

Detailed Guide to Export Compliance

Regulatory Compliance

Table of Contents

Contents

Introduction to Export Control Compliance.....	4
Penalties for Export Violations.....	4
Deemed Exports.....	5
Export Control Roles and Responsibilities.....	5
Office of Research Compliance (ORC).....	5
Principal Investigators (PI) and Directors.....	6
NAU Employees.....	6
Technology Control Plan.....	7
Training.....	7
Export Compliance in Universities.....	7
International Traffic in Arms Regulations (ITAR).....	8
Items Controlled Under the ITAR.....	8
The United States Munitions List (USML).....	9
Classification.....	10
Definition of Export in the ITAR.....	10
Authorization to Export.....	10
Embargoed Countries in the ITAR.....	11
Export Administration Regulations (EAR).....	11
Items Controlled Under the EAR.....	11
Commerce Control List Categories.....	12
Classification.....	12
Definition of Export in the EAR.....	12
Authorization to Export.....	13
Working with Foreign Collaborators.....	15
Sanctioned Countries.....	15

Restricted Parties Screening.....	15
Anti-Boycott Restrictions	15
Reporting.....	16
Red Flags	16
Fundamental Research	17
University based research.....	17
Publicly Available.....	19
Educational Information	20
Full-Time University Employee Exemption	20

Introduction to Export Control Compliance

NAU strongly endorses the principles of freedom of inquiry and open exchange of knowledge. NAU also recognizes and respects its obligation under US law to compliance with the U.S. export control regulations. The export of certain technologies, software and hardware is regulated and controlled by Federal law for reasons of national security, foreign policy, prevention of the spread of weapons of mass destruction and for competitive trade reasons. NAU and all its employees are required to comply with the laws and implementing regulations issued by the Department of State, through its International Traffic in Arms Regulations (ITAR), the Department of Commerce, through its Export Administration Regulations (EAR) and the Department of the Treasury, through its Office of Foreign Asset Controls (OFAC).

While most research conducted on U.S. college and university campuses is excluded from these regulations under the Fundamental Research Exclusion, university research involving specified technologies controlled under the EAR and/or ITAR, or transactions and exchanges with designated countries, individuals and entities may require NAU to obtain prior approval from the appropriate agency before allowing foreign nationals to participate in controlled research, collaborate with a foreign company and/or share research, verbally or in writing, with persons who are not United States citizens or permanent residents. The consequences of violating these regulations can be quite severe, ranging from loss of research contracts and exporting privileges to monetary penalties and jail time for the individual violating these regulations. Institutional consequences may range from fines, to revocation of institutional export privileges, to institutional debarment from receipt of federal research funds, which would shut down a majority of NAU's research grants and contracts.

The export control regulations affect not only research conducted on campus, but also travel and shipping items outside the U.S. Simply traveling to certain sanctioned countries could require a license from OFAC. OFAC sanctions prohibit transactions and exchange of goods and services in certain countries and with designated persons and entities. Multiple lists of denied individuals and parties are maintained and enforced by federal agencies including the Departments of State, Commerce, and Treasury. Shipping items outside the U.S. as well as taking controlled items on a flight, even if shipping or traveling in the conduct of research, could require a license from these agencies.

Penalties for Export Violations

Generally, any person or entity that exports, or attempts to export a controlled item without prior authorization, or in violation of the terms of an export license, is subject to both criminal and civil penalties. In general, Department of Commerce and Department of State can identify multiple violations in an improper export transaction, which can result in hundreds of thousands or even millions of dollars of penalties. Criminal penalties are usually reserved for entities that willfully violate the regulations, meaning that the entity knew that an export should not occur, but completed the export willfully violating the regulation. This circumstance usually occurs for profit-driven motives, but also has occurred

at a University with Dr. John Roth who willfully exported technology to the People's Republic of China (PRC) and was prosecuted for violating the Arms Export Control Act (AECA) and is currently serving a four year prison sentence.

Deemed Exports

While exports are commonly associated with the shipment of a tangible item across the U.S. border, export controls have a much broader application. One of the most difficult issues with respect to export controls, particularly at a university, is the fact that an export is defined to include the transfer of controlled information or services to foreign nationals even when the transfer takes place within the territory of the United States. Though taking place inside the U.S., the transfer is “deemed” to be an export (as if exporting to the country of the foreign national). Both the ITAR and the EAR provide for deemed exports, even though in the case of defense exports the regulations generally speak of exports. While the ITAR distinguishes between the transfer of technical data and defense services, the EAR generally provides for the release of technology. Such transfer or release may be made through oral, visual, or other means. Examples include: a demonstration; oral briefing; telephone call or message; laboratory visit; presenting at conferences and meetings; faxes or letters; hand-carried documents, hardware or drawings; design reviews; the exchange of electronic communication; posting non-public data on the Internet or the Intranet; collaborating with other universities / research centers through controlled research efforts.

