Export Controls for Research Institutions:
Are We Having Fun Yet?

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I. Introduction

At the NACUA 51st Annual Conference, Session 6G: Export Controls for Research Institutions: *Are We Having Fun Yet?* is an advanced session designed to update to practitioners on key issues and events of the last year. The program focuses on several recent developments:

- The new I-129 form ("*Petition for Nonimmigrant Worker*") which was issued by U.S. Citizenship and Immigration Service;
- Pronouncements by the Department of Commerce regarding cloud computing under the Export Administration Regulations;
- Significant changes in sanction regimes administered by the U.S. Department of Treasury; and
- The recent case of *U.S. v. Roth*, a successful prosecution of a university professor who violated export control regulations.

The greatest part of this outline is devoted to the new I-129 form, which requires university officials to certify that no "deemed export" license is required when sponsoring a foreign national for a special employment visa. The outline covers the law of deemed exports under the Export Administration Regulations and the International Traffic in Arms Regulations and a number of related areas of concern. The outline also presents suggested compliance processes that might be implemented in response the heightened enforcement interest in the area of deemed exports and the I-129.

The outline below first begins with a short summary of the principle export and trade control regulatory frameworks.

A. Overview of Export Control and Trade Sanction Regulations

There are three principal agencies[1] that administer U.S. export control regulations and trade sanctions: the U.S. Department of State, Directorate of Defense Trade Controls (DDTC)[2]; the U.S. Department of Commerce, Bureau of Industry and Security (BIS)[3]; and the U.S. Department of the Treasury, Office of Foreign Assets Control (OFAC).[4]

The International Traffic in Arms Regulations (ITAR)[5] control the export and import of defense articles, defense services and related technical data. Generally, a defense article or service is:

- Specifically designed, developed, configured, adopted or modified for a military application;
- Does not have a predominant civilian application, and
- Does not have performance equivalents of articles and services used primarily in civilian applications.[6]

Defense articles may include: munitions, armament and weapons (including nuclear, radiological, chemical and biological weapons); military vehicles, vessels, and aircraft; spacecraft, satellites and technology related to their launch and operation; computers, encryption and communication technology designed for

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[1] Other agencies involved in export control include the U.S. Departments of Energy, Interior, and Homeland Security, the Nuclear Regulatory Commission, and the Food and Drug Administration. *See* 15 CFR Part 730, Supp 3.

[2] http://www.pmddtc.state.gov/index.html

[3] http://www.bis.doc.gov/about/index.htm

[4] http://www.treasury.gov/about/organizational-structure/offices/Pages/Office-of-Foreign-Assets-Control.aspx

[5] 22 CFR Part 120 and 130.

[6] 22 CFR 120.3. The intended use of an article after it is exported (i.e. military or civilian) is not relevant in determining whether the article or service is controlled by ITAR). 22 CFR 120.3.

military application; certain guidance and tracking technologies; and certain chemicals, toxins, biological materials, and their precursors.[7]

The Export Administration Regulations (EAR)[8] are administered by the U. S. Commerce Department, Bureau of Industry and Security (BIS). These regulations control the ability of "U.S. Persons" (*e.g.,* U.S. citizens, U.S. permanent residents, any juridical person organized under U.S. laws, and persons in the U.S.)[9] to export or transfer U.S. origin items. The EAR regulations are broad and cover the export of all items of U.S. origin or located in the U.S., including commodities, manufacturing and test equipment, materials, software, and technology.[10] They also cover foreign manufactured items that contain more than a *de minimus* amount of U.S. content.[11]

Of particular concern under the EAR are commercial items that are used primarily for civilian purposes but that may have military applications, called "dual use" items.[12] These items appear on the "Commerce Control List" (CCL).[13] The CCL restricts exports based on the item's potential use in a military, terrorist, or other controlled application, and the country of destination.

For U.S. colleges and universities, the impact of ITAR and EAR is limited by several important exemptions, including:

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[7] 22 CFR 120.6 and 121.1 (The U.S. Munitions List).
[8] 15 CFR Parts 730 – 774.
[9] 15 CFR 772.1. *See also* 15 CFR 740.9, 740.14, and parts 746 and 760 for specialized definitions of *"U.S. Persons"* under the EAR.
[10] The Commerce Control List (CCL), 15 CFR 774, Supplement 1, is divided into numbered categories: **0** (nuclear), **1** (chemicals, microorganisms and toxins), **2** (materials processing), **3** (electronics), **4** (computers), **5 Part 1** (telecommunications), **5 Part 2** (information security), **6** (sensors and lasers), **7** (navigation and avionics), **8** (marine), **9** (aerospace and propulsion). The CCL is further subdivided into five product groups: **A** (systems, equipment, components), **B** (test, inspection, and production equipment), **C** (material), **D** (software), **E** (technology).
[11] 15 CFR 734.3-4. *See* text at footnotes 23-26.
[12] 15 CFR 730.3.
[13] 15 CFR 774, Supp. 1.

- *Publicly available technology and software and published information* that is already in the public domain (*e.g.*, books and periodicals; materials found libraries or released at public conferences, and public patents);[14]

- *Educational information*, which includes general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities;[15] and

- *Fundamental research*, which is basic and applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community.[16]

The Office of Foreign Assets Control ("OFAC") of the U.S. Department of the Treasury administers and enforces economic and trade sanctions based on U.S. foreign policy and national security goals against targeted forcign countries and regimes. In addition to country-based sanctions, OFAC administers sanctions against individuals and entities, often referred to as "Specially Designated Nationals" (SDNs) who engage in or promote terrorism, international narcotics trafficking, activities related to the proliferation of weapons of mass destruction (WMD), and other threats to U.S. national security, foreign policy or economy.

The jurisdictional scope of OFAC sanction programs extends to "U.S. Persons." Generally, this term is defined to mean any U.S. citizen, permanent resident alien, juridical person organized under the laws of the United States, or any person or entity within the jurisdiction of the United States, including U.S. branches of foreign entities; and any person in the United States.[17] For a full list of OFAC administered sanction programs, *see* http://www.treas.gov/offices/enforcement/ofac/

The terms and conditions of the OFAC sanction programs, including the

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[14] 15 CFR 734.3(b), 734.7. 22 CFR 120.11 (ITAR "Public Domain" information).
[15] 15 CFR 734.9 (EAR) and 22 CFR 120.11 (ITAR "Public Domain" information).
[16] 15 CFR 734.8. 22 CFR 120.11 (ITAR "Public Domain" information). There are also a number of EAR exceptions that may be utilized by universities in certain circumstances. *See* 15 CFR Part 740.

definitions of regulatory terms and words, can vary significantly from one OFAC sanction program to another. OFAC sanction program conditions also change over time to reflect changes in U.S. foreign policy.

B. Resource Materials

There are good resource materials available for college and university attorneys seeking information about the various export control laws and trade sanction programs. Below is a selection of general overview materials, daily email services, compliance checklists and training resources.

1. General Overview Materials:

- Rochester Institute of Technology – *Export Compliance Program* (included with permission in Program CD Rom and also available at http://finweb.rit.edu/legalaffairs/export_compliance.html).
- Counsel on Government Relations (COGR) – *Export Controls and Universities: Information and Case Studies* (February 2004) http://www.cogr.edu/Pubs_ExportControls.cfm
- Catholic University of American – *Campus Legal Information Clearinghouse* http://counsel.cua.edu/fedlaw/EAA.cfm
- *The Annotated ITAR* - by James Bartlett, available obtain free of charge through the email address below.

