

How NASA Works with other Government Agencies

2010 ARMD Green Aviation Summit

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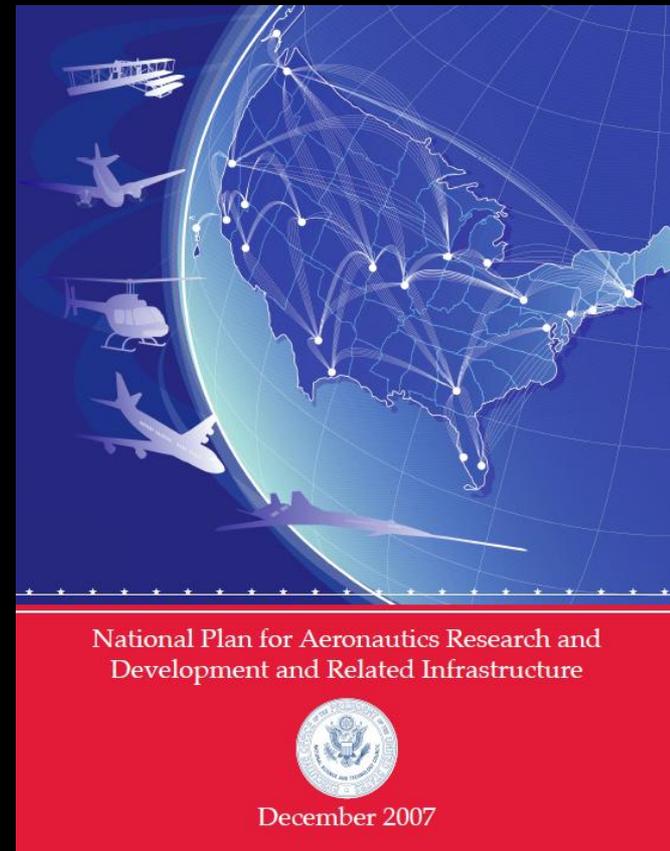
Collaboration at the Mission Directorate Level

Plan for national aeronautics R&D
and for related infrastructure
2008, updated 2010

National Science & Technology
Council, Aero Science & Tech
Subcommittee.

Co-chaired by OSTP and NASA

FAA, JPDO, NASA, NSF, NSC,
Commerce, Defense, Energy,
Transportation, Homeland Security



Collaboration at the Mission Directorate Level

JPDO Board

Jaiwon Shin

Tom Irvine

JPDO

Robert Pearce, Deputy Director

Interagency Portfolio & Systems Analysis Division

Yuri Gawdiak, Director

Collaboration at the Mission Directorate Level

UAS Excom

Jaiwon Shin

The UAS ExCom (FAA, DOD, NASA, DHS, JPDO) and industry standards organizations define and conduct research to provide seamless UAS operations in the NextGen

UAS ExCom is establishing a UAS NAS Access Work Group to plan how Federal Agency UAS will ultimately achieve routine access

Collaboration at the Mission Directorate Level

AF/NASA Executive Research Committee

Werner Dahm, AF Chief Scientist

Jaiwon Shin, ARMD AA

The ERC is responsible for the executive direction and oversight of AF and NASA joint aeronautics R&D efforts.

Foster an effective AF/NASA partnership in R&D and applications.

Ensure that AF & NASA planning and resources to achieve the objectives are coordinated, when appropriate.

Monitor progress toward the goals and propose adjustments in the organizations' roadmaps, plans, and resources, as necessary.

Propose changes to goals and plans based on changing stakeholder and customer requirements.

Collaboration at the Program Level

Aeronautics Test Program

National Partnership for Aeronautical Testing (NPAT)

Expand cooperation between NASA and DoD and facilitate the establishment of an integrated national strategy for the management of their respective aeronautical test facilities

Infrastructure Interagency Working Group (IIWG)

Recommendations for infrastructure management approaches based on a national perspective

Collaboration at the Program Level

Fundamental Aeronautics Program

Versatile Affordable Advanced Turbine Engines (VAATE)
DoD, NASA, DoE, academia, industry

VAATE Steering Committee

Jay Dryer, Director, NASA Fundamental Aeronautics Program
Jih-Fen Lei, R&T Directorate, NASA Glenn

Semi-annual review of VAATE program progress, technical
Panel reports

Collaboration at the Program Level

Airspace Systems Program

FAA/NASA Research Transition Teams (RTT)

Coordinating Committee

Akbar Sultan, Deputy Director NASA Airspace Systems Program
Steve Bradford, FAA

Ensure that R&D needed for NextGen implementation is identified, conducted, and effectively transitioned to the implementing agency

