Our Goals Today

• Raise awareness regarding export controls
  • Laws are extensive, complicated and subject to numerous modifications
  • As applied to institutions of higher education, subject to increased monitoring and enforcement

• Ask for your assistance and input in
  • Assessing the impact of these laws for your area
  • Determining steps University must continue to take to ensure compliance with export controls throughout the institution

• Provide information on a software tool, Visual Compliance, that can assist with export controls compliance for your area
What are “export controls”? 

- Federal laws and regulations governing:
  - the export of certain information and technology
  - to foreign entities and foreign nationals
    - Abroad
    - In the U.S.
Purpose of Export Controls

Regulate distribution of strategically important technology and information to foreign nationals and foreign countries and entities for reasons of:

- foreign policy
- national security
- prevention of terrorism
What areas of the University are affected?

NOT limited to sponsored research
Areas/Activities impacted include:

- Admissions
- Human resources
- Individual faculty and staff
- International faculty, students, staff & visitors
- Shipping
- International Studies
- IP management
- Property control
- Purchasing
- Sponsored research
- Travel
- Environmental Health & Safety
Research Equipment

The following units and departments should be aware of the purchase of research equipment or software that may be export controlled:

- College of Engineering and Computing
- The School of Computing and Information Sciences
- College of Arts and Sciences Departments:
  - Physics
  - Biology
  - Chemistry
Requirements for Foreign Hires

The following units and departments will prepare the I-129 Export Control Questionnaire:

College of Engineering and Computing, including the School of Computing and Information Sciences

The following three College of Public Health and Social Work Departments:
- Environmental and Occupational Health
- Epidemiology
- Biostatistics

The following three College of Arts, Sciences and Education Departments:
- Physics
- Biology
- Chemistry
I-129 Export Control Questionnaire

**Visa Applicant Deemed Export Questionnaire**
for Sponsored & Non-Sponsored Activities

**Instructions:** The questionnaire must be answered by the sponsoring faculty member and not by someone acting on behalf of the sponsor for all H-1B, H-1B1, J-1, L-1, O-1 non-immigrant worker visa applicants. Please answer the following questions to the best of your ability.

- **Faculty/Sponsor:**
  - Name:
  - Title:
  - Department:
  - Phone:
  - Email:

- **Beneficiary:**
  - Name:
  - Country of Citizenship:
  - Current Visa Type:
  - Requested Visa Type:
  - Position to be Held:

1. Will the beneficiary be working in one of the following areas: biomedical sciences, computer sciences, space or space launch sciences, or any engineering or scientific discipline? Engineering or scientific disciplines may include but are not limited to the following: Chemical, Electrical, Semiconductor, Material Science, Physics, Mechanical, Geophysical, Marine, Astroonomy, Nuclear, Artificial Intelligence or Robotics?
   - Yes
   - No
   - Unknown/Unsure

   If you marked “Yes” or “Unknown.” please provide brief explanation of work assignment:

2. Will the beneficiary be provided access to any controlled FIU-owned technical data or technology (hardware or software) that is considered proprietary or confidential to FIU or any third party? (see information below concerning “controlled technologies”)
   - Yes
   - No
   - Unknown/Unsure

3. Will the beneficiary be provided access to any controlled technical data or technology (hardware or software) furnished to FIU that is proprietary or confidential to a sponsor or third party? This includes U.S. government furnished technical data with access, publication, participation or dissemination restrictions or other restrictive markings, as well as ITAR-controlled information, articles and software. It may also include confidential information, materials, or software that is the subject of a Non-Disclosure Agreement (NDA) or equivalent confidentiality agreement.
   - Yes
   - No
   - Unknown/Unsure

4. Will the beneficiary be provided access to proprietary (to sponsor or a third-party) technology for the development of cryptography, or proprietary source code containing cryptographic functionality?
   - Yes
   - No
   - Unknown/Unsure

5. Will the beneficiary be provided access to Information pertaining to the “use” of laboratory equipment (that is not in itself the subject or result of self-invented fundamental research): for purposes of this definition, “use” may include operation, installation, maintenance, repair, overhaul and refurbishing.

