



**National Aeronautics and Space Administration**



**NASA Experimental Program to Stimulate  
Competitive Research Program  
(EPSCoR)**



**2015 IEEE International Conference on Wireless  
for Space and Extreme Environments**

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# Agenda

- Overview
- Funding History
- Eligible Jurisdictions
- Governance and Jurisdiction Structure
- Programmatic Components
- Questions

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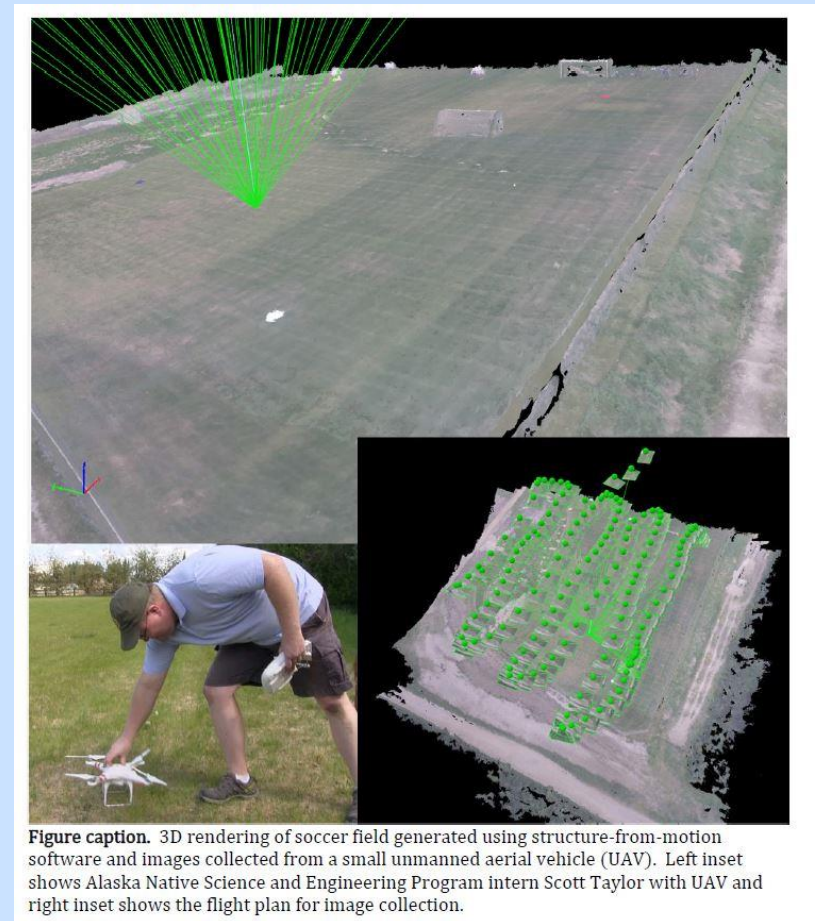
## Fly By Wireless

*Eliminating wires from aerospace control systems significantly reduces weight, while posing challenges dealing with delay and noise in sensor data.*

# EPSCoR Legislation

NASA EPSCoR was established by Congress in 1992 with Title III of the NASA Authorization Act for FY 1993 (Public Law 102-588).

- By this legislation, NASA EPSCoR shall:
  - address areas of research important to the mission of NASA;
  - serve as a catalyst in the eligible states to enhance the ability of researchers to become more competitive for regular NASA funding;
  - improve the environment in the eligible states for science, mathematics, and engineering education; and
  - assure the maximum distribution of grants among eligible states, consistent with merit.
- NASA EPSCoR website:  
<http://www.nasa.gov/education/epscor>