The issue of deemed exports is particularly relevant to university research because of the activities that normally take place at a university. While a university may be involved in the shipment abroad of equipment or machinery to participate in a conference, a joint project, or equipment loan programs, most often faculty and students are engaged in teaching and research. Whenever teaching or research are related to controlled equipment or technology, foreign students' or researchers' involvement may trigger export control compliance issues.

Export Control Roles and Responsibilities

Office of Research Compliance (ORC)

The ORC has the requisite knowledge and experience to support any and all export transactions for export controlled products and technology. Any export of export controlled technology or suspected export controlled technology must be arranged through the ORC in order to acquire the necessary export licenses or apply the available exemptions that may be applicable.

If there is ever any doubt or open questions concerning the export of technology or products, then the ORC is available for consultation and should be incorporated early on in any export process, including the involvement of foreign students and faculty in research projects.

Principal Investigators (PI) and Directors

PIs and Directors are the primary points of contact for the ORC as the PIs and Directors are responsible for staffing decisions on research and work projects. If projects involve export controlled technology and/or export controlled equipment, the ORC will work to determine export control requirements, which may include the development of a Technology Control Plan (TCP). Again, if there is any doubt about whether technology or research is export controlled, then the ORC and the EO should be contacted for consultation.

PIs have expert knowledge of the type of information and technology involved in a research project or other university activity, such as presenting at conferences, and discussing research findings in class with fellow researchers or collaborators. PIs must ensure that they do not disclose controlled information or transfer controlled articles or services to a foreign national without prior authorization as required. To meet his or her obligations, each PI:

1. must understand his or her obligations under export controls, and participate in regular trainings to help him or her identify export control issues
2. must assist the ORC to classify the technology involved in the research or other university activity
3. identify foreign nationals that may be involved and, if export control is likely, initiate the process of clearing foreign national participation well in advance to ensure that a license is obtained in a timely manner, or implement proper measures to isolate foreign nationals from participation
4. must refrain from beginning work on an export controlled project until NAU has signed the award agreement and all appropriate controls are in place
5. must, if undertaking an export controlled project, inform the students and other researchers involved in the project of their obligations under export controls
6. co-operate with the ORC in developing the TCP of which the PI has the responsibility to follow and implement.

NAU Employees

If a project involves export controlled technology and/or export controlled equipment, all NAU employees shall notify their supervisor or NAU's EO if previously unapproved foreign nationals have unauthorized access to the export controlled technology or product. This can be as simple as a foreign student that is part of a tour and inadvertently is given access to controlled laboratories.

Technology Control Plan

If the ORC determines that a project is export controlled, the ORC will work with the PI to develop and implement a Technology Control Plan (TCP) to secure the controlled technology from access by unlicensed non-U.S. citizens.

Training

Training is the foundation of a successful export compliance program. Well-informed employees minimize the likelihood that inadvertent violations of the law will occur. The greatest risk of non-compliance of export laws and regulations occurs during casual conversations in person, on the telephone, or via e-mail. The way to prevent these types of violations is through awareness and training.

The ORC will prepare updated training materials and will ensure that employees or students engaged in an export controlled project receive the appropriate instruction. General export control information and training is also available via CITI.

In order to maintain NAU's export compliance program and ensure consistent adherence to U.S. export laws, the ORC may conduct internal reviews of TCPs and certain projects. The purpose of the reviews is to identify possible violations and to identify deficiencies in training, procedures, etc., that can be rectified.

It is the policy of NAU to voluntarily self-disclose violations as required. Since September 11, 2001, government agencies have dramatically increased the investigation in and successful prosecution of export regulation violations. The penalties for these violations can be very severe, including personal liability, monetary fines, and imprisonment. Institutional penalties may include fines and debarment. However, government agencies assign great weight to voluntary self-disclosures as a mitigating factor.

Any individual who suspects a violation has occurred must immediately notify the Empowered Official in the ORC. The ORC will then determine if a violation occurred and follow EAR and ITAR specific regulatory procedures^{xviii}.

Export Compliance in Universities

Three principal agencies regulate exports from the United States: the U.S. Department of State Directorate of Defense Trade Controls (DDTC) administers export control under the International Traffic in Arms Regulations (ITAR); the U.S. Department of Commerce (DoC) Bureau of Industry and Security (BIS) administers export control of "dual-use" technology under the Export Administration Regulations (EAR); and the U.S. Department of the Treasury Office of Foreign Assets Control (OFAC) administers exports to embargoed countries and specially designated entities.

