ECP – 2.1 CLASSIFICATION OF PROJECTS, ITEMS, SOFTWARE AND TECHNOLOGY SUBJECT TO EXPORT CONTROL LISTS

I. Purpose

The Smithsonian Institution (SI) accepts awards and other funded research that are subject to export controls. The Export Compliance Officer (ECO) works with Contract Specialists, Principal Investigators (PIs), Researchers, Scholars and Administrators to identify possible export control issues that need to be referred to the ECO for export compliance review.

"Items" on the export control lists -- U.S. Munitions List (USML) and Commerce Control List (CCL) relate not only to hardware, but also to associated subassemblies, parts, components, tooling, production equipment, materials, software and technology that are unique to that item. SI is responsible for obtaining proper authorization prior to the export of tangible or intangible export-controlled "items." To accomplish this, the item needs to be classified for export compliance implications.

The term "export" includes "deemed" exports, which is permitting access (under the International Traffic in Arms Regulations) to export controlled items and technology or the deliberate transfer (under the Export Administration Regulations) of export-controlled technology to a non-U.S. person in the U.S.

II. Procedure

See attached flowchart.

1. Training in Control Lists: The export of certain scientific items may require an export license for national security. The **SI ECO** trains responsible persons at Office of Sponsored Projects (OSP), Sponsored Programs and Procurement (SPP), units, research centers, including PIs, PMs, curators and registrars so that they are familiar with the items on export control lists that are most related to their research.

2. Summary List of Possible Items: The ECO summarizes a list of controlled items related to optics, detectors and space, which include adaptive optics, remote sensing and space-related items on the USML and CCL lists for SAO and NASM.

   Life Science research units receive a list of export-controlled items that are most likely to be used in life sciences called "Controlled items – Non Space." These are primarily items controlled under the CCL. Both lists are posted on the EC website.

   The government regulators require that U.S. Munitions List must be reviewed first, then the Commerce Control List. This is called "Order of Review" because USML controls exert authority over CCL controls. A project that can qualify under **Fundamental Research or public domain is** not subject to either the ITAR or EAR (See definitions). SAO participates in many NASA programs where the webinar and data is published. SAO teams must be cognizant when operating under Contractors' Non-Disclosure Agreements to protect their information from non-US persons if the technology is export controlled. Otherwise, research about controlled technology can be released when deemed to qualify as fundamental research through coordination with the **ECO**. The **ECO** determines if a license is required or if **SAO** can request permission from NASA regulators, or DOD

for qualification of information into the public domain. See **Technology Control Plan** document. Refer to "Order of Review" guidance on both Directorate of Defense Trade Controls (DDTC) and "Decision Tree Tool" Bureau of Industry and Security (BIS) websites. An initial determination is made by a qualified engineer or astronomer whether the information has been released or is of sufficient detail to be classified as export controlled.

3. Review of awards for certain clauses: Refer to Flow chart #1. **OSP** and **SPP** review awards for clauses that indicate an award is subject to export controls, or publication restrictions (which eliminate eligibility for fundamental research exemption), such as clauses that:
    - Cite compliance with export control regulations (ITAR and EAR) (FAR clauses) (Attachment 5 – sample export license clauses)
    - Restrict involvement of foreign nationals
    - Restrict the inclusion of Chinese companies
    - Require SI to secure Controlled Unclassified Information (CUI).
    - Require the PI to sign a Non-Disclosure Agreement.
    - Use or develop non "mass-market" encryption where source code is available
    - Purchase of sophisticated items that require technical data to make the item from a vendor who is located overseas or has personnel who are non U.S. persons who might need to review the specifications.

    or

    - PI has certified that the project is export controlled on the proposal cover sheet

4. Referral to the **ECO**: The **Contracts and Grants Officer** in **OSP** check each proposal for possible export compliance issues on their pre-proposal form. Contracts and Grants Specialists in SPP look for the clauses above and forward the designated code and/or Statement of work to the ECO. The ECO reviews the possible export control category and discusses the controls with the researcher or other qualified person. (The EAR permits information to be put in the public domain if it is published broadly in the scientific community, so for meetings and conferences, refer to section 734.8 – 11 of the EAR.)

