Export Controls and Government Control of Sensitive Information
On July 1, 2009, Dr. John Reece Roth was sentenced to 48 months in prison, two years supervised release and a $1,700 assessment for illegally exporting sensitive military technical data related to a U.S. Air Force contract. Roth, a former Professor Emeritus at the University of Tennessee had illegally exported military technical data relating to plasma technology designed to be deployed on the wings of drones operating as a weapons or surveillance systems. The illegal exports involved technical data related to an Air Force research contract that Roth provided to foreign nationals from China and Iran. In addition, Roth carried multiple documents containing controlled military data with him on a trip to China and caused other controlled military data to be e-mailed to an individual in China.
US Citizenship and Immigration Services (USCIS) now requires all employers of non-immigrants in H-1B, L-1 and O-1A status to certify on the petition, Form I-129, whether the beneficiary will be engaged in activities that might require an export license.

http://www.ohr.wisc.edu/ifss/imminfo/H-1B/index.htm (click on Export Control Assessment Form)
Export Controls are a series of U.S. laws and regulations that control the export of information, goods and services from the United States to foreign countries or to foreign individuals within the U.S.

These laws can apply to basic and applied research activities, including activities within labs here in Madison when foreign persons are involved.

Other related laws require assessment of dual-use research, and prohibit transactions with foreign governments and persons.

Violation of these laws and regulations can result in severe civil and criminal penalties, loss of funding, etc.
Good News/Bad News

- Good News: Most research at or affiliated with the University is not subject to export controls.
- Bad News: It can take a lot of effort to make this determination.
- Good News: Even if export controls apply, the use of export-controlled information, materials or equipment in a research project is not typically an insurmountable barrier to conducting that project.
- Bad News: Export controls can make the research more difficult or cumbersome.
When Might Export Controls Apply to Research Activities?

Given our research portfolio, typical scenarios that can involve export controls include:

- Research with pathogenic/toxic materials
- Satellite and space-related research
- Shipment of samples and equipment for overseas projects
- Proprietary industry-sponsored research
- Foreign travel
The two main federal export control laws are the Export Administration Regulations (EAR), administered by the Department of Commerce, and the International Traffic in Arms Regulations (ITAR), administered by the Department of State.

ITAR primarily serves national security goals; EAR serves national security, foreign policy and economic and technological competitiveness goals.
The EAR regulates so-called “dual-use” technology.

The ITAR primarily regulates technology that is specifically designed or adapted for military use.

ITAR requirements apply equally to persons of any foreign country; EAR requirements can vary widely depending upon the country.

Most UW export control issues will involve the EAR.
For both EAR and ITAR:

- “Export” means not only the physical shipment of an item outside of the U.S., but also the oral or visual exposure of controlled technology within the U.S. to foreign persons (known as “deemed export”).

- Foreign individuals with the immigration status of “lawful permanent resident” (i.e., green card holders) are considered U.S. persons.
Both the EAR and ITAR:

- Generally do not apply to publicly available information and technology, including published information and information commonly taught in university courses.
- Contain license exceptions, including some specific to university research activities.
- Have a licensing process to enable the export of information and items that are not publicly available or covered by an applicable exception, as well as the related services.
Specifics of the EAR

The EAR applies to virtually everything except:

- Exports subject to the exclusive jurisdiction of another agency;
- Readily-available items as musical recordings, books, newspapers, sheet music, etc.;
- Publicly available technology and software (except certain encryption software). This definition includes information that has been or will be published; arises during or results from fundamental research; is educational; or is included in certain patent applications.
**EAR: “Deemed” export**

- Visual or oral communication of controlled information within the U.S. is “deemed” to be an export of that information to the country of nationality of the person to whom it is disclosed.
- “Deemed export” only occurs if visual inspection conveys controlled technology.
- Mere use or operation of controlled equipment by foreign person within U.S. does not constitute deemed export.
“Published” means when it becomes readily available to the interested public through publication in print or electronic media, is available in public or university libraries, is published in open patent applications, or is released at open conferences.

“Publication” includes submission of papers to journals or conferences with the expectation of publication.
Publicly-available information includes information arising from “fundamental research.”
“‘Fundamental research’ means basic and applied research in science and engineering, where the resulting information is ordinarily published and shared broadly with the scientific community.”