U.S. national security and economic interests are heavily dependent on technological innovation and

advantage. Many of the nation's leading-edge technologies, including defense-related technologies, are being invented by U.S. and foreign national students and scholars in U.S. university research and university-affiliated laboratories. U.S. policymakers recognize that foreign students and researchers have made substantial contributions to U.S. research efforts, but the potential transfer of controlled defense or dual-use technologies to their home countries could have significant consequences for U.S. national interests. The U.S. export control agencies place the onus on universities to understand and comply with the regulations.

Export controls present unique challenges to universities because they require balancing concerns about national security and U.S. economic vitality with traditional concepts of unrestricted academic freedom, publication, and dissemination of research findings and results.

University researchers and administrators need to be aware that these laws may apply to any research, whether sponsored or not. However, it also is important to understand the extent to which the regulations do not affect normal university activities.

International Traffic in Arms Regulations (ITAR)

Under the International Traffic in Arms Regulations (ITAR)¹, the Department of State (DoS) Directorate of Defense Trade Controls (DDTC) administers the export and re-export of defense articles, defense services and related technical data from the United States to any foreign destination, or to any foreign person, whether located in the United States or abroad. Section 121.1 of the ITAR contains the United States Munitions List (USML) and includes the commodities and related technical data and defense services controlled for export purposes. The ITAR controls not only end items, such as radar and communications systems, military encryption and associated equipment, but also the parts and components that are incorporated into the end item. Certain non-military items, such as commercial satellites and certain chemical precursors, toxins, and biological agents, are also controlled.

Items Controlled Under the ITAR

The ITAR uses three different terms to designate export controlled items – technical data, defense articles and defense services.

Technical Data²

Means information, other than software, 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 blueprints, drawings, photographs, plans, instructions or documentation. Classified information relating to defense articles and defense services; Information covered by an invention secrecy order; Software that includes but is not limited to the system functional

¹ http://www.pmddtc.state.gov/regulations_laws/itar.html

² 22 C.F.R. § 120.10.

design, logic flow, algorithms, application programs, operating systems and support software for design, implementation, test, operation, diagnosis and repair. This definition 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 by the ITAR. It also does not include basic marketing information on function or purpose or general system descriptions of defense articles.

Defense Articleⁱⁱⁱ

Means any item or technical data designated in the United States Munition List (USML). This term includes technical data recorded or stored in any physical form, models, mockups or other items that reveal technical data.

Defense Service^{iv}

Means providing assistance, including training, to a foreign person in the United States or abroad in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles; providing to foreign persons any ITAR controlled technical data in the United States or abroad; military training of foreign units and forces, regular and irregular, including formal or informal instruction of foreign persons in the United States or abroad or by correspondence courses, technical, educational, or information publications and media of all kinds, training aid, orientation, training exercise, and military advice.

The United States Munitions List (USML)

The USML designates particular categories and types of equipment as defense articles and associated technical data and defense services. The USML divides defense items into 21 categories, listed below. An electronic version of the USML is available on the Department of State website at: http://www.pmddtc.state.gov/regulations_laws/documents/official_itar/2013/ITAR_Part_121.pdf

Category I: Firearms, Close Assault Weapons and Combat

Shotguns Category II: Guns and Armament

Category III: Ammunition/Ordnance

Category IV: Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs and

Mines Category V: Explosives and Energetic Materials, Propellants, Incendiary Agents, and their

Constituents Category VI: Vessels of War and Special Naval Equipment

Category VII: Tanks and Military Vehicles

Category VIII: Aircraft and Associated

Equipment

Category IX: Military Training Equipment and Training

Category X: Protective Personnel Equipment and

Shelters Category XI: Military Electronics

Category XII: Fire Control, Range Finder, Optical and Guidance and Control

Equipment Category XIII: Auxiliary Military Equipment
Category XIV: Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment
Equipment Category XV: Spacecraft Systems and Associated Equipment
Category XVI: Nuclear Weapons, Design and Testing Related Items
Category XVII: Classified Articles, Technical Data and Defense Services Not Otherwise Enumerated
Category XVIII: Directed Energy Weapons
Category XIX: Reserved
Category XX: Submersible Vessels, Oceanographic and Associated Equipment
Equipment Category XXI: Miscellaneous Articles

Classification

DDTC has jurisdiction over deciding whether an item is ITAR or Export Administration Regulation (EAR) controlled. If doubt exists as to whether an article or service is covered by the USML, upon written request in the form of a Commodity Jurisdiction (CJ) request, DDTC will provide their determination as to whether a particular article is a defense article subject to the ITAR, or a dual-use item subject to the Department of Commerce EAR. Determinations are based on the origin of the technology (i.e., as a civil or military article), and whether it is predominantly used in civil or military applications. NAU employees should contact the Office of Research Compliance (ORC) in order to classify any item. If NAU needs to obtain a CJ determination, the ORC will file the CJ request with DDTC.