5. Other referral sources to the ECO:
    - Notification about foreign travel and foreign collaborators by administrators.
    - Automated notices from the contracts database at SAO Peoplesoft of updates and modifications to awards to monitor new awards and modifications. The ECO scans such reports when they involve researchers who are most likely are responsible for activities that have the potential to be export-controlled.
    - Reports forwarded by administrators who administer visits by US interns, pre-doc, post docs, and visiting scientists from foreign countries.

- Administrators from Human Resources, Office of International Relations (OIR), Office of Fellows and Interns (OFI) of short-term and work visas. The ECO contacts the advisor to classify their research activity.
- Reports from OSP of research and PIs sorted by unit. The ECO contacts the PIs and the Export Compliance Coordinator to identify which researchers may be involved in topics related to an export controlled activity.

The results of the classification with the PI are documented on a classification form. (Attachment 4) The research may have several components that are classified under different jurisdictions or categories. The classification is then placed in a hierarchy to determine the highest level of control and the relative possibility of export activity. The ECO maintains a compiled list of projects and their classification.

6. The **Contracting Officer, registrar or person arranging the activity** who encounters a possible activity on a control list above completes the Project Export Compliance Checklist (Attachment 5). Per the instructions, the initiator contacts the **ECO**.

7. The **ECO** identifies export regulatory issues and researches the latest regulation. If the **ECO** determines that there is an export compliance regulatory issue, the **ECO** adds the project to the "Possible export-controlled projects" list and advises the initiator of any necessary actions.

8. Resulting Determination: The **ECO** determines whether the requestor can proceed with the activity, if an export license, or export license exemption or exception applies, or if the unit must cease the activity.

9. If an export license is required, the ECO requests the necessary information and documents from the unit. The **ECO** then follows the steps detailed in the Export License Procedure and advises the Unit of the status and when the license is approved. The persons involved in the project are advised to cease any future actions that involve foreign persons or exporting until the appropriate license authorization has been determined or obtained. If actions without a license have already occurred, the ECO interviews involved persons to gather all relevant facts to determine the proper corrective action and training needs, which may involve a voluntary self-disclosure (as outlined in § 127 of the ITAR and § 764.5 of the EAR). .

10. If the activity is a proposal, grant or award, the **ECO** has the option to ask the PeopleSoft administrator to apply the attribute in PeopleSoft as "ITAR", "EAR" or "FAC". If the project is not in PeopleSoft, then the **Contracting Specialist** determines another method to flag the program as controlled.

    - The **ECO** determines if an export license is required or export license exemption/exception can be applied to the transaction and follows the instruction specified in the Export License Procedure.

See Attachment 2 about how to apply for Commodity Jurisdiction from the DDTC or Product Classification from BIS.

III. Reference

- SD 611 – Export Compliance and Trade Sanctions Related to Research, Export and Museum Activities
- Exports from the U.S. are controlled for national security, foreign policy, crime control, human rights and non-proliferation reasons. SI must comply with four key regulations when exporting items:

- The commercial regulations called the Export Administration Regulations
- The regulations dealing with embargoed countries, called the Foreign Asset Control Regulations
- The military regulations, called the International Trafficking in Arms Regulations
- The export clearance regulations, called the Foreign Trade Regulations
- When exporting or importing, certain transport regulations related to dangerous goods must also be considered.

The regulations can be found at the links below:

Export Administration Regulations (15 CFR Part 730-770)
Commerce Control List (Part 774 of the EAR)
International Traffic in Arms Regulations (22 CFR Parts 120 – 130)
US Munitions List (Part 121 of the ITAR)
Dangerous Goods List (Transportation Regulations)
State Department Travel Advisory
Foreign Trade Regulations (15 CFR Part 30)

- **Responsibility**

The process of determining the applicability of export controls on a program or activity can be a technically detailed, complex and multi-step process. All **Units** and **Contracting Officers** need to be or identify gatekeepers who are responsible for recognizing export control risks to ensure that no export prohibitions are violated.

