

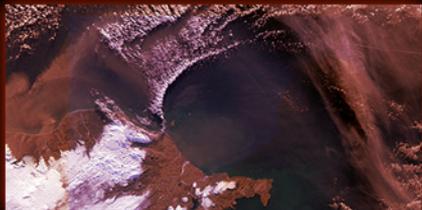


Getting Your Internationalities Straight

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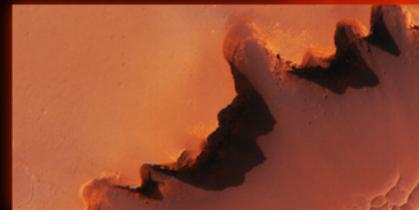
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EARTH SCIENCE



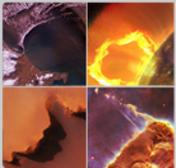
HELIOPHYSICS



PLANETARY SCIENCE

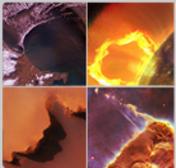


ASTROPHYSICS



Topics

- **Policy**
- **International agreements**
- **Hints for good practices**
- **Export control primer**



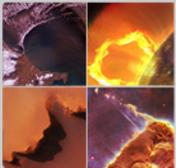
Overview of NASA International Cooperation

International cooperation at NASA

- Directed by the National Aeronautics and Space Act of 1958 and continues to be part of national space policy
- A cornerstone of NASA's activities throughout its history
- Includes over 3,000 agreements with over 100 nations
- Brings multiple benefits to NASA and its partners
- Pursued for a variety of reasons, through a combination of choice and necessity

Current international cooperation

- Nearly 500 active international agreements
- 8 partners account for 50% of agreements (France, Germany, ESA, Japan, UK, Italy, Canada, Russia)
- By mission area: 2/3 are in science missions
- By region: 1/2 are with partners in Europe



NASA International Cooperation Policy

NASA international partners are generally government agencies due to the significant level of investment and legal requirements

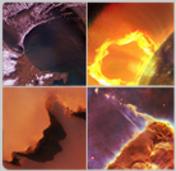
Cooperation must be consistent with U.S. foreign policy objectives

Projects/Partnerships:

- Must have scientific and technical merit
- Must demonstrate a specific benefit to NASA, support Mission Directorate objectives
- 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 formal agreement coordinated with the Department of State and other U.S. government agencies

Each Partner funds its respective contributions

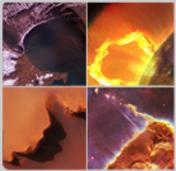
- but contributions need not be equivalent



NASA as an International Partner

In the past two decades the US has slowly begun to lose the status of “THE DEFAULT PARTNER” for space science. This is due to several factors:

- Growth of space science programs in other countries
- The decision to extend the US Government’s arms control regulations (ITAR) from launch vehicles and other weapons related systems to cover almost all civil and commercial space activities
- Growing uncertainty over funding for future US space programs, including, very unfortunately, missions in the science program



International Agreements--Roles

Principal Investigator

- Science definition and overall responsibility for mission success

Program Executive/HQ

- Programmatic (including budget) and technical oversight
- Interface to Agency support functions

Program Scientist/HQ

- Science coordination

Office of Interagency and International Relations/HQ

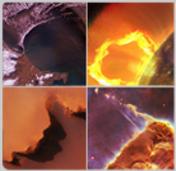
- Agency international cooperation policy
- Management of relationships with foreign and USG agencies
- International agreements (and interfaces to agency supporting functions)

Project Office

- Project execution

Key Interfaces





International Agreements

NASA's legal authority flows from Space Act of 1958

Purposes of Agreements

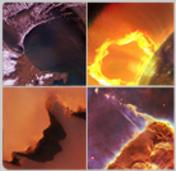
- Define allocation of technical responsibilities
- Document legal provisions of partnership and points of contact
- Assure compliance with export control regulations

Program Executive Responsibilities

- Define respective technical contributions to lay out in the agreement
- Negotiate NASA-partner management structure, including POCs on both sides
- Collaborate with OIR to assemble the document

OIR Responsibilities

- Assemble draft agreement by combining PE inputs and legal provisions
- Obtain Headquarters concurrences
- Obtain State Department clearance (if necessary)
- Negotiate and conclude (sign) agreements

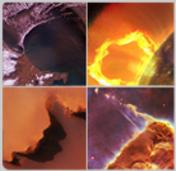


Sample Clauses in International Agreements

- Purpose of Cooperation
- **Responsibilities**
- Rights in Resulting Data
- Financial Arrangements
- **Points of Contact**
- Liability and Risk of Loss
- Registration of Space Objects
- Transfer of Goods and Technical Data
- Intellectual Property Rights
- Release of Results and Public Information
- Exchange of Personnel and Access to Facilities
- Customs Clearance and Movement of Goods
- Ownership of Equipment
- Consultation and Dispute Resolution
- Investigations of Mishaps and Close Calls
- Choice of Law
- Amendments
- Continuing Obligations
- Entry into Force, Term, and Termination