6. Will the beneficiary be provided access to any government furnished equipment, information, or software specifically designed or developed for military or space applications?
   - Yes
   - No
   - Unknown/Unsure
Export Control Regulations


- “OFAC” - Office of Foreign Assets Control of the U.S. Department of Treasury. 31 C.F.R. §§ 500-599
EAR - Export Administration Regulations

- Applies to “dual use” items

- Items designed for commercial (civilian) purposes that can have military applications

- Examples:
  - Computers and software
  - Lasers
  - Pathogens
ITAR - International Traffic in Arms Regulations

- Regulations implement the Arms Export Control Act, 22 U.S.C. 2778 et seq.
- Apply to items (and related technical data) that are military in character (designed to kill or defend against death in a military setting)
- Include space related technology and missile technology
OFAC - Office of Foreign Assets Control

- Imposes economic sanctions and embargoes for specified:
  - Countries
  - Entities
  - Persons
- Prohibits:
  - Payments or providing anything of value to sanctioned countries, and specified nationals and entities
    - University may not enter into contract with embargoed entities/persons
  - Travel to and other activities with embargoed countries and individuals/entities
OFAC Countries of Concern

• State sponsors of terrorism listed by the U.S. Department of State
  • Iran, Sudan and Syria

• Additional countries listed by the U.S. Department of State as having embargoes include, but are not limited to:
  • Afghanistan
  • Belarus
  • Burma (Myanmar)
  • Cote D’Ivoire (Ivory Coast)
  • Cuba ***
  • Democratic Republic of the Congo
  • Korea, Democratic People’s Republic of [North Korea]
  • Liberia
  • Libya
  • Venezuela
  • Zimbabwe
U.S. License Required for Export of Controlled Technology/Information

- U.S. Government license required before transfer of controlled technologies or information
  - Tangible technology - prototypes or software
  - Research results/information

- U.S. Government license
  - ITAR - D-Trade
  - EAR - SNAP-R
  - OFAC - Department of Treasury
Which technologies are affected?

- Federal agencies list controlled technologies
  - for EAR
    - Commerce Control List (CCL)
    - 15 C.F.R. Part 738
  - for ITAR
    - United States Munitions List (USML)
    - 22 C.F.R. Part 121
CCL (EAR) Categories

0-Nuclear Materials, Facilities and Equipment
1-Materials, Chemicals, Microorganisms and toxins
2-Materials Processing i.e., making plastics, metals
3-Electronics Design, Development and Production
4-Computers
5-Telecommunications and Information Security
6-Sensors and Lasers
7-Navigation and avionics
8-Marine
9-Propulsion Systems and Space Vehicles
CCL Groups and ECCN

- Each Category contains the same 5 Groups
  - A - Equipment, Assemblies and Components
  - B - Test, Inspection and Production Equipment
  - C - Materials
  - D - Software
  - E - Technology

- Within each Group, individual items are identified by an Export Control Classification

- Number (ECCN)

- Each ECCN has numbers and a letter
  - First number is the general Category
  - The letter identifies the Group
  - The next number identifies the reason for the control of the item
CCL Groups and ECCN

FISCHER & ASSOCIATES

2. WHAT ARE EXPORT CONTROLS? HOW DO THEY WORK? HOW ARE THEY ENFORCED?

How Are Export Controls Regulated? (Continued)

EAR-Commerce Department “Dual use” controls (15 CFR 700-799):

- Example of ECCN

9A012 Non-military “Unmanned Aerial Vehicles,” (“UAVs”), unmanned “airships”, related equipment and “components”, as follows (see List of Items Controlled).

