

INTRODUCTION TO EXPORT CONTROL COMPLIANCE



**Massachusetts
Institute of
Technology**

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Disclaimer

- This training is limited in scope and depth. It is intended to serve as an introduction to export control. It is not intended to be your sole resource for export control expertise
- Export Control Compliance is often complicated and requires the judgment of the Export Control Officer (ECO). Individual cases should be addressed with MIT Export Control early and often
- For more information visit <http://osp.mit.edu/compliance/export-controls> or contact Janet C. Johnston or Nicole Levidow

Roadmap

- U.S. Export Control Regulations
- U.S. Export Control at MIT
- Key Export Control Terminology
- MIT Export Control Quick Guide

U.S. EXPORT CONTROL REGULATIONS

What is Export Control?

U.S. laws and regulations for controlling the export of certain

- Materials
- Equipment
- Software
- Information

Regulated by

- U.S. Departments of State, Commerce, Treasury, Energy, the United States Nuclear Regulatory Commission and Homeland Security

Affects

- All individuals and institutions

Purpose of Export Control Regulations

Protect US Security

- Prevent terrorism
- Prevent proliferation of weapons of mass destruction
- Restrict exports that could help US military adversaries

Support US Foreign Policy Goals

Penalties for Export Control Violations

Criminal Penalties

- Up to 20 years imprisonment per violation
- Up to \$1 million in fines per violation

Administrative Penalties

- \$120,000 per violation for items related to national security
- Greater of \$250,000 per violation or twice the amount of the transaction

Example: Enforcement in 2014

- 39 individuals and businesses convicted, 44 administrative cases
- Total \$197 million in criminal and administrative fines
- Total 47 years imprisonment

Example

Former University of Tennessee Professor John Reece Roth Begins Serving Four-Year Prison Sentence on Convictions of Illegally Exporting Military Research Data

U.S. Attorney's Office
February 01, 2012

Eastern District of Tennessee
(865) 545-4167

KNOXVILLE, TN—On January 18, 2012, John Reece Roth, a former professor of electrical engineering at the University of Tennessee (UT) in Knoxville, began serving a four-year prison sentence for his September 2008 convictions. Roth had been on bond pending his appeals, all of which were unsuccessful. He self-surrendered to the federal correctional facility in Ashland, Kentucky.

Roth was convicted after a jury trial in U.S. District Court in Knoxville, of conspiracy, wire fraud, and 15 counts of exporting "defense articles and services" without a license. As a UT professor, Roth obtained an U.S. Air Force (USAF) contract to develop plasma actuators to control the flight of small, subsonic, unmanned, military drone aircraft. During the course of that contract, he allowed two foreign national students to access export controlled data and equipment, and export some of the data from the contract on a trip to China. The Arms Export Control Act prohibits the export of defense-related materials, including the technical data, to a foreign national or a foreign nation. This case was a first-of-its-kind prosecution of a university professor for the transfer of controlled defense technology to foreign national graduate students.

Example

UMass Lowell fined \$100,000 for export control violations

Monday, May 27, 2013 - 3:31pm

The University of Massachusetts at Lowell was fined \$100,000 for unlicensed export of atmospheric sensing equipment to Pakistan's Space and Upper Atmosphere Research Commission ("SUPARCO"). See [ExportLawBlog](#) for details. The fine will be waived if the university does not commit any more export violations during a probationary period of two years.

Notably, the exports in this case were not controlled items--all were classified as [EAR99](#), meaning they could be shipped without a license to most destinations in most circumstances--but the recipient of the items, SUPARCO, is on the Bureau of Industry and Security's [Entity List](#) of people and organizations subject to special license requirements.

Export control regulations govern the international export of items, as well as the sharing of information or software with foreign nationals in the U.S. or abroad. Appalachian State University faculty, staff, and students who are engaged in international travel and research--including U.S.-based research collaborations with colleagues and students who are foreign nationals--should review the [Export Control Management Plan](#) and contact [Research Protections](#) for guidance.



U.S. EXPORT CONTROL AT MIT

MIT Export Control Resources

Janet Johnston, MIT Export Control Officer



MIT Graduate in Astrophysics, Earth and Planetary Sciences, Civil Engineering

Air Force Research Laboratory, Pentagon (Research Lab Management), Air Force European Office of Aerospace Research and Development, AF Foreign Military Sales, Private Pilot

Nicole Levidow, Compliance Administrator

JD, MSPH in Health Policy and Health Services Research

Goals of MIT Export Control Program

Protect Fundamental Research

- Promote MIT core value of advancing knowledge and education
- Promote MIT Open Research Policy

Safeguard Restricted Material

- Comply with U.S. laws and regulations

Maintain Open Dialogue

- Export control laws are complicated and require expert judgement
- Communication with Export Control Officer is **vital** for compliance

Export Control Regulations Affect MIT

Research

- Research with International Students or Faculty
- Research using export controlled material
- Sponsored Research
- Technology Licensing
- International Collaborations

Teaching

- Online Courses
- Professional and Executive Education
- Teaching International Students at MIT and Teaching Abroad
- International Conference Presentations

