



## What amounts to an export?

### Export Controls

- Taking, or attempting to take an export controlled item or technical data across a physical border (including e-mail).
- Disclosing technical data to a foreign national within the United States.
- Training a foreign national in the use of certain equipment or skills related to export controlled items, i.e. a "Defense Service."

## Important Definitions

- **Technical Data:** Data which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modifications of defense articles, etc. [ITAR 120.10(a)(1)].
- **Defense Article:** Any item or technical data on the USML. [ITAR 120.6]
- **Defense Service:** The furnishing of assistance, including training, to foreign persons, whether in the United States or abroad in the design, development, engineering, manufacture, production, assembly, testing, repair, etc. of defense articles. Also, the furnishing to foreign persons of any controlled technical data. [ITAR 120.9]
- **Export:** Sending or taking a defense article out of the United States in any manner . . . Disclosing (including oral or visual disclosure) or transferring in the US . . . To a foreign person. [ITAR 120.17]

"Deemed Export"



## How does someone violate these laws?

Export Controls

*It is difficult for PhD researchers with any history of military research funding to argue:*

- Ignorance of export control laws and regulations.
- Inability to verify the export control status of their research before or during the work.



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## Isn't "Basic Research" exempt?

Export Controls

- Regulations, such as the ITAR, generally exempt "Fundamental Research," not specifically "basic" research.
- Fundamental Research can include both "Basic" and "Applied" research in science and engineering where the resulting information is ordinarily published and shared broadly in the scientific community.
- This describes the majority of research done on college campuses, including research done with military source funding.
- The concept of basic research is often misapplied or misunderstood on a college campus.

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## When is research not "Fundamental"?

### Export Controls

- Fundamental research is distinguished from research, the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls [ITAR 120.11(8)].

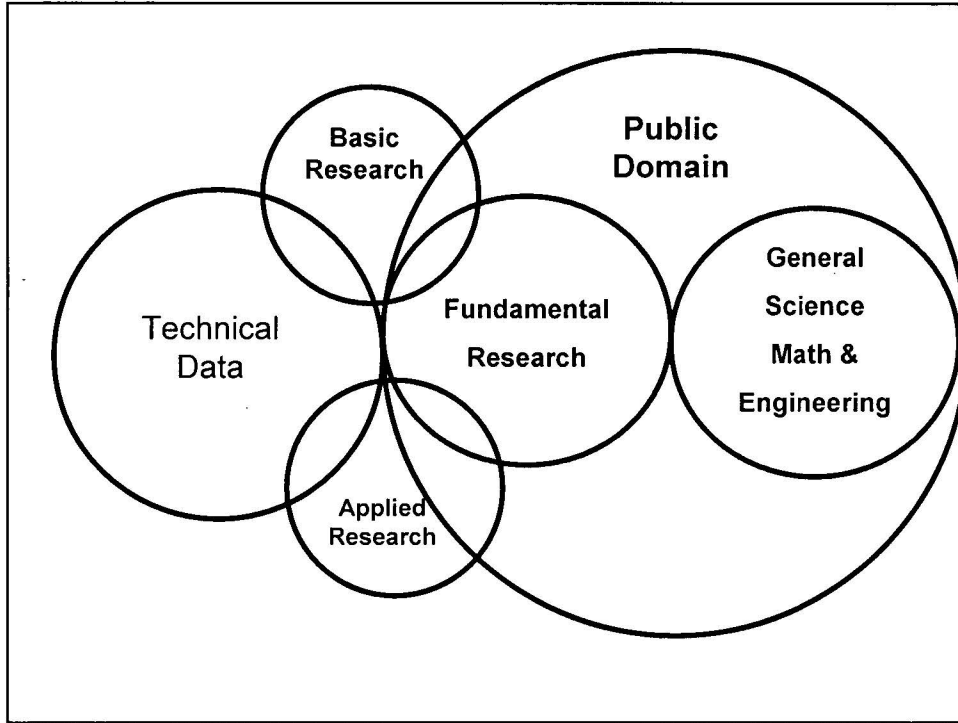
- University Research will not be considered fundamental research if:

The University or its researchers accept other restrictions on publication of scientific and technical information resulting from the project or activity.

The research is funded by the US Government and specific access and dissemination controls protecting information resulting from the research are applicable.

