



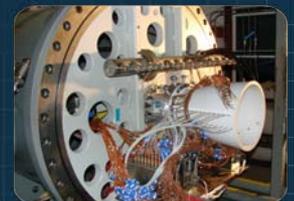
NATIONAL INSTITUTE FOR ROCKET PROPULSION SYSTEMS

Stewardship of the Industrial Base

Joint Army Navy NASA Air Force 8th Modeling and Simulation/6th Liquid Propulsion/5th Spacecraft Propulsion Joint Subcommittee Meeting

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AMRDEC Weapons Development and Integration



NIRPS: A Responsive Solution

Scope:

National
Multi-organizational
Multi-sector

Purpose:

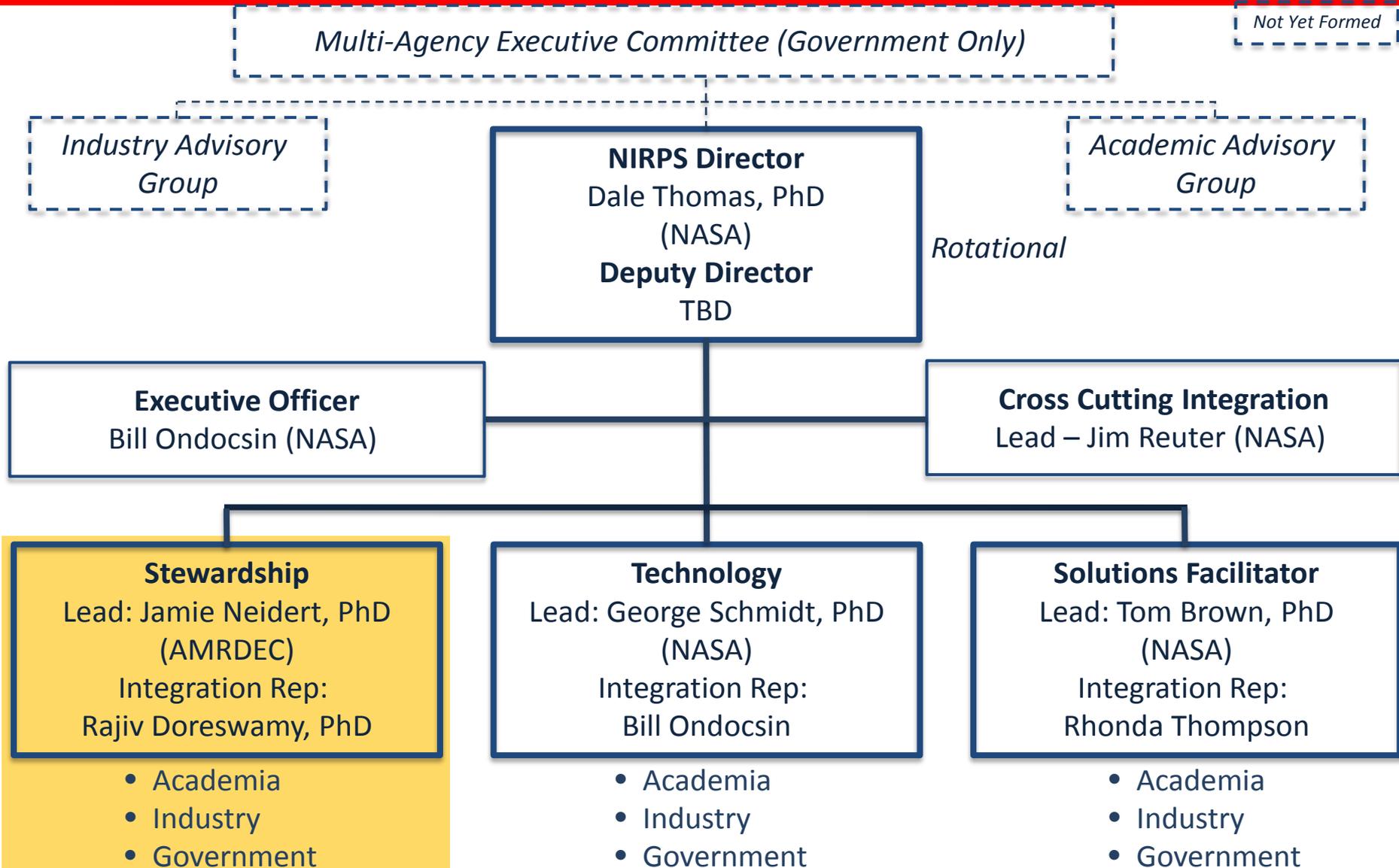
NIRPS will help preserve and align government and private rocket propulsion capabilities to meet present and future US commercial, civil, and defense needs, while providing insight and recommendations to National decisional authorities