2. Daily Email Services:

- Gary Stanley, *Defense and Import-Export Update* (subscribe thru gstanley@glstrade.com)
- James Bartlett, *Northrop Grumman Corp. Law Department Export/Import Daily Update* (subscribe thru James.Bartlett@NGC.com)

3. Compliance Checklists:

- COGR – *Managing Externally Funded Research Programs, A Guide to Effective Management Practices* **(July 2009)** **http://www.cogr.edu/index.cfm#**
- BIS - *Export Management & Compliance Program Audit Module: Self-*

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[17] *See, e.g.,* Iran Sanctions 31 CFR 560.305

Assessment Tool (February, 2009)
http://www.bis.doc.gov/complianceandenforcement/emcp.htm

4. Training

- BIS: *In-person Training Seminars Schedule*
  http://www.bis.doc.gov/seminarsandtraining/elsem.htm
- BIS: *Online Training Room*
  http://www.bis.doc.gov/seminarsandtraining/seminar-training.htm
- NIHOD: Dual Use Research: A Dialogue *http://youtu.be/0yS1ur24j40*

II. Recent Developments

A. I-129 and Deemed Exports

On November 28, 2010, U.S. Citizenship and Immigration Service (USCIS) published a revised Form I-129, the "*Petition for Nonimmigrant Worker.*" Part 6 of the form requires a petitioner seeking H-1B and H1B1, L1, or O- 1A visas[18] to review U.S. export control regulations (EAR and ITAR) and certify that either: 1. a license is not required to release technology to the beneficiary, or 2. if an export license is required, it will not release controlled technology to the foreign worker until it has received a license or other U.S. Government authorization to do so.

While the Form I-129 certification is new, the legal principles underlying the certification are not. The certification arises primarily from the "deemed export" rule under the EAR and ITAR, which provides that the release of controlled technical

[18] The H-1B is a non-immigrant visa that allows U.S. employers to temporarily employ foreign workers in certain specialty occupations that require the theoretical and practical application of a body of highly specialized knowledge in a field of human endeavor including but not limited to architecture, engineering, mathematics, physical sciences, social sciences, biotechnology, medicine and health, education, law, accounting, business specialties, theology, and the arts. (8 U.S.C. §§ 1184(i)(1), 1101(a)(15)(H)). H-1B1 visas are issued to foreign nationals from Chile and Singapore. The O-1 visa is issued to foreign nationals with extraordinary ability in the field of arts, science, education, business or athletics who have risen to top of their field. L-1 visas are issued to foreign employees of a corporation in the U.S.

data, technology or source code to a person normally resident in a foreign country is "deemed" to be an export to that country.

The petitioner must make the I-129 certification based on information available at the time the form is submitted. Should this information or the circumstances of the foreign national's research change at a later date, the I-129 form need not be amended or refilled with USCIS, but any changes should be handled pursuant to internal export control compliance procedures and EAR or ITAR regulations.[19]

Because of the new I-129 certification, institutions of higher education should consider taking steps to assure that:

- Responsible staff and faculty (as well as the foreign national beneficiary) understand their responsibilities under the EAR and ITAR, particularly the concept of "deemed exports";
- Processes are established to integrate the appropriate human resources, visa processing, and academic units into the export control program; and
- An effective export control compliance program is in place.

The outline below reviews the "deemed export" rule under the EAR and ITAR including: understanding the deemed export rule under the EAR; "use" technology and the deemed export rule under the EAR; deemed exports and EAR 99 technology; deemed exports under ITAR; special issues involving deemed exports and "use" technology in fundamental research; and I-129 deemed export certification compliance programs.

1. Understanding the Deemed Export Rule under EAR

Under the EAR, a "deemed export" occurs when: technology or source code that is subject to the EAR is released to a foreign national in the United States.[20] The export is "deemed" to have been made to the home country of the foreign national.[21] A deemed export license will be required when the released technology or source code is controlled under the CCL for the home country of the foreign national.

Each of these terms in the EAR deemed export rule has a definition that must be met before a deemed export license is required. Understanding these definitions is critical to understanding the deemed export rule.

- *Technology and Source Code*

The deemed export rule does not apply to physical items/products. It applies only to "*technology*" and "*source code.*"[22] In 15 CFR 772.1, "technology" is defined as the "specific information necessary for the 'development,'[23] 'production,'[24] or 'use'[25] of a product." The technology that is controlled under the CCL refers only to that

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[19] *See Revised I-129 and Compliance with the Deemed Export Rule*, Kevin Wolf, Assistant Secretary for Export Administration, U.S. Department of Commerce, Bureau of Industry and Security, *American Immigration Lawyers Association Teleconference/Web Conference* (January 13, 2011).

[20] 15 CFR 734.2(b)(2)(ii). A "deemed re-export" occurs when controlled U.S. technology that has been exported outside the U.S. is released to a foreign national from a third-country. 15 CFR 734.2(b)(4).

[21] 15 CFR 734.2(b)(2)(ii).

[22] *Id.*

[23] "Development" is related to all stages prior to serial production, such as: design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, process of transforming design data into a product, configuration design, integration design, layouts. 15 CFR 772.1

[24] "Production" means all production stages, such as: product engineering, manufacture, integration, assembly (mounting), inspection, testing, quality assurance. 15 CFR 772.1

[25] "Use" is defined as operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing. 15 CFR 772.1. *See also* 15 CFR Part 774 Supplement No. 2 *General Technology and Software Notes* which provide:

> *1. General Technology Note. The export of "technology" that is "required" for the "development", "production", or "use" of items on the Commerce Control List is controlled according to the provisions in each Category. "Technology" "required" for the*

portion of technology peculiarly responsible or "required" for achieving or exceeding the technology's controlled characteristics.[26] The export or release of this "required" technology is governed by the provisions of each applicable category of the CCL.[27] This information may take the form of "technical data" or "technical assistance".

Technical data includes "blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories."[28] Technical assistance includes "instruction, skills training, working knowledge, and consulting services."[29] The EAR further advises that technical assistance may involve the transfer of technical data[30] (and thus may potentially cause a deemed export).

Source code is defined as a "convenient expression of one or more processes that may be turned by a programming system into equipment executable form ("object code" (or object language))."[31]

- *Subject to the EAR*

Generally, commodities, technology, and source code are subject to the EAR if they are in the U.S.[32] or of U.S. origin.[33] Foreign made commodities, software or technology that have been commingled with more than *de minimis* levels of controlled U.S. origin commodities, software or technology[34] and certain foreign-

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"development", "production", or "use" of a controlled product remains controlled even when applicable to a product controlled at a lower level.