International Travel

International Shipping

International Financial Transactions

MIT Open Research Policy



Open Research and Free Interchange of Information

- Essential to MIT's institutional responsibility and to interests of U.S.
- Foreign faculty, students, and scholars not to be singled out for restriction

Exceptions

- However, foreign faculty, students, and scholars can be excluded from research in rare instances where their inclusion would violate export control laws and the area of work is crucially important to MIT's educational mission
- Requires Technology Control Plan
 - *Must be approved by Vice President for Research, Director of Office of Sponsored Programs and is subject to annual review by Export Control Officer*

MIT Lincoln Lab



Federally Funded Research and Development Center (FFRDC)

- Export-controlled and classified research

Restricted material permitted at Lincoln Lab

- However, need a Lincoln Laboratory PI, work is restricted to US citizens, which might restrict student/post-doc participation, and lead to publication restrictions, thus negating Fundamental Research exemptions

EXPORT CONTROL TERMINOLOGY

Export

Everything that crosses the border is an export, even if:

- It is temporary
- The item was not sold
- It will be used for research
- The item was made in that country

Whether you can export your item depends on:

- **What** it is
- **Who** it goes to (person and institution, company)
- **Where** it's going (country)
- **Purpose** (how will it ultimately be used?)



“Deemed” Export

Release of controlled technology to a foreign national (even in the U.S.) is “deemed” to be an export. Exception: bona fide full-time employees who sign an MIT non-disclosure agreement and US permanent residents are not considered foreign nationals. There are some exceptions to this for certain nationalities.



Defense Service

Assisting or training foreign persons with defense articles

- Includes design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing, use
- Can include transfer of public domain information

Examples

- Teaching a foreign national to use IR camera
- Compiling academic papers and sending to a colleague in Russia
- Answering questions during Q&A at an overseas conference
- Serving on an advisory board of a foreign university



Fundamental Research

No restrictions on publication and no restrictions on who can participate

- Basic and applied research in science and engineering, where the resulting information is ordinarily published, and shared broadly within the scientific community

MIT only allows Fundamental Research on campus

Most export control regulations do not apply to fundamental research



International Trafficking in Arms Regulations (ITAR)

ITAR-materials

- Always requires license to export, unless MIT already has a specific license or a specific exception applies
- Controlled by State Department

Includes

- Everything on U.S. Munitions List
- Weapons, ammunition, explosives, propellants, chemical, biological, toxicological agents, some spacecraft, satellites, missiles, torpedoes, bombs, mines, aircraft, ships and submersibles, tanks, fire control, guidance and control equipment, military electronics, protective personnel equipment, materials, component, technical data (including software), and services
- Examples: some infrared cameras, night vision technology, rocket motors, some robotics software, long range UAVs, some imaging focal plane arrays, some radars, some cryptography...

Fundamental Research is exempt

ITAR Technical Data

Information necessary for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance of **defense articles**

Includes

- Blueprints
- Drawings
- Photographs
- Plans
- Instructions
- Documentation

Always requires a license to export



Export Administration Regulations (EAR)

EAR Materials

- Sometimes require a license to export
- Controlled by Commerce Department
- Categorized by Export Control Classification Number (ECCN)

Includes

- Everything on the Commerce Control List (CCL), plus EAR99 items (items not explicitly enumerated on the CCL)
- Nuclear, aerospace, propulsion, avionics, Some spacecraft and satellites, Marine, navigation, electronics, and computers, Telecommunications, information security, sensors, and lasers, Materials, chemicals, microorganisms, and toxins, Components and materials, equipment, software, technology

Fundamental Research is exempt

EAR Technology

Information necessary to develop, produce, operate, install, maintain, repair, overhaul, refurbish, or use any EAR-controlled material

Sometimes requires a license to export

Export Control Classification No. (ECCN)

Commerce Department categorizes EAR-controlled items by “ECCN.” All ECCNS are published in the Commerce Control List (CCL). The CCL lists export license requirements.

ECCN = Category Number + Product Group Letter

Category Number

- 1: Nuclear Materials, Facilities & Equipment
- 2: Materials, Chemicals, Microorganisms, and Toxins
- 3: Materials Processing
- 4: Electronics
- 5.1: Computers
- 5.2: Telecommunications
- 6: Information Security
- 7: Sensors and Lasers
- 8: Navigation and Avionics
- 9: Marine
- 10: Aerospace and Propulsion

Product Group Letter

- A: Systems, Equipment, and Components
- B: Test, Inspection, and Production Equipment
- C: Material
- D: Software
- E: Technology

ECCN Example

What is the ECCN for a Turbine Engine? Use the CCL to build the ECCN

- Category 9 = Aerospace and Propulsion
- 9A = “end items, equipment, accessories, attachments, parts, components, systems
- 9A001 = Aero gas turbine engines having any of the following:
- 9A001.b = Intended to power non-military manned aircraft for which any of the following has been issued by a Wassenaar Arrangement Participating State listed in Supplement No. 1 to Part 743 for the aircraft with this specific engine type:
- 9A001.b.1 = a civil type certificate

ECCN = 9A001.b1

Office of Foreign Assets Control (OFAC)