Secondly, for programs that involve scientific research and/or exports of items, SI must follow a formal process for identifying export-controlled items (hardware, materials, software, technology and technical assistance) in advance of the transfer to foreign persons that appear on the Commerce Control List (Part 774 of the EAR) or the U.S. Munitions List (Part 121 of the ITAR).

The **ECO** has formed a **Classification Committee** of several persons who are familiar with the activities of scientists at the research centers, have a technical or engineering background, and/or are qualified in the export control lists and the export license requirements. This **Classification Committee** interviews, investigates and classifies the related items, software, and technologies.

A conference and travel committee is available to review abstracts for papers to be delivered at scientific conferences and meetings.

Classification Committee
Engineer/Scientist
Export Compliance Officer (ECO)
Office of Sponsored Projects (OSP) or other persons who are both technical and familiar with SI or SAO project

Units Responsible for Flagging International Projects
Director of the Office of International Relations (OIR)
Office of Sponsored Projects (OSP)
Office of Contracting and Personal Property Officer (OCON & PPM)
SI Units
SI Research Centers
Smithsonian Enterprises (SE)
Principal Investigators (PI)
Program Manager (PM)
Museum Registrars

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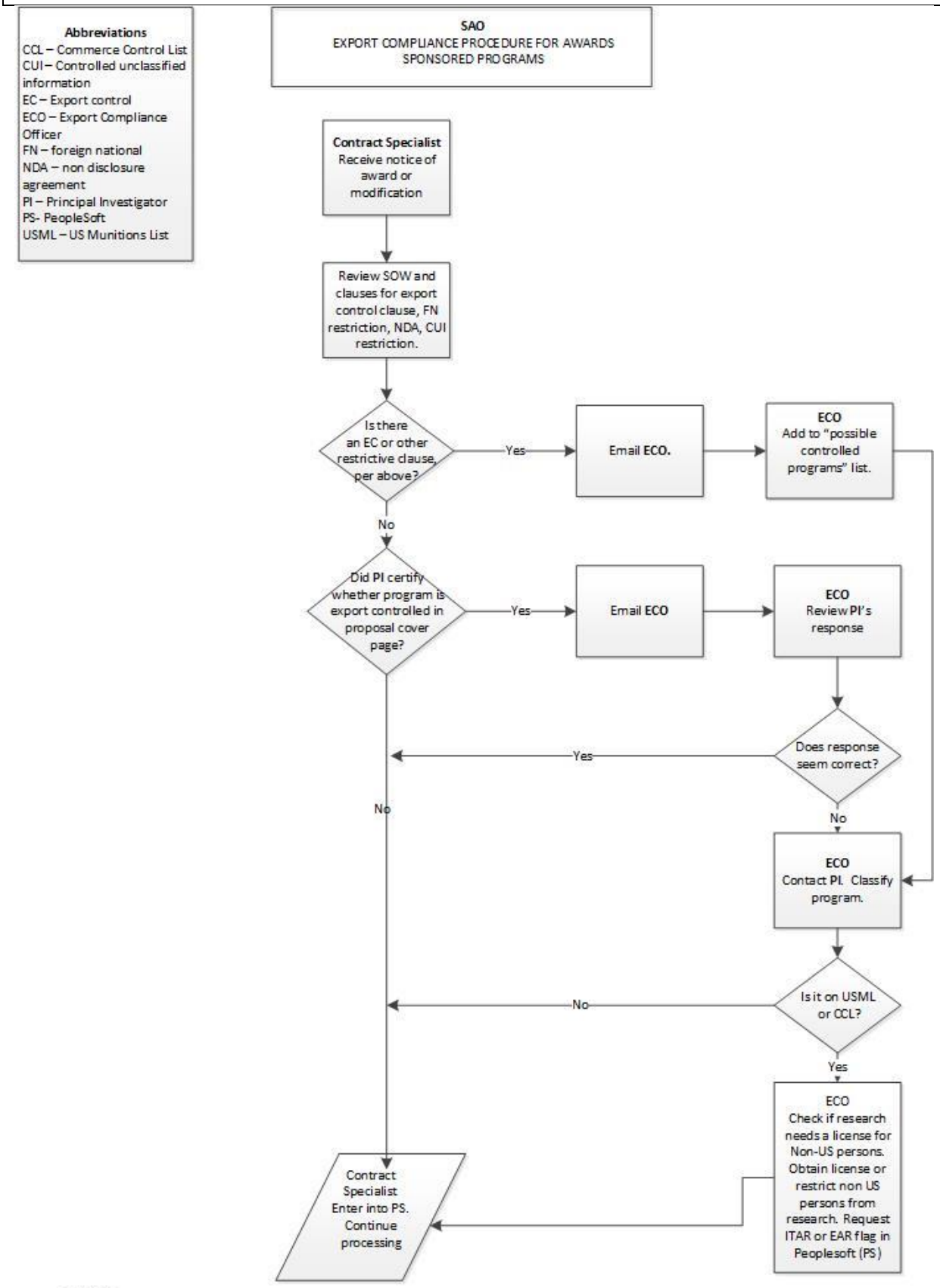