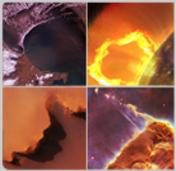
Principal PE contributions

A few clauses not frequently used for science cooperation are omitted



Headquarters Agreements Process

- 1. Starting point is development of “NASA does” and “partner does,” identify POCs**
 - Introduced in the proposal; details worked out between PE+project and the foreign partner
- 2. PE holds preliminary consultations with OIIR**
- 3. PE creates tasking for OIIR via creation of a new record in SPIAD database**
 - Project and partner, very brief summary of respective contributions
 - Agreement need date and need date rationale
 - **Also**: PE provides detailed “NASA does/Partner does” section to OIIR
- 4. OIIR determines type of agreement and choice of law, completes SPIAD record**
Begin PERIODIC status reviews by OIIR management and PE/division management
- 5. OIIR drafts agreement, begins HQ concurrence loop (starts at SMD division)**
- 6. OIIR submits to DOS for interagency review (if needed)**
- 7. OIIR, supported by PE, conducts negotiations on the agreement (as needed)**
- 8. OIIR executes, or arranges for execution of the agreement**



Challenges to Getting Agreements in Place

Negotiations

- Technical negotiations with partner (e.g., data public release policy)
- Choice of law
- Questions of partner legal competence

Press of other business in OIR

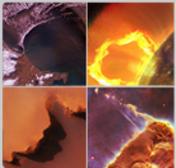
Concurrence routing in HQ

State Department clearance (C-175)

Elapsed time for partner processing

- Partners' unfamiliarity with legal provisions of USG agreements
- Partners' approval processes (also exchange of diplomatic notes, etc.)

□ **Development duration for new agreements completed since Jan 1, 2009:** 312 days average, 1692 days worst case



Enhancing the Likelihood of Success (1)

MUTUAL INTEREST

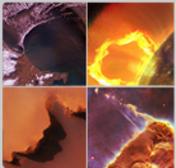
- When a cooperative project is being developed – no matter how big or small – it is important to ensure that “the deal” is considered fair and involves clear and realistic long-term benefits for all the partners

LANGUAGE

- Be careful! English spoken by an American science team member may be less fully or accurately understood by a colleague from another country than it appears

TERMINOLOGY

- It is very important to ensure all participants understand the meaning of terms being used; care must also be used regarding units of measure



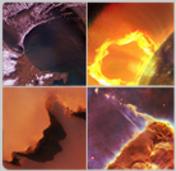
Enhancing the Likelihood of Success (2)

TRANSPARENCY

- Understanding the partner's processes and challenges can be helpful in identifying early potential risks to the mission and mitigations

DECISION-MAKING

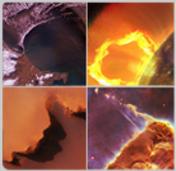
- When foreign partners have a major role in the project and/or the outcome, it is important to involve them as much as possible in the decision discussion or study team
- Even in cases where the decision has to be taken regardless of the view of the partner, it is very important to “consult”: give the partner a private heads up, allow them an opportunity to comment and to reflect on the impact, and perhaps suggest ways to mitigate the consequences.



Enhancing the Likelihood of Success (3)

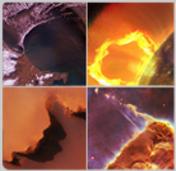
RELATIONSHIPS

- Titles: Unless you have known a colleague for years it is prudent to address your international counterparts by Dr., Ms. or Mr.
- First names: in the U.S. we tend to go to a first name basis shortly after meeting. In other countries that decision is often determined by the relative seniority and age of the two individuals. A good rule of thumb is to let the non-U.S. partner determine when to start using first names.
- Face to face discussions are particularly important when issues arise that need sorting out
- Some international participants, however, may hesitate to express their views – particularly on sensitive matters – in a large meeting setting. If you have issues that impact a partner to discuss, consider raising them first in private with your key counterpart.



Policy & Agreements Take-Away

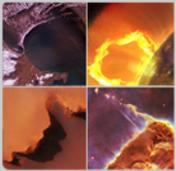
- **International agreements are a key element of project management**
- **Authority to develop and execute international agreements is vested in OIIR**
- **Headquarters SMD is here to help**
- **Your Program Executive is your friend**
 - Is your advocate at Headquarters
 - Knows what to do and how to do it
 - Knows who to talk to, to get things done
 - Can reduce confusion, save you time, and even keep you out of trouble



ITAR and NASA International Agreements

- NASA International Agreements – the basis for NASA foreign cooperative (or reimbursable) activity
 - Define the responsibilities of the parties, scope of the work to be performed, & the terms and conditions under which the cooperation will be effected
- All NASA International Agreements contain clauses on transfers of controlled goods & data
- NASA's International Agreements do **NOT** trump export control laws & regulations