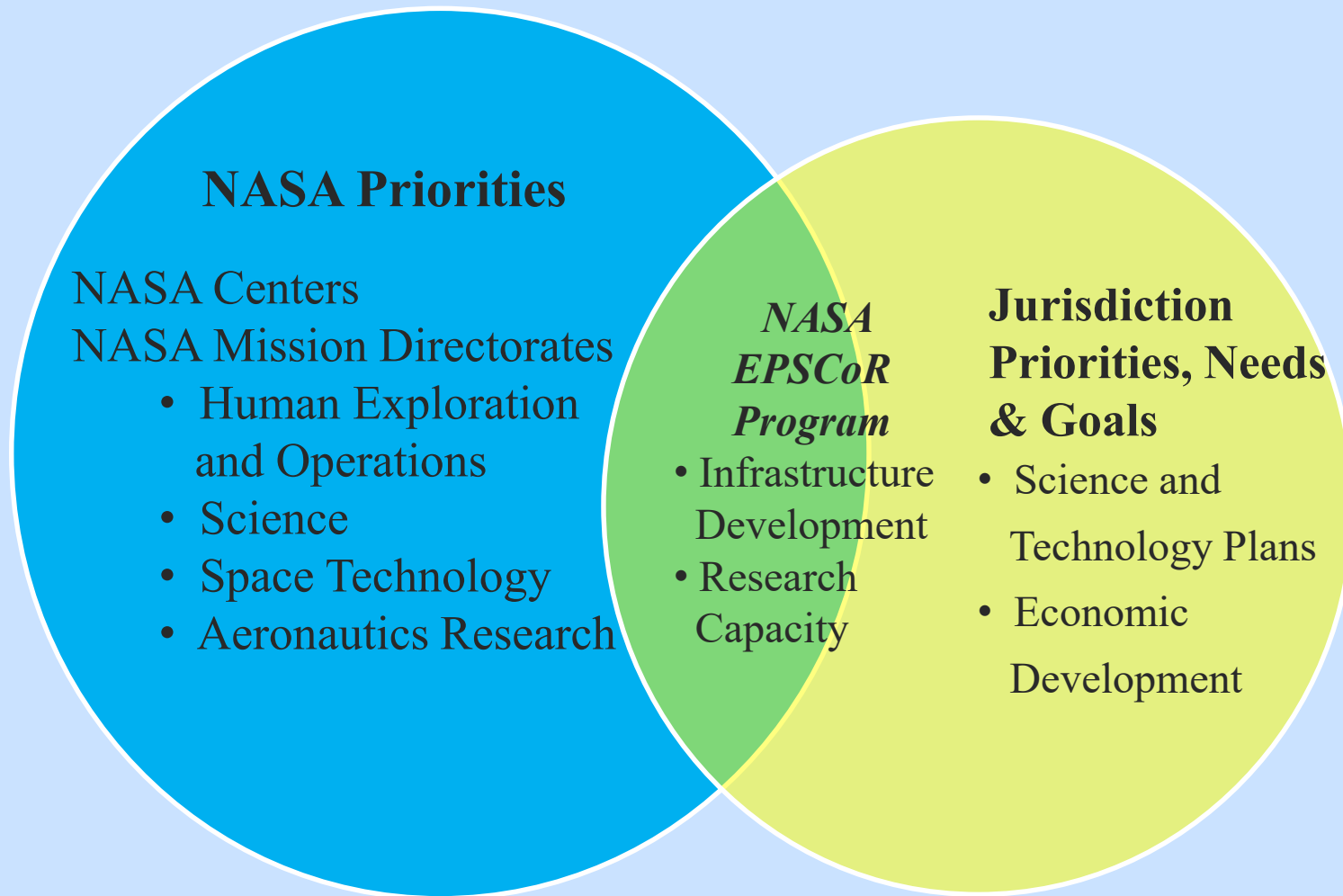


**Figure caption.** 3D rendering of soccer field generated using structure-from-motion software and images collected from a small unmanned aerial vehicle (UAV). Left inset shows Alaska Native Science and Engineering Program intern Scott Taylor with UAV and right inset shows the flight plan for image collection.

