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TOP 10

Top Ten Things You MUST Know -
Before Taking your Laptop Overseas

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In the news... Sept. 26, 2012:

- A federal jury in Newark found Steve Liu guilty on nine counts, including exporting defense-related data without a license, possessing stolen trade secrets and lying to federal agents.
- The case began when he was stopped with his laptop at Newark Airport on his return from China.
- FBI's Top Ten News Stories for the Week Ending September 28, 2012

The Threat

- While in the PRC, Liu gave presentations at several universities, a PRC government research entity, and a PRC-government-organized conference. Liu's presentations related to technology that he and his co-workers at Space & Navigation were developing for DoD.

The Conviction...

...made the FBI's Top Ten News Stories for the Week Ending September 28, 2012

Sentence Pending

Liu faces the following maximum penalties, per count:

- Export violations – 20 years in prison; \$1 million fine,
- Stolen trade secrets violation – 10 years in prison; \$250,000 fine,
- Interstate transportation of stolen property – 10 years in prison; \$250,000 fine, and
- False statement – five years in prison; \$250,000 fine.

Goals

Share a framework for understanding the regulatory framework and rules applicable to laptop travel

Alert you to recent trends

Share available resources and best practices

Which of the following constitutes an “Export”?

1. A researcher takes their laptop abroad to aid in their research.
2. A researcher allows a foreign national to participate in their research within the U.S.
3. A researcher allows a foreign national to access their laptop overseas.
4. A researcher returns an Inertial Navigation Instrument to his foreign colleagues by stowing it in his carry-on luggage.

All examples are exports!

“Export” means an actual shipment or transmission of items subject to the EAR* out of the United States, or release of technology or software subject to the EAR to a foreign national in the United States”

*Export Administration Regulations (EAR)

Areas Subject to Export Controls

- Direct export of a controlled item
- Foreign national access/use of controlled item
- Foreign travel to a restricted country
- International and domestic collaborations
- Publications (that are not generally accessible to public)
- International and domestic presentations at conferences
- Conversations involving controlled technology
- Taking or shipping a controlled item out of the U.S.

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**YOU...
Are an Exporter!**

- Your travel activities may legally constitute an export
- Hand-carry travel items such as your laptop, PDA/cellphone, and software are subject to export controls.

All are exports...

- A U.S. citizen instant messages a South Korean national working together in New York City about technical drawings for items controlled under U.S. export regulations.
- A U.S. employee emails to India software updates necessary to operate an item controlled under U.S. export regulations.
- A professor at Harvard University lectures in China on her research relating to a project with technology controlled under U.S. export regulations.

Exports may requires a License #9

Taking certain items outside the US “may” require a license, for example:

- Controlled technology
- Controlled hardware
- Data, technology
- Blueprints, schematics



Licensing Agencies

The U.S. federal government agencies responsible for implementing export control regulations are:


- Department of Commerce
 - **Export Administration Regulations (EAR)**
 - Applies to "dual-use" technologies; technical data and commodities that have both commercial and military/security applications
- Department of State
 - **International Traffic in Arms Regulations (ITAR)**
 - Applies to inherently military/satellite technologies or items that can be used in a defense/military application
- Department of Treasury
 - **Office of Foreign Assets Control (OFAC)**
 - Prohibits transactions with countries subject to boycotts, trade sanctions, embargoes, and/or restricted persons

ENFORCEMENT!

#8

- **Increasing government scrutiny post 9/11**
 - Growing intersection of science, technology and engineering research with national security, foreign policy and homeland security
 - Roles of universities and shifting research projects
- **Severe criminal and civil noncompliance penalties and sanctions for individuals as well as institutions/corporations**
 - Up to \$1M for institutions/corporations and up to \$250,000 for individuals
 - Up to 10 years in prison
 - Termination of export privileges
 - Suspension and/or debarment from federal government contracting
 - Loss of federal funds

Federal Focus on Laptops

 Intelligence Note
Prepared by the
Internet Crime Complaint Center (IC3)
July 6, 2012

MALWARE INSTALLED ON TRAVELERS' LAPTOPS THROUGH SOFTWARE UPDATES ON HOTEL INTERNET CONNECTIONS

Recent analysis from the FBI and other government agencies demonstrates that malicious actors are targeting travelers' laptops through pop-up windows while establishing an Internet connection in their hotel rooms.