[26] 15 CFR 772.1, 15 CFR Part 774, Supplement No.1, General Technology Note.
[27] 15 CFR 772.1, 15 CFR Part 774, Supplement No.1, General Technology Note.
[28] 15 CFR 772.1
[29] *Id.*
[30] *Id.*
[31] 15 CFR 734.3
[32] *Id.*
[33] *Id. See* §770.3 of the EAR for principles that apply to commingled U.S.-origin technology and software exported to Group D:1 countries.
[34] *Id. See also* 15 CFR 734.4

made direct products of U.S. origin technology or software are also subject to the EAR. [35]

As noted above, there are several significant exemptions to the EAR that are particularly important in higher education:

- *Publicly available information* that is already in the public domain (*e.g.* books and periodicals; materials found libraries or released at public conferences, and public patents);
- *Educational information*, which includes general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities; and
- *Fundamental research*, which is basic and applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community.[36]

The EAR provides several examples of fundamental research, including university-based research;[37] research based at federal agencies;[38] corporate research;[39] and research based elsewhere.[40] University-based research is defined as:

> *Research conducted by scientists, engineers, or students at a university ... ("University" means any accredited institution of higher education located in the United States.)*[41]

As a result, information that falls within the scope of the EAR's "fundamental research" provision does not require a license for release to a foreign national.

Some technologies and source code are not subject to the EAR because they under the exclusive jurisdiction of another agency of the U.S. government. These

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[35] *Id. See also* 15 CFR 736.2(b)(3).
[36] 15 CFR 734.3. *See also* 15 CFR 734.7-10. There are also a number of exceptions to the EAR that may be utilized by universities in certain circumstances. *See* 15 CFR Part 740.
[37] 15 CFR 734.8 (b).
[38] 15 CFR 734.8 (c).
[39] 15 CFR 734.8 (d).
[40] 15 CFR 734.8 (e).
[41] 15 CFR 734.8(b)(1)

include defense articles, software, services and related technical data, which are under the jurisdiction of the State Department,[42] and technology related to the production of special nuclear materials, which is under the jurisdiction of the Energy Department.[43]

- *Released*

Technology or source code is "released" for export when it is made available to foreign nationals for visual inspection (such as reading technical specifications, plans, blueprints, etc.); it is exchanged orally; or when it is made available by practice or application under the guidance of persons with knowledge of the technology or source code.[44]

- *Foreign National*

Any foreign national is subject to the "deemed export" rule except a foreign national who is granted U.S. permanent residence, U.S. citizenship, or status as a "protected person" (such as a political refugee and political asylum holder).[45]

- *Home Country*

For individuals who are citizens of more than one foreign country, or have citizenship in one foreign country and permanent residence in another, as a general policy, the last permanent resident status or citizenship obtained governs for purposes of the deemed export rule under the EAR.[46]

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[42] 14 CFR 734(b)(1)(i). *See also* 22 CFR Parts 120-130.
[43] 15 CFR 734.3
[44] 15 CFR 734.2(b)(3).
[45] 8 U.S.C. 1324b(a)(3)
[46] *Revisions and Clarification of Deemed Export Related Regulatory Requirements*, 71 FR 30840.

2. "Use" Technology and Deemed Exports under the EAR

Under the EAR, the deemed export rule does *not* regulate the operation of controlled equipment by foreign nationals; rather, it is the *release* to a foreign national of export-controlled *"use"* technology that may require a deemed export license. Under the EAR "use" technology involves the "operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing" of a product.[47] If the technology at issue does meet all six attributes, then it does not constitute "use" technology.[48] Moreover, as explained above, "use" technology controlled under the CCL refers to only that portion of technology which is required for achieving or exceeding the technology's controlled performance levels, characteristics or functions.[49] As BIS explains:

> *If the "use" technology does not enable an operator:*
> - *to replicate or improve the design of the controlled item being operated; and,*
> - *the operation of the controlled item is not directly related to the production, development or use of a nuclear explosive, chemical or biological weapon, or missile or rocket system;*
> - *then, the "use" technology does not meet the "required" threshold and is likely classified as EAR99.*[50]

Thus, if the foreign national has access only to the technology that is necessary to operate the export controlled equipment, a release of "use" technology has not occurred and no deemed export license is required.[51]

Finally, the General Technology Note, 15 CFR Part 774, Supplement No. 2, provides that the export of technology that is required for the "use" of items on the CCL is controlled according to the provisions in each Category. Accordingly, one

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[47] 15 CFR 772.1. (Emphasis added).
[48] *Revisions and Clarification of Deemed Export Related Regulatory Requirements*, 71 FR 30840.
[49] *See* text at notes 23-27, *supra*.
[50] *Revisions and Clarification of Deemed Export Related Regulatory Requirements*, 71 FR 30840.

must first determine whether the "use" technology is on the CCL and then, following the usual rules of the CCL and the associated Country Chart, determine whether a license is required to export the "use" technology to the home country of the foreign national. If a license would not be required to export the "use" technology to the home country of the foreign national, then no deemed export license is required.[52]

3. *Deemed Exports and EAR 99 Technology*

Release of EAR99 technology to a foreign national could, in certain circumstances, constitute a violation of Section 764.2(e) of the EAR, which bars certain enumerated actions with respect to an item subject to the EAR with knowledge that a violation of the EAR has occurred, is about to occur, or is intended to occur in connection with such item. Under the EAR, releases of EAR99 technology to Cuban and Iranian nationals requires a deemed export license.[53] In addition, releases of EAR99 technology to certain persons described in Part 744 of the EAR including [but not limited to] Specially Designated Global Terrorists require a deemed export license.[54] Additionally, pursuant to the Iranian Transactions Regulations maintained by OFAC, certain releases of EAR99 technology require a license from OFAC. [55]

For all other foreign nationals, EAR99 technology may be released without a license, unless you know that the foreign national intends to use such technology in

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[51] *Id.*
[52] *Id.*
[53] *See* §746.2 of the EAR.
[54] *See* §744.12 of the EAR.
[55] *See* 31 C.F.R. §560.418.

activities related to nuclear, chemical or biological weapons or missiles as described in Part 744 of the EAR.

4. *Deemed Exports under ITAR*

Unlike the EAR, ITAR does not have a separate definition for "deemed exports." The ITAR broadly defines an export to include:

> *(3) Disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the United States or abroad.*
> *(4) Performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad.*[56]

ITAR has export control exemptions that are similar to the EAR:

- *Public Domain:* information that be obtained through sales at newsstands and bookstores; subscription or purchase without restriction to any individual; second class mailing privileges granted by the U.S. Government; at libraries open to the public; patents available at any patent office; conferences, meetings, seminars, trade shows or exhibitions in the U.S., which are generally accessible to the public; public release in any form after approval of the cognizant U.S. government agency.[57]

- *Educational Information:* concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities, even if it relates to items included on the USML.[58]

- *Fundamental Research:* is considered "Public Domain" information under ITAR.[59] Fundamental research means basic and applied research in science and engineering at accredited institutes of higher education in the U.S., where the resulting information is ordinarily published and shared broadly in the scientific community. The fundamental research exception does not apply to research if there are restrictions on the results of the research, including restrictions for proprietary reasons or U.S. Government access and dissemination controls.[60]

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[56] 22 CFR 120.17
[57] 22 CFR 120.11.
[58] 22 CFR 120.10 (a)(5).
[59] 22 CFR 120.11 (a)(8).
[60] 22 CFR 120.11.