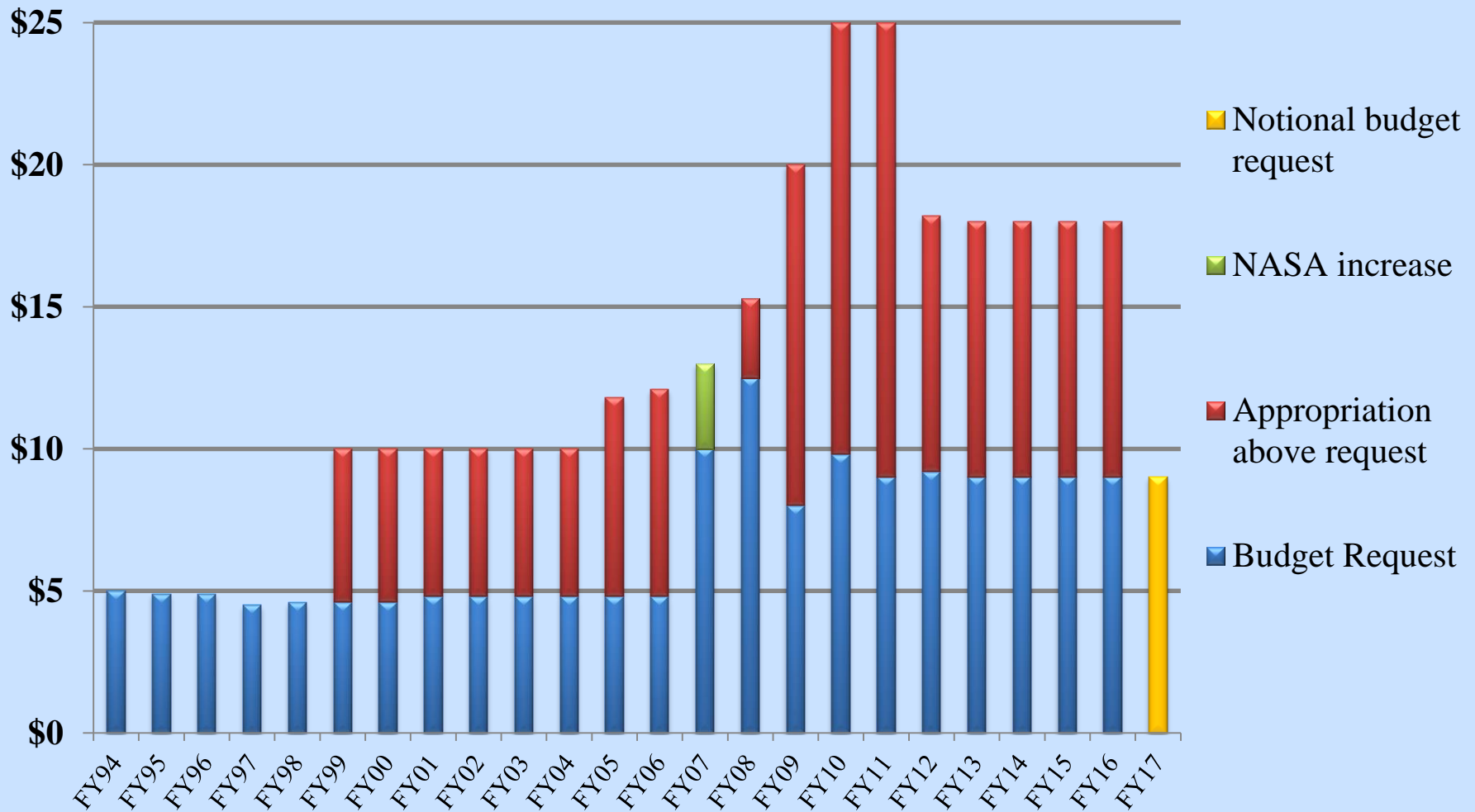
# Goals and Objectives

- **Goal:**
  - Provide seed funding to develop an academic research enterprise directed toward long-term, self-sustaining, nationally-competitive capabilities in aerospace and aerospace-related research.
- **Objectives:**
  - Contribute to and promote the development of research infrastructure in NASA EPSCoR jurisdictions in areas of strategic importance to the NASA mission
  - Improve the capabilities of the NASA EPSCoR jurisdictions to gain support from sources outside the NASA EPSCoR program
  - Develop partnerships between NASA research assets, academic institutions, and industry
  - Contribute to the overall research infrastructure, science and technology capabilities, higher education, and/or economic development of the jurisdiction

