

Fact Sheet for National Plan for Aeronautics Research and Development and Related Infrastructure

Advancing U.S. technological leadership in aeronautics

DESCRIPTION OF THE PLAN

On December 20, 2006, Executive Order (EO) 13419 – National Aeronautics Research and Development – called for the development of a plan for national aeronautics research and development (R&D) and related infrastructure as part of the implementation of the National Aeronautics R&D Policy that will guide the conduct of U.S. aeronautics R&D through 2020.

The *National Plan for Aeronautics R&D and Related Infrastructure* follows the structure of the Principles of the *National Aeronautics R&D Policy* and establishes aeronautics R&D challenges, priorities and time-phased objectives, as well as the path forward for developing an aeronautics research, development, test and evaluation (RDT&E) infrastructure plan. Research and development priorities are aligned with the following four Principles drawn from the Policy: 1) Mobility; 2) National Security and Homeland Defense; 3) Safety; and 4) Energy and Environment. Consistent with Executive Order 13419, updates to this Plan will be provided every two years.

The *National Plan for Aeronautics R&D and Related Infrastructure (Plan)* contains:

- For each of the above four Principles:
 - A description of the state of the art of related knowledge, capabilities and technologies;
 - A set of fundamental challenges with associated high-priority R&D goals that seek to address these challenges;
 - Supporting objectives for each high-priority R&D goal phased over three time periods: near term (<5 years); mid term (5–10 years); and far term (>10 years); as well as,
- An outline of the path forward for developing the RDT&E infrastructure plan that will focus on the critical RDT&E capabilities necessary to support the National aeronautics R&D goals and objectives.

HOW THE PLAN WAS CREATED

Deliberations over the past year by the National Science and Technology Council's (NSTC) Aeronautics Science and Technology Subcommittee (ASTS), co-chaired by Office of Science and Technology Policy (OSTP) and NASA, reached consensus through a collaborative approach that included representatives from the:

- Departments of Commerce, Defense, Energy, Homeland Security, State, and Transportation, as well as the Federal Aviation Administration, the National Science Foundation, and the Environmental Protection Agency.

In addition, the ASTS solicited inputs from non-Federal stakeholders (e.g., industry, academia, and the aviation user community) throughout the Plan's development, including:

- Solicitation and consideration of white papers concerning aeronautics R&D and related infrastructure;
- Sponsoring four outreach sessions across the nation;
- Public posting of a draft paper for review and public comment that served as a source for this Plan; and,
- Consideration of numerous prior reports and documents regarding aeronautics R&D needs.

HOW THE PLAN WILL BE USED

The Plan defines the highest priority aeronautics R&D goals and objectives for each Principle considered. These goals and objectives are intended to provide high-level guidance for foundational, advanced aircraft system, and air transportation system R&D through 2020. They are not intended to endorse specific technologies or exclude important R&D that may be specific to the mission of an individual department or agency.

The Policy includes guidelines to the departments and agencies in their conduct of aeronautics R&D, and delineates the role of the Federal Government with respect to the private sector.

NEXT STEPS

The *National Plan for Aeronautics Research and Development and Related Infrastructure* calls for the development of:

- A supplemental report with additional technical content describing the aeronautics R&D goals and objectives and a preliminary assessment of relevant Federal aeronautics R&D activities to identify areas of opportunity for potential increased emphasis, as well as potential areas of unnecessary redundancy; and,
- An infrastructure plan that will include an identification of RDT&E capabilities considered critical to satisfying the national aeronautics R&D goals and objectives, and a coordinated management approach for Federal RDT&E infrastructure that is based upon a national perspective and interagency cooperation.

The NSTC will begin developing these two documents in 2008.