Applies equally to non-university research as long as no restrictions on access or dissemination of research results.

“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...”
Prepublication review by a sponsor to ensure protection of sponsor’s proprietary information does not alter status of research as fundamental research.

Prepublication review by a sponsor solely to ensure publication does not compromise patent rights does not change status of fundamental research, as long as any publication delay is temporary.

UW’s publication policy consistent with these rules.
Conversely, the fundamental research exception does not apply to:

- Information provided by a sponsor or third party under a non-disclosure agreement;
- Research activities conducted under an agreement that considers the research data to be confidential sponsor information; and
- Information arising from government funded research, where the funding agreement contains specific access and dissemination controls related to the research, such as approval of publications or explicit restrictions on foreign national participation.
Research that relies on home-grown information and/or published sources, where no confidential third-party information is involved, is fundamental research that is not subject to the EAR.

Confidential third-party information is not covered by the fundamental research exception and the EAR may limit access to this information by foreign persons. But, once research is complete, the research results can still be freely published and disseminated.

Note that the fundamental research exception applies to information, and not things or services.
Technology and information subject to the EAR are arranged by general category, on the “Commerce Control List (CCL).” The specific listing on the CCL for a particular type of technology or information is referred to as its “ECCN” number.

However, many things not on the list are covered by the EAR – they are designated as “EAR 99.”

Each separate ECCN# will list the specific reasons for which the technology is controlled (i.e., anti-terrorism, missile technology, national security, etc.).

Country charts list the reasons for control pertinent to different countries.
By cross-referencing the reasons for control associated with an ECCN # with the applicable country chart, one can determine the particular countries, if any, to which exports may be made without a license.

Many items on the CCL may be exported to “friendly” countries without a license.

Virtually nothing on the CCL, including EAR 99 items, may be exported without a license to embargoed countries, such as Cuba, Iran and North Korea.

Treatment of China varies widely by type of technology.
Export licenses for shipment of tangible materials overseas can be obtained relatively easily and quickly.

“Deemed export” licenses covering transmission of controlled information within the U.S. can be obtained, but are more complicated and will entail significant time and effort.

License exceptions are sometimes available.
Technology and information subject to the ITAR is contained in the “U.S. Munitions List” ("USML").
Most items on USML have purely military applications, so very little UW research will be subject to the ITAR.
The USML is at Part 121 of the ITAR.
USML categories XII, XIV and XV list the items most likely to be encountered in course of UW research.
Category XII covers “Fire Control, Range Finder, Optical and Guidance and Control Equipment.”

- Includes infrared focal plane array detectors
- Also includes infrared, visible and ultraviolet devices, including those being exported for commercial purposes.
Category XIV covers “Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment.”

- Includes nerve agents, vesicant agents, incapacitating agents, riot control agents, and defoliants, and “weaponized” biological agents and substances.
- Also controlled are equipment, components, modeling or simulation tools, test facilities and information relating to the detection, monitoring, sample collection and processing, medical countermeasures, and equipment for physical protection against the above-listed chemical and biological agents.
Category XV covers:

- Spacecraft, including communication, remote sensing, scientific, research, navigation, experimental and multi-mission satellites.
- Ground control stations for telemetry, tracking and control of satellites.
- GPS equipment with certain characteristics.
- Radiation-hardened microelectronic circuits.
- Components, equipment and technology relating to the above items.
Different rules apply to the export of “technical data,” “defense articles,” and “defense services.”

“Defense Articles” are the things listed on the USML.

“Technical data” includes information “required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of defense articles,” including blueprints.
ITAR: Does Not Cover Educational and Public Domain Information

- “Technical data” does not include: (1) general scientific, mathematic or engineering principles commonly taught in universities; or (2) “information in the public domain.”

- “Public domain” information includes information available at bookstores, libraries, open conferences, published patent applications, and information deriving from “fundamental research in science and engineering” at U.S. higher education institutions.
ITAR: Fundamental Research

- ITAR does not cover “information which is published and which is generally accessible to the public...through fundamental research at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community.”

- Fundamental research is “distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls.”