The fundamental research exemption under ITAR arises from the exclusion of "public domain" information from the definition of the "technical data" which is subject to ITAR export controls.[61] Under 22 CFR 120.10(a)(1), "technical data" means "[i]nformation . . . which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles" and includes "information in the form of blueprints, drawings, photographs, plans, instructions or documentation."[62] However, 22 CFR 120.10(a)(8) specifically states that "[t]his definition does not include . . . information in the Public Domain ...."[63] Additionally, ITAR provides for a limited license exemption for the disclosure of technical data to bona fide full time employees of U.S. universities.[64]

Despite the fundamental research and bona fide employee exemptions, universities *may* be required to apply for a license or Technical Assistance Agreement (TAA) to permit the provision of "defense services" to foreign nationals involved in fundamental research projects involving defense articles.[65] Defense services are defined as "[t]he 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, maintenance, modification, operation, demilitarization, destruction, processing or use of defense

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[61] 22 CFR 120.10.
[62] Technical data also includes software directly related to defense articles. 22 CFR 120.10(a)(4). *See also* 22 CFR 121.8(f).
[63] 22 CFR 120.10 (a)(5).
[64] 22 CFR 125.4(b)(10).
[65] *But see,* Mitchell A. Goodkin, *Under The International Traffic In Arms Regulations, Fundamental Research Overrides Defense Services*, 33 Journal of College and University Law 179 (2006).

articles."[66] Currently, the requirements of the ITAR regarding "defense services" arguably apply whether or not controlled technical data is disclosed and even when "all the information relied upon by the U.S. person in performing the defense service is in the public domain."[67]

The U.S Department of State has recently proposed amendments to the ITAR "defense services" regulations because it was determined to be overbroad:[68]

> *[I]t was determined that the current definition of defense services in § 120.9 is overly broad, capturing certain forms of assistance or services that do not warrant ITAR control. The proposed change in subpart (a) of the definition of "defense services" narrows the focus of services to furnishing of assistance (including training) using "other than public domain data", integrating items into defense articles, or training of foreign forces in the employment of defense articles. Consequently, services based solely upon the use of public domain data would not constitute defense services under this part of the definition and, therefore, would not require a license, technical assistance agreement, or manufacturing license agreement to provide to a foreign person.*[69]

In its July 2010 Plenary Session, the Defense Trade Advisory Group (DTAG) proposed the following Question and Answer regarding the application of the new proposed regulations on the need for universities to apply for a TAA when conducting fundamental research:

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[66] 22 CFR 120.9(a)(1).
[67] 22 CFR 124 (a).
[68] 76 FR 20590 (2011).
[69] *Id.*

FAQ Example 1

- **We are a university, and our fundamental research is excluded from controls under the ITAR. Why are we expected to participate as a signatory to a TAA covering defense services, since defense services only occur when ITAR controls are imposed?**
  - Performing fundamental research with a foreign person using only public domain information and/or items subject to the Export Administration Regulations is not a defense service. For example, your group is working on a project awarded by an agency or prime contractor who imposed no restrictions on publication or dissemination, the results of the project will not be considered or treated as "proprietary" to your organization, and you are not using any ITAR controlled equipment or data to perform the research. The work being done under this project is considered to be fundamental research as defined in ITAR 120.11. If all these facts apply to your situation, then you are not providing a defense service and a TAA is not required.

FAQ Example 1 *(continued)*

- If, in performing your research, you provide foreign persons with assistance as described in ITAR §120.9(a)(1)-(2), that assistance is a defense service subject to the licensing requirements of the ITAR. For example, your organization is part of a collaborative group that includes some members who are not accredited institutions of higher learning (i.e., industry, FFRDCs, other non-profits, etc.). One or more of the collaborators is a foreign person. The project involves fundamental research as defined in ITAR 120.11. However, the non-university parties enjoy no exclusion from ITAR controls. The technical data they produce and use in performing the research is subject to the ITAR. The project therefore includes assistance using U.S. origin technical data. Your participation in that assistance with foreign persons is a defense service subject to the ITAR and a TAA is required. Another example would be a fundamental research project in which your organization uses ITAR-controlled equipment or data to perform the research. While the results of the research may still be considered fundamental research that is public domain information, you must obtain export authorization to provide foreign persons with assistance related to the ITAR-controlled equipment or data used in the performance of the research.

5. *The Fundamental Research Exemption, "Use" Technology and Deemed Exports*

As noted above, "fundamental research" conducted at U.S. colleges and universities is exempt from export controls laws.[70] This exemption is derived from National Security Decision Directive 189 (Sep. 21, 1985) (NSDD 189) which states in part:

> *Fundamental research means 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.*
>
> ...
>
> *It is the policy of this Administration that, to the maximum extent possible, the products of fundamental research remain unrestricted. It is also the policy of this Administration that, where the national security requires control, the mechanism for control of information generated during federally-funded fundamental research in science, technology, and engineering at colleges, universities and laboratories is classification... No restriction may be placed upon the conduct or reporting of federally-funded fundamental research that has not received national security classification, except as provided in applicable U.S. Statutes.*

However, in recent years disagreement has arisen regarding the application of the fundamental research exemption as applied to controlled technology used in the course of fundamental research.

a. Sense of the U.S. Senate

The legislative history of the Export Administration Act of 1979 supports a broad interpretation of the fundamental research exemption:

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[70] 15 CFR 734.8. *See also* 22 CFR 120.11 (ITAR "Public Domain" information).

It is the sense of the Senate that the use of technology by an institution of higher education in the United States should not be treated as an export of such technology for purposes of section 5 of the Export Administration Act of 1979 (50 U.S.C. App. 2404) and any regulations prescribed thereunder, as currently in effect pursuant to the provisions of the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.), or any other provision of law, if such technology is so used by such institution for fundamental research. [71]

b. U.S. Department of Commerce

According to a recent report by the U.S. Government Accountability Office (GAO), *Export Controls, Improvements Needed to Prevent Unauthorized Technology Releases to Foreign Nationals in the United States* (February 2011), the U.S. Department of Commerce "has taken actions to clarify the regulatory definition of 'Use' technology but confusion about its application remains." [72] Indeed, the GAO reported that uncertainty within Commerce regarding "use" technology in fundamental research has helped create some of the existing confusion it found. For example, according to the GAO, Commerce has taken inconsistent positions regarding the need for the National Institute for Health (NIH), which engages in only fundamental research, to apply for deemed export licenses. On some occasions, Commerce required NIH to apply for deemed export licenses for foreign nationals conducting fundamental research and at other times Commerce officials informed NIH that, "it could claim the fundamental research exemption and need apply for no further deemed export licenses, based on the definition of "use" technology." [73]

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[71] *See* Sense of the Senate provision in S.2198, sec 401.
[72] Government Accountability Office (GAO), *Export Controls, Improvements Needed to Prevent Unauthorized Technology Releases to Foreign Nationals in the United States* (February 2011)(hereinafter "GAO Report") at 28.
[73] *Id. at 29-30.*

According to the GAO report, some university officials also believe that "use" technology in the context of fundamental research is exempt under the export control regulations and that foreign nationals are free to use equipment controlled under the EAR without restriction.[74] BIS has acknowledged the issue, stating that:

> *Confusion exists over the scope of fundamental research. Some research entities believe fundamental research regulatory language provides relief from all export licensing consideration."* [75]

The current public position of BIS regarding "use" technology is that the fundamental research does not provide a complete exemption for controlled technology used during the conduct of the research. According to BIS:

- *Fundamental research only applies to information that "arises during or results from" the research.*
- *There is no "blanket exemption" for all information that is transferred in the context of such research.*
- *If there is preexisting export controlled technology required to conduct the research then deemed export licensing implications must be considered.*[76]

As a result of the confusion described by the GAO, BIS has agreed to follow the GAO's recommendation to assess the extent to which foreign nationals who were issued specialty occupation visas should have been covered by deemed export licenses.

