

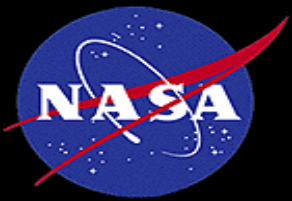
# International Cooperation at NASA

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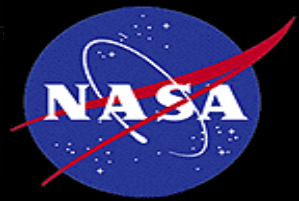


# International Cooperation is NASA Heritage



- National Aeronautics and Space Act of 1958
  - The aeronautical and space activities of the United States shall be conducted so as to contribute materially to one or more of the following objectives: *[of 9]*
    - (1) The expansion of human knowledge of the Earth and of phenomena in the atmosphere and space;
    - (7) Cooperation by the United States with other nations and groups of nations in work done pursuant to this Act and in the peaceful application of the results thereof.
- National Space Policy of June 2010
  - Expand international cooperation on mutually beneficial space activities to: broaden and extend the benefits of space; further the peaceful use of space; and enhance collection and partnership in sharing of space-derived information.
  - Improve space-based Earth and solar observation capabilities needed to conduct science, forecast terrestrial and near-Earth space weather, monitor climate and global change, manage natural resources, and support disaster response and recovery.

# International Cooperation: Current Guidelines



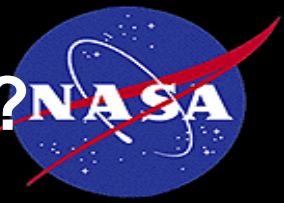
- **NASA international partners are generally government agencies due to the significant level of investment and legal requirements**
- Each Partner funds its respective contributions, but contributions need not be equivalent
- Cooperation must be consistent with foreign policy objectives of each Partner
- **Projects/Partnerships:**
  - Must have scientific and technical merit and meet NASA program objectives
  - Must be mutually beneficial (demonstrate specific benefit to each Partner)
  - Are structured to protect against unwarranted technology transfer
  - Are structured to establish clearly defined managerial and technical interfaces to minimize complexity
  - Are documented in a written, binding agreement, closely coordinated with the U.S. Department of State and other U.S. government agencies

# Why Do We Need International Agreements?

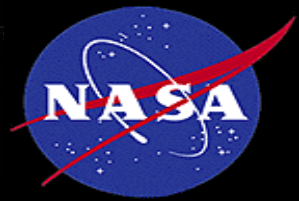


- International Agreements are tools that:
  - Clarify responsibilities of the partners
  - Confirm commitments and terms
  - Document the quid pro quo and benefits of the cooperation
  - Protect investment and interests, such as:
    - Technical data rights
    - Intellectual property rights
    - Allocation 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

# When Do We Draft International Agreements?



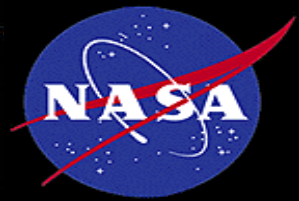
- International Agreements are not required for proposals.
- If AO proposal is from a foreign entity – or if U.S. AO proposal includes foreign participation – a strong letter of endorsement is needed from the foreign partner’s government agency or funding institution, acknowledging the activity and preferably indicating sufficient funds will be made available.
- International Agreements are drafted after final selections are made.
- ***Note : International Agreements will likely take several months to put into place!***



- 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**

# Questions?



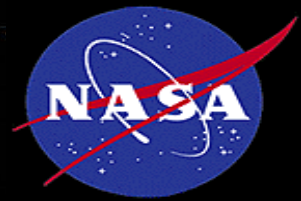
## Office of International and Interagency Relations

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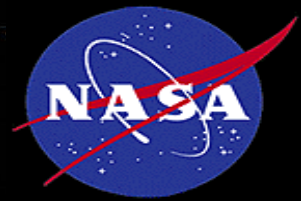


# International Cooperation: Overview



- International cooperation at NASA:
  - Has been a cornerstone of NASA's activities throughout its history
  - Since 1958, NASA has concluded over 4000 agreements with over 100 nations and international organizations
  - Nearly 500 active international agreements
  - Cooperation now established with every region in the world
  - 8 partners account for 50% of the agreements
    - ESA, France, Germany, UK, Italy, Canada, Japan, Russia
  - Every Mission Directorate has international partnerships
  - Of the approximately 56 SMD missions in operation, well over half have international contributions
  - By mission area: 2/3 are in the NASA science missions

# Early NASA Principles for Cooperation



- NASA policy foundations are unchanged after 50 years
  - Designation by each participating government of a central agency for the negotiation and supervision of joint efforts
  - Agreement upon specific projects rather than generalized programs
  - Acceptance of financial responsibility by each participating country for its own contributions to joint projects *[no exchange of funds]*
  - Projects of mutual scientific interest
  - General publication of scientific results

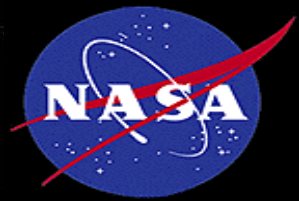
\* Cited from *International Programs*, NASA Office of International Programs, 1962; In place by September 1959 per Homer Newell's book, *Beyond the Atmosphere* (p. 306)

# Challenges to International Cooperation



- Management complexity
  - Decision-making is more complex
  - Communications difficulties
  - Differing specifications, standards and assumptions
- Technical and programmatic risk
  - Interdependence – the “critical path” issue
  - Interfaces are difficult to manage at a distance; it’s harder to monitor progress and get early warning of problems
  - Multiple partners with multiple interfaces adds complexity
- Political risk
  - Budgetary and bureaucratic uncertainties
  - Potential linkage to political activities unrelated to the cooperation

# Why International Cooperation?



- Benefits of international cooperation:
  - Leverage resources (financial, technological, scientific, etc)
  - Access to 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 Department of State