Reason for Control: NS, MT, AT

LIST BASED LICENSE EXCEPTIONS (SEE PAR 740 FOR A DESCRIPTION OF ALL LICENSE EXCEPTIONS)

LPS: N/A

GRS: N/A

CET: N/A

LIST OF ITEMS CONTROLLED

Related Controls: See the U.S. Munitions List Category VIII (22 CFR Part 121). Also see section 744.3 of the EAR.

Related Definitions: N/A

Item:

a. “UAVs” or unmanned “airships”, designed to have controlled flight out of the direct ‘natural vision’ of the ‘operator’ and having any of the following:

1. Having all of the following:
   a. A maximum ‘endurance’ greater than or equal to 30 minutes but less than 1 hour, and
   b. Designed to take-off and have stable controlled flight in wind gusts equal to or exceeding 46.3 km/h (25 knots), or
   c. A maximum ‘endurance’ of 1 hour or greater;

2. Technical Notes:
   1. For the purposes of 9A012.a, ‘operator’ is a person who initiates or commands the “UAV” or unmanned “airship” flight.
   2. For the purposes of 9A012.a, “endurance” is to be calculated for ISA conditions (ISO 2533-1975) at sea level in zero wind.
   3. For the purposes of 9A012.a, “natural vision” means unaided human sight, with or without corrective lenses.

b. Related equipment and “components”, as follows:

1. [Reserved]

2. [Reserved]

3. Equipment or “components” “specially designed” to convert a manned “aircraft” or a manned “airship” to a “UAV” or unmanned “airship”, controlled by 9A012.a;

4. Air breathing reciprocating or rotary internal combustion type engines, “specially designed” or modified to propel “UAVs” or unmanned “airships”, at altitudes above 15,240 meters (50,000 feet).

Note: 9A012 does not control model aircraft or model “airships”.

FIU | EXPORT CONTROL TRAINING | FISCHER & ASSOCIATES

[Image]
2. WHAT ARE EXPORT CONTROLS? HOW DO THEY WORK? HOW ARE THEY ENFORCED?

How Are Export Controls Regulated? (Continued)

EAR-Commerce Department “Dual use” controls (15 CFR 700-799)

- Example of ECCN
  
  **6A002** Optical sensors and equipment, and “components” thereof, as follows (see List of Items Controlled).
  
  Reason for Control (entire entry): NS, MT, CC, RS, AT, UN
  
  Reason for Control (6A002.b only): NS, AT
  
  6A002.b
  
  b. “Monospectral imaging sensors” and “multispectral imaging sensors”, designed for remote sensing applications and having any of the following:
  
  b.1. An Instantaneous-Field-Of-View (IFOV) of less than 300 μrad (microradians); or
  
  b.2. Specified for operation in the wavelength range exceeding 400 nm but not exceeding 30,000 nm and having all the following:
  
  b.2.a. Providing output imaging data in digital format; and
  
  b.2.b. Having any of the following characteristics:
  
  b.2.b.1. “Space-qualified”; or
  
  b.2.b.2. Designed for airborne operation, using other than silicon detectors, and having an IFOV of less than 2.5 mrad (milliradians).
  
  NOTE: **6A002.b.1** does not control “monospectral imaging sensors” with a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm and only incorporating any of the following non-“space-qualified” detectors or non-“space-qualified” focal plane arrays.

- Check Country Chart to determine whether your intended destination is controlled for export of your particular item.
CCL Groups and ECCN

FISCHER & ASSOCIATES

> 2. WHAT ARE EXPORT CONTROLS? HOW DO THEY WORK? HOW ARE THEY ENFORCED?

