

Solar Probe+ Mission Pre-Proposal Conference



Export Control Program

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National Aeronautics and Space Act of 1958

- The National Aeronautics and Space Administration was created on October 1, 1958, *"to provide for research into the problems of flight within and outside the Earth's atmosphere and for other purposes."*
- The Space Act directs NASA to conduct its activities so as to: *"contribute materially to . . . cooperation by the United States with other nations."*
- *"The Administration shall provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof"*



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
- U.S. Non-Proliferation and Export Control Policy
- National Space Transportation Policy
- National Space Policy
- P.L. 109-112 – Iran, North Korea, & Syria Non-Proliferation Act
- P.L. 106-391 – NASA Authorization Act of 2000



U.S. Space Transportation Policy

- **Strongly** encourages the use of U.S.-manufactured launch vehicles for U.S. Government payloads, and
- Subjects the use of foreign launch vehicles to significant governmental review & coordination requirements





The International Traffic in Arms Regulations (ITAR)*

22 CFR 120-130

*Updated via Federal Register Notices

<http://www.pmddtc.state.gov/>



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



USML Cat XV

- 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





Key Export Control Definition - ITAR

- Important ITAR Definition – 120.17
 - **“Export”** – Means (1) Sending or taking a defense article out of the United States in any manner, except by mere travel outside of the United States by a person whose personal knowledge includes technical data; or (2) Transferring registration, control or ownership to a foreign person of any aircraft, vessel, or satellite covered by the U.S. Munitions List, whether in the United States or abroad; or (3) Disclosing (including visual disclosure) or transferring in the United States any defense article to an embassy, any agency or subdivision of a foreign government (e.g., diplomatic missions); or (4) Disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the United States or abroad; or (5) Performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad. ...



Key Export Control Definition - ITAR

- Important ITAR Definition – 120.6
 - **“Defense Article”** - any item on the U. S. Munitions List (USML), including “technical data”.
 - Note: Contrary to popular opinion, **Defense Articles are not exclusively “military” items**; (e.g., with the exception of the Space Station, all *spacecraft* are “Defense Articles”; the JWST, Hubble, Swift, Fermi, are all “Defense Articles”, etc.)
 - Note: A University submitted a commodity jurisdiction to State Department which resulted in reiteration that all scientific instruments that are designed or modified for spacecraft are considered defense articles on the USML under Category XV(e) Spacecraft components.



Key Export Control Definition - ITAR

- Important ITAR Definition – 120.10
 - “**Technical Data**” – Information, other than software as defined in § 120.10(a)(4), which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles. This includes information in the form of blue prints, drawings, photographs, plans, instructions or documentation. ...
 - This information does not include information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the public domain as defined in § 120.11. It also does not include basic marketing information on the function and purpose or general system description of defense articles.



Key Export Control Definition - ITAR

- Important ITAR Definition – 120.16
 - **“Foreign Person”** – Means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign government and any agency or subdivision of foreign governments (e.g., diplomatic missions).



The International Traffic in Arms Regulations (ITAR)

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 Proscribed Countries

- AFGHANISTAN (case by case)
- BELARUS
- BURMA
- CHINA (PRC)
- CONGO (case by case)
- CUBA
- CYPRUS
- ERITREA
- *FIJI
- HAITI
- *INDONESIA (case by case)
- IRAN
- IVORY COAST
- IRAQ (case by case)
- LEBANON
- LIBERIA
- LIBYA (case by case)
- NORTH KOREA
- *PALESTINIAN AUTHORITY
- SIERRA LEONE
- SOMALIA
- SRI LANKA
- SUDAN
- SYRIA
- *THAILAND
- VENEZUELA
- VIETNAM
- YEMEN
- ZIMBABWE

* Department of State has published restrictive guidance regarding these countries/entities, 22CFR § 126.1.



The 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 U.S. Gov agency**
- 126.4(c) Imports/Exports for use by USG agency abroad
- 126.5 Canadian Exemptions



University Exemptions

- University Exemption 123.16 (10)
 - Articles exported from accredited US institutions of higher learning to institutions of higher learning in NATO, major non-NATO ally, ESA, or EU countries, only nationals exclusively from those countries can be involved
 - Everything published, fundamental research
- University Exemption 125.4(b)(10)
 - Disclosures by universities in the U.S. to bona fide university employees
- University Exemption 125.4(d)(1)
 - Defense services for the items identified in § 123.16(b)(10) of this subchapter exported by accredited U.S. institutions of higher learning...(only XV (a) or (e) fundamental research items)



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Fundamental Research

22 CFR 120.11: (a) Public domain means information which is published and which is generally accessible or available to the public: ... (8) Through **fundamental research** in science and engineering at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community. Fundamental research is defined to mean *basic and applied* research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. University research will not be considered fundamental research if: (i) The university or its researchers accept other restrictions on publication of scientific and technical information resulting from the project or activity, or (ii) The research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable.



