

JPDO Environment Integrated Product Team (EIPT)

Research Activities



Presented to: TRB Annual Meeting

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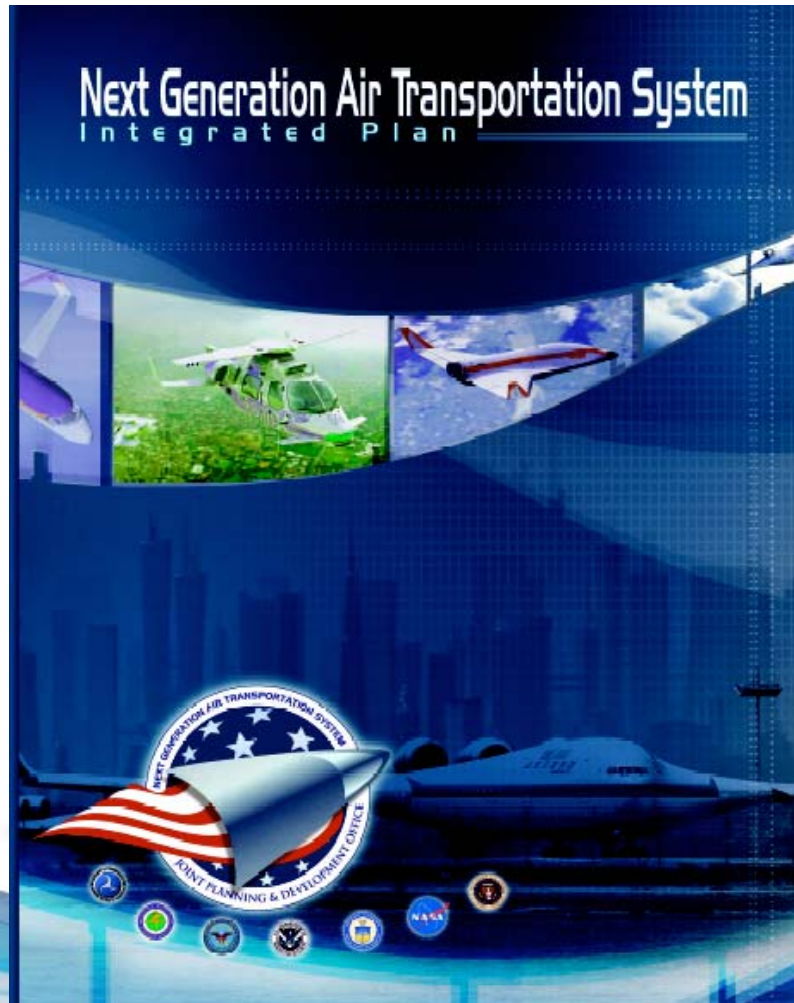
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What is the EIPT?

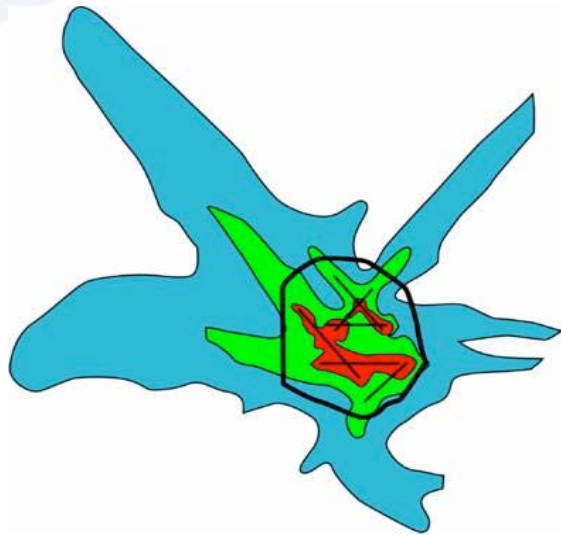
The EIPT is one of eight inter-agency IPT's that have been established to execute the *Next Generation Air Transportation System (NGATS) Integrated Plan* which was delivered to Congress in December, 2004