Commerce Control List Overview and the Country Chart

Commerce Country Chart

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Export Administration Regulations

Bureau of Industry and Security

May 22, 2015
USML (ITAR) Categories

• I - Firearms, close assault weapons and combat shotguns
• II - Guns and Armament
• III - Ammunition/Ordnance
• IV - Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs and Mines
• V - Explosives and Energetic Materials, Propellants, Incendiary Agents and Their Constituents
• VI - Vessels of Ware and Special Naval Equipment
USML Categories (Cont’d)

- VII - Tanks and Military Vehicles
- VIII - Aircraft and Associated
- IX - Military Training Equipment and Training
- X - Protective Personnel and Equipment and Shelters
- XI - Military Electronics
- XII - Fire Control, Range Finder, Optical and Guidance and Control Equipment
- XIII - Auxiliary Military Equipment
USML Categories (Cont’d)

- XIV--Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment
- XV--Spacecraft Systems and Associated Equipment
- XVI--Nuclear Weapons, Design and Testing Related Items
- 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
Applies to Exports and “Deemed Exports”

- Exports
  - Shipped
  - Hand carried to the foreign country (e.g., laptops)

- Deemed Exports
  - transfers of information to “foreign persons” in U.S.
    - Oral exchanges
    - Visual demonstration, view of equipment, technology
    - Written exchanges
Who is a “foreign person” for export control purposes?

• Any natural person who is not a U.S. citizen or lawful permanent resident of the United States (Note that green card holder is not a “foreign person”)

• 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

• Any international organization, foreign government and any agency or subdivision of foreign government (e.g. diplomatic mission)

• Note that “foreign person” includes non-U.S. universities
Fundamental Research Exclusion (FRE)

- Do not need a license to share:
  - “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.”
FRE

- Allows U.S. universities to include foreign faculty, students, visitors in research involving creation of controlled information in the U.S. without a license.

- If fundamental research, the information may be transferred in U.S. and abroad without restriction.

- No restrictions may be imposed on conduct or reporting of federally-funded fundamental research that has not received national security classification.

- Note: certain encryption software does not qualify for FRE.
Public Domain/Publicly Available Information

- No license required for information that is already published and generally accessible to the public through, among other things:
  - Libraries, bookstores, newsstands
  - Trade shows, meetings, seminars open to public
  - Websites available freely to the public

- Applies only to information and not to equipment or certain encryption software
Educational Information Exemption

- No license required for instruction in science, math, and engineering taught in courses listed in catalogs and associated teaching laboratories of academic institutions, even if the information concerns controlled commodities or items.

- Does not apply to certain encryption software.
Full-Time Employee Exemption

- No license required for release of information to:
  - full-time
  - regular
  - bona fide employees of FIU
  - who maintain U.S. residency during employment
  - who are informed in writing not to transfer to other foreign nationals
- Post-Docs may not meet above criteria
- Does not apply to foreign nationals from OFAC prohibited countries
If License is Required or Award Limits Sharing of Information, a Technology Control Plan is Needed

- Plan must be put into place to safeguard controlled technology from use and observation by unlicensed non-U.S. citizens.

- Plan is specific to each project and includes items such as:
  - **Physical Security** - restrict physical access to labs and controlled information/technology to authorized personnel - badging, key control access, visitor logs
  - **Information Security** - clean desk policy, data discard/return, have export controlled information/technology identified and marked, store export controlled information in locked cabinets preferably in rooms with key-controlled access
Technology Control Plan

- **Personnel Screening** - review of lists, background checks, identify authorized personnel

- **Training and Education** of those with access to above

- **Project Closeout** - including provision for appropriate retention and ultimate disposal of export controlled information
  - EAR and ITAR require maintenance of records, usually 5 years
Some Examples of How Export Controls Can Affect Your Areas
Export Control Considerations
Purchasing - Vendor Payments

• May not provide payment or anything of value to persons/entities on any of the denied lists
  • Includes purchase of equipment, etc.
  • Includes payment to entities and persons in the U.S.
  • Check vendors against lists of denied persons/entities
Export Control Considerations
Property Control

- Use of controlled equipment by foreign national, even on campus, may require license even if FRE applies
- FRE applies to information only, not tangible equipment
Export Control Considerations
Travel

- Taking equipment (such as GPS) and laptops to foreign country may require a license if equipment or software in laptop is controlled technology

- Exceptions may allow for export without a license

- Travelers to a foreign country must be aware of denied persons/entities lists related to that country

- Travelers to a foreign country must be aware of any travel embargoes to that country
Temporary Export Exception under EAR for Laptops

- Tools of trade may accompany the individual departing from the United States or may be shipped unaccompanied within one month before the individual's departure from the United States, or at any time after departure.