# EPSCoR Implementation

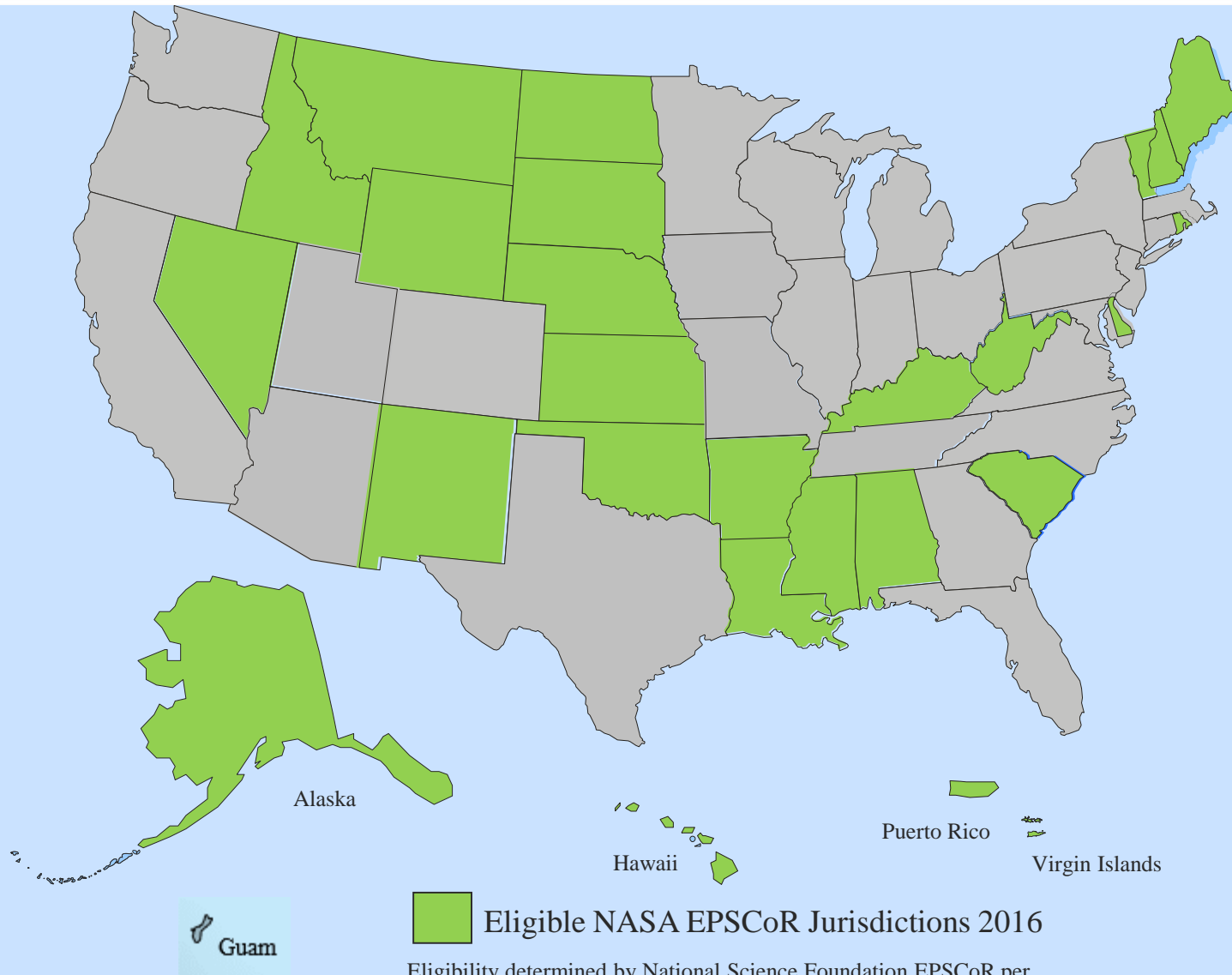


# Funding Profile



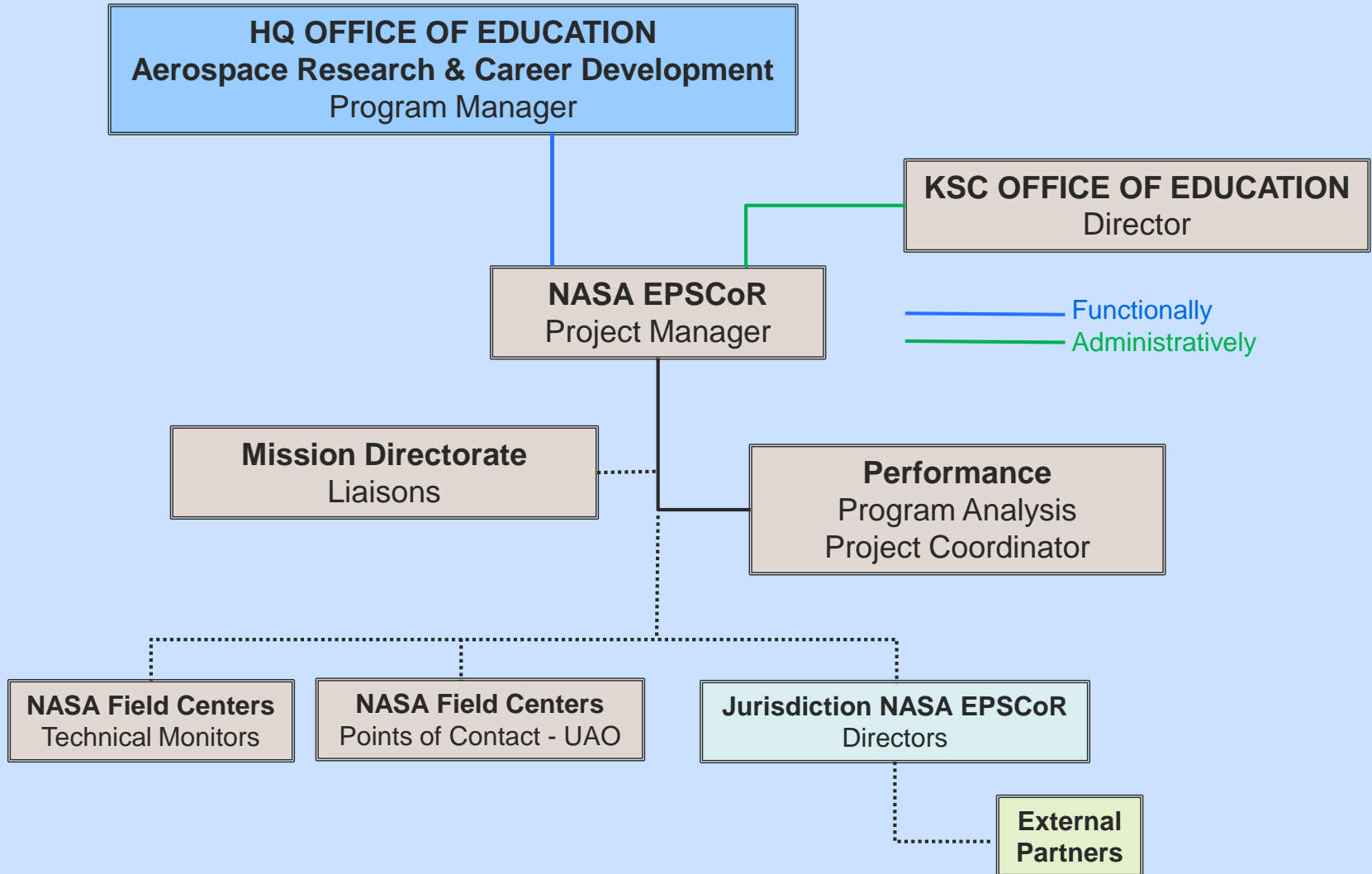
in Millions of dollars





Eligibility determined by National Science Foundation EPSCoR per NASA EPSCoR legislation

