

NextGen Environmental Regulatory Framework

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MITRE Sponsored Research (MSR)



Problem



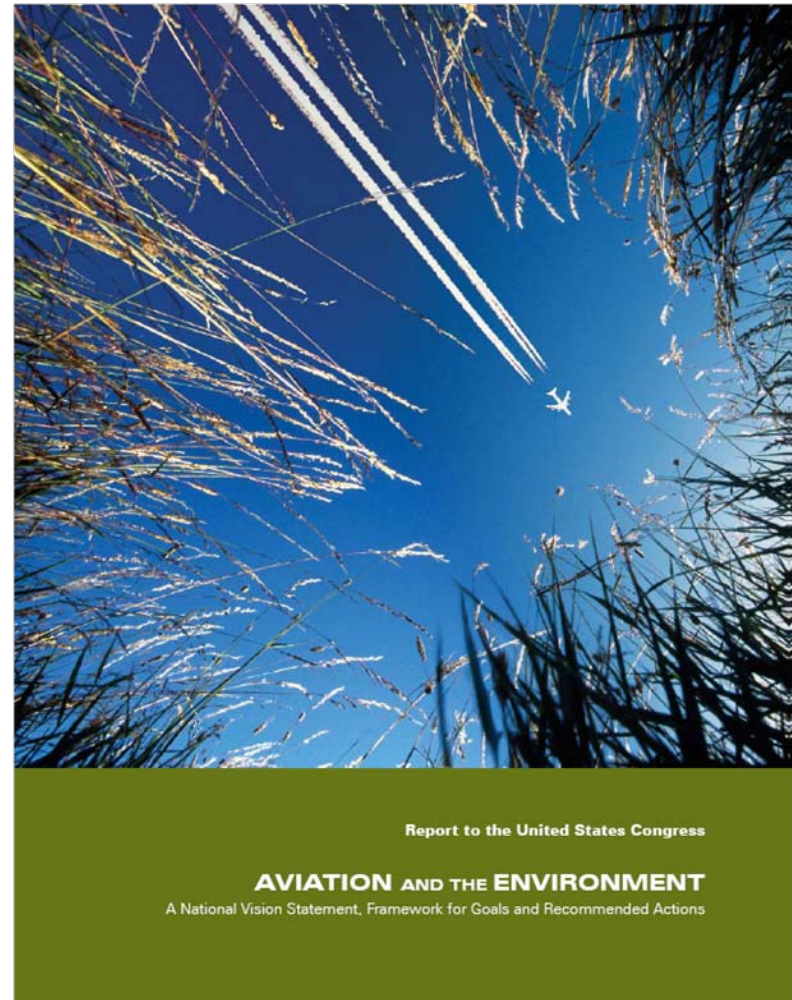
- **Compliance with the National Environmental Policy Act (NEPA) and its implementing regulations will require that environmental reviews be conducted before Next Generation Air Transportation System (NextGen) concepts can be deployed.**
- **The NextGen community may not fully appreciate the obstacles that NEPA requirements may present to NextGen deployment (implementation delays, increased costs, etc.).**
- **Research Questions:**
 - **What are the NEPA challenges to NextGen Implementation?**
 - **What can be done to address those challenges?**

Background

- “Environmental impacts may be the fundamental constraint on air transportation growth in the 21st century.”

Source: Report to US Congress, Waitz et al., December 2004.

- This is evidenced by the ever-increasing cost and time associated with NEPA reviews.
- Cost and time of NEPA review of NextGen concepts could be extraordinary.