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[74] GAO report at 29.
[75] BIS Deemed Exports Webinar (August 29, 2007). http://www.bis.doc.gov/seminarsandtraining/webinars.htm
[76] *See* Revisions and Clarification of Deemed Export Related Regulatory Requirements, 71 FR 30,840 (May 31, 2006); BIS Deemed Exports Webinar (August 2007). http://www.bis.doc.gov/seminarsandtraining/webinars.htm

6. I-129 Deemed Export Certification Compliance Programs

The GAO expressed concern that employers have not been seeking deemed export licenses when necessary and that "academic institutions ... are not currently applying for export licenses for the release of controlled technology to foreign nationals in the United States." [77] The GOA Report suggested that, as a consequence, foreign "scientists, engineers and academics" from "countries of concern" had gained unauthorized access to controlled technologies in the U.S.[78]

Consequently, at the GAO's recommendation the UCSIS changed its I-129 form to include a deemed export certification to make it easier for BIS and other government agencies to use immigration data in deemed export enforcement actions.[79] Also, the GAO indicated that the certification was designed to make proving "willful intent" to violate the export control laws easier, thus facilitating criminal and civil prosecutions against officials and institutions.[80]

The GAO Report provides some direction to University counsel and compliance officers who wish to build an effective export compliance program in light of the amended I-129 and other enforcement activities.[81] The following are suggestions that universities may consider for their export control compliance programs:

a. *Take a Risk-Based Approach to Compliance Activities.*

The GAO Report encouraged a risk-based approach to compliance with the

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[77] GAO Report at 5-6.
[78] *Id.*
[79] GAO Report at 7, 38.
[80] GAO Report at 34.

deemed export provisions of the export control laws.[82] The GAO report provides useful information for formulating a risk-based I-129 compliance plan.

- *Focus on Advanced Technology*

Fields such as social sciences were of little interest to the GAO.[83] Rather, the GAO Report espouses that compliance efforts focus on technologically advanced occupational fields and areas of research.[84] GAO encouraged enhanced enforcement in fields of engineering, computers, the physical sciences, and life sciences.[85] Biotechnology research was of particular concern to the GAO, which referenced the field numerous times throughout the report.[86] Computer technology was also mentioned prominently, and the GAO recommended security controls that might bar foreign nationals of concern from: (1) unmonitored use of high performance computers; (2) involvement in the design of computers that exceeded a specified performance limit;[87] and (3) accessing technical data on advanced microprocessors or certain types of lithography equipment.[88] GAO also mentioned aeronautics, lasers and optic, sensors, and marine technology are other areas of high risk for deemed exports.[89]

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[81] The GAO also noted that the President signed Executive Order 13558, 75 FR 69,573 (November 9, 2010) establishing the Export Enforcement Coordination Center to coordinate and strengthen the U.S. governments export enforcement efforts, including for deemed exports. GAO report at 2.
[82] GAO Report at 2-3.
[83] *Id.* at 3-4.
[84] *Id.*
[85] See, e.g., GAO report at 3-4.
[86] See, e.g., GAO report at 15.
[87] *See* 76 FR 36,986 (June 24, 2011). Final Regulations: *Export Controls for High Performance Computers: Wassenaar Arrangement Agreement Implementation for ECCN 4A003 and Revisions to License Exception APP.* (increasing peak performance controls for certain higher performance computer technology).
[88] *Id.* at 32.
[89] *Id.* at 14-15.

- *Focus on Countries of Concern*

Compliance efforts should be also focused on "countries of concern." The countries of most interest to the GAO were those in EAR Country Group E:1 and Country Group D,[90] particularly those countries with three of the four reasons for export controls.[91]

b. Engage in Effective Compliance Activities

- *Collect and Analyze Data*

The GAO Report states that collecting and analyzing data on applicants for specialty occupation visas is critical.[92] Many universities have developed forms to collect information about the foreign researchers and scholars they are sponsoring for work visas. (*See* samples attached hereto).

- Conduct Outreach and Monitor Compliance Efforts

Educating the university community about the I-129 and deemed exports and developing a compliance monitoring process are also highly recommended.[93]

B. Cloud Computing

In March 2010, a provider of "cloud computing" services sought the opinion from BIS as to whether it needed to obtain deemed export licenses for foreign national workers who serviced their systems. The applicant offered services that allowed users to access through the internet applications and data stored on the company's computer systems. These computers systems are spread out in a

[90] 15 CFR part 740, Supplement No. 1.
[91] GAO Report at 41.
[92] *Id.* at 38.
[93] *Id.*

multitude of locations and include data stored and shared by users, some of which may be technology controlled under the EAR. The applicant stated that its employees did not monitor or access user data except with consent or when required by law.

On January 11, 2011 BIS issued an Advisory Opinion in which it concluded that grid and cloud computing services are not subject to the EAR, because the service provider did not ship or transmit any items subject to the EAR to the user. BIS did not address whether users of cloud computing services would be required to obtain a license if their EAR controlled data was transmitted or stored by the service provider outside the U.S. (*See* Advisory Opinion attached hereto).

C. Trade Sanctions, Embargoes and Other Special Controls

1. *Cuba Sanctions*

OFAC administers the Cuban Assets Control Regulations (CACR), 31 CFR Part 515, which impose strict and comprehensive trade sanctions against Cuba. As a general rule:

- **Travel** to Cuba is prohibited except pursuant to a "general" license or a "specific" license issued by OFAC.[94] The CACR and OFAC impose restrictions even on those persons who are permitted to travel to Cuba.

- **Import/Export of goods between Cuban and the U.S.** are generally prohibited except the export to Cuba of certain individual gift items (including certain computer and telecommunication items), humanitarian items, commercial trade exports licensed by the U.S. Department of Commerce, and

[94] A "general" license is an authorization whose details are set forth in relevant sections of the CACR. A person relying on a general license may engage in activities it authorizes without the need to apply to OFAC for a letter of specific authorization (a "Specific" license). *See Cuba, What you need to know about U.S. Sanctions Against Cuba* (OFAC 2009).

information and informational materials.

On January 28, 2011, OFAC published a new rule implementing a number of significant changes to the CACR. According to the White House, the amendments were designed "to help reunite divided Cuban families; to facilitate greater telecommunications with the Cuban people; and to increase humanitarian flows to Cuba."[95] The new rules facilitate educational and other academic activities through a number of key regulatory changes:

a. New General License Involving Educational Activities:

The new regulations create a new general license for certain travel-related transactions related to educational activities that previously required a specific license from OFAC. As a result, no prior authorization from OFAC will be required to engage in travel-related transactions directly incident to:

- Participating in a structured educational program in Cuba as part of a course offered for credit by the sponsoring U.S. academic institution;[96]
- Participating in a formal course of study at a Cuban academic institution, as long as the study will be accepted for credit toward the student's undergraduate or graduate degree;
- Engaging in noncommercial academic research in Cuba specifically related to Cuba and for the purpose of obtaining a graduate degree;
- Teaching at a Cuban academic institution by an individual regularly employed in a teaching capacity at the sponsoring U.S. academic institution, as long as the teaching activities as related to an academic program at the Cuba institution and that the teaching will last no fewer than 10 weeks;

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[95] *See* White House Press Release dated January 14, 2011.