NGATS Vision/Goals:
A transformed air transportation system that provides services tailored to individual customer needs, allows all communities to participate in the global economy, and seamlessly integrates civil and military operations

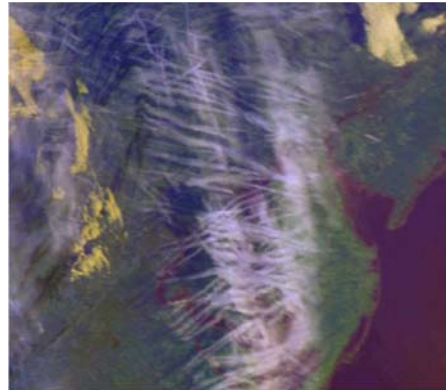


EIPT Challenges



Community Noise Impacts

Dealing with significant aircraft noise impacts around airports



Global climate

The potential impact of aviation on global climate

Air Quality

Limiting or reducing impact of aviation on local air quality



Water Quality

Reducing significant impacts on local water quality

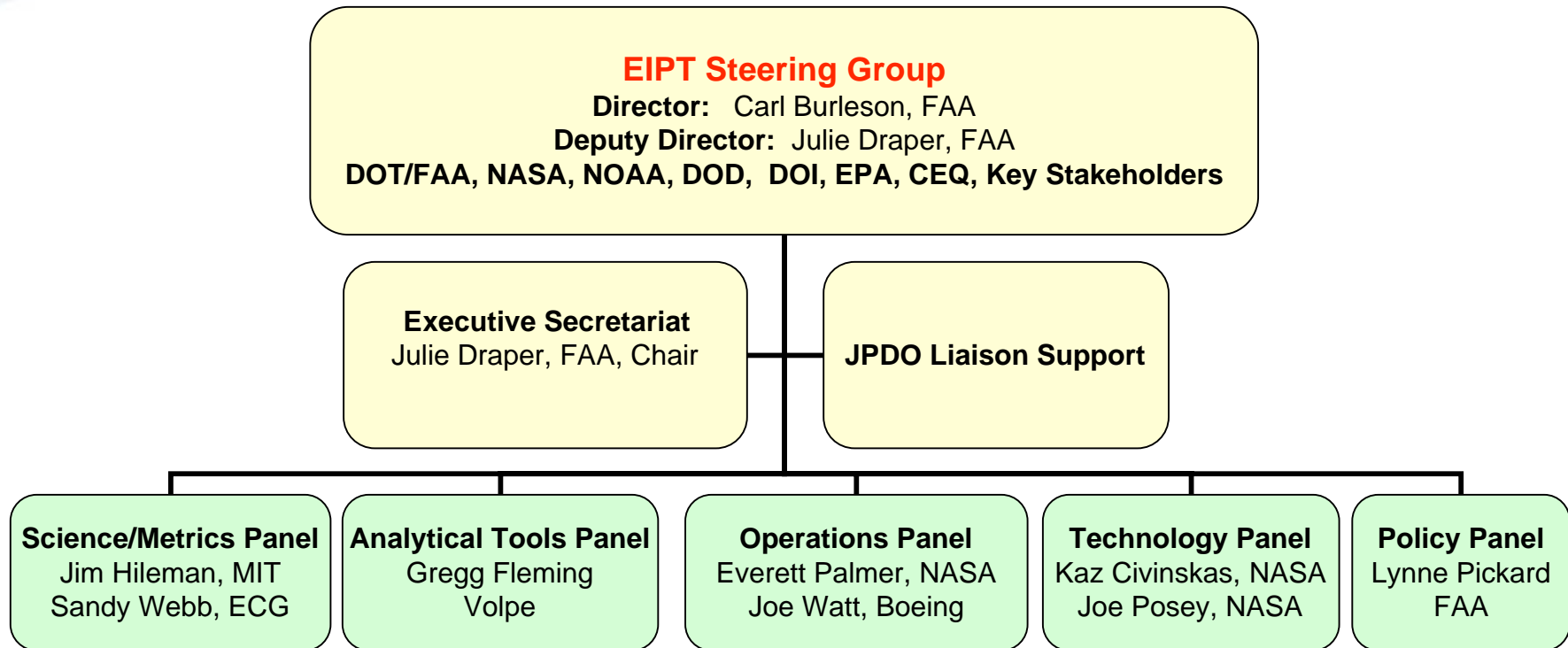


EIPT 2025 Vision: To Provide Environmental Protection that Allows Sustained Aviation Growth.

