphasis on communicating the proposed change to the citizens and elected officials of New Jersey.

### **Observations and Conclusions**

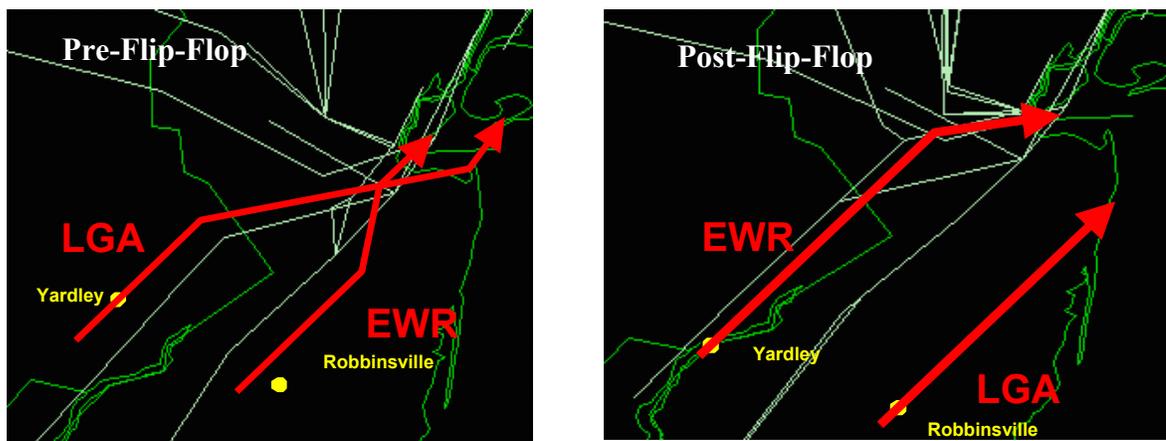
The Flip-Flop was 1 of the 21 action items in the National Choke Points Initiative<sup>3</sup> that FAA pursued to improve the flow of air traffic and reduce delays, which had reached intolerable levels in the summer of 2000. FAA viewed these 21 action items as small changes that could be done quickly (within 24 months) to enhance the flow of air traffic. The following illustrates how the Flip-Flop changed flight paths to Newark and LaGuardia airports.

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<sup>2</sup> FAA implemented the Expanded East Coast Plan (EECP) in 1987, which adjusted aircraft flight patterns in New Jersey. Complaints about the plan resulted in a provision in the Aviation Safety and Capacity Expansion Act of 1990 that required FAA to prepare an Environmental Impact Statement on the EECP.

<sup>3</sup> The National Choke Points Initiative was FAA's effort to relieve air traffic congestion at seven geographic areas east of the Mississippi that represent key bottlenecks in the National Airspace System.

### Yardley/Robbinsville Flip-Flop adjusted airspace and procedures for flows from the south into Newark and LaGuardia Airports



FAA orders and current environmental rules and regulations<sup>4</sup> require FAA to perform an environmental impact study or environmental assessment before changes can be made to airports or surrounding airspace. However, a *categorical exclusion* from these requirements is authorized for airspace changes (instrument approach procedures, departure procedures, and en route procedures) conducted at 3,000 feet or more above ground level that do not cause traffic to be routinely routed over noise sensitive areas or increase the noise footprint of an airport. FAA stated that the Flip-Flop met these criteria.

In essence, a categorical exclusion means that FAA can move forward with an airspace change without engaging the public (as opposed to following the process for an environmental impact statement or environmental assessment). However, according to FAA Order 1050.1D (Policies and Procedures for Considering Environmental Impacts), in a scenario where FAA believes an action may be controversial on environmental grounds, it must inform the public even if a categorical exclusion is authorized.

Although FAA believed that it was not required to inform the public by law or agency regulation, FAA decided it would do so on the Choke Points Initiative, including the Flip-Flop. This was done in concert with a much larger effort to redesign the New York/New Jersey/Philadelphia airspace planned for completion in 2005, which is separate from the Choke Points Initiative.

<sup>4</sup> FAA Orders 7490 and 1050.1D; the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq.; 40 C.F.R. § 1500 et seq.