Definition of Export in the ITAR

The ITAR defines the term “export” broadly. The term applies not only to exports of tangible items from the U.S., but also to transfers of intangibles, such as technology or information. The ITAR defines export as 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 transferring registration, control or ownership to a foreign person of any aircraft, vessel, or satellite covers by the USML whether in the U.S. or abroad; or disclosing (including oral or visual disclosure) or transferring in the U.S. any defense article to an embassy, any agency or subdivision of a foreign government (e.g. diplomatic missions); or disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the U.S. or abroad; or performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the U.S. or abroad^v.

Authorization to Export

NAU is registered with the Department of State DDTC and may apply for an export license for the export of defense articles, technical data; or defense services. The Office of Research Compliance (ORC) submits license applications on behalf of NAU and must be used for all export purposes of ITAR and/or EAR controlled items and/or data.

NAU Principal Investigators (PI) and researchers are usually engaged only in the creation of unclassified technical data, or engaged only in the fabrication of articles for experimental or scientific purpose, including research and development. Therefore, NAU is not usually required to apply for licenses, except

if the university desires to involve foreign nationals in ITAR-controlled research. If foreign nationals are involved, then a license request must be submitted or an exemption (such as the Fundamental Research Exemption (FRE) must be utilized.

Embargoed Countries in the ITAR

Section 126.1 of the ITAR explains that it is the policy of the U.S. to deny licenses and other approvals for exports and imports of defense articles and defense services destined for or originating in certain countries, specifically Belarus, Cuba, Eritrea, Iran, North Korea, Syria, and Venezuela. This policy also applies to countries with a U.S. arms embargo such as Burma (Myanmar), China, and the Republic of Sudan or whenever an export would not otherwise be in furtherance of world peace and the security and foreign policy of the U.S. This policy does change depending on world events and countries can be added and taken off permanently or even for specific exports. For example, in April 2014, the U.S. Treasury approved Boeing to send ITAR/EAR controlled aircraft parts to Iran even though an embargo generally prohibits such exports. For the most current list of embargoed countries go to:

http://www.pmddtc.state.gov/regulations_laws/documents/official_itar/2013/ITAR_Part_126.pdf

Export Administration Regulations (EAR)

The Department of Commerce (DoC) Bureau of Industry and Security (BIS) regulates the export of commercial products and technology, sometimes referred to as “dual use,” under the Export Administration Regulations (EAR). While there are some similarities between the ITAR and EAR, the EAR has a greater degree of specificity and controls a majority of products and technology developed in the U.S. while the ITAR predominantly focuses on military and space related goods and technology. An updated version of the EAR can be found at: <https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>

Items Controlled Under the EAR

In general, all items of U.S. origin, or physically located in the U.S., are subject to the EAR. Foreign manufactured goods are generally exempt from the EAR re-export requirements as long they contain less than the *de minimis* level of U.S. content by value. For example, for embargoed countries the *de minimis* level is usually 10%, while it is 25% to most other countries, depending on the export.

As previously stated, the EAR controls a majority of commercial items that have the potential for “dual use,” meaning both commercial and military, or otherwise are of strategic value to the U.S. That said, most items are controlled under a basket designation called EAR99 and only a subset are specifically controlled under the Commerce Control List (CCL). Items not listed on the CCL and pre-determined to not falling under the ITAR are designated as EAR99 and can generally be exported without a license, unless the export is to an embargoed country, or to a prohibited person or end-use. If the items are listed in the CCL, then the item will be assigned an Export Control Classification Number (ECCN), which will detail the export controls of that item. The CCL is initially split into the following broad groups to classify goods and technology and then further divided into specific categories:

- **Commodities:** Finished or unfinished goods ranging from high-end microprocessors to airplanes to ball bearings.
- **Manufacturing Equipment:** This includes equipment specifically for manufacturing or testing controlled commodities, as well as certain generic machines, such as computer numerically controlled (CNC) manufacturing and test equipment.
- **Materials:** This includes certain alloys and chemical compounds.
- **Software:** This includes software specifically associated with particular commodities or manufacturing equipment, as well as any software containing encryption and the applicable source code.
- **Technology:** This includes both technical data and services.

Commerce Control List Categories

Category 0: Nuclear Materials, Facilities & Equipment & Miscellaneous Items

Category 1: Materials, Chemicals, Micro-organisms & Toxins

Category 2: Materials Processing

Category 3: Electronics Design, Development, and Production

Category 4: Computers

Category 5 (Part 1): Telecommunications

Category 5 (Part 2): Information Security

Category 6: Sensors and Lasers

Category 7: Navigations and Avionics

Category 8: Marine

Category 9: Aerospace, Propulsion Systems, Space Vehicles and Related Equipment

Classification

The first step in classifying items under the EAR is to make the determination that the item does not fall under the ITAR. The ITAR has primacy in terms of classifying good and technologies and this determination will need to be made prior to researching the applicable Export Control Classification Number (ECCN) for the good or technology. There are two methods for classifying an item or technology under the EAR and they are self-classification or a commodity classification request. The latter is an official request to Department of Commerce BIS, which can be useful if official documentation is required or there is not a specific ECCN that is applicable. This process can be time consuming (30-60 days) and it is preferable to self-classify, which can be accomplished by working with the Office of Research Compliance (ORC).