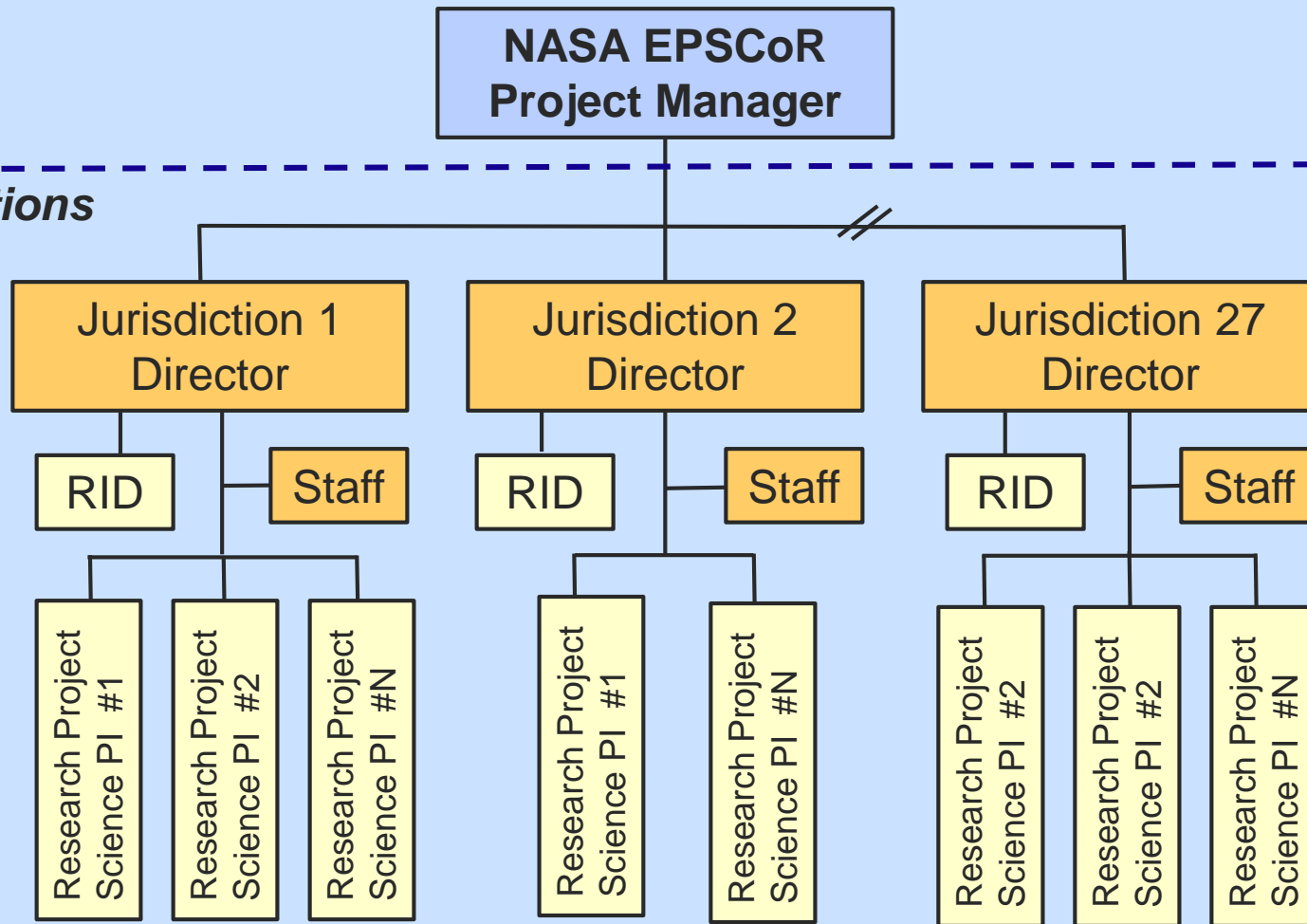
# NASA Governance Structure





# EPSCoR Jurisdictions' Structure

**NASA**  
*Jurisdictions*



- **Research Infrastructure Development (RID) Awards**
  - Enable jurisdictions to build and strengthen relationships and improve contacts with NASA researchers; develop ideas for future proposals
  - Eligibility: One per jurisdiction
  - Max of \$125,000/year, 3-year award
  - Solicitation released every 3<sup>rd</sup> year
  - Cost Share (100%)
- **Research Awards**
  - Topic-specific proposals targeted at high-priority NASA research and technology development needs as determined by Mission Directorates
  - Max of \$750,000 for a 3-year award
  - Annual solicitation
  - Number of awards based on proposal merit and dollar amount available
  - Cost Share (50%)

# Research Proposal Review Process

## **Online Peer Review**

All proposals are evaluated by a minimum of four reviewers for technical merit and relevance to NASA research and technical development needs and priorities. The selected reviewers are a mix of nationally recognized professionals and NASA subject area experts.

## **Internal Panel Review**

A HQ NASA panel composed of representatives from the four Mission Directorates who evaluate the online peer review inputs. They categorize the proposals using a prioritization system from which proposals are selected for funding.

# Research Award Technical Monitors/Oversight

Each award has a Technical Monitor (TM) who performs the following:

- Provides guidance and technical advice/assistance, reviews annual reports
- Provides feedback to the EPSCoR staff

TM selection is coordinated through the Education Liaison of the appropriate Mission Directorate

NASA science and engineering personnel are associated with all NASA EPSCoR Research Awards.

Additional activities may include:

- Integrating the EPSCoR research into ongoing NASA activities or research efforts
- Increasing the P.I. and his/her team's awareness of other related or relevant research in NASA to help develop the capability to compete for future awards



A researcher at the University of North Dakota completes a routine examination of integrated system of inflatable habitat, docking tunnel, and electric rover during 30-day stay in a Lunar/Martian analog mission..

# End of presentation

## Questions?

Read the current issue of EPSCOR  
STIMULI at <http://go.nasa.gov/1Yaklhf>