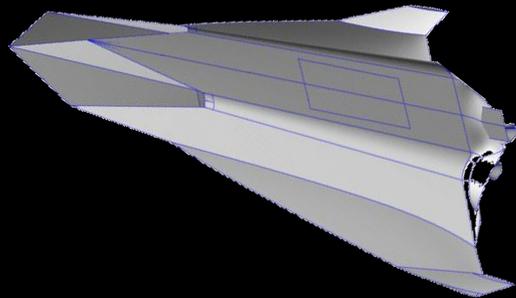
- efficient flow into congested airspace
- integrated arrivals, departures, surface management
- flow based trajectory management
- dynamic airspace configuration

Collaboration at the Project Level

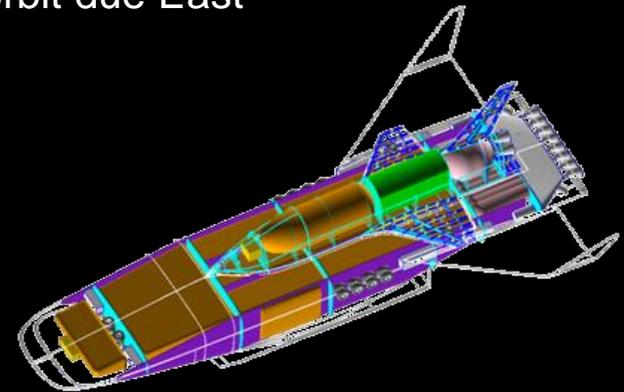
Hypersonics Project

NASA and AFRL conduct independent assessments of each other's TSTO concept in FY10. Initial NASA technology assessment will conclude in FY10.

Mission: 20K# payload, 100 nm orbit due East



AF rocket-based combined cycle (RBCC) concept



NASA turbine-based combined cycle (TBCC) concept

Collaboration at the Project Level

Hypersonics Project

Jointly funded/reviewed by AFRL and NASA for 5 years
Strengthens long-term foundational research

National Center for Hypersonic Combined Cycle Propulsion
at the University of Virginia

Hypersonic Boundary Layer Transition Center
at Texas A & M University

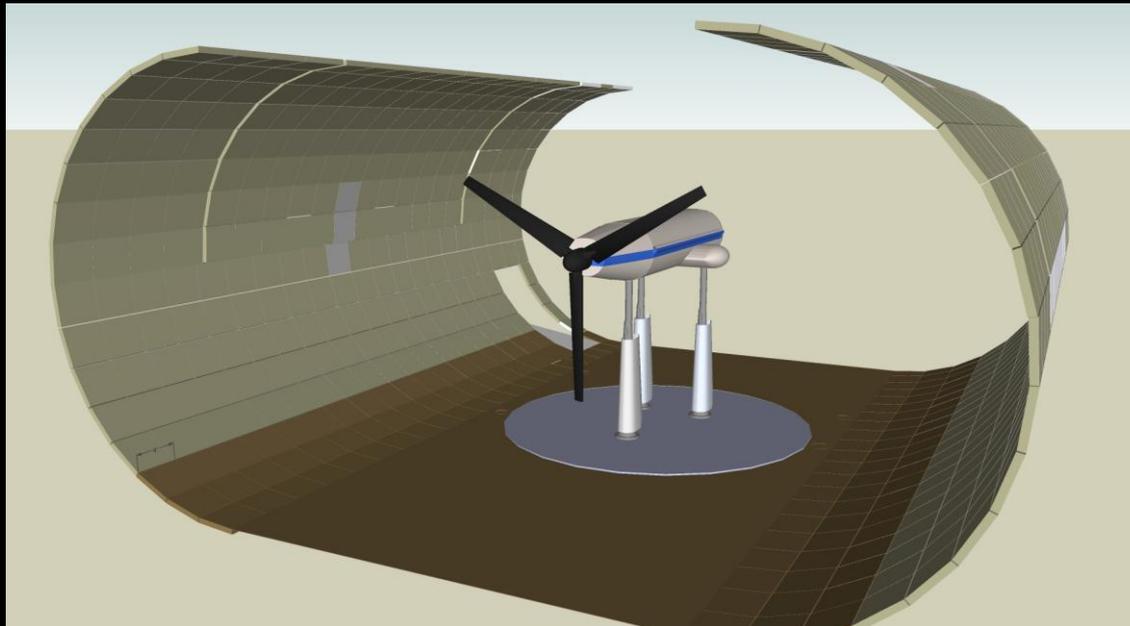
National Center for Hypersonic
Materials and Structures
at Teledyne Scientific Company

Collaboration at the Project Level

Subsonic Rotary Wing Project

Jointly funded tiltrotor test capability in the NFAC, critical to developing large civil tiltrotor capability

50/50 funding split between DOD (Army, Air Force) and NASA



Collaboration at the Project Level

Subsonic Rotary Wing Project

In terms of collaboration, the greatest success is the longevity of the co-located Army-NASA research laboratories at Ames, Glenn and Langley. The relationship has been maintained over 40 years now and is the backbone of the individual research projects we do together.

Susan Gorton, Principal Investigator, Subsonic Rotary Wing Project