[96] The new general license authorizes students to participate in academic activities in Cuba through any sponsoring U.S. accredited academic institution, not only through the accredited institution where the student is pursuing his or her degree.

- Sponsoring a Cuban scholar to teach or engage in other scholarly activity at the sponsoring U.S. academic institution (including the payment of a stipend or salary).

All faculty and staff -- including adjunct faculty and part-time staff -- can now qualify for a license if they meet the specified criteria. Previously, only full-time permanent employees and enrolled students could qualify.

b. Specific Licenses Authorizing Additional Educational Activities in Cuba

The new regulations also allow for specific licenses related to educational activities that were not previously allowed but that are now authorized by the new general license provisions.[97] OFAC may issue licenses authorizing travel-related transactions in response to specific applications related to:

- An individual's educational activities in Cuba involving participation in Cuban educational programs, research in Cuba, and study at Cuban academic institutions;
- Educational exchanges not involving academic study pursuant to a degree program, sponsored by an organization that promotes "people-to-people" contact;
- Sponsorship or co-sponsorship by an accredited U.S. academic institution of academic seminars, conferences, and workshops related to Cuba or global issues involving Cuba, as well as attendance at these activities by faculty, staff, and students of the licensed institution.
- Travel-related transactions incident to participation in a clinic or workshop in Cuba, provided that the clinic or workshop is organized or run, at least in part, by the licensed institutions and that certain other conditions are met. Previously, licenses would only be issued for participation exhibitions, athletic or non-athletic competitions in Cuba.[98]

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[97] 15 CFR 515.656(b).
[98] 15 CFR 515.567(b).

c. U.S. Academic Institutions Authorized to Open Cuban Bank Accounts

U.S. academic institutions may now open accounts at Cuban financial institutions to conduct authorized educational activities.

2. *Iran Sanctions*

The Iran Sanctions are particularly strict.[99] In summary, Iran Sanctions prohibit:

- The importation of any goods of Iranian origin into the United States (either directly or through a third country).[100]
- U.S. Persons[101] from engaging or dealing in any transaction involving or related to services of Iranian origin, including transactions outside the U.S. (*See* 31 C.F.R. § 560.206).[102]
- New investments by U.S. persons in Iran or in property (including entities) owned or controlled by the Government of Iran.

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[99] *See* OFAC website for statutes, regulations, Executive Orders, OFAC guidance and other materials: http://www.ustreas.gov/offices/enforcement/ofac/programs/iran/iran.shtml).

[100] The Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA) among other things, prohibits the importation of Iranian-origin goods and services into the United States. No exception to this prohibition may be made for the commercial importation of Iranian-origin goods described in section 560.534(a) of the Iranian Transactions Regulations(ITR) (31 CFR Part 560). The Office of Foreign Assets Control (OFAC) cannot authorize by general or specific license the commercial importation of such Iranian-origin goods (which include certain foodstuffs and carpets) on or after September 29, 2010. Consequently, the general license in section 560.534 of the ITR will be eliminated by September 29, 2010, and any such goods for commercial importation into the United States must be entered for consumption before that date. *See* discussion of CISADA in text, *infra*.

[101] OFAC Iran Sanctions regulations apply to "U.S. Persons" (31 CFR 535.329) and "any person subject to the jurisdiction of the United States" (31 CFR 560.314), including:

> *(a) Any person wheresoever located who is a citizen or resident of the United States;*
> *(b) Any person actually within the United States;*
> *(c) Any corporation organized under the laws of the United States or of any state, territory, possession, or district of the United States; and*
> (d) Any partnership, association, corporation, or other organization wheresoever organized or doing business which is owned or controlled by persons specified in paragraph (a), (b), or (c) of this section. Id.

[102] The terms "services of Iranian origin" and "Iranian-origin services are defined as "services performed outside Iran by a citizen, national or permanent resident of Iran who is ordinarily resident in Iran, or by an entity organized under the laws of Iran." (31 CFR 560.306). However, the terms "services of Iranian origin" do not include "[s]ervices performed outside Iran by an Iranian citizen or national who is resident in the United States or a third country" as long as the services are not performed by or on behalf of the Government of Iran (other than diplomatic and consular services), an entity organized under the laws or Iran, or a person located in Iran. (31 CFR 530.306)

- U.S. depository institutions, including foreign branches, from servicing accounts of the Government of Iran or persons in Iran or directly debit or credit Iranian accounts.

Under the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010, (Pub. L. 111–195) ("CISADA"), sanctions against Iran have been further enhanced by:

- Empowering OFAC to enforce sanctions on banking institutions that indirectly facilitate Iran's acquisition or development weapons of mass destruction through correspondence and pass through banking accounts (75 FR 48836-10);

- Withdrawing General Licenses that had permitted transactions involving Iranian carpets and foodstuffs (75 FR 59611-10);[103]

- Providing financial sanctions against Special Designated Nationals who have been identified as engaging in Iranian human rights violations. (76 FR 7695-11).

U.S. Persons may not evade the Iran Sanctions by using foreign persons or entities. The Iranian Transaction Regulations (ITR) (31 CFR 560.208) provide:

> *No United States person, wherever located, may approve, finance, facilitate, or guarantee any transaction by a foreign person where the transaction by that foreign person would be prohibited by this part if performed by a United States person or within the United States.*

However, there are a number of exemptions from the Iran Sanctions, including:

- All transactions ordinarily incident to travel, including travel related remittances (31 CFR 560.210);

- Certain humanitarian shipments (31 CFR 560.210; *See also* Iran General Licenses 1 and 1-a);

- The export to and import from Iran of "informational materials." (31 CFR 560.210).

The definition of "informational materials" includes "publications, films, posters, phonograph records, photographs, microfilms, microfiche, tapes, compact disks, CD ROMs, artworks, and news wire feeds." (31 CFR 560.315 and 31 CFR 538.306).

Moreover, 31 CFR 560.538 states that:

> *U.S. persons are authorized to engage in all transactions necessary and ordinarily incident to the publishing and marketing of manuscripts, books, journals, and newspapers in paper or electronic format (collectively, 'written publications").*

This section explicitly permits a broad range of transactions that are "necessary and ordinarily incident to publishing", including:

> *(1) Commissioning and making advance payments for identifiable written publications not yet in existence, to the extent consistent with industry practice;*
> *(2) Collaborating on the creation and enhancement of written publications;*
> *(3)(i) Augmenting written publications through the addition of items such as photographs, artwork, translation, explanatory text, and, for a written publication in electronic format, the addition of embedded software necessary for reading, browsing, navigating, or searching the written publication;*
> *(ii) Exporting embedded software necessary for reading, browsing, navigating, or searching a written publication in electronic format, provided that the software is classified as ``EAR 99" under the Export Administration Regulations, 15 CFR parts 730 through 774 (the ``EAR"), or is not subject to the EAR;*
> *(4) Substantive editing of written publications;*
> *(5) Payment of royalties for written publications;*
> *(6) Creating or undertaking a marketing campaign to promote a written publication; and*
> *(7) Other transactions necessary and ordinarily incident to the publishing and marketing of written publications as described in this paragraph (a).*[104]

The above-listed activities are *not* permitted if any of the involved parties are the Government of Iran. However, in this context, the term "Government of Iran"

