



**U.S. Export Control Laws
and Regulations
NASA Export Control
Program Presentation to
NASA PI-Team Masters
Forum-2**

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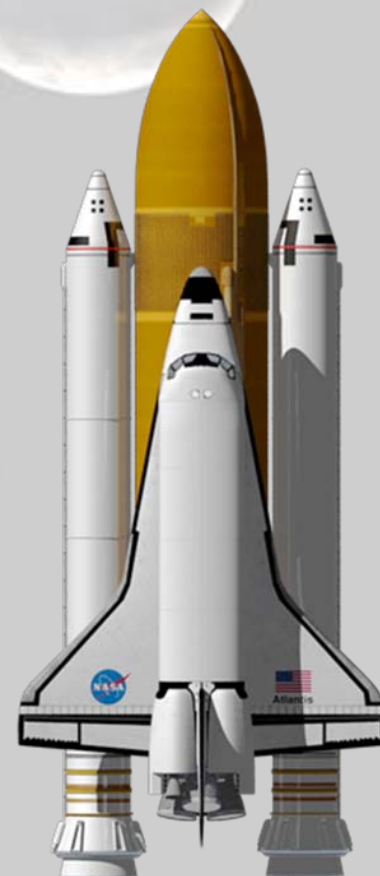
Key Export Control & Nonproliferation Principles

- 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. 106-391 – NASA Authorization Act of 2000



Main Reasons Certain Exports are "Controlled" by U.S. Law

- **National Security (NS)**
- **Foreign Policy (FP)**
- **Proliferation (MT, NP, CB)**





An Example...

- Daniel Sherman sentenced to 14 months in federal prison
 - He never intended to violate the export laws and he stated that he relied too much on others to assure the company (AGT) was in compliance
 - He cooperated with authorities
- Professor Roth was sentenced to 4 years in prison
 - He didn't believe he broke the law because research hadn't produced anything tangible and he only received about \$6K from the subcontract
 - Provided access to foreign graduate students in the U.S.
 - Had export-controlled data on his laptop when he traveled to China to give lecture
 - Had an export-controlled document e-mailed to himself via a Chinese nationals e-mail account





Getting Us On The Same Page

- An **export** is the transfer of anything to a “foreign person” or a foreign destination by any means, anywhere, anytime.
- A "**foreign person**" is anyone who is not a "US person."
- A “**US person**” is a citizen of the United States, a lawful permanent resident alien of the US (a "green card holder"), a refugee, protected political asylee or someone granted temporary residency under amnesty or Special Agricultural Worker provisions. The word "person" includes organizations and entities, such as universities.
- The general rule is that only US persons are eligible to receive controlled items, information or software without first obtaining an export license from the appropriate agency.





The NASA Export Control Program (ECP)

- The NASA ECP is an “internal,” agencywide program
- Originally published as a handbook in November 1995; now an approved NPR 2190.1
- Centralized Export Policy & Compliance in Single Office at NASA Headquarters
- Export Administrators and Counsel named at each Field Center - resident “experts” on export laws/regulations
 - Center Export Administrators & Center Export Counsels
- Assigns Export Responsibilities and Standardizes Agency Procedures



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)

Export control compliance is everyone’s job at NASA



The NASA ECP: Key Concepts in NPR 2190.1

- No exports of controlled items to any foreign entity under any NASA program unless the exporter is confident that such exports are in conformity with approved contracts or international agreements and U.S. export control laws and regulations
- NASA exports to foreign entities are only conducted in furtherance of NASA international agreements, [space act agreements](#), or contracts



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 a clause 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 International Traffic in Arms Regulations (ITAR) *

22 CFR 120-130

*Updated via Federal Register Notices

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



Regulations which control the export of goods and technical data on the **United States Munitions List (USML)** and certain items on the Missile Technology Control Regime (MTCR) Annex.

USML items are mainly “military” in nature, with a limited number of “dual-use” items.



The 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





ITAR Definitions

- **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 Space Shuttle, the JWST are Defense Articles, etc.)
 - The Department of State has the authority to designate items Defense Articles
- **Defense Service** - furnishing of assistance to foreign persons, whether in the U.S. or abroad in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles;
 - Providing technical data to foreign person...



ITAR Definitions

- **Technical Data** - information which is **required** for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of **defense articles**
 - **classified** information **related** to **defense articles**
 - **information covered** by an invention secrecy order
 - **software directly related to defense articles**
 - does not include information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the public domain.
 - does not include basic marketing information on function or purpose or general system descriptions of Defense Articles.



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 USG 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 DTC written exemption
 - 125.4(b)(13) – Publicly available data about defense articles
 - 125.5(c) – Plant visits
 - 126.4(a) – Exports by or for USG agency
 - 126.4(c) – Imports/Exports for use by USG agency abroad
 - 126.5 – Canadian Exemptions



ITAR Proscribed Countries

- **Proscribed Countries - 22 CFR 126.1** – It is the policy of the United States to deny licenses and other approvals for exports and imports of defense articles and services, destined for or originating in certain countries. ...
 - **ITAR License Exemptions** are trumped if a “**foreign person**” from any of these countries is involved; i.e., a license must be applied for.
 - Exemptions are a type of export or import license authority available in the ITAR that, generally, do not require prior approval from the Department of State
 - Exemptions have strict conditions for use and recordkeeping and reporting requirements



ITAR Proscribed Countries - 22 CFR 126.1

- **AFGHANISTAN (case by case)**
- **BELARUS**
- **BURMA**
- **CHINA (PRC)**
- **CONGO (case by case)**
- **CUBA**
- **CYPRUS**
- **ERITREA**
- ***FIJI**
- **GUINEA**
- **HAITI**
- **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, August 6, 2009, ITAR Handbook notes, 22CFR §126.1.



The Export Administration Regulations (EAR)

15 CFR 730-774

***Updated via Federal Register Notices**



<http://bis.doc.gov>

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*



The EAR in Civil Space

- **Commonly-used EAR License Exceptions**

- | | |
|-------------------------|------------------------------------|
| • NLR | No License Required |
| • GOV (15 CFR § 740.11) | Governments & International Org. |
| • GBS (15 CFR § 740.4) | Country Group B Shipments |
| • RPL (15 CFR § 740.10) | Servicing and Replacement |
| • LVS (15 CFR § 740.3) | Limited Value Shipments |
| • CIV (15 CFR § 740.5) | Civil End-Users |
| • APP (15 CFR § 740.7) | Computers |
| • TSU (15 CFR § 740.13) | Technology & Software Unrestricted |
| • TSR (15 CFR § 740.6) | Technology & Software Restricted |
| • TMP (15 CFR § 740.9) | Temporary Imports & Exports |
| • ENC (15 CFR § 740.17) | Encryption Commodities & Software |

CAUTION - *Only use an exception after reading all conditions & provisions and ensuring it applies to your particular situation*

- **Rule of Thumb for Controlled Exports**

- Unless a license exception exists for which the export qualifies, NASA seeks and obtains export licenses from BIS



Challenges and Last Thoughts

- Government partner signature on U.S. contractor TAAs
- Multi-lateral international cooperation with multiple U.S. entities supporting
 - JWST has over 140 TAAs and many DSP-5s
- Export-controlled data – Know what you have – Mark it before you share – Get it reviewed before you brief
- Reform of U.S. Export Control System
 - Secretary Gates Announcement
 - NASA Export Control Program