Definition of Export in the EAR

Export under the EAR is defined as the actual shipment or transmission of items out of the U.S. The EAR is similar to the ITAR in that it covers intangible exports of technology, including source code as well as physical export. The EAR also covers deemed exports, which is the release of technology to a foreign national in the United States. Deemed exports are considered the same as physically exporting the technology to the specific country and is a challenge for universities given the diverse international

background of the student body and faculty. The EAR goes into additional detail by defining a deemed re-export, which is the release of technology by a foreign national who has not been licensed to receive the technology. For example, technology may be exported to a university in Britain under a license exception, but would be considered a deemed re-export if the technology was released to a foreign student from Iran that was a student at the British university.

Authorization to Export

If there is ever any doubt about whether an export license is required, then the ORC should be consulted. Once determined that a license is required, then the ORC can apply for an export license from Department of Commerce BIS. The EAR also contains a number of exceptions, but these again should not be utilized without first obtaining approval from the ORC given that the use of exceptions are complex and require significant review and record keeping prior to using. If an item or technology falls under an ECCN, the applicable exceptions are listed. The ECCN will also contain the reasons for control, which will determine whether a license is required for a specific country, end user, and/or end use. The following is a short example of the export process following the identification of an ECCN. For example, if software was developed that is controlled under 3D991, the following process would be used to determine authorization for export.

1. **Determine the Reason for Controls:** The “License Requirements” section provides notations as to the reasons for controls. Although there are multiple reasons for control, detailed below, the most common and least restrictive is Anti-Terrorism (AT). For 3D991, the reason for control is AT Column 1 and AT applies to the entire entry:

AT:	Anti-Terrorism	CB:	Chemical & Biological Weapons
CC:	Crime Control	CW:	Chemical Weapons Convention
EI:	Encryption Items	FC:	Firearms Convention
MT:	Missile Technology	NS:	National Security
NP:	Nuclear Proliferation	RS:	Regional Security
SS:	Short Supply	XP:	Computers

2. **Commerce Country Charts:** After the reasons for control have been identified, the next step is to refer to the Commerce Country Chart, which can be found in Section 738, Supplement 1 of the EAR or at the following website: <https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>. As the following chart illustrates, if an export was required for controlled software under 3D991 it could be shipped as No License Required (NLR) to Egypt since an X in the relevant box signifies that an export license is required.

Commerce Country Chart

Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Dominican Republic	X	X		X		X	X	X	X	X	X	X		X	
Ecuador	X	X		X		X	X	X	X	X	X	X		X		
Egypt	X	X	X	X		X	X	X	X	X		X		X		
El Salvador	X	X		X		X	X	X	X	X	X	X		X		
Equatorial Guinea	X	X		X		X	X	X	X	X		X		X		
Eritrea ¹	X	X		X		X	X	X	X	X		X		X		
Estonia ³	X			X		X		X	X							
Ethiopia	X	X		X		X	X	X	X	X		X		X		
Fiji	X	X		X		X	X	X	X	X		X	X	X		
Finland ^{3,4}	X					X		X	X			X		X		
France ³	X					X		X	X							
Gabon	X	X		X		X	X	X	X	X		X		X		
Gambia, The	X	X		X		X	X	X	X	X		X		X		



Export Administration Regulations

Bureau of Industry and Security

March 26, 2014

3. **Use of Exceptions:** If this software shipment was controlled under a different ECCN that also included National Security as a reason for control, then this shipment would require an export license or an exception can be used for this shipment. The use of exceptions is complex and requires significant review and approval from the ORC prior to an exception being utilized for an export of EAR controlled equipment. Below is a list of available exceptions, but please consult with the ORC for applicability.

- | | | | |
|------|---------------------------------------|------|--------------------------------------|
| LVS: | Shipments of Limited Value | RPL: | Servicing/Replacement of Parts |
| GBS: | Country Group B Country Shipments | GOV: | Governments/International Orgs |
| CIV: | Civil End-Users | GFT: | Gift Parcels, Humanitarian Donations |
| TSR: | Technology/Software under Restriction | TSU: | Technology/Software Unrestricted |
| APP: | Computers | BAG: | Baggage |
| TMP: | Temporary Exports/Imports... | AVS: | Aircraft and Vessels |
| APR: | Permissive Re-exports | ENC: | Encryption Commodities |
| AGR: | Agricultural Commodities | CCD: | Consumer Communication Devices |
| STA: | Strategic Trade Authorization | | |

