

# Multifunction Phased Array Radar (MPAR)

## Integrated Surveillance

Presented to: MPAR Symposium II

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and Safety

Date: 17 November 2009



Federal Aviation  
Administration



# Briefing Agenda

- **Integrated Surveillance Study Team (ISST)**
- **Integrated Surveillance Governance**
- **FAA Surveillance Needs**



# Why Integrated Surveillance?

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## Plane That Caused Capitol Evacuation Nearly Shot Down

By *Spencer S. Hsu*

Washington Post Staff Writer

Thursday, July 8, 2004; Page A01

The top general at the North American Aerospace Defense Command was on the telephone and prepared to order an F-16 fighter to shoot down an unidentified plane that turned out to be carrying the governor of Kentucky to former president Ronald Reagan's funeral last month, according to two federal security officials briefed separately about the incident.

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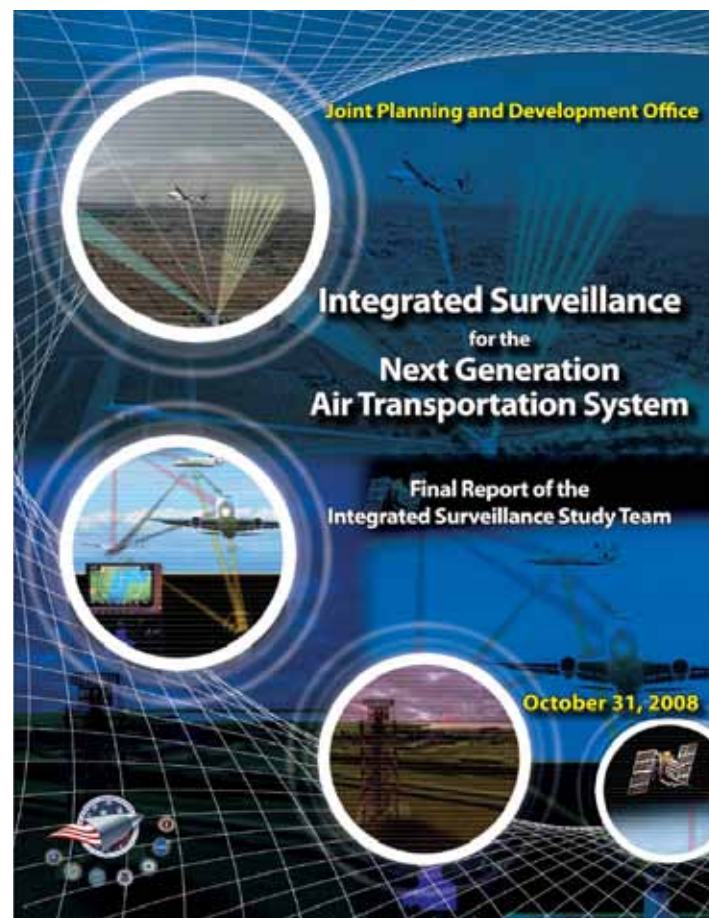
The plane that carried Kentucky Gov. Ernie Fletcher to Reagan's funeral.

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The tense incident June 9 ended after the

# Joint Planning and Development Office Integrated Surveillance Study Team (ISST)

“This report outlines current key deficiencies in integrated surveillance as well as national surveillance needs projected forward to 2025 for U.S. sovereign airspace, air approaches to the United States, and U.S. airport movement areas.”



[www.jpdo.gov/library/ISST\\_Final\\_Report\\_Board.pdf](http://www.jpdo.gov/library/ISST_Final_Report_Board.pdf)

# ISST Key Findings

- **No institutional mechanism exists to oversee/coordinate surveillance responsibilities across all agencies**
- **Gaps exist between NextGen needs and current surveillance capabilities**
- **No consensus about degree to which gaps are near-term operational risks**
- **Opportunity for cost-benefit synergies across agencies, including leveraging future weather sensors from DOC/NOAA, as well as leveraging private sector assets**



# ISST Recommendations

1. *Determine and establish a formal, institutionalized interagency mechanism for responsibility, management, and ownership for elements of integrated surveillance (to include funding)*
2. Develop concept of operations for NextGen integrated surveillance
3. Develop interagency integrated surveillance architecture to support operational, system, technical, and investment decisions
4. Develop & implement Aviation Surveillance Information Network strategy
5. Develop & execute interagency integrated surveillance implementation plan
6. Use demonstrations & experiments to mature and field early versions of integrated surveillance capabilities





# Interagency Governance

## December 2, 2008 Interagency Surveillance Summit Recommendations:

- The JPDO Senior Policy Committee accept the governance role for the interagency coordination of aviation surveillance for a period of 18 months
- The SPC directed the JPDO to:
  1. Coordinate development of a concept of operations for interagency aviation surveillance [Doug Wreath, Mike Champness]
  2. Coordinate development of an interagency integrated surveillance enterprise architecture [Jay Merkle, Jim Williams]
  3. Identify existing and potential executive bodies to provide interagency governance of aviation surveillance activities and make a recommendation to the SPC within 18 months as to which alternative should be submitted to the Homeland Security Council Deputies Committee [Charlie Leader, Peggy Gervasi]