In December 2001, FAA's Eastern Region issued a Record of Decision regarding the Flip-Flop, which summarizes the Agency's basis for implementing the Flip-Flop. A checklist completed by an environmental specialist on August 3, 2001, was used to help prepare the Record of Decision. As you requested, we examined FAA's responses to questions on the checklist that address agency efforts to inform Members of Congress and the public about the anticipated impact of the airspace change.

We found that FAA embedded its outreach efforts to the Congress and public on the Flip-Flop with the much larger initiative to redesign New York/New Jersey/Philadelphia airspace. While FAA was working to inform Congress of the larger effort, our review of agency records does not support statements on the checklist that FAA briefed Members of Congress, community leaders, and affected citizens about the Flip-Flop specifically.

Problems in communicating the Flip-Flop were the result of numerous factors, which include moving on a fast track and attempting to work the Flip-Flop in conjunction with the larger effort to redesign the New York/New Jersey/Philadelphia airspace, which was well underway. FAA did not believe that the public would oppose the Flip-Flop because a study indicated that, of a total of 17 million people affected by aircraft noise in the area, 207,000 would receive less noise and over 388,000 would be exposed to increased noise levels. The fact that over 388,000 people would receive more noise should have been a red flag to FAA. Furthermore, there is no documentation to indicate how FAA determined the Flip-Flop would not be controversial. Complete details and conclusions of our analysis of FAA's responses to questions on the checklist can be found in the Enclosure.

**FAA Should Avoid Combining Vastly Different Airspace Changes and Properly Document All Communications Relative to an Airspace Change**

Placing the Flip-Flop in the outreach efforts for the larger redesign effort set expectations that all airspace changes would be worked through a very structured process, when in fact the Flip-Flop was on a fast track and not subject to the same process as the larger redesign effort. In addition, FAA must document how it determines whether or not an airspace change is controversial and do a better job of documenting its meetings with Congress. To avoid future problems, FAA should:

1. Avoid combining airspace redesign efforts that have vastly different implementation schedules, levels of review, need for public involvement, and anticipated impacts.
2. Document how it determines whether or not a proposed airspace change is controversial.
3. Document and maintain lists of invitees, attendees, and FAA staff (including contractors), as well as copies of all presentations given at environmental related meetings with the public and congressional representatives.

We are providing our recommendations to FAA in a separate letter. If I can be of further assistance please do not hesitate to contact me at (202) 366-1959 or my Deputy, Todd J. Zinser, at (202) 366-6767.

Sincerely,



Kenneth M. Mead  
Inspector General

Enclosure

cc: Federal Aviation Administrator

### Analysis of Questions on FAA's Checklist

As requested, we examined FAA's responses to the four questions on the checklist that addressed agency efforts to inform Members of Congress and the public on the anticipated environmental impact of the airspace changes. For FAA's public outreach, the Flip-Flop was embedded in a much larger New York/New Jersey/Philadelphia airspace redesign effort, which did not identify the Flip-Flop as a separate effort. The following provides an analysis of the four questions we reviewed.

1. Question: "Have persons/officials who might have some need to know about the Federal action by reason of their location relative to the action or by their function in the community, been notified, consulted, or otherwise informed of this action?"

FAA Response: "Yes. Congressional representatives in the affected areas have been briefed regarding the proposed Flip-Flop and its associated benefits and impacts. The proposed Flip-Flop is considered non-controversial on environmental grounds. The FAA concluded that it is not necessary to perform further formal community involvement or public meetings/hearings for this proposed action."

OIG Analysis: The FAA Office of Government and Industry Affairs is responsible for scheduling Quarterly National Airspace Redesign Briefings. FAA does not take attendance at the congressional briefings nor does it maintain a complete file on the content of the briefings and related comments. While evidence provided by FAA shows that Members of Congress from New Jersey were invited to briefings on the New York/New Jersey/Philadelphia airspace redesign effort, the documents we reviewed do not show a clear pattern of detailed information from FAA to these New Jersey officials on the Flip-Flop and its potential benefits or impacts.

- On July 21, 2000, FAA briefed Members of Congress from New York and New Jersey on the New York/New Jersey/Philadelphia airspace redesign effort and the short-term choke point initiatives. The briefing materials we reviewed identify three choke point actions impacting the New Jersey area

(including the Washington Center Sector choke point that would ultimately be nicknamed the Flip-Flop).