Objective



- **Identify the challenges to NextGen implementation posed by NEPA and explore potential policy and regulatory options available to overcome these challenges.**

Activities

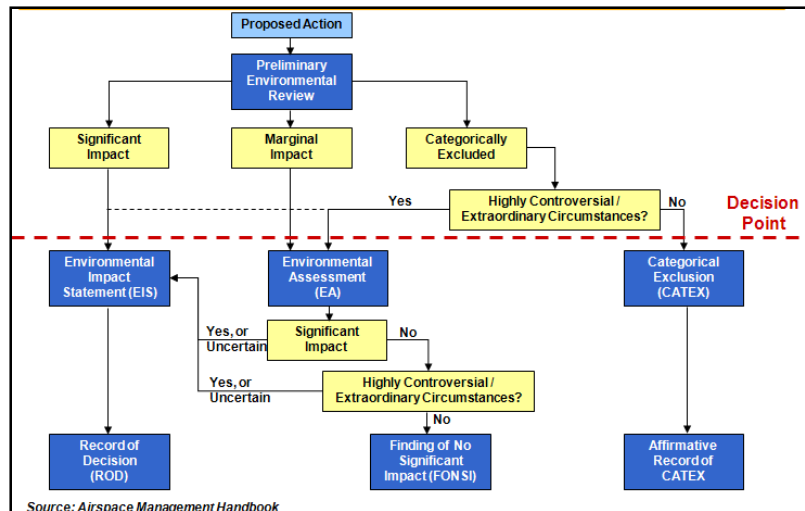


- **Conduct coordination meetings to inform FAA and other stakeholders about the research effort, solicit feedback, and establish points of contact.**
- **Analyze NextGen in the context of the existing NEPA review process**
 - **Identify NextGen concepts most likely to encounter challenging NEPA reviews**
 - **Describe the NEPA review requirements for NextGen concept implementation.**
- **Conduct a case study to demonstrate the practical implications of the NEPA review of NextGen concepts.**

Highlight

- NEPA review for NY/NY/PHL Airspace Redesign took 8 years to complete—some NextGen concepts could require a similar level of NEPA review, others much less.
- Research will inform decisions about integrating NEPA reviews in NextGen implementation planning.