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ATTACHMENT 1. PROSCRIBED COUNTRIES UNDER THE ITAR

For U.S. Munitions List items, the ITAR prohibits the export of items or technology to a longer list of countries with which sales are prohibited, either with an export license or under an exemption. It includes the countries lists above as well as China, Belarus, Venezuela and others. See the list on the DDTC website. Proscribed Countries

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ATTACHMENT 2: WORK INSTRUCTION - CLASSIFCATION OF ITEMS ON THE US MUNITIONS LIST

AND THE COMMERCE CONTROL LIST

In the US Munitions List

Order of Review

1 First, SI Units – PIs and PMs and ECO must first review the US. Munitions List (USML) to rule out if the item is controlled as a defense article. There are military 22 categories organized under the groupings of the platform, subassemblies, software and technology. Our activities most likely fall under aircraft, space systems, marine and fire controls (infrared).

Many of the parts and components of ITAR controlled items have been moved over to the Commerce Control List new 600 and 500 (satellites) numbering series as of Oct 15, 2013. (500 series related to satellites is still in proposed form and is not yet effective) If your item isn't specifically called out but it is specially designed with performance characteristics to exceed the performance listed in the USML, it is controlled. These are still restricted from anyone from or export to countries listed in 126.1 of the ITAR, which includes China.

Category XI – Military Electronics

Category VIII Avionics

Category IV – Guided Missiles

Category XII – Optical Guidance

Category XV

Order of Review – CCL

Alphabetical Index

For Space and astrophysical projects, the most common ECCNs will be

Category 3, especially 3A001 – Electronic components

Category 5 - 5A001 – Telecommunication equipment

Category 6 – optical equipment, cameras, lasers and sensors

Category 7 – Avionics

Some specific examples of controlled items that may apply to your activities could be:

- Most space-related technology due to application to missile technology, like spacecraft and space-qualified equipment, satellites, telemetry, tracking, adaptive optics, space-qualified optics and mirrors, propulsion technology and radar
- Sophisticated infrared technologies used in high speed cameras, goggles, detectors, spectrometers, lasers, and sensors
- Chemical and biological items that can be used in a weapon; nerve agents, pathogens and specialized laboratory equipment
- Non-corrosive materials (e.g., kynar, teflon, titanium) and equipment made of these materials like reactor vessels, pumps and valves
- Certain underwater acoustic measuring equipment and other marine items
- Software with 'strong" encryption that encrypts the data (above 56 bits that is not mass market)
- Super computers
- Fingerprinting and interception/monitoring equipment
- Kevlar vests, night sights, scopes, antique firearms
- Militarized aircraft and personal protective equipment like space suits and helmets

