

Nomination Received by Council on Environmental Quality, Executive Office of the President
For the CEQ NEPA Pilot Project Program
<http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/nepa-pilot-project-nominations>

PART I. NOMINATOR

First Name:	Donna
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Organization:	Environmental Programs, Mission Support Services, Air Traffic Organization
Project Title:	Environmental Process Re-engineering for Instrument Flight Procedures
Submitted by:	Federal Agency
Date Received:	06/09/2011

PART II. SHORT ANSWERS

I. What Federal agency or agencies will be involved in this pilot project?

Federal Aviation Administration

II. What is the Federal action to which this NEPA pilot project applies?

"The Federal action for this NEPA pilot project is the development of a process to re-engineer the way the Federal Aviation Administration (FAA) conducts its environmental review responsibilities for Instrument Flight Procedures (IFPs) as required under NEPA. This applies to how IFPs are requested, processed, refined, approved, and implemented. IFPs allow aircraft to operate in a safe and efficient manner in the terminal area around airports. They encompass a diverse range of operations, from traditional Instrument Landing System (ILS) approaches (relying on ground-based navigation systems) to routes and procedures that are designed to use enhanced aircraft navigation capabilities, such as Area Navigation (RNAV) Standard Terminal Arrivals (STARs), RNAV Standard Instrument Departures (SIDs), and Required Navigation Performance (RNP) approaches (relying on satellite-based navigation systems). Routes and procedures based on RNAV or RNP requirements fall under the performance-based navigation (PBN) umbrella and support FAAs commitment to the Next Generation Air Traffic System (NextGen).

Unlike traditional ILS approaches, IFPs designed to accommodate aircraft with PBN system capabilities have different processes, criteria, and environmental impact characteristics. Unfortunately, these variations when combined with the evolution of the PBN IFP development processes and the realignment of the Air Traffic Organization (ATO) have often resulted in inefficiencies and rework."

III. How will this pilot project reduce the costs and time needed to complete the NEPA process?

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"Because the environmental review of IFPs prior to the realignment of the ATO was conducted by different offices following different environmental review processes, a work group was established to re-engineer the environmental process in order to address the following deficiencies:

The Federal action for this NEPA pilot project is the development of a process to re-engineer the way the Federal Aviation Administration (FAA) conducts its environmental review responsibilities for Instrument Flight Procedures (IFPs) as required under NEPA. Additionally, the Navigation Procedures Project (NAV Lean) and the Office of Inspector General's Review of Performance Based Navigation also recognized that the above items were problematic.

Therefore, the planned Re-engineered Environmental Process will reduce costs and time because it is designed to:

- **Be consistent, repeatable, and efficient**
- **Eliminate duplication of effort and minimize rework**
- **Have fully defined roles and responsibilities**
- **Include environmental analysis concepts in the early phases of procedure design**
- **Include parameters to allow minor adjustments to the final design of procedures without requiring rework of the environmental analysis**

This will be accomplished by providing:

- **A single process flow with one entry point for all requests for new and modified IFPs**
- **An online screening filter to help determine if a CATEX is immediately known to be appropriate or if more complex analysis and modeling is required**
- **An online screening filter to determine automatically which organization within the FAA to forward the request**
- **Optimized assignment of human resources in the various process roles to reserve the use of environmental specialists only when complex environmental analysis and modeling is required**
- **Clearly defined lines of responsibilities for environmental analysis of IFPs"**

IV. How will this pilot project ensure rigorous environmental protection?

"This project will ensure rigorous environmental protection by:

- 1. Providing a single, online entry point for all procedure requests. This ensures uniform access to the environmental process from the very beginning.**
- 2. Developing an online screening filter. This ensures a more consistent, repeatable, and efficient environmental process. The filter will assist users in determining if a CATEX is immediately known to be appropriate or if more analysis is required. Because FAA environmental orders will form the basis of the screening filters logic, the ability to correctly interpret those orders for IFPs will be greatly enhanced. It also ensures that environmental analysis concepts are included in the earliest phases of procedure design.**

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- 3. Determining which organization within the FAA is responsible for review and/or approval of the environmental analysis. Building this logic into the online system will ensure that the procedure request receives the appropriate level of environmental review, documentation, and approval.**
- 4. Developing a series of parameters to allow minor adjustments to the final design of procedures. This will minimize the need to rework the environmental analysis and eliminate duplication of effort if these minor adjustments are needed prior to implementation of the procedures.**
- 5. Educating and training users on the re-engineered process. Following the design and development of the process, education and training will be provided. The combination of education, training, and the associated computerized environmental tools, will ensure FAA does the best job possible in complying with NEPA and protecting the environment."**

V. How will this pilot project improve the quality and transparency of agency decisionmaking?

"The quality of agency decision making will be improved for this re-engineered environmental process because, first it will be designed and tested by internal FAA and external experts and customers who are involved in requesting, prioritizing, processing, refining, approving, and implementing IFP requests. Second, FAA environmental orders, policy, and guidance used in making environmental decisions will form the basis of the screening filter's logic.