- Research is not fundamental if the University or its researchers accept publication restrictions, or if it is funded by the U.S. government and specific access and dissemination controls are imposed on the results.
**ITAR: Licensing of Technical Data**

- If technical data is not in the public domain, an export license is required before it can be provided to a foreign person (even within the U.S.).
- A specific licensing exception does permit educational institutions to disclose unclassified technical data within the US to their “bona fide and full-time regular employees,” but this exemption is not available with respect to nationals of certain countries including China, and is not available to persons on student visas.
- ITAR export licenses involve significant paperwork, may take months to be approved, and require diligent record-keeping.
ITAR: Defense Articles

- Remember: the fundamental research exception applies to information and not things or services. It also does not apply to research outside the university context.
- An export license is required to physically export a defense article or to grant a foreign person access to a defense article within the U.S., even if the article is constructed entirely of information in the public domain. This creates an odd situation where the blueprints for a defense article may be in the public domain, but the article itself is still controlled.
- A very limited exception applies to the export of articles for use in certain US-European joint space projects.
Defense services means the furnishing of assistance to foreign persons with respect to any aspect of defense articles.

An export license (known as a “technical assistance agreement” or “TAA”) is required even if all the information supplied in connection with the services is in the public domain. I.e., helping a foreign person apply public domain information to solve a specific problem pertaining to controlled technology is a defense service.

An application for a TAA is expected to detail exactly what information is going to be provided to exactly which individuals, making a license difficult to obtain in the context of an on-going university research project.
Other related restrictions:

- USDA/CDC Select Agents (also covered by the EAR)
- "Sensitive but unclassified" information
- Homeland Security "Critical Infrastructure Information" Program
- Lists to check, including OFAC "specially designated nationals" list: http://www.bis.doc.gov/complianceandenforcement/listst ocheck.htm
- NEW: Federal Dual Use Research of Concern (DURC) policies, applicable to seven categories of life sciences research with fifteen specific agents and toxins.
How to Spot Potential Export Control Issues In Agreements

- Agreement terms and conditions:
  - References to the UW’s obligation to comply with export control laws in course of project
  - Restrictions on participation by individuals from certain countries
  - Sponsor approval of international staff on project
  - Sponsor approval for release of data from project
  - Restrictions on further transfer of information or equipment supplied by sponsor
  - Non-disclosure obligations
Nature of the research:

- Involves anything space-related, including satellite instruments and rocket propulsion and navigation systems
- Research has specific military or national security applications
- Has any relation to nuclear, chemical, or biological warfare (including detection equipment and countermeasures)
- Involves access to advanced prototypes or advanced proprietary equipment
Location of research or travel:

- Research involving travel to, shipments to, or collaboration with researchers in embargoed countries (Cuba, Iran, North Korea, Rwanda, Sudan, Syria)
- Overseas projects involving the training of foreign governments and entities with respect to advanced technology
- Overseas projects involving the shipment of advanced equipment
Projects involving overseas research, foreign travel to embargoed destinations, or shipments overseas can implicate export controls. A license may be needed before the project can proceed. License exceptions may be available for certain activities and destinations.

- Customs Brokers can assist with tangible exports.
- Don’t forget Foreign Trade Regulations compliance for certain foreign shipments or certain items that are hand-carried on flights.
Special Problem of Non-Disclosure Agreements

- A project initially determined to be exempt from export controls can become export-controlled if third-party information subject to non-disclosure obligations is brought in to the project.
- If an NDA contains export control language, or is known to relate to a project which has previously undergone an export control review, then follow-up is necessary.
UW’s Export Control Compliance Program

- Tom Demke appointed UW’s Export Control Compliance Officer.
- Developed master campus export control compliance plan, working with units to assess concerns, create unit-specific plans.
- Example:
Final Thoughts

- Links to UW Policies: http://www.grad.wisc.edu/research/policyrp/rpac/exportcontrol.htm
- Screening tools have been developed: http://www.grad.wisc.edu/research/policyrp/ec/ecprojectassessmentforms.html
- Complicated area – contact Tom Demke or me if questions.
- Obama administration has proposed fundamental change in export control structure – stay tuned!
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