ATTACHMENT 3 – SAMPLE EXPORT LICENSE CLAUSES

3. Review of contracts for export compliance clauses.

PIs and the **employees of the Office of Sponsored Projects** review pre awards and approved awards to identify restrictive export clauses. The clauses are coded in Peoplesoft. These include

Identifier	Clause
Subcontract Article 11.	(a) Seller represents and warrants that no technical data furnished to It by Buyer or developed by Seller directly from such data during performance of the work under this order will be disclosed to any foreign national, firm, or country, including foreign nationals employed by 0)" associated with the United States, without first complying with the licensing. approval, and all other requirements of the U.S. export control laws, regulations, an directives, Including but not limited to the Arms Export Control Act (22 USC 2778), International Traffic In Arms Regulation (22 CFR, Part 120-130), Export Administration Act (50 USC 2401-2410 as amended), Export Administration Regulations (15CFR part 730-799). DoD Directive 5230.25 Withholding of Unclassified Technical Data From Public Disclosure. (b) Seller will obtain the written consent of Buyer prior to submitting any request for authority to export any such technical data. (c) Seller will indemnify and hold harmless Buyer for all claims, demands, damages, costs, fines, penalties. attorneys' fees, and all other expenses arising from failure of Seller to comply with Ills
ARTICLE-12. COMPLIANCE WITH INTERNATIONAL TRAFFIC IN ARMS REGULATIONS. (ITAR)	A. Contractor agrees to comply with all applicable U.S. export control laws and regulations, specifically including the requirements of the International Traffic in Arms Regulation (ITAR), 22 CFR 120 et seq. B. Contractor agrees that except as allowed under applicable U.S. laws and regulations, no export controlled item, data or services furnished to it hereunder will be disclosed to any foreign person, firm or country including foreign persons employed by or associated with or under contract with Contractor. C. Contractor shall first notify and obtain the written consent of APL prior to submitting any request for authority to export any technical data or services furnished to it hereunder. D. If export controlled equipment, data or services are furnished to Contractor hereunder, Contractor agrees to maintain an export compliance plan and take measures to ensure that no technical data is disclosed and no defense services or equipment are furnished to foreign persons except as authorized Sponsored Programs personnel then reviews the program with the PI to determine if there are anticipated collaboration with foreign persons, or use n our labs, purchase, or export of controlled hardware to foreign locations.
Contract Article 21 – Export Control	The disclosing party agrees to share any export control determinations when products, services, and/or technical data under this Agreement are

	subject to export controls under U.S. Government export laws and regulations; however, each party will be solely responsible for compliance with U.S. Government export laws and regulations.
Contract Article 34: Export Compliance:	The Sub recipient shall comply with all laws, regulations, orders, or other restrictions of the US export regulations. Sub recipient agrees that it will provide the export control classification associated with the commodity being purchased, to the extent that this item is controlled either under the Export Administration Regulations (EAR) or the International Traffic in Arms Regulations (ITAR). For EAR-controlled items, the correct ECCN classification based on the Commerce Control List will be provided. For ITAR items, the correct USML Category will be provided.
Title 48: Federal Acquisition Regulations System PART 1852—SOLICITATION PROVISIONS AND CONTRACT CLAUSES Subpart 1852.2—Texts of Provisions and Clause 1852.225-70 Export Licenses. As prescribed in 1825.1103–70(b), insert the following clause: Export Licenses (FEB 2000)	(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120–130, and the Export Administration Regulations (EAR), 15 CFR Parts 730–799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance. (b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at [insert name of NASA installation], where the foreign person will have access to export-controlled technical data or software.
NSF AA, CP-VI, G,3cc.	Financial & Administrative Terms and Conditions (CA-FATC) The grantee also should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.
NSF Grants Policy Manual, Chapter VII - Other Grant Requirements Article, 763 Projects in a Foreign Country Item 3. Projects in a Foreign Country	a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the grantee should obtain any required permits prior to undertaking the proposed activities. b. The grantee must comply with the laws and regulations of any foreign country in which research is to be conducted. Areas of potential concern include: (1) requirements for advance approval to conduct research or surveys; (2) special arrangements for the participation of foreign scientists and engineers; and (3) special visas for persons engaged in research or studies. NSF does not assume responsibility for grantee compliance with the laws and regulations of the country in which the work is to be conducted. NSF PROPOSAL AWARD POLICIES & PROCEDURES GUIDE (PAPP) - AAG -