The transparency of agency decision making will be improved for this re-engineered environmental process because the proposed online system will allow persons with access to the system to follow their requests through the system to the final environmental decisions and documentation. Also, because the internal FAA and external customers will be involved in the design and testing of the system, they will have direct access to the decision making logic that will be programmed into the system. Additionally, the online system could be linked to other FAA systems that would allow the public access to environmental projects and documents."

VI. Will this pilot project develop best practices that can be replicated by other agencies or applied to other Federal actions or programs? Please describe?

"The Lean Process and Business Process Improvement methodology used by the FAA to develop this project are both widely used in other business and government communities. The Lean Process was used initially to review and make recommendations to improve and streamline the overall IFP process. The Navigation Procedures Project (NAV Lean) consisted of six Working Groups that were tasked to review the following areas using the Lean Process:

- Process**
- IFP Design**
- Environmental and Airspace**
- Database and Coding**
- Standards and Criteria/Operational Approval**

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- **Safety Management System (SMS)**

The six Working Groups consisted of experts from across the agency. Each group identified areas of low-value activity such as bottlenecks, over processing, delays, overproduction, and excess paperwork, all of which add little or no value to the final quality of the product. The Working Groups developed a final set of 9 issues and 21 recommendations for improving and streamlining the development and delivery of all IFPs.

Of the 21 recommendations, one called for the modification of agency orders to clearly define the responsible Federal official authorized to sign applicable environmental documents. In order to assist in accomplishing this recommendation, a follow-on Work Group was formed. This group used a Business Process Improvement methodology to take a closer look at the environmental processes for IFP development and implementation. Using this methodology, the group was tasked with identifying:

- Present State (where you are)
- Future State (where you want to be)
- Gaps between the present and future states
- Methods to improve effectiveness, efficiency, and customer satisfaction

This group identified all steps in the IFP environmental review process, priority of those steps, and the responsible offices for each step. This project, the Environmental Process Re-engineering for Instrument Flight Procedures, is the result of that Work Group.

Therefore, any agency could use the Lean Process and/or the Business Process Improvement methodology to improve the processes used in the environmental review of any of their Federal actions or programs."

PART III. PROJECT DESCRIPTION

(See attachment on following page.)

CEQ NEPA Pilot Program

PART III. PROJECT DESCRIPTION

Environmental Process Re-engineering for Instrument Flight Procedures is a Federal Aviation Administration (FAA) national program that will assist in furthering its Next Generation Air Traffic System (NextGen) by minimizing environmental review delays in implementing satellite-based instrument flight procedures (IFPs). NextGen is FAA's comprehensive overhaul of its National Airspace System to make air travel more convenient and dependable, while ensuring that the aviation system is as safe, secure and hassle-free as possible. In its continuous roll-out of improvements and upgrades, the FAA will include increasing its use of new operational procedures and more precise flight paths. These will lessen aviation's impact on the climate and help limit the amount of noise that communities experience.

These new operational procedures and more precise flight paths are being implemented using Performance Based Navigation (PBN) capabilities. PBN makes air transportation more efficient by moving aircraft in and out of airports faster and by making better use of airspace. It also reduces aviation's environmental impact from some operations by using capabilities that allow aircraft to burn less fuel, emit fewer greenhouse gases, and reduce noise. Transitioning from the ground-based navigation system to this new PBN satellite-based navigation system is an evolving process. The variations between the two systems also have resulted in inefficiencies in the environmental review process such as unplanned rework, miscommunication, and inefficiencies in the processing of IFP requests.

As a result, FAA initiated the Lean Process to review and make recommendations to improve and streamline the overall IFP process. Of the 21 recommendations made through this review, one prompted formation of a follow-on work group. This group used a Business Process Improvement methodology to take a closer look at the environmental processes for IFP development and implementation. Therefore, this Re-engineered Environmental Process has been designed to eliminate inefficiencies in the environmental review of IFPs.

The Re-engineered Environmental Process' initial focus will be on the noise impact category. However, as FAA's computerized environmental analysis tools are enhanced, the process will be expanded to include all applicable impact categories in accordance with its environmental orders, policies, and guidance.

A draft Environmental Process Re-engineering implementation plan has been developed that initially will focus on the development of an online screening filter. Implementation will also include developing a standardized categorical exclusion documentation and recording process and updating applicable agency orders. The Implementation Plan includes review by and coordination with major stakeholders and users of this process. It includes testing, training, and education. Additionally, there will be periodic reviews to ensure the process is achieving expected goals. The one-year implementation is scheduled to begin this fiscal year. A detailed milestone schedule will be developed after an initial kick-off meeting.

As set forth by the CEQ Pilot Project program, this Project will:

- Provide one environmental process with a single entry point for all IFP work which simplifies NEPA implementation for our IFP customers.
- Provide an online system and an online screening filter that reduces the time and cost of providing data needed to make an environmental determination and utilizes information technology to improve FAA's efficiency in complying with IFP NEPA processing.
- Will increase the transparency of FAA's environmental determinations for IFP development customers and ultimately will allow the public greater access and engagement in the IFP process.