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 5000 agreements with over 125 nations and international organizations
  – 590 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
  – 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
• 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 take several months 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

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