Tri-faceted approach:

- **Stewardship:** Formulate and recommend National Policy options and strategies that promote a healthy industrial base
- **Technology:** Identify technology needs and recommend technology insertions
- **Solutions facilitator:** Maintain relationships and awareness across the Government and industry to align available capacity with emerging demand

A Unique National Resource with the Capability to Serve Multiple Interests

NIRPS Planning Organization



Stewardship Team Membership

Dr. Jamie B. Neidert – Lead

Dr. Rajiv Doreswamy – Facilitator

- **Carla Bossard** **Aerojet**
- **Shirley Brostmeyer** **Florida Turbine**
- **Charley Bown** **ATK**
- **James L. Cannon** **NASA/MSFC**
- **Bob Dalee** **Boeing**
- **Ken Davidian** **FAA**
- **Mark D. Klem** **NASA/GRC**
- **Dr. Shankar Mahalingam** **U A Huntsville**
- **Robert Read** **OSD-ATL**
- **William D. Skinner** **Jacobs Technology**
- **John Steinmeyer** **Orbital**
- **Dr. Vigor Yang** **Georgia Tech**

Stewardship Goals & Objectives

- Monitor and analyze the state of the industry in order to formulate and recommend national policy options and strategies that promote a healthy industrial base and ensure best value for the American taxpayer.
- Provide coordinated propulsion industrial base information, analyses and risk assessments for the U. S. Government.
- Develop policy positions and reports to inform and guide the U. S. Government in the protection, enhancement, and sustainment of the U. S. propulsion industrial base.
- Support the NIRPS operations by providing the following:
 - Facilitate coordination of industrial base issues and policy within the NIRPS and between the NIRPS partners.
 - Provide expert analysis and consultation to U. S. Government agencies engaged in acquisitions, research and development, and operations of rocket propulsion systems. (e.g. Program Reviews, Acquisition Reviews, etc.)
 - Provide the propulsion industry partners with appropriate input and insight into U. S. Government policy.
 - Facilitate the strategic communication of U. S. propulsion industrial base issues, policies and strategies.

Inter-relationships of Strategy Teams

Grand Challenge	Stewardship	Technology	Solutions Facilitator
Support the competitiveness and resilience of the industrial base	Primary	Secondary	Secondary
Reduce development and sustainment costs for missile and rocket systems	Primary	Secondary	Secondary
Collaborate across agencies for missile and rocket propulsion system development	Secondary	Secondary	Primary
Foster access to facilities and expertise across Government, industry, and academia	Secondary	Secondary	Primary
Develop and implement an integrated science and technology plan for propulsion systems	Secondary	Primary	Secondary
Invigorate the STEM pipeline	Secondary	Primary	Secondary

Key Questions – Stewardship

- What studies/commission reports have already been conducted? How do we build upon them?
 - Where are we?
- How can the Institute gain advocacy from the NASA and the DoD toward sustainment of the industrial base and the necessary stewardship of the rocket propulsion enterprise?
 - How can we maintain our expertise/capability in rocket propulsion?

Key Contributing Issues for Stewardship

- Industrial Base
 - Fewer new propulsion programs
 - Increased global competition
 - Facilities/Capabilities
 - Well below capacity
 - Workforce may not meet future needs
- Statutory and Regulatory constraints
 - Environmental
 - Obsolescence
 - Insensitive Munitions