Working with Foreign Collaborators

Sanctioned Countries

U.S. economic sanctions broadly prohibit most transactions between a U.S. person and persons or entities in an embargoed country, including universities in Cuba, Iran, North Korea, Syria, and Sudan. This prohibition includes imports/exports of goods and services, whether direct or indirect, as well as facilitation by a U.S. person of transaction between foreign parties and a sanctioned country, such as if someone in Iran asked a PI at NAU to purchase and send an export controlled camera for research in Iran. More limited sanctions may also preclude certain transactions or require export licenses for additional oversight. As discussed previously, because sanctions evolve based on the international environment, the following link should be utilized to determine if sanctions apply:

<http://www.treasury.gov/resource-center/sanctions/Pages/default.aspx>.

While most sanctions are administered by OFAC, BIS has jurisdiction over certain exports prohibitions (via “embargo” regulations), as is the case with exports to Syria. In other words, a license from BIS would be required to ship most items to Syria and other OFAC sanctioned countries or could be prohibited. Economic sanctions and embargo programs are country-specific and very detailed in the specific prohibitions.

Restricted Parties Screening

Various U.S. Government agencies maintain a number of lists of individuals or entities barred or otherwise restricted from entering into certain types of transactions with U.S. persons. Particularly since 9/11, U.S. companies are beginning to become more assertive in attempting to place contractual terms with foreign companies related to these lists. Such lists must be screened to ensure that NAU does not engage in a transaction with a barred entity. NAU utilizes a system called Visual Compliance™ to expedite screening of these and other lists, but the updated lists can be found at the following website under a single list known as the Consolidated Screening List, which incorporates lists from Department of Commerce, Department of State, and Department of Treasury:

http://export.gov/ecr/eg_main_023148.asp.

Anti-Boycott Restrictions

The anti-boycott rules were implemented to prevent U.S. businesses from participating directly or indirectly in the Arab League’s boycott of Israel. The rules prevent U.S. persons from doing business under terms that would restrict that person’s ability to do business with other countries under a boycott not recognized by the U.S. The Arab League’s boycott has decreased over the years, but still remains in effect in some countries. These restrictions are enforced by BIS. The applicable regulations are at https://www.bis.doc.gov/index.php/forms-documents/doc_view/428-part-760-restrictive-trade-practices-or-boycotts.

The anti-boycott restrictions apply to any person or entity in the U.S., and to U.S. persons or U.S. entities abroad. For example, a foreign company’s affiliate or permanent office in the U.S. or a U.S. company’s foreign affiliate for permanent office.

The Department of Commerce has provided the following red flags to look for as signs of anti-boycott restrictions:

1. Agreements to refuse or actual refusals to do business with Israel or with blacklisted companies.
2. Agreements to discriminate or actual discrimination against other persons based on race, religion, sex, national origin, or nationality.
3. Furnishing information about business relationships with Israel or with blacklisted companies.
4. Furnishing information about the race, religion, sex, or national origin of another person.
5. Paying or otherwise implementing letters of credit that include requirements to take boycott related actions prohibited by the anti-boycott regulations.

A major exception to the anti-boycott rules is the provision that permits compliance with the import requirements of a boycotting country. This exception permits firms to comply with import restrictions that prohibit imports from Israel or Israeli firms. The exception does not permit compliance with a boycott of blacklisted firms outside of Israel, nor does it allow for the issuance of a negative certificate-of-origin of any type. Other exceptions allow firms to provide country-of-origin information on shipping documents, or information required for immigration or employment purposes. The exceptions are detailed in Section 760.3 of the EAR at https://www.bis.doc.gov/index.php/forms-documents/doc_view/428-part-760-restrictive-trade-practices-or-boycotts.

Reporting

If any NAU faculty, staff, or student is asked to enter into an agreement or provide information that would violate anti-boycott laws, then the ORC should be immediately notified. This includes situations even when there is a refusal to participate. For example, crossing out boycott language in a proposed contract is not sufficient and the ORC has a duty to report to BIS even when the foreign entity accepts the redaction of the boycott language.

Red Flags

Abnormal circumstances in an export transaction of equipment or while performing controlled research that indicate the equipment or research is going toward an inappropriate end-use, end-user, or destination are referred to as “red flags.” Checking for red flags can help NAU faculty and staff recognize illegal or potentially illegal export transactions. All NAU faculty and staff who work with export controlled technology should look for red flags during any step of an export transaction of equipment or involvement in a controlled program by a foreign national. If any red flags are identified then the Office of Research Compliance (ORC) should be immediately notified to help determine the cause of the abnormal circumstances. The EAR contains a “catch-all” provision that prohibits any export if a violation has or may occur.