- According to FAA officials, a July 13, 2001 briefing to Members of Congress (which focused principally on the larger redesign effort) was the first time agency officials recall using the nickname Flip-Flop when communicating with the New Jersey delegation about the proposed airspace change. FAA Headquarters or regional staff could not provide us with a copy of the briefing materials.
- On December 17, 2001, 10 days before the Flip-Flop was implemented, FAA provided congressional members with an overview of airspace enhancements planned in FAA's Eastern Region. Briefing materials contained information on the Flip-Flop, including current operations and proposed changes with respect to controller workload, airline delays, and potential noise impacts. FAA stated that there would be no significant noise impacts.

2. Question: "Are local citizens and community leaders aware of this action and are any opposed/supporting it?"

FAA Response: "Yes. Community leaders have been notified and are supportive of the proposed action. No opposition has been expressed either verbally or in writing to the FAA."

OIG Analysis: Available documentation does not show that the community leaders or the public in New Jersey were aware of the Yardley/Robbinsville Flip-Flop. It is true that FAA was working to inform community leaders in New Jersey about the much larger airspace redesign effort. FAA cites various publications and meetings as evidence of how the agency informed the public about the Flip-Flop, but we found no specific mention of the Flip-Flop in the documentation provided.

FAA points out that in January 2001 the agency's Eastern Region published a Notice of Intent to prepare an Environmental Impact Statement for the New York/New Jersey/Philadelphia airspace redesign in the Federal Register, which was covered in several local newspapers. Also, a newsletter was sent to 2,000 people, and the public meetings were advertised in various local newspapers. However, there was no mention of the Flip-Flop.

Also, FAA points out that it held public meetings (and meetings dedicated primarily to Federal, state and local agency staff) between January and June 2001 to discuss pending airspace changes. However, the main subject of the meetings was the New York/New Jersey/Philadelphia airspace changes planned for 2005, not the Flip-Flop.

FAA does take attendance for all public meetings, and it has a record of comments officially submitted at or after each of the public meetings.<sup>5</sup> However we could not find evidence that FAA officials presented information on the Flip-Flop, and agency officials are not certain the subject was discussed. We reviewed 901 comments from the public but found no mention of the Flip-Flop. It is unclear how much, if anything, the attendees knew of the Flip-Flop.

3. Question: “Has the FAA received one or more comments objecting to the action on environmental grounds from local citizens or elected officials?”

FAA Response: “No.”

OIG Analysis: We examined the 901 comments from the meetings on the New York/New Jersey/Philadelphia airspace redesign efforts and the quarterly congressional briefings. We found no objections on environmental or other grounds to the Flip-Flop. However, the meetings emphasized the overall airspace redesign, and there is no indication that the Flip-Flop was mentioned during these meetings. Therefore, the lack of objections may be based on a lack of information.

4. Question: “Will implementation of this action be highly controversial on environmental grounds?”

FAA Response: “No.”

OIG Analysis: FAA badly misjudged how controversial the Flip-Flop would become. The Flip-Flop also illustrates the unintended consequences a modest airspace change can have when aircraft noise is shifted from one location to another.

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<sup>5</sup> According to FAA Eastern Region officials, comments are recorded only if they are provided to a designated FAA employee at the meeting or later via e-mail or the FAA toll-free telephone number. Questions asked during the public question-and-answer session are not recorded unless they are submitted directly to FAA.

Enclosure  
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FAA based its view that the Flip-Flop would not be controversial on a study by the MITRE Corporation.<sup>6</sup> The MITRE Corporation examined the Flip-Flop with respect to impacts on airline delays, controller workload, and aircraft noise. This study, which included a simulation of noise levels anticipated before and after the Flip-Flop, stated that the Flip-Flop would not have a significant impact.

However, the study shows that over 388,000 people would be subjected to an increase in noise levels. While the noise levels would be below the accepted noise threshold of 65 decibels, most of these people had little or no noise before. A lesson FAA should have learned from the Expanded East Coast Plan is that subjecting people to even small noise levels, when they previously had none, can be a major issue to those affected.

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<sup>6</sup> "ATC, User and Noise Impacts of Exchanging Southern Arrival Fixes to Newark and LaGuardia Airports," dated July 10, 2001. The MITRE Corporation serves as a federally funded research and development center for FAA.