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[103] *See* footnote 2, *supra.*
[104] 31 CFR 560.538.

and does *not* include academic and research institutes and their personnel. [105]

It is worth noting that despite the ITR's explicit support for the free exchange of ideas among U.S. and Iranian academics and researchers, OFAC may have allowed outdated "Guidance" to remain on its website which arguably contradicts the provisions of 31 CFR 560.538. In a letter dated September 30, 2003 to "an established academic journal." OFAC stated:

> *Nevertheless, certain activities described in your letter would fall outside of the information and informational materials exemption. The collaboration on and editing of manuscripts submitted by persons in Iran, including activities such as the reordering of paragraphs or sentences, correction of syntax, grammar, and replacement of inappropriate words by U.S. persons, prior to publication, may result in a substantively altered or enhanced product, and is therefore prohibited under ITR § 560.204 unless specifically licensed. Such activity would constitute the provision of prohibited services to Iran, regardless of the fact that such transactions are part of the U.S. Entity's normal publishing activities.*

See http://www.treasury.gov/resource-center/sanctions/Programs/pages/iran.aspx (OFAC website, "Interpretive Guidance"). The quoted language of the "Guidance" letter appears inconsistent with the ITR regulations on "Authorized Transactions necessary and ordinarily incident to publishing," 31 CFR 560.538 cited above. OFAC does not offer any explanation on its website regarding the apparent discrepancy between the "Guidance" letter and the current relevant ITR provisions, which were most recently revised on July 1, 2010.

Finally, Iranian transactions may be authorized by OFAC through a specific or general license. U.S. institutions of higher education that desire to conduct academic

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[105] *Id.*

activities with Iranian nationals who normally reside in Iran should consider applying to OFAC for a license.[106]

3. *Sudan Sanctions*

As with the Iran Sanctions, the OFAC Sudan Sanctions program places broad restrictions on the direct or indirect export or re-export of goods, technology or services to or from Sudan. However, there are key differences between the Iran and Sudan Sanctions.

First, as a result of the Darfur Peace and Accountability Act of 2006 and Executive Order 13412, the regional government of Southern Sudan is excluded from the definition of the "Government of Sudan", which remains subject to strict sanctions. On April 12, 2011, OFAC issued additional "Guidance" regarding Southern Sudan:

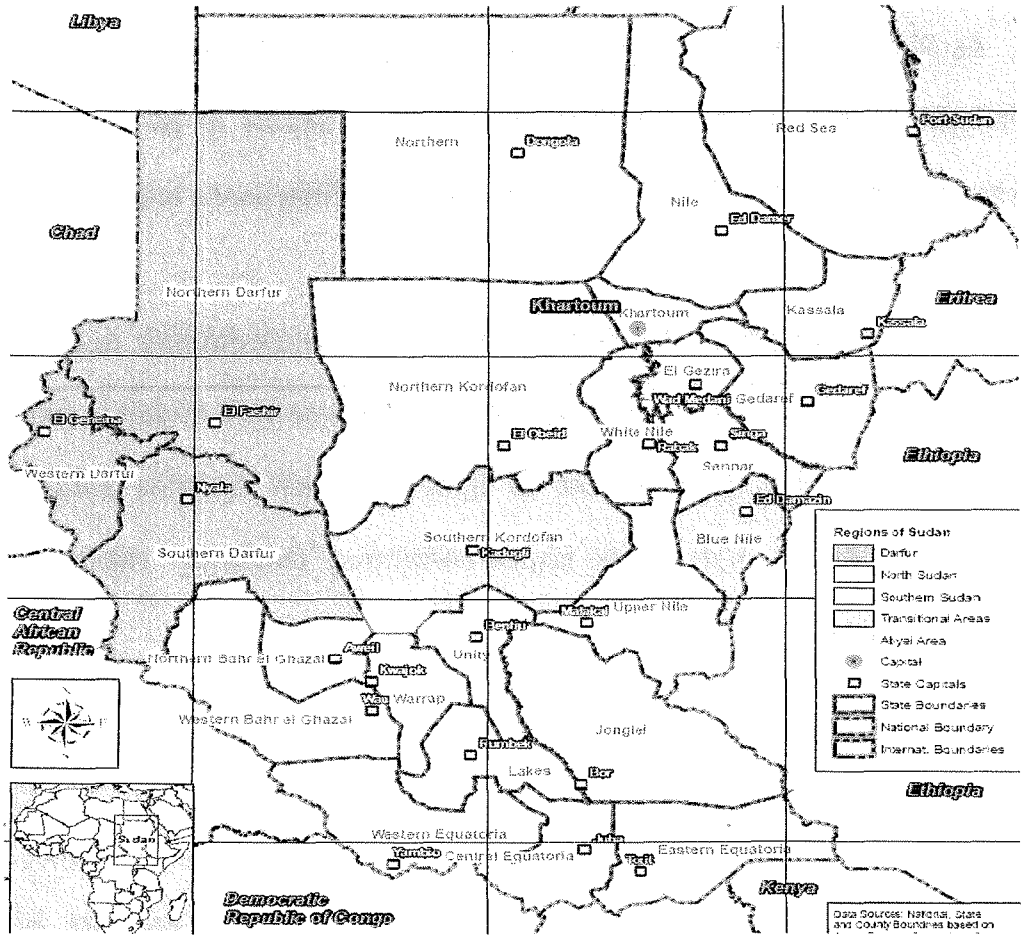
> *When the new state is formed by Southern Sudan, it will not be included in the territorial boundaries of Sudan nor be governed by the Government of Sudan. Following interagency consultations, OFAC has concluded that the SSR will continue to apply only to Sudan and the Government of Sudan, and that such a new state and its government will not be subject to them.*

However, the Guidance further provides that U.S. Persons will still be prohibited from engaging in transactions involving the Government of Sudan or its property or that benefit Sudan; involving exports or imports of items that transit through Sudan; or involving the petroleum industry in Sudan.

Trade sanctions have also been lifted from certain "Specified Areas" of Sudan, including Southern Kordofan/Nuba Mountains State, Blue Nile State, Abyei (an area

[106] New York University (NYU) applied for and received licenses from OFAC to engage in educational and other academic activities with Iranian and Sudanese nationals at NYU in Abu Dhabi. Among

which is still contested by Sudan and the new state of Southern Sudan), Darfur, and certain marginalized areas in and around Khartoum (four refuge camps for "internally displace persons" – Mayo, Wad El Bashir, and Soba).



It is also worth noting that the sanctions on employment of services of Sudanese nationals are less restrictive than the Iran Sanctions. For transaction involving Sudanese Nationals, 31 CFR 538.312 provides,

The term ... services of Sudanese origin includes:

(c) Services performed in Sudan or by a person ordinarily resident in

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other things, these licenses permit NYU to hire Iranian and Sudanese faculty and staff and admit Iranian and Sudanese students.

Sudan **who is acting as an agent, employee, or contractor of the Government of Sudan or of a business entity located in Sudan.** *(Emphasis added).*

In addition to OFAC-administered trade sanctions, there are also significant restrictions on the export of U.S. items and technology under the EAR on the export or re-export of U.S. items to Sudan. Generally, whenever OFAC sanctions are in place, BIS cedes jurisdiction to OFAC over certain administrative matters, such as licensing. However, BIS retains licensing jurisdiction regarding Sudan. Thus, where exports or re-exports are banned by OFAC sanctions and EAR prohibitions, licenses from both agencies may be required.