# Interagency Governance Status



**Concept of Operations Completed and Approved by Member Agencies (July 2009)**



**Enterprise Architecture Products completed and in Agency Coordination**

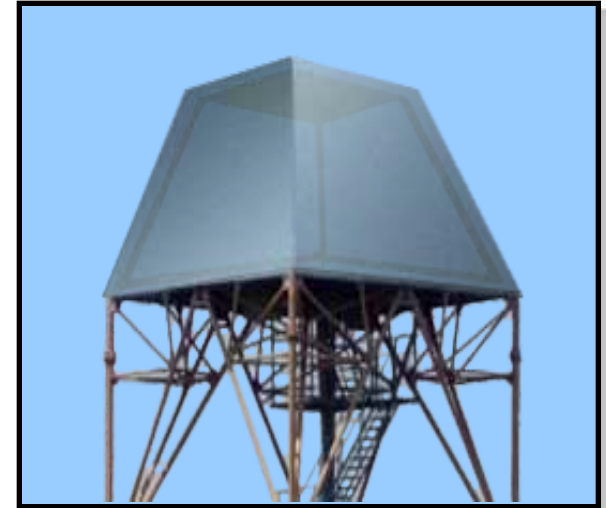
- **Governance Effort In Progress**

- Team Formed
- Reviewing Existing Cross Agency Governance Bodies
- On track to complete work by Summer 2010



# FAA Surveillance Needs

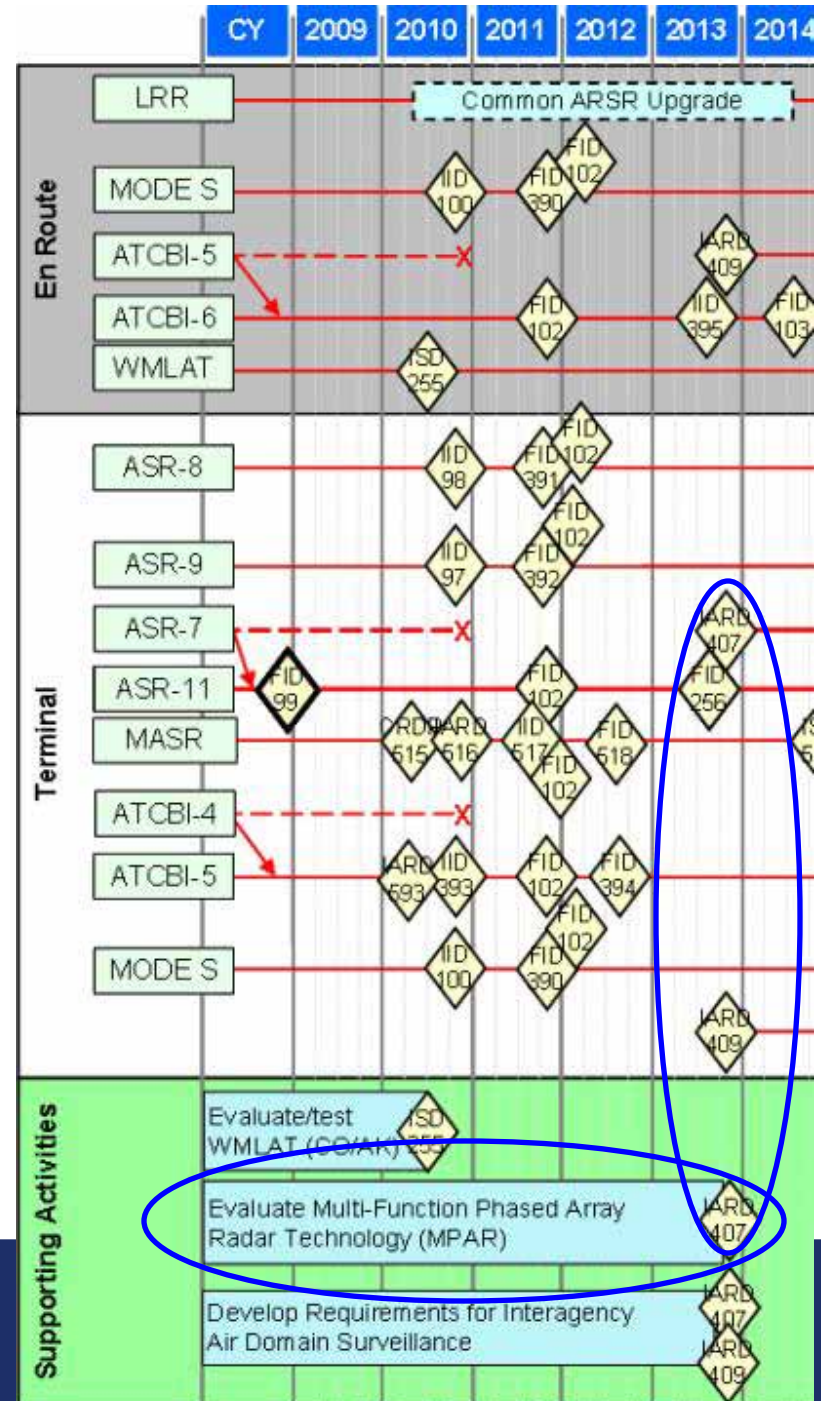
- Transition to ADS-B does NOT eliminate FAA Radars
- Will Maintain a Subset of Current Radars as ADS-B Backup
- Will Maintain Weather Radar Capability



# NAS Enterprise Architecture Surveillance Roadmap

- MPAR Is Research Activity in NAS EA
- Research Supports Decision (#407) to Replace Legacy Weather and Surveillance Radars
- Decision required by 4<sup>th</sup> Quarter CY 2013
- Part of the NextGen Portfolio of Investments

[NASEA.faa.gov](http://NASEA.faa.gov)



# Questions?



# ISST Background

- **Sponsored by the JPDO and comprised from representatives from DHS, DoD, and DOT/FAA**
- **Chartered to report consolidated NextGen top-level needs for integrated Aviation Transportation System Surveillance (ATSS)**
- **Activities coordinated with National Strategy for Aviation Security's (NSAS) Air Domain Surveillance and Intelligence Integration (ADSII) Plan**
  - As specified by National Security Presidential Directive-47/Homeland Security Presidential Directive-16, Aviation Security Policy