- 15 C.F.R. § 740.9

- Other possible exception - “Baggage” under EAR, 15 C.F.R. § 740.14
Export Control Considerations
Software

- Software that is publicly available most likely will not require license, but proprietary software or software of controlled technology may require license.

- Encryption technology could require license or could be prohibited for use by certain foreign nationals.
Consequences for Non-Compliance are Severe and Include:

- Fines and civil penalties
  - EAR and ITAR - up to $1M per violation
  - OFAC - $50k-$10M per violation
- Imprisonment
  - EAR and ITAR - up to 10 years
  - OFAC - up to 30 years
- Loss of exporting privileges and/or federal funding
- Damage to reputation
Examples of Recent Enforcement Action
• Bass-Pro - $510K administrative penalty for exporting gun sights without a license

• ITT - fined $100 M for exporting night vision materials without license

• Dr. Thomas Butler, Texas Tech - convicted to 2 years in prison for making fraudulent and fictitious statements to federal agents and unauthorized exports (plague bacteria)
OFAC

- Barclays Bank - $2.48 million
- Red Bull Energy Drink - Cuba - $90,000
- An Individual and the Alliance for Responsible Cuba Policy Foundation - $10,000
ITAR

Civil penalties/fines include:

- Hughes Electronics and Boeing Satellite Systems - $32 M
- Boeing - $4.2 M
- Lockheed Martin - $13 M
Recent criminal prosecution:

- John Reece Roth, Professor of Electrical Engineering, University of Tennessee
- Convicted on 9/3/08; sentencing set for 1/09
- Conviction based on violation of the Arms Export Control Act by illegally exporting “defense articles” to citizen of the People’s Republic of China
Enforcement of Regulations

- President announces that all federal agency regulations are to cease in order to review and eliminate as many as possible.

- U.S. Administration exempts DDTC from limit on new regulations.

- Mr. Brian Nilsson, Deputy Assistant Secretary of State for Defense Trade Controls, stated at the public meeting of the Defense Trade Advisory Group (DTAG) on March 30, 2017 in Washington, DC, that DDTC is exempt from the Administration's limit on new regulations, so plans are continuing to issue new or revised regulations this year for the following subjects:
  - Defense services
  - Public domain
  - Technical data
  - Fundamental research
  - ITAR 126.4 exemption
  - US persons abroad - registration and licensing requirements
Software Tool Demonstration
Visual Compliance Software

- Tool assists in determination of:
  - Technologies that require license for export
  - Countries, entities, persons denied access to technologies
  - Checks against federal lists - CCL, USML, OFAC lists
Visual Compliance Screening

https://www.visualcompliance.com/

- University of Electronics Science and Technology of China (UESTC) - OFAC/Restricted Party
- Drone - EAR/CCL-ECCN
- Thermal Imaging Scope - ITAR/USML

http://www.opticsplanet.com/export.html
Florida International University has contracted with Convercent to provide a confidential Internet and telephone based reporting tool to give University faculty, staff and students an anonymous and confidential way to address misconduct in the workplace or classroom setting due to mismanagement of funds, fraud, abuse or other violations of law or University policy.

http://www.convercent.com/report or by calling 844-312-5358 to (24 hours a day, 365 days a year)

CONVERCENT

Ethical Panther Line
FIU Export Control Resources

- Office of University Compliance & Integrity Export Controls Webpage:
  https://compliance.fiu.edu/export_intro.html

- Office of Research & Economic Development webpage (Citi Training):
  http://research.fiu.edu/export-controls/export-training/

- FIU Export Controls Policy - 2370.010 available at:
  https://policies.fiu.edu/policy/130