OFAC Sanctions

- Business transactions prohibited with OFAC-Sanctioned countries
- Must obtain a license (can take a year or more and may not be granted at all)

Includes

- Cuba
- Iran
- Sudan
- Iraq
- Crimea area
- Others with varying degrees of severity

Restricted Party List

Restricted Parties

- No dealings with individuals or institutions on Restricted Party List
- Must obtain a license to transact

Technology Control Plan (TCP)

MIT tool to safeguard ITAR, EAR, and other restricted material

- Provides a security plan and names responsible parties
- Must be approved by Vice President for Research (VPR)

TCPs are only approved when:

- The item makes a substantial or critical contribution to the research
- The impact of not using the controlled items has been evaluated and is severe or prohibitive
- Alternatives to using the controlled items have been considered and evaluated
- The possibility for only non-academic staff to work with the restricted items has been considered

Being permitted to receive restricted material on campus at MIT is a privilege!

MIT EXPORT CONTROL QUICK GUIDE

<http://osp.mit.edu/compliance/export-controls>

MIT Export Control Quick-Guide

Research

- If not fundamental research, then subject to export controls

Teaching

- Can teach all students enrolled in MIT degree programs
- Teaching outside of US or online may require a license

International Travel

- Everything you take with you is an export (including material on laptops and mobile phones)
- US Persons sometimes allowed to take EAR technology out of country

International Shipping

- Use e-Ship Global for items valued at less than \$2,500
- Contact MIT Export Control for items over \$2,500

International Payments

- Can do business with anyone in non-OFAC-sanctioned country, unless they are on the Restricted Parties List

Research: Before You Begin

Assess your research

- Is your research fundamental?
- Are there restrictions on publication?
- Are there restrictions on who can perform the research?

Contact Export Control

- Contact Janet Johnston if you have any doubts

For More Information, Visit

- <http://osp.mit.edu/compliance/export-controls>

Teaching: Before You Teach

Assess your course

- Are you teaching off campus, online, or outside of the US?
- Are you teaching encryption courses?
- Are you teaching non-degree seeking students?

Contact Export Control

- Contact Janet Johnston if you answer “yes” to any of these questions

For More Information, Visit

- <http://osp.mit.edu/compliance/export-controls>

International Travel: Before You Go

Assess Your Exports

- What items are you taking with you?
- Are any items ITAR- or EAR-controlled?
- Does your laptop or phone contain ITAR or EAR-controlled data?

Assess Your Destination

- Are you traveling to an OFAC-Sanctioned country?
- Are you subject to additional import and export controls at your destination?

For More Information, Visit

- <http://osp.mit.edu/compliance/export-controls>

International Payment: Before You Pay

Assess the Recipient

- What is the home country of the recipient?
- Is the recipient from an OFAC-sanctioned country?
- Is the recipient or institution on the Restricted Parties List?

Contact Export Control

- Contact Janet Johnston if the recipient is from an OFAC country

For more information, visit

- <http://osp.mit.edu/compliance/export-controls/payments>

International Shipping: Before You Ship

Assess Your Export

- What items are you shipping?
- Are any items ITAR- or EAR-controlled?
- What is the value of the item?
- What is the end-use of the item?

Assess Your Destination

- Is the recipient (individual or institution) on the Restricted Parties List?
- Do you have any suspicion that your items will be transferred to a prohibited third party?
- What is the shipping route? (Are there any waypoints in restricted countries?)

Identifying ECCN: Before you begin

When possible, contact the Manufacturer for the ECCN, otherwise:

Assess the “Category Number”

- Look up in the CCL or contact MIT Export Control

Assess the item use

- What is the destination of my item?
- What is the end use of my item?
- Who is the end user of my item?

Locate your ECCN on the Commerce Control List

- <https://www.bis.doc.gov/index.php/regulations/commerce-control-list-ccl>
- If your item is not on the CCL, then it is categorized as “EAR99”
- Products of fundamental research may not be controlled by the EAR

Important Websites

US Munitions List (for ITAR)

https://www.pmddtc.state.gov/regulations_laws/documents/official_itar/ITAR_Part_121.pdf

Commerce Control List (for EAR)

<https://www.bis.doc.gov/index.php/regulations/commerce-control-list-ccl>

FREQUENTLY ASKED QUESTIONS

Frequently Asked Questions

How can I avoid being subject to Export Control?

- You cannot. Everyone in the US is subject to Export Control laws.

I am confused. Whom do I contact for help?

- Janet C. Johnston (jcjohnst@mit.edu) or Nicole Levidow (nlevidow@mit.edu)

If I cannot ship an item to a certain country, can I hand-carry it instead?

- No! Hand-carrying is still considered an export.

Frequently Asked Questions

Do I need to tell you if I receive restricted equipment from outside of MIT?

- Yes.

Am I legally responsible for export-controlled equipment in my possession?

- Yes.

Do I need to tell you if I changed the Technology Control Plan?

- Yes.

I cannot give money directly to an OFAC-sanctioned country. Instead, can I give it to another foreign partner to give to the restricted country researcher?

- No!



FOR MORE INFORMATION

Contact

exportcontrolhelp@mit.edu