Recently, there have been instances of travelers' laptops being infected with malicious software while using hotel Internet connections. In these instances, the traveler was attempting to utilize the hotel room Internet connection and was presented with a pop-up window notifying the user to update a widely-used software product. If the user clicked to accept and install the update, malicious software was installed on the laptop. The pop-up window appeared to be offering a routine update to a legitimate software product for which updates are frequently available.

The FBI recommends that all government, private industry, and academic personnel who travel abroad take notice before updating software products on their hotel Internet connection. Checking the author or digital certificate of any prompted update to use if it corresponds to the software vendor may reveal an attempted attack. The FBI also recommends that travelers perform software updates on laptops immediately before traveling, and that they download software updates directly from the software vendor's web site if updates are necessary while abroad.

Anyone who believes they have been a target of this type of attack should immediately contact their local FBI office, and promptly report it to the IC3's website at www.ic3.gov. The IC3's complaint database links complaints together to refer them to the appropriate law enforcement agency for case consideration. The complaint information is also used to identify emerging trends and patterns.

Applicable Law Enforcement Agencies

- Federal Bureau of Investigation
- Immigration & Customs Enforcement
- Department of Commerce
- Air Force Office of Special Investigations
- Defense Criminal Investigative Services
- Naval Criminal Investigative Services
- Alcohol, Tobacco & Firearms
- United States Secret Service
- Customs & Border Protection
- Drug Enforcement Agency
- Intelligence Agencies (CIA, DIA, NSA, etc.)
- Army Criminal Investigation Command
- Others too

Evidence....

- Shipper's Export Declarations: Who completes them? Have they been interviewed?
- Immigration Records: A-File, I-129 (Part 5)
- Subsidiary or Affiliate websites
- Interview by CBP at Port of Entry
- Suspicious Activity Reports (SARS)
- Rule 41 Search Warrant on Email
- End-User Forms BIS 711 Forms
- Undercover Platforms
- Voluntary Self-Disclosures
- No Action or Cautionary Letters Sent by OFAC, BIS or DDTTC
- FISAs
- Undercover Platforms
- Subpoena to Freight Forwarder
- Subpoena to Bank
- Border Search for Electronic Devices
- Cell phone text messages
- Designations or public information about companies
- Denied license application
- Invoices & Air Waybills
- Secretary of State Websites
- Industry Outreach
- Attendance or Presentation at Export Conferences
- Customs to Customs request to foreign partners (CMAAs)
- Post-Shipment or Pre-Shipment Verifications (BIS/Embassy Officers)

Border Search Exception to the 4th Amend.

Searches conducted at the United States border or the equivalent of the border (such as an international airport) may be conducted without a warrant or probable cause subject to the "border-search" exception

Laptop Rule:

The U.S. Courts of Appeals for the Fourth and Ninth circuits have ruled that information on a traveler's electronic materials, including personal files on a laptop computer, may be searched at random, without suspicion (US v. Ickes, 393 F.3d 501 (4th Cir., 2005) & US v. Arnold, 523 F.3d 941 (9th Cir. 2008))

Trends and Developments

- "Exports" include the "click of the mouse": Broadening of investigations to include new industries and new aspects of business.
- More Cases: FBI Director Mueller, July 2012: "We now have more than 1,500 pending [export control] cases, and in the past year, we made several high-value arrests and witnessed a significant increase in disruptions."
- DHS Director Morton, June 2012: "In fiscal year 2011, HSI special agents initiated a total of 1,785 criminal investigations into possible export violations, made over 530 arrests, and obtained 487 indictments and 304 convictions for export related criminal violations."

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Destination matters #7

Federal agencies maintain numerous lists with rules which vary by country

Not All Foreign Countries are treated equally

Sanctioned countries

Cuba, North Korea, Iran, Syria, Sudan

Secondary lists... based on the controls applicable to individual exports...

Import Restrictions too?