### Important Exceptions (in Academia)

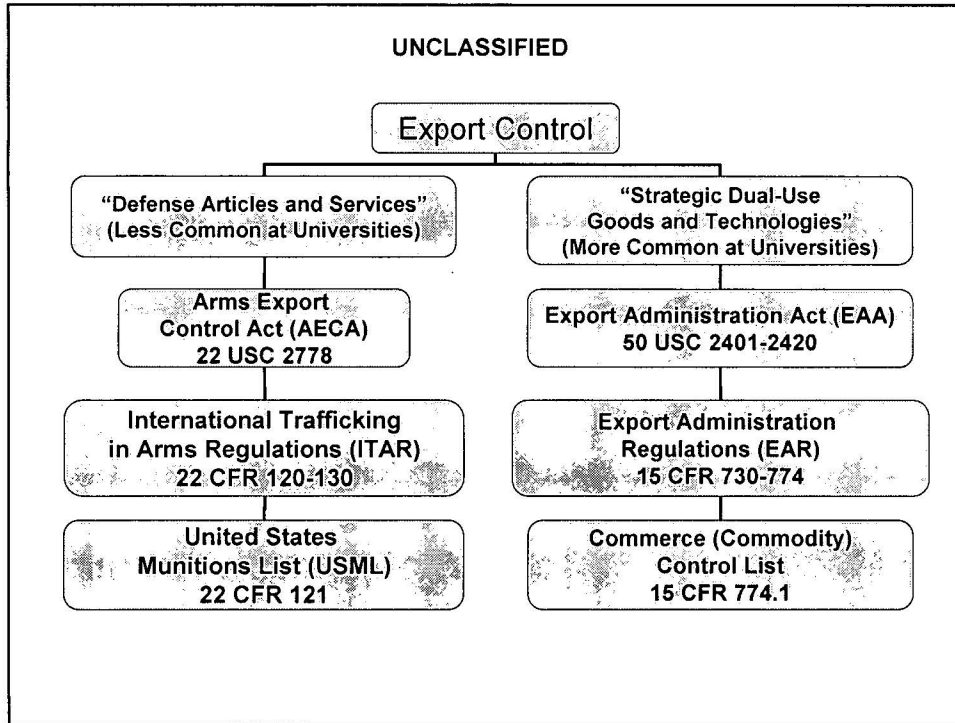
- **Technical Data:** Excludes information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the "public domain" as defined in 120.11. [ITAR 120.10(a)(5)].
- **Public Domain:** Includes information published in magazines, journals, etc. OR not published, but released with unlimited distribution (e.g. YouTube) **after** approval by the cognizant US Government Department or Agency [ITAR 120.11(7)]
- **Public Domain:** Includes information obtained through fundamental research in science and engineering at accredited institutions of higher learning in the United States where the resulting information is ordinarily published and shared broadly in the scientific community [ITAR 120.11(8)]
- **Fundamental Research:** Basic and Applied Research in science and engineering where the resulting information is ordinarily published and shared broadly in the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls [ITAR 120.11(8)]



## It is important to note:

Export Controls

- Basic research is not necessarily “fundamental research.”
- Both basic and applied research can be subject to export controls depending on the funding source and other delineated restrictions in place in a research contract





## Potential Pitfalls

Export Controls	<ol style="list-style-type: none"> <li>1. Funding Source</li> <li>2. Contract Review</li> <li>3. Student Assignment</li> <li>4. Physical Controls</li> <li>5. Foreign Travel / Delegations</li> <li>6. Foreign University Partnerships</li> <li>7. Training</li> </ol>
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## Pitfall #1: Funding Source

### Export Controls

1. It is recommended that Universities fully identify the original source of funding for a contract.
2. Watch for contracts issued to companies or other universities, then subcontracted to your university where the funding source is obscured.



## Non-Military Research Entities

### Export Controls

#### Unrestricted "Basic" Research

- National Science Foundation
- NASA
- National Institutes of Health
- Department of Agriculture
- Department of Energy
- Homeland Security
- EPA

#### Restricted "Applied" Research

- NASA
- National Institutes of Health
- Department of Agriculture
- Department of Energy
- Homeland Security
- Department of Justice (FBI)



## Pitfall #2: Contract Review

### Export Controls

1. Conduct an impartial review of all contracts looking for military or dual-use potential.
2. Demand to see the original contract even if your university is only a subcontractor.
3. Utilize existing compliance software packages to assist in review.