- By 2025, the significant impact of aviation on community noise, local air quality and water runoff will be reduced in absolute terms, even with the anticipated growth in aviation.
- Uncertainties regarding the contribution of aviation to climate change and the health effects of emissions will be reduced to a level that enables appropriate actions to address these effects. Communities will value airports as gateways to the national and international transportation network.
- Through broad and sustained commitment among all stakeholders, U.S. aerospace will be the global leader in researching, developing, and implementing technological, operational and policy initiatives that address mobility and environmental needs.



How is the EIPT Organized?



The EIPT is staffed with members from government, academia, industry, and others responsible for researching, developing, implementing, and maintaining environmental protection strategies.



EIPT Panel Activities

Science/Metrics Panel

Develop new metrics, advancing science on health and welfare impacts, and advancing public education

Develop analytical tools for aviation noise and emissions impacts, and analysis of costs/benefits of mitigation techniques

Analytical Tools Panel

Operations Panel

- * Near-term new operational procedures implementation and advanced procedures.
- * Focus on: Low noise/emission approaches, and more efficient surface paths and minimizing surface delays



EIPT Panel Activities (cont.)

- * **Formulate strategies for technology development (engine, airframe, fuel) to address noise/emission environmental issues.**
- * **Provide drivers for investment in noise/emissions technology development efforts.**

Technology Panel

Policy Panel

Propose policies to address the environmental impacts of aviation within a 20-year timeframe (2005-2025), as well as specific policy initiatives to mitigate impacts (e.g., land use, home insulation, market-based options).



EIPT FY07-08 Research Areas

Science/Metrics Panel

- Develop better science-based understanding of impacts of aviation emissions on local air quality and climate change.
- Understand the health and welfare impacts from noise and local air quality emissions and translate impact into improved metrics.
- Research scientific basis for understanding of alternative fuels, including science and costs to bring to market, while quantifying any impacts and interrelationships resultant of use for aviation environmental factors.
- Evaluate the effectiveness of sound insulation, assessing encroachment issues, and examine land use vs. airport controls
- Investigate DNL performance compared to other noise metrics and complete land use metrics study. Correlate objective metrics with subjective perception of low frequency noise.

Operations Panel

- Exploration of improved departure and en route operational procedures to reduce noise and emissions
- Research programs to improve airport and taxiing operations to reduce aircraft noise and fuel usage.



EIPT FY07-08 Research Areas

Analytical Tools Panel

- Research new methodologies to quantify and assess the impact of aviation noise and emissions and their interrelationships.

Technology Panel

- Define balanced research into environmental technologies between mature and long-term initiatives for airframes, more efficient engines, advanced propulsion concepts, and new materials to reduce source noise and emissions.
- Determine understanding through analysis of the gap between NextGen goals and what would be achieved if status quo is continued.
- Research financing schemes to develop and implement noise and emissions abatement technologies and operational measures

Policy Panel

- Define the planning, design, and implementation of approaches consistent with Environmental Management Systems (EMS) to support national and international harmonization of aviation environmental management.
- Develop innovative policy options and other incentives to support EIPT environmental targets.



Need Additional Information?

- **JPDO**
 - <http://www.jpdo.aero/index.html>
 - Background questions and answers:
<http://www.jpdo.aero/factsheet.html>
- **EIPT**
 - Contact Michon Washington, EIPT Secretariat Support, at michon.washington@faa.gov for *EIPT FY07-08 Work Plan*