Countries with encryption import and use restrictions

- Burma (you must apply for a license)
- Belarus (import and export of cryptography is restricted; you must apply for a license from the Ministry of Foreign
- Affairs or the State Centre for Information Security or the State Security Agency before entry)
- China (you must apply for a permit from the Beijing Office of State Encryption Administrative Bureau)
- Hungary (import controls)
- Iran (strict domestic controls)
- Israel (personal-use exemption – must present the password when requested to prove the encrypted data is personal)
- Morocco (stringent import, export and domestic controls enacted)
- Russia (you must apply for a license)
- Saudi Arabia (encryption is generally banned)
- Tunisia (import of cryptography is restricted)
- Ukraine (stringent import, export and domestic controls)

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Know what you are carrying #6

Transporting a computer that has encryption software installed is subject to a number of controls.

The U.S. Department of Commerce and the Department of the Treasury both have rules designed to control the movement of encryption technology out of the United States. The Department of Commerce's Bureau of Industry and Security and the Office of Foreign Assets Control (OFAC) within the Department of the Treasury accept applications for licenses to export encryption products and technologies.

The Departments of Defense, Justice and State also have the right to review license applications. The review can take about 90 days and in some cases longer

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Technology specifics are critical

•Difference between Commercial Off the Shelf Software (COTS) and proprietary or unreleased software

•Unpublished Research Data if not covered under the FRE

•Adjusted Peak Performance (APP) is a metric introduced by the U.S. Department of Commerce's Bureau of Industry and Security (BIS) to more accurately predict the suitability of a computing system to complex computational problems, specifically those used in simulating nuclear weapons. This is used to determine the export limitations placed on certain computer systems under the Export Administration Regulations

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○ Hardware - Specialty laptops and equipment may require a license, e.g.,

- Radiation hardened or protected from extreme elements
- High performance computers


○ Software and Encryption – may need a license

- Encryption software with symmetric key length of 64-bits or higher
- Controlled Software
- Military support applications

○ Export-controlled technical data

- Best to back-up on a secure system and remove from laptop prior to travel

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Encryption ECCN's


The following items are controlled by the EAR (numbers are Export Control Classification Numbers)

- Laptops, iPhones, Blackberries: 5A992
- Mass market software (Windows, OS X, Office, Adobe products, Visual Studio): 5D992
- Open source software (Linux, Apache): 5D002

Data and Information on your device ...

- The data on your device could be subject to export controls.
- The results of Fundamental Research you conduct on the UC campus are not export controlled.
- Results of research may be subject to export controls if performed outside the campus.
- Unpublished research data and Proprietary Data from others (such as under Proprietary Rights Agreements/NDA's) may fall outside of Fundamental Research

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There may be Exceptions #5

Know which exemptions and exceptions apply

- The requirements for an export license vary according to the general characteristics of the item or technology, the destination country and the intended use of the export.
- Even if an export license is required, a license exception may apply to an export of a laptop, GPS and the loaded software and technical information.
- If a license exception applies, the equipment and technology may be taken abroad without an export license.

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Know that ownership matters...

Exceptions vary based on whether an item is personally owned or owned by the University

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...as does the dollar value

\$2,500 threshold triggers AES Census filings

Could become an issue if a "Temporary Export" extends past one year.

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TMP – temporary exports

- Form is good for one year

BAG – baggage - personally owned, NOT University owned

Laptop, equipment must stay under “effective control” for travel to certain countries

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SED/AES process

Tools of the Trade Exemption

Tools of the trade are commodities and software that are:

- Owned by the individual exporter (U.S. principal party in interest) or exporting company.
- Accompanying the individual exporter (U.S. principal party in interest), employee, or representative of the exporting company.
- Necessary and appropriate and intended for the personal and/or business use of the individual exporter (U.S. principal party in interest), employee, or representative of the company or business.
- Not for sale.
- Returned to the United States no later than 1 year from the date of export.

Is there an exemption from the Census' AES process, for Tools of the Trade?

- o Yes, as long as you do not need a validated license.

FAQs
<http://www.census.gov/foreign-trade/regulations/forms/qna.html#lowvalue>

TMP (Tools of Trade) for EAR related exports

- Applies to usual and reasonable kinds/quantities of tools (commodities/software) for use by exporter.
- Must remain under effective control exporter or exporter's employee (physical possession, locked in safe, guarded).
- Must accompany exporter when traveling or be shipped within one month before departure or any time after departure, and be returned no later than one year post export.