NASA's International Agreements

- NASA's 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



The Export Administration Regulations* (EAR)

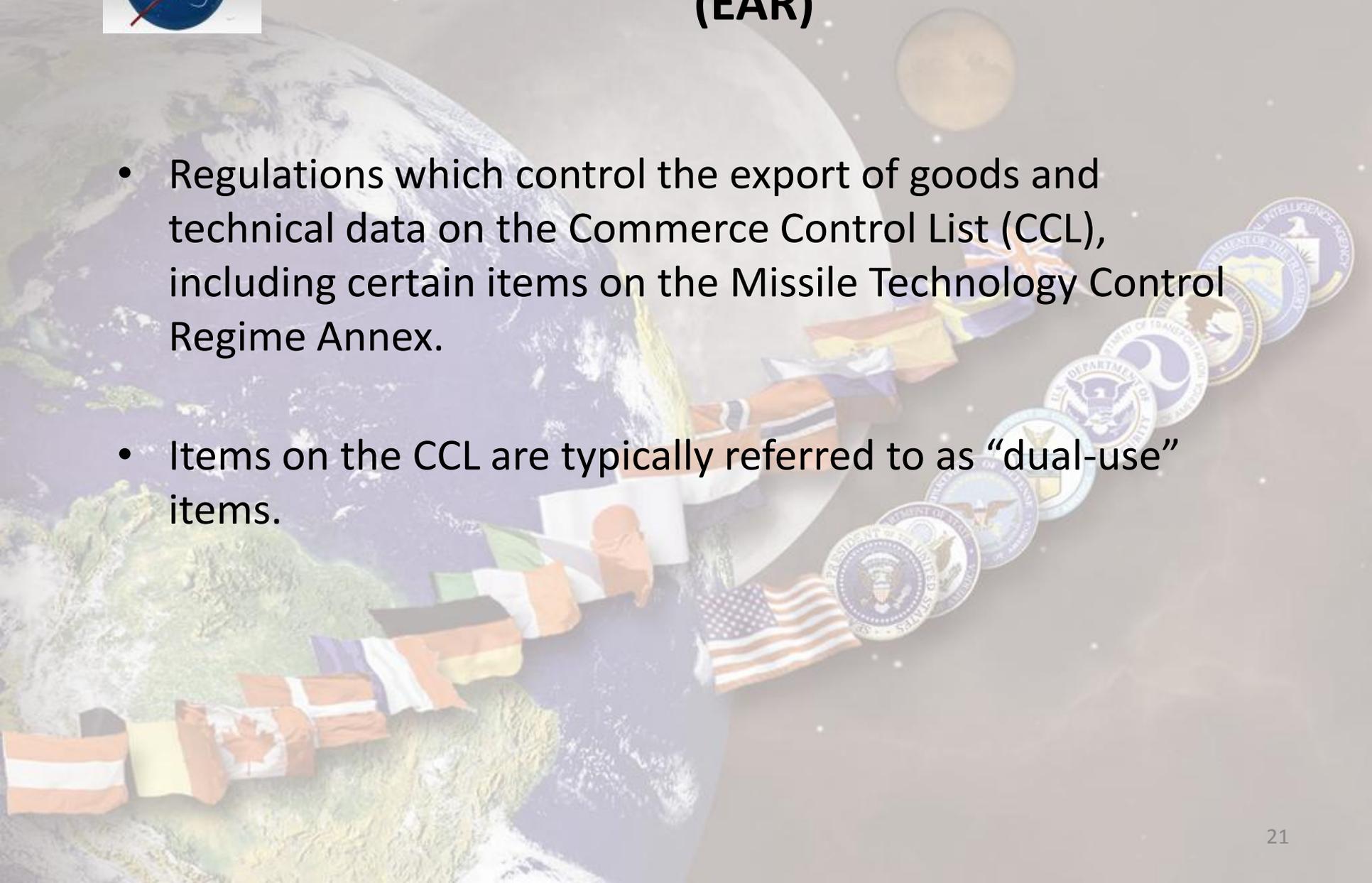
- **15 CFR 730-774**
- *Updated via Federal Register Notices
- <http://bis.doc.gov>





The Export Administration Regulations (EAR)

- Regulations which control the export of goods and technical data on the Commerce Control List (CCL), including certain items on the Missile Technology Control Regime Annex.
- Items on the CCL are typically referred to as “dual-use” items.





The Commerce Control List (CCL)

15 CFR 774

- Category 0 - Nuclear Materials, Facilities and Equipment and Misc.
- Category 1 - Materials, Chemicals, Microorganisms and Toxins
- Category 2 - Materials Processing
- *Category 3 - Electronics*
- *Category 4 - Computers*
- Category 5 - Telecommunications and Information Security
- *Category 6 - Lasers and Sensors*
- *Category 7 - Navigation and Avionics*
- Category 8 - Marine
- *Category 9 - Propulsion Systems, Space Vehicles and Related Equipment*



Imports – 2 Distinct Aspects

- Import Licensing

- The Department of State regulates temporary import of defense articles –
A DSP-61 license required or qualify for use of exemption § 123.4
- Permanent imports of defense articles are regulated by the Department of Justice's Bureau of Alcohol, Tobacco, Firearms and Explosives (22 CFR parts 447, 478, 479, and 555)
- Generally the Department of Commerce does not require import licenses for items on the CCL

- Import "Duty"



Closing

- The Department of State is the regulatory authority for defense articles and defense services.

<http://www.pmdtdc.state.gov/>

- The Department of Commerce is the regulatory authority for dual-use items. <http://www.bis.doc.gov/>

- The NASA Export Control Program is at

<http://www.hq.nasa.gov/office/oer/nasaecp/index.html>

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