According to the EAR, possible red flags that an unlawful diversion may occur include the following:

1. The international partner is reluctant to offer information about the end-use of the product/technology.
2. The product's capabilities do not fit the partner's line of research; for example, a small bakery places an order for several sophisticated lasers.
3. The product requested by an international partner to support research is incompatible with the technical level of the country to which the product is being shipped. For example, semiconductor manufacturing equipment would be of little use in a country without an electronics industry.
4. The customer is unfamiliar with the product's performance characteristics but still wants the product. For example, an international partner requests that you buy an export controlled camera and send it directly to their facility in Iran.
6. Routine installation, training or maintenance services are declined by the international partner.
7. Delivery dates are vague, or deliveries are planned for out-of-the-way destinations.
8. A freight forwarding firm is listed as the product's final destination.
9. The shipping route is abnormal for the product and destination.
10. Packaging is inconsistent with the stated method of shipment or destination.
11. When questioned, the international partner is evasive or unclear about whether the controlled item/research is for domestic use, export, or re-export to another country.

Fundamental Research

University based research

During the Reagan administration, several universities worked with the Federal government to establish national policy for controlling the flow of information produced in federally funded fundamental research at colleges, universities and laboratories resulting in the issuance of the National Security Decision Directive 189 ("NSDD"), National Policy on the Transfer of Scientific, Technical and Engineering Information on September 21, 1985. In a letter dated November 1, 2001, President George W. Bush's administration reaffirmed NSDD 189. NSDD 189 provided the following definition of fundamental research that has guided universities in making licensing decisions relative to fundamental research exclusions provided under both the EAR and ITAR.

Basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.

Research conducted by scientists, engineers, or students at a university normally will be considered

fundamental research. University based research is not considered fundamental research if the university or its researchers accept (at the request, for example, of an industrial sponsor) other restrictions on publication of scientific and technical information resulting from the project or activity. Scientific and technical information resulting from the research will nonetheless qualify as fundamental research once all such restrictions have expired or have been removed.

Both the ITAR and the EAR provide that information published and generally accessible to the public through fundamental research is not subject to export controls. However, there are certain restrictions. In order to take advantage of this exemption:

1. Such information must be produced as part of basic and applied research in science and engineering and must be broadly shared within the scientific community (i.e., no restrictions on publication / dissemination of the research results)^{vi}.
2. It is essential to distinguish the information or product that results from the fundamental research from the conduct that occurs within the context of the fundamental research.
3. While the results of the fundamental research are not subject to export controls, an export license may be required if during the conduct of the research export controlled technology is to be released to a foreign national. Such export controlled technology may come from the research sponsor, from a research partner institution, or from a previous NAU research project^{vii}.

One major difference is that the ITAR requires that, to qualify as fundamental research, research must be performed at accredited institutions of higher learning in the United States. Under the EAR, fundamental research may occur at facilities other than accredited institutions of higher learning in the United States.

Under both the ITAR and the EAR, research performed at universities will not qualify as fundamental if the university (or the primary investigator) has accepted publication or other dissemination restrictions.

ITAR provision: the fundamental research exception does not apply to research the results of which are restricted for proprietary reasons, or specific U.S. Government access and dissemination controls^{viii}.

EAR provision: the fundamental research is distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary reasons or specific national security reasons^{ix}. Under the EAR, university-based research is not considered fundamental research if the university or its researchers accept restrictions (other than review to ensure no release of sponsor-provided proprietary or patent information) on publication of scientific and technical information resulting from the project^x.

The EAR instructs that prepublication review by a sponsor of university research solely to ensure that

the publication would not inadvertently divulge proprietary information that the sponsor has initially furnished, or compromise patent rights, does not constitute restriction on publication for proprietary reasons. The EAR also has provided examples of "specific national security controls" which will trigger export controls. These include requirements for prepublication review and approval by the Government, with right to withhold permission for publication; restriction on prepublication dissemination of information to non-U.S. citizens or other categories of persons; or restrictions on participation of non-U.S. citizens or other categories of persons in the research. An example is the development and publication of research on certain encrypted software technology^{xi}.

While the ITAR does not contain such descriptive provisions, the EAR is instructive as to interpreting the limitations on fundamental research.

Publicly Available

The ITAR and the EAR do not control information which is published and generally accessible or available to the public. Note that even though the two regimes have similar scope, the ITAR and the EAR vary in the specific information that qualifies as publicly available.