Does not apply to:

- o Satellite or space-related equipment, components, or software
- o Exports related to nuclear activities except for a limited number of countries
- o Technology associated with high-level encryption
- o Travel to Iran, Syria, Cuba, North Korea, or Sudan
- o Anything regulated by the Department of State's International Traffic in Arms Regulations (ITAR)

Fundamental Research Exclusion

Basic or applied research in science and engineering at an accredited institution of higher learning in the U.S.

The resulting information is ordinarily published and shared broadly in the scientific community

Fundamental Research Exclusion

- However, the FRE does not apply if the situation involves:
 - Shipping controlled items to a sanctioned country and/or restricted person***
 - An export control license may be necessary

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Pre-Travel Advisory Checks:

US State Department publishes International Travel advisories

http://travel.state.gov/travel/cis_pa_tw/cis_pa_tw_1168.html

UC Risk Services - iJet Registration

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Additional information about international encryption controls can be found at the following websites:

<http://rechten.uvt.nl/koops/cryptolaw/index.htm>

<http://www.wassenaar.org/introduction/index.html>

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Foreign Surveillance # 4

YOUR Electronics... May be vulnerable to Surveillance



The New York Times Business Day **Technology**

WORLD | U.S. | B.Y. | REGION | BUSINESS | TECHNOLOGY | SCIENCE | HEALTH | OP

Traveling Light in a Time of Digital Theft
Published February 09, 2012

(Page 3 of 4)

Both China and Russia prohibit travelers from entering the country with encrypted devices unless they have government permission. When officials from those countries visit the United States, they take extra precautions to prevent the hacking of their portable devices, according to security experts.

Readers' Comments
Readers shared their thoughts on this article.
Read 40 Comments (1/13)

Now, United States companies, government agencies and organizations are doing the same by imposing do-not-carry rules. Representative Mike Rogers, the Michigan Republican who is chairman of the House Intelligence Committee, said its members could bring only "clean" devices to China and were forbidden from connecting to the government's network while abroad. As it said he traveled "electronically naked."

At the State Department, employees get specific instruction on how to secure in Russia and China, and are briefed annually on general principles of security.

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Stay informed #3

- Export Control Reform initiative
Export.gov/ecr
- Current Events



Follow Best Practices! # 2

- Exercise reasonable care when hand-carrying a laptop computer to a foreign country
- The laptop:
 - MUST remain in reasonable control of the person(s) responsible for it at all times
 - MUST not be used by anyone in the foreign country
 - MUST not be left behind (upon your return), given away, or out of the US more than 1 year.
- Consider taking a minimal "Wiped" device

Before Traveling with Your Laptop

- Consider backing up your data and leave a copy of your files in a safe and secure location such as your office or a departmental shared drive. Don't carry the only copy of data you can't afford to lose.
- Don't carry data you don't want others to see: medical records, data files from your research, financial information, photos, etc.
- Have a "Plan B" if there is data you will need when you reach your destination.
- Password-protect, encrypt (if allowed) or remove all student, personal, and proprietary information stored on your laptop.
- Ensure that your operating system has a strong password or passphrase when it boots up.
- Turn off file-sharing and print-sharing.
- Make sure your system's security patches are up to date and your firewall is turned on.
- Ensure that anti-virus, anti-spyware, and personal firewall software is installed on your laptop.
- Use secure VPN for secure remote access
- Consider purchasing a tracking application for your laptop in case it is lost or stolen.

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Steps to Review

Classify the technology or goods involved (ITAR, EAR, OFAC, other?)

Determine if license is needed for the technology/end user/end use

Determine if license exception is available

Document the use of the exception

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Steps to Review

If you must travel to one of the five embargoed countries, you may be able to obtain the appropriate export license, but the process can take, on average, a ninety days for review.

The Department of Commerce's Bureau of Industry and Security and the Office of Foreign Assets Control (OFAC) within Dept. of Treasury accept applications for licenses to export encryption products and technologies.

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Reality Check

Exporting is a privilege—not a right

Every situation is unique

Ignorance is not a defense

Seek expert advices BEFORE you Travel!

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WHO Can You Call With Questions?

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