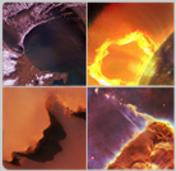
An International Agreement does not replace a contractor's need for a Technical Assistance Agreement



Export Control Compliance

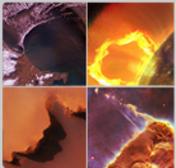
Part of the NASA Mission

- “It is NASA policy to ensure that exports and transfers of commodities, technical data, or software to foreign persons are carried out in accordance with United States export control laws and regulations, and Administration and NASA policy.”
NPD 2190.1, Section 1.a. (May 24, 2001)
- “We want to maximize the benefits of our international efforts while ensuring that we comply with U.S. export control laws and regulations.’ This is the personal responsibility of each employee.”
NPR 2190.1, Section P.1. (April 10, 2003)



Key Export Control & Nonproliferation Principles

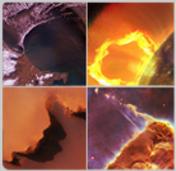
- **Primary Export Control Laws and Regulations**
 - Export Administration Act; Export Administration Regulations (EAR)
 - Arms Export Control Act; International Traffic in Arms Regulations (ITAR)
 - 10 CFR 810 Department of Energy regulations
 - INKSNA
 - Office of Foreign Assets Control (OFAC) regulations
 - Proscribed Countries, Denied Parties, Entities List, etc.
- **U.S. Non-Proliferation and Export Control Policy**
- **National Space Transportation Policy**
- **National Space Policy**
- **P.L. 106-391 – NASA Authorization Act of 2000**
- **P.L. 112-10 – DOD Continuing Appropriations Act of 2011**



United States Munitions List (USML) -- 22 CFR 121

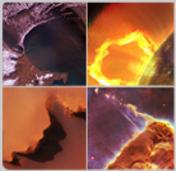
- I - Firearms
- II - Artillery Projectors
- III - Ammunition
- ****IV - Launch Vehicles, etc...***
- ****V - Explosives, Propellants, Incendiary Agents and Their Constituents***
- VI - Vessels of War and Special Naval Equipment
- VII - Tanks and Military Vehicles
- VIII - Aircraft and Associated Equipment
- IX - Military Training Equipment
- X - Protective Personnel Equipment
- XI - Military Electronics
- ****XII - Fire Control, Range Finder, Optical and Guidance and Control Equipment***
- ****XIII - Auxiliary Military Equipment***
- XIV - Toxicological Agents and Equipment and Radiological Equipment
- ****XV - Spacecraft Systems and Associated Equipment***
- XVI - Nuclear Weapons Design and Related Equipment
- XVII - Classified Articles, Technical Data and Defense Services Not Otherwise Enumerated
- XVIII - Directed Energy Weapons
- XIX - Reserved
- XX - Submersible Vessels, Oceanographic and Associated Equipment
- XXI - Miscellaneous Articles

- **Spacecraft and Associated Equipment**
 - All spacecraft (except International Space Station)
 - Certain GPS Receivers
 - Certain Rad Hard Microprocessors
 - Uniquely Designed, Modified, Configured Systems, Pieces and Parts for Above
 - Technical Data for Above



Proscribed Countries - 22 CFR 126.1

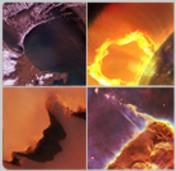
- If a country appears on the “proscribed country” list, it is (generally) U.S. policy to deny licenses, or other approvals, associated with exports and imports of defense articles and defense services, destined for or originating in that country
- **ITAR** License Exemptions are trumped if a “**foreign person**” from any of these countries is involved; i.e., a license must be applied for.



ITAR in Civil Space

Commonly-used ITAR License Exemptions

123.4(a) & (b)	Temporary imports
123.16(b)	Exports of parts, components, models
125.4(b)(1)	Technical data exports directed by DOD
125.4(b)(3)	Technical data exports directed by U.S. Gov agency
125.4(b)(5)	Technical data exports for lawfully exported articles
125.4(b)(7)	Technical data returned to sender
125.4(b)(10)	Technical data disclosed to university employees
125.4(b)(11)	Technical data authorized by State Department Directorate for Defense Trade Controls written exemption
125.4(b)(13)	Publicly available data about defense articles
125.5(c)	Plant visits
126.4(a)	Exports by or for a U.S. Government agency
126.4(c)	Imports/Exports for use by USG agency abroad
126.5	Canadian Exemptions



Export Control Summary

- **The NASA Export Control Program is at**
<http://oiiir.hq.nasa.gov/nasaecp/index.html>
- **Proper export control practices are critically important**
 - Deviations jeopardize NASA's ability to carry out its mission
 - Violators face severe sanctions, including personal criminal penalties!

Consult your Center Export Administrator

If your implementing organization is not a NASA Center, then the Explorer Program Office at the NASA Goddard Space Flight Center can help you work with the GSFC Export Administrator.