## Pitfall #3: Student Assignments

### Export Controls

1. Review and track nationalities of students assigned to contracts before work begins.
2. Researchers should not have autonomy to assign students to export controlled contracts without some independent review of nationality restrictions.
3. Computer accounting systems should be modified or designed to not allow export controlled funding strings to fund foreign students.



## Pitfall #4: Physical Controls

### Export Controls

1. Designate specific, controlled, secure lab space for all export controlled research . . .
2. . . . or put in place sufficient physical security measures (e.g. locks, doors, and key control) to securely store controlled research materials in a general lab space.
3. Be aware that visits by foreign nationals to laboratories where export controlled work is conducted and displayed require a State Department export license.



## Pitfall #4: Physical Controls

### Export Controls

4. Watch and monitor key control – do not unintentionally allow foreign national access to a lab with export controlled material.
5. Develop a self-inspection, and periodically verify compliance with your rules during the research period.





## Pitfall #5: Foreign Travel

### Export Controls

1. Require researchers engaged in export controlled work, who travel internationally, to be pre-briefed on restrictions on their discussions.
2. Require department head or peer review of presentation materials for any inclusion of export controlled research.
3. Consider having researchers sign a export control understanding statement prior to travel.



## Pitfall #5: Foreign Travel

### Export Controls

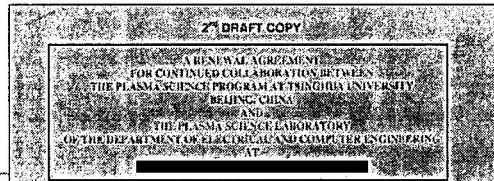
4. Do not permit university owned computers with export controlled research (present or deleted) to travel across international boundaries.
5. Label any storage media with export controlled data as such
6. Caution employees to not turn over computers for service to foreign universities.



## Pitfall #6: Foreign University Partnerships

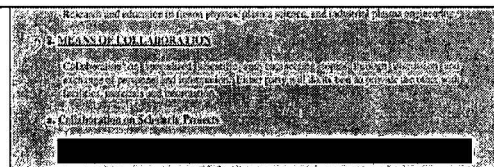
### Export Controls

1. Honorary Professorships can be used as a tool of "social engineering," to gain the favor of researchers with the end goal of obtaining sensitive and proprietary research.
2. Be cautious when entering partnerships with universities and research centers with known ties to a foreign military.
3. Require the language of research partnerships to include a specific reference to export controls.



**A RENEWAL AGREEMENT  
FOR CONTINUED COLLABORATION BETWEEN  
THE PLASMA SCIENCE PROGRAM AT TSINGHUA UNIVERSITY  
BEIJING, CHINA  
AND  
THE PLASMA SCIENCE LABORATORY  
OF THE DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
AT  
THE UNIVERSITY OF TENNESSEE**

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## Pitfall #7: Training

### Export Controls

1. Require any researcher or student conducting export controlled research to attend basic training on the relevant laws, regulations, and university policies.
2. Create an atmosphere of knowledge and compliance.
3. Do not encourage "toeing the line."



*Special Agent* [redacted]  
Federal Bureau of Investigation  
- Seattle Division -

[redacted] began his career in public service as an [redacted] in [redacted]. After graduating from [redacted] internship with honors and served as an [redacted] where he developed an interest in [redacted]. He then completed his [redacted] during which time he won the [redacted]. After his [redacted] he served as a [redacted] until he fulfilled his [redacted]. Following [redacted] "To conserve the fighting strength" played a pivotal role in his decision to leave [redacted] and join the FBI's National Security Branch. He currently focuses on the creation of public private partnerships, leads the FBI's National Security Research and Technology Protection program for Washington State and holds an [redacted]. He is a member of the American Association of the Advancement of Science, Federation of American Scientists, and Sigma Xi.

As a life long student of the philosophy of science, [redacted] while in [redacted] and currently speaks at universities to address the ethics of national security research at public institutions. He volunteers his time to serve on the Pacific Science Center's Science Education Advisory Committee because he passionately believes that, in addition to the necessity of a strong military to check those who are beyond the pale of rational discourse, that science education and consequent technology based companies can create the requisite economic vitality which is indispensable to national security.

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[redacted] lives in Seattle with his wonderful wife, [redacted] who is also an FBI Agent and Crisis Negotiator. [redacted] who is determined to obtain [redacted] so that he can work at [redacted]. [redacted] who is deciding between a career as an [redacted] and a [redacted].

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