	Chapter IV, Other Post Award Requirements and Considerations G. 3a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the grantee should obtain any required permits prior to undertaking the proposed activities. b. The grantee must comply with the laws and regulations of any foreign country in which research is to be conducted. Areas of potential concern include: (1) requirements for advance approval to conduct research or surveys; (2) special arrangements for the participation of foreign scientists and engineers; and (3) special visas for persons engaged in research or studies. NSF does not assume responsibility for grantee compliance with the laws and regulations of the country in which the work is to be conducted. c. The grantee also should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.
20.28 Government Permits and Activities Abroad (CA-FATC 43)	a. For awards that include activities requiring permits from appropriate Federal, state, or local 20.28 Government Permits and Activities Abroad (CA-FATC 43) Agreement #VAO_2010_3_(1) Page 30 of 46 a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the awardee should obtain any required permits prior to undertaking the proposed activities. b. The awardee must comply with the laws and regulations of any foreign country in which research is to be conducted. Areas of potential concern include: (1) requirements for advance approval to conduct research or surveys; (2) special arrangements for the participation of foreign scientists and engineers; and (3) special visas for persons engaged in research or studies. NSF does not assume responsibility for awardee compliance with the laws and regulations of the country in which the work is to be conducted. c. The awardee also should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.

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Attachment 4 SAO – EXPORT COMPLIANCE - Project Classification Form

PROGRAM NAME
DESIGNATED CODE/
CONTRACT NO.
ACTIVITY TYPE
SPONSOR: PI

SOW

ITEM TO BE CLASSIFIED - HARDWARE, SOFTWARE OR TECHNOLOGY?

ITEM(S) EVALUATED:

IS THIS PROGRAM UNDER THE ITAR JURISDICTION FOR MILITARY OR SPACE APPLICATIONS?
Yes No

ITAR REVIEW	Y N
Category XV — Spacecraft Systems and Associated Equipment *(a) Spacecraft, including communications satellites, remote sensing satellites, scientific satellites, research satellites, navigation satellites, experimental and multi-mission satellites. NOTE TO PARAGRAPH (a): Commercial communications satellites, scientific satellites, research satellites and experimental satellites are designated as SME only when the equipment is intended for use by the armed forces of any foreign country.	
(d) Radiation-hardened microelectronic circuits that meet or exceed all five of the following characteristics: (1) A total dose of 5×10^5 Rads (Si); (2) A dose rate upset threshold of 5×10^8 Rads (Si)/sec; (3) A neutron dose of 1×10^{14} n/cm^2 (1 MeV equivalent); (4) A single event upset rate of 1×10^{-10} errors/bit-day or less, for the CREME96 geosynchronous orbit, Solar Minimum Environment; (5) Single event latch-up free and having a dose rate latch-up threshold of 5×10^8 Rads (Si).	

ATTACHMENT 5: SI CHECKLIST FOR EXPORT CONTROL

SI Checklist for Export Control
For Sponsored Projects and International Activities

Principle Investigator **Division/Unit**

Contract Specialist Administrator

Project Title

Project Sponsor

Trip Information

Trip Dates

Purpose of Trip
Include a description of the activity, including the persons you will be interacting with, their affiliation, and a Statement of Work.