ITAR provision: The ITAR describes such information as information in the public domain^{xii}. The information in the public domain may be obtained through:

1. sales at newsstands and bookstores;
2. subscription or purchase without restriction to any individual;
3. second class mailing privileges granted by the U.S. Government;
4. at libraries open to the public;
5. patents available at any patent office;
6. unlimited distribution at a conference, meeting, seminar, trade show or exhibition, generally accessible to the public, in the United States;
7. public release in any form after approval of the cognizant U.S. Government agency; or
8. fundamental research in the U.S. (see Fundamental Research Section)

EAR provision: The EAR does not control publicly available technology if it is already published or will be published^{xiii}. Information is published when it becomes generally accessible to the interested public in any form, including:

1. publication in periodicals, books, print, etc., available for general distribution free or at cost
2. readily available at libraries open to the public or university libraries
3. patents and open patents applications available at any patent office
4. release at an open conference, meeting, seminar, trade show, or other gathering open to the public

The EAR requires that the publication is available for distribution free or at price not to exceed the cost of reproduction and distribution; however, the ITAR does not have such a requirement.

The EAR also does not specify where an open conference, meeting, seminar or trade show must take place, and thus allows, for example, participation at a foreign conference so long as the conference is open to all technically qualified members of the public, and attendees are permitted to take notes. Unlike the EAR, the ITAR limits participation in conferences and similar events to those that are taking place in the United States.

Educational Information

Both the ITAR and the EAR address the issue of general educational information that is typically taught in schools and universities. Such information, even if it relates to items included on the USML or the CCL, does not fall under the application of export controls.

ITAR provision: The ITAR specifically provides that the definition of "technical data" does not include information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities^{xiv}.

EAR provision: The EAR provides that publicly available "educational information" is not subject to the EAR, if it is released by instruction in catalogue courses and associated teaching laboratories of academic institutions^{xv}.

Therefore, a university graduate course on design and manufacture of very high-speed integrated circuitry will not be subject to export controls, even though the technology is on the CCL. The key factor is the fact that the information is provided by instruction in a catalogue course. Foreign students from any country may attend this course because the information is not controlled. The information will not be controlled even if the course contains recent and unpublished results from laboratory research, so long as the university did not accepted separate obligations with respect to publication or dissemination, e.g., a publication restriction under a federal funding mechanism^{xvi}.

Full-Time University Employee Exemption

Under a specific exemption, the ITAR allows a university to disclose unclassified technical data in the U.S. to a foreign person who is the university's bona fide and full time regular employee. The exemption is available only if:

1. the employee's permanent abode throughout the period of employment is in the United States
2. the employee is not a national of a country to which exports are prohibited pursuant to ITAR § 126.1^{xvii}
3. the university informs the individual in writing that the technical data may not be transferred to other foreign persons without the prior written approval of DDTC
4. the university documents the disclosure of technical data under the exemption providing: (1) a description of the technical data; (2) the name of the recipient / end- user; (3) the date and time of export; (4) the method of transmission (e.g., e-mail, fax, FedEx); (5) the ITAR reference, i.e., ITAR § 125.4(b)(10), Full-Time University Employee

Note that the "full-time bona fide employee" requirement will preclude foreign students and postdoctoral researchers from qualifying for access to technical data under this exemption. Generally, a H1B work visa would be required.

This exemption only applies to the transfer of technical data and discussions related to the data. Discussions may occur between the foreign full-time employee and other university employees working on the project. Additionally, the outside company (sponsor of the research) would have to apply for a DSP-5 license to provide technical data directly to the foreign national employee, and if the outside party and the employee are to engage in discussions and interchange concerning the data, then the proper authorization would be a Technical Assistance Agreement (TAA) rather than the DSP-5.

ⁱⁱⁱ 22 C.F.R. § 120.6.

^{iv} 22 C.F.R. § 120.9.

^v 22 C.F.R. § 120.17.

^{vi} ITAR § 120.11(a)(8); EAR §§ 734.3(b)(3) and 734.8(a).

^{vii} See BIS Revisions and Clarification of Deemed Export Related Regulatory Requirements, 71 Fed. Reg. 30840, 30844 (May 31, 2006). (This interpretation of fundamental research by BIS, while not binding, is instructive as to how DDTC might interpret its regulations.).

^{viii} 22 C.F.R. §§ 120.11(a)(8) and 120.10(a)(5).

^{ix} EAR § 734.8(a)

^x EAR § 734.8(b)(5). However, once the sponsor has reviewed and approved the release, the results may be published as fundamental research.

^{xi} EAR § 734.11(b)

^{xii} 22 C.F.R. §§ 120.10(a)(5) and 120.11.

^{xiii} 15 C.F.R. §§ 734.3(b)(3) and 734.7.

^{xiv} 22 C.F.R. § 120.10(a)(5).

^{xv} 15 C.F.R. §§ 734.3(b)(3) and 734.9.

^{xvi} 15 C.F.R. § 734, Supp. No. 1, Questions C(1) to C(6).

^{xvii} See http://www.pmddtc.state.gov/regulations_laws/documents/official_itar/ITAR_Part_126.pdf for updates

^{xviii} For EAR violations, see 15 C.F.R. § 764.5. For ITAR violations, see 22 C.F.R. § 127.12(c).