Sudan is classified under the EAR as a member of Country Group E1, (Terrorist Supporting Countries). *See* EAR Part 740 Supplement 1. Items on the CCL that are subject to "Antiterrorism Controls" ("AT") generally may not be exported to Group E1 countries, including Sudan, without a license issued by the BIS. Included on the CCL are "mass market" laptop equipment (ECCN 4A994) which are typically preloaded with (a) mass market operating software (ECCN 4D994) and (b) mass market encryption software (ECCN 5D992), all of which are subject to AT controls and generally must be licensed for export or re-export unless there is an "exception" under the EAR.

There are exceptions relevant to universities to CCL restrictions for export and reexports to Sudan. As noted above, TMP exception EAR 740.9 generally applies to U.S. Persons who are traveling outside the U.S. on any "lawful enterprise" who carry with them the "tools of the trade." The TMP exception was recently updated and, effective July 2010, U.S. Persons traveling to Sudan for *humanitarian nor*

development reasons are permitted to take certain AT controlled items[107] as follows:

> *"[T]o provide humanitarian or development assistance in Sudan to support activities to relieve human suffering in Sudan by an organization registered by the Department of the Treasury, Office of Foreign Assets Control (OFAC) pursuant to 31 CFR §538.521, to support the actions in Sudan for humanitarian or development purposes by an organization authorized by OFAC to take such actions that would otherwise would be prohibited by the Sudanese Sanctions Regulations (31 CFR part 538), or to support the activities to relieve human suffering in Sudan in areas that are exempt from the Sudanese Sanctions Regulations by virtue of the Darfur Peace and Accountability Act and Executive Order 13412."*

The BAG exception under EAR 714.14 ordinarily allows for personal baggage including laptops. However, there does not appear to be any BAG exception for items controlled for AT reasons to E:1 countries such as Sudan. *See* ECCN 4A994, 4D994 and 5D992. Moreover, EAR 714.14 subsection (f) specifically excludes mass market encryption software (ECCN 5D992) which is almost universally preloaded as part of mass market operating system software (ECCN 4D994). Thus, only university owned laptops should be carried for travel to Sudan.

C. *Specially Designated Nationals Sanctions*

"Specially Designated Nationals" (SDNs) are organizations or individuals identified by the U.S. as terrorists; organizations or individuals engaged in activities related to the proliferation of weapons of mass destruction; international narcotics traffickers, or who are otherwise threats to the national security, foreign policy or

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[107] There are requirements and limitations under TMP that University travelers to Sudan should know (e.g. length of time - one year maximum without a license; security and control of CCL controlled item while in Sudan, and return of CCL item to the U.S. within one year). The Sudan TMP exception is also very specific regarding the ECCN numbers for equipment permitted for humanitarian use. Thus it will be necessary to determine the exact computer hardware, operating system, encryption software and other preloaded software to make sure they are all "mass market". Some scientific software or advanced encryption technology may not be allowed under TMP. Additionally records related to the use of the TMP exception should be kept for 5 years. EAR part 762.

economy of the U.S. A U.S. person cannot engage in any transaction with or for a person or entity named on the SDN list. Accordingly, U.S. universities should take steps to ensure that their students, staff, and vendors are not SDNs and that they do not engage in financial transactions with or through financial institutions identified as SDNs.

The OFAC SDN list is a compilation of names identified through several OFAC administered trade sanction programs. BIS and the Department of State also maintain lists of sanctioned and entities. NYU uses software technology to help establish an effective compliance process. Using the software NYU screens SDN and other sanctions and federal debarred lists on a continuous, real-time basis. NYU also uses the software for managing potential "deemed exports." [108]

III. Case Study: *United States v. Roth*

A. Facts of the Roth Case

John Roth was a Professor of electrical engineering at the University of Tennessee. Roth and a former student were co-owners in Atmospheric, a company that won a bid to develop plasma actuators that could be used to control the flight of small, subsonic, unmanned, military drone aircraft. The project was broken down into Phase I, which entailed developing the design of the actuators, and Phase II, which entailed testing the actuators in a wind tunnel on a non-military aircraft.

When Phase I was completed, Roth assisted Atmospheric in drafting the contract proposal for Phase II, which the Air Force also assigned to Atmospheric.

Roth also assisted in writing and signed a subcontract between him and Atmospheric acknowledging that Phase II work was subject to export controls. Additionally, the contract and the subcontract incorporated federal regulations prohibiting foreign nationals from working on the project.

Roth knew that his research was export controlled and that he could not access his research data from outside of the United States nor could he allow foreign nationals access to it unless he obtained a license. Nevertheless, Roth allowed two of his graduate research assistants—an American and a Chinese national—work with him on the project. Originally, the American student was assigned to work at Atmospheric on the export controlled data and the Chinese national worked at the University without access to the export controlled data. Eventually, Roth gave the Chinese national student access to controlled technical data.

During Phase II, a Force Stand that was controlled under ITAR was installed in labs at Atmospheric and at the University to test the actuators and gather export controlled data. Roth allowed the Chinese national student to work with the Force Stand, and another graduate student, who was an Iranian national, to have access to it multiple times.

Because the Chinese national student was graduating, Roth asked University officials to appoint the Iranian student as a replacement on the research project. Roth was warned by the University's export control officer that the Iranian student could not work on the project because of export controls and also warned Roth that he could not take any research data on a trip to China that Roth had planned.

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[108] For more information regarding NYU's use of technology in export control compliance and general screening of government debarment lists contact robert.roach@nyu.edu.

Nevertheless, Roth traveled to China and took with him export controlled data.[109] Roth also had the Chinese student send him controlled technical data by way of a Chinese professor's e-mail address.

On May 20, 2008, a grand jury returned an indictment against Roth and Atmospheric claiming that Roth had taken Phase II data and the Agency Proposal to China, and both Roth and Atmospheric had allowed the Chinese and Iranian graduate students access to export controlled data and the Force Stand. (*See* indictment attached hereto). A jury convicted Roth of one count of conspiracy, fifteen counts of exporting defense articles and services without a license, and one count of wire fraud. He appealed his convictions to the Sixth Circuit Court of Appeals.

The Sixth Circuit upheld the convictions. (*See* decision in U.S. v. Roth, No 09-5085 (6th Cir., January 5, 2011) attached hereto). Roth argued that the Phase II data, Agency Proposal, and Force Stand were not defense articles because he was removed from Phase II before actuators were ever applied to any military aircraft. The Sixth Circuit rejected this argument holding that federal regulations extend export controls to all stages of covered defense projects, not just the final stages when military devices are directly involved.

Roth also claimed that in order for the government to prove that he intentionally exported defense articles or services it was required to prove that he specifically knew the article or services were on the ITAR Munitions List. The Sixth Circuit rejected this argument as well. The Court held that the export control laws

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[109] For an excellent discussion of export controls and traveling with laptops see: *International Academic Travel and Export Controls*, Dong (NACUA Notes Vol. 7, August 2009)

did not require that Roth knew the items being exported were on the Munitions List. Rather, they only required that Roth knew his actions were unlawful.

IV. Attachments

I-129 and Deemed Exports

Sample I-129 Compliance Questionnaire Forms

Roth Case

Indictment: *United States v. Roth*

Decision: *United States v. Roth* (6th Cir. January 2011)