



SCIENCE

# International Cooperation at NASA

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# International Cooperation: Overview

- International cooperation at NASA:
  - Has been a cornerstone of NASA's activities throughout its history
  - Since 1958, NASA has concluded over 6500 agreements with 169 nations and international organizations
  - 650 active international agreements with 138 unique partners
  - Cooperation currently established in every region in the world
  - 4 partners account for 1/3 of the active agreements
    - Japan, Germany, United Kingdom, France
  - Partners with 10 or more active agreements: Canada, European Union, Italy, Australia, Korea, Switzerland, India, Spain, Brazil
  - Over half of partners have one active agreement with NASA
  - Every Mission Directorate has international partnerships
  - By mission area: 2/3 of agreements are for NASA science missions



# Why International Cooperation?

- Benefits of international cooperation:
  - Leverage resources (financial, technological, scientific, etc.)
  - Access foreign capabilities or geography
    - Adds unique capability and/or expertise
    - Increases mission flight opportunities
    - Enhances the scientific return
  - Promote U.S. foreign policy interests
    - NASA follows foreign policy guidance from the U.S. Department of State



# International Cooperation: Current Guidelines

- NASA international partners are generally government agencies due to the significant level of investment and legal requirements
- No exchange of funds; each partner funds its respective contributions, but contributions need not be equivalent
- Cooperation must have scientific and technical merit and demonstrate specific benefits
- Joint projects must be within the known scientific, technical and budgetary capabilities of each partner
- Collaboration is structured to establish clearly defined managerial and technical interfaces to:
  - minimize complexity
  - protect against unwarranted technology transfer
- Cooperation must be consistent with foreign policy objectives of each Partner



# International Cooperation: Current Guidelines, cont.

- Generally, international partnerships do not involve joint development of technology...
  - each party retains intellectual property rights in the technology/hardware it brings to the partnership, and that which is developed independently of the other party (clean interfaces!)
  - the results of the cooperation are fully shared, and generally published
- ...nor involve products or processes that are potentially of near-term commercial value
  - Source: 2010 US Space Policy – Sector Guidelines – Commercial Space Guidelines: “...departments and agencies shall ... refrain from conducting USG space activities that preclude, discourage, or compete with U.S. commercial space activities...”
- Exploratory discussions are welcome and encouraged, consistent with export control limitations
  - early discussions are limited to the exchange of “public domain” information
- Specific cooperative activities are documented in written, legally binding agreements, closely coordinated with the U.S. Department of State



# International Partnership Challenges

- Identifying mutually beneficial cooperation
  - Difficult to align schedules, budgets, and capability needs between two potential partners
  - “Critical path” issues – minimizing the risk of over-interdependence in critical areas
  - “Choice overload” – subject matter experts and project leads have limited bandwidth to fully entertain all partnership opportunities
- Implementing international cooperation
  - Management complexity
    - Decision-making is inherently more complex; communication challenges; differing specifications, standards and assumptions
  - Technical and Programmatic Risk
    - Interfaces are difficult to manage at a distance; harder to monitor progress and get early warning of problems
  - Political risk
    - Budgetary and bureaucratic uncertainties
    - Potential linkage to political issues unrelated to the cooperation



# Why Do We Need International Agreements?

- International Agreements are tools that:
  - Clarify responsibilities of the partners
  - Confirm commitments and terms
  - Document the quid pro quo and benefits of the cooperation
  - Protect investment and interests, such as:
    - Technical data rights
    - Intellectual property rights
    - Allocation of risk – cross-waiver of liability
  - Allow import/export of technical data and goods
  - Confirm arrangements to meet international obligations, such as UN Registration Convention, if necessary
  - Can help fulfill an export control requirement



# When Do We Draft International Agreements?

- International Agreements are drafted *after* final selections are made; agreements are not typically drafted for Phase-A Studies
- International Agreements are not required for proposals or Concept Study Reports
- Non-U.S. Participation Requirements are detailed in the AO
- If the AO proposal is from a foreign entity – or if U.S. AO proposal includes foreign participation – a Letter of Commitment is requested from the foreign partner's government agency or funding institution, acknowledging the activity and preferably indicating sufficient funds will be made available
- Note: International Agreements can take a year or more to put into place!





# NASA's International Agreements

- NASA's International Agreements do NOT trump export control laws & regulations
- An International Agreement does not replace a contractor's need for a Technical Assistance Agreement



# Thank You

## Office of International and Interagency Relations (OIIR)

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