Process to determine environmental impacts

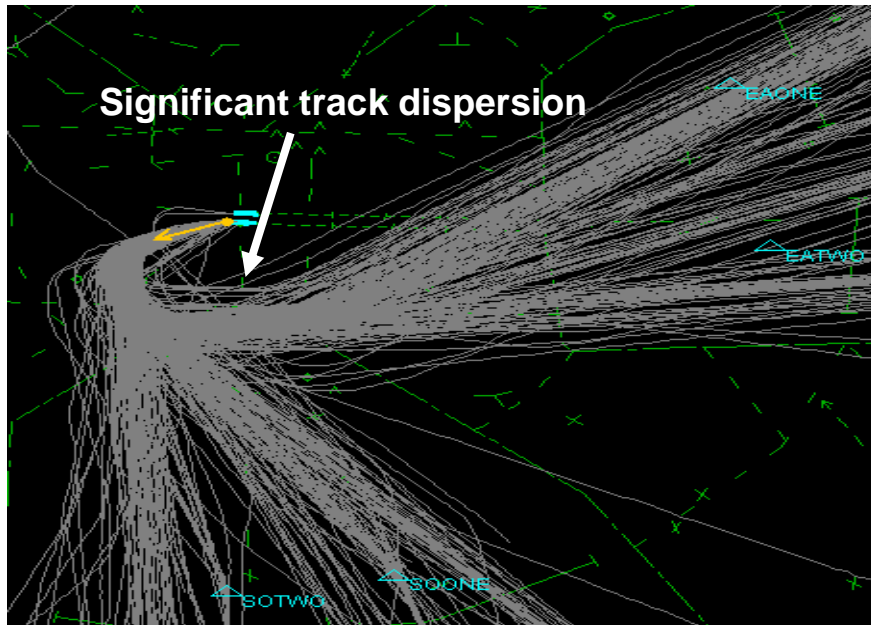


NY/NJ/PHL Airspace Redesign Timeline

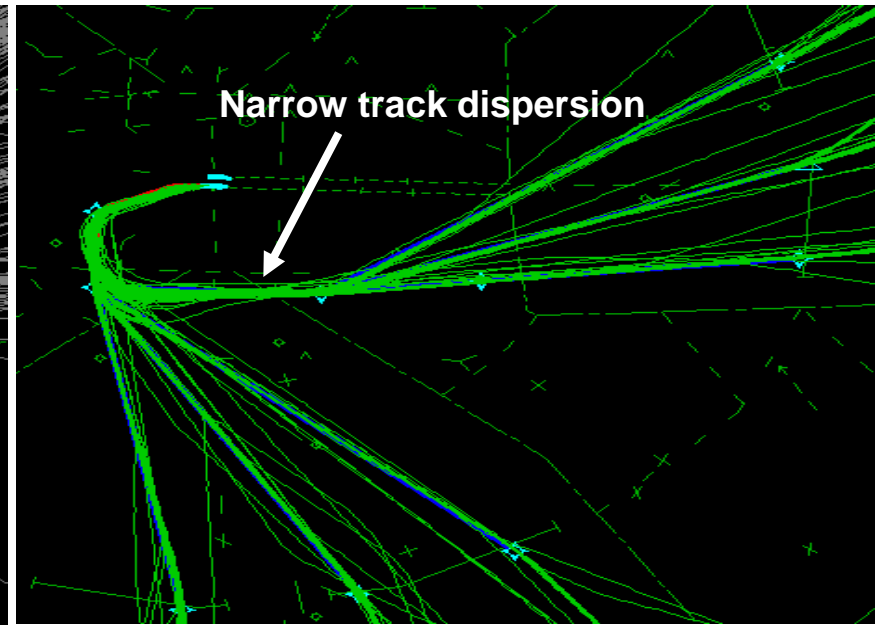
Date	Event
September 22, 1999	First Pre-scoping Meeting
March 2, 2000	Last Pre-scoping Meeting
January 22, 2001	Notice of Intent
February 7, 2001	First Scoping Meeting
May 24, 2001	Last Scoping Meeting
May 5, 2003	Report to Congress
March 26, 2004	Report to Congress
August 17, 2004	Report to Congress
February 11, 2005	Report to Congress
August 18, 2005	Report to Congress
December 20, 2005	Report to Congress
December 20, 2005	Publication of Draft EIS
January 18, 2006	Draft EIS meeting for Congress
February 7, 2006	First public meeting on Draft EIS
February 7, 2006	Comment period on Draft EIS opens
May 2, 2006	Last public meeting on Draft EIS
May 12, 2006	Report to Congress
June 1, 2006	Comment period on Draft EIS extended
July 1, 2006	Comment period on Draft EIS closes
March 23, 2007	Identification of Preferred Alternative
March 23, 2007	Briefing to Congress
April 11, 2007	Mitigation Comment Period opens
April 23, 2007	First mitigation public meeting
May 1, 2007	Last mitigation public meeting
May 11, 2007	Mitigation Comment Period closes
July 30, 2007	Rockland Co. Public Meeting (Congressional request)
September 5, 2007	Record of Decision published
September 5, 2007	Final EIS published
October 5, 2007	Corrected ROD
November 16, 2007	Report to Congress
December 8, 2007	Request for Stay of Implementation
December 19, 2007	Request denied
December 19, 2007	Begin Stage 1 Implementation
January 22, 2008	Implementation Schedule Published
March 14, 2008	Report to Congress
July 18, 2008	Report to Congress
July 31, 2008	Written Re-evaluation (due to schedule caps)
August 29, 2008	Plaintiff's Brief to Court of Appeals
September 18, 2008	Briefing to Congress
January 12, 2009	Brief to Court of Appeals

Demonstration

Before RNAV



After RNAV



RNAV substantially narrows flight track dispersion. The concentration of a wide swath of tracks into more precise flight paths may increase noise levels along ground tracks.

Impacts



- **Raise profile of NEPA issues in the NextGen community.**
- **Provide a more realistic reflection of NextGen environmental constraints.**
- **Increase MITRE/CAASD's understanding of NEPA policy and procedures to better anticipate and serve our sponsor's needs.**
- **Enhance our operational work with a greater sensitivity to environmental review requirements.**
- **Build relationships and contacts in the environmental arena within FAA and the NextGen Community.**

Future Plans

- Explore options for streamlining the NEPA review of NextGen concepts.
- Examine the role of new NEPA review techniques in the implementation of NextGen.
- Identify FAA environmental policy changes that could improve NextGen implementation.

