



August 3, 2015

C. Edward Peartree  
Director  
Office of Defense Trade Controls Policy  
U.S. Department of State  
Washington, DC

RE: ITAR Amendment – Revisions to Definitions; Data Transmission and Storage  
(RIN 1400-AD70)

Dear Mr. Peartree:

I am writing on behalf of the Association of University Export Control Officers (AUECO), a group of 129 senior export practitioners with export control responsibilities from 100 accredited institutions of higher learning in the United States (U.S.). AUECO members monitor proposed changes in export control laws and regulations affecting academic activities and advocate for policies, procedures, and award terms and conditions that advance effective university compliance with applicable U.S. export controls and trade sanction regulations.

AUECO appreciates the opportunity to comment on the proposed amendment to the International Traffic in Arms Regulations (ITAR), *Revisions to Definitions of Defense Services, Technical Data, and Public Domain; Definition of Product of Fundamental Research; Electronic Transmission and Storage of Technical Data; and Related Definitions*, 80 Fed. Reg. 31525 (June 3, 2015). The revised definitions and the corresponding proposed revisions published by the U.S. Dept. of Commerce under the Export Administration Regulations (EAR) will have a significant impact on academic institutions in the U.S. AUECO appreciates the efforts that the Departments of State and Commerce have made to harmonize these key definitions between the ITAR and EAR. However, as discussed below, we believe there are significant opportunities for the U.S. Department of State to revise these definitions further to achieve greater harmonization and to avoid potentially harmful revisions that would prove harmful to the U.S. research enterprise.

#### **Changes to Defense Article**

The revised §120.6 definition for “defense article” makes useful distinctions between the terms for “item,” “software,” or “technical data” designated in §121.1. Importantly, in AUECO’s view, it is helpful that §120.6(b)(3) states that information and software that (i) are in the public domain; or (ii) arise during, or result from fundamental research are not subject to the ITAR. We believe that this clarity in describing precisely what sort of information is and is not subject to the ITAR should be carried over to §120.49 [misidentified as §120.46 in the current text]. We appreciate that the Department recognizes that the fundamental research exclusion applies not

merely to the research results but also the information and software that arise during the research, assuming that it otherwise meets the requirements of §120.49.

With respect to §120.6(b)(3)(iii), AUECO makes the same comment that it has made concerning the proposed §734.3(b)(3)(iii). In neither case should these terms and the concept of “educational information” be limited to “general” scientific, mathematical, and engineering principles taught in schools. A great deal of university education in the U.S. is based on basic and applied research that is current and innovative and keeps the U.S. at the forefront of higher education throughout the world. University education today addresses not only “general principles” but also specific principles, and processes and techniques, particularly in the applied work of universities in teaching laboratories. The definition of “applied research” within the definition of fundamental research in §120.49(c)(2)(ii) covers processes and techniques and should apply with equal force when this information is released in applied coursework.

In addition, academic institutions that are contemplating new curricular additions should not receive different treatment for their innovative course offerings simply because they may not yet be “commonly taught” in other schools. If the information is provided in a catalog course, that should be sufficient to treat such information similar to information that arises during, or results from, fundamental research.

**Proposed revised language for §120.6(b)(3)(iii):**

“(iii) Concern scientific, mathematical and engineering principles, processes, and techniques taught in schools, and released by instruction in a catalog course or associated teaching laboratory of an academic institution;”

**Changes to Defense Services**

**§120.9(a)(1)**

As revised, §120.9(a)(1) states that a “defense service” will arise through the furnishing of assistance to a foreign person, whether in the U.S. or abroad, in the production, assembly, testing, intermediate- or depot-level maintenance, modification, demilitarization, destruction or processing of a defense article by a U.S. person or foreign person in the United States, “who has knowledge of U.S.-origin technical data directly related to the defense article that is the subject of the assistance, prior to performing the service”.

Note 1 to paragraph (a)(1) states that a person is deemed to have knowledge of U.S.-origin technical data directly related to a defense article if the person “participated in the development of a defense article” described in the same USML paragraph or “accessed (physically or electronically) technical data directly related to the defense article that is the subject of the assistance, prior to performing the service.”

The problem, in AUECO’s view, is that the defense service is neither tied to the use of technical data nor is based on the technical data. If for example, a scientist has, as a consultant, accessed

technical data for a particular defense article in the past, he or she will be held to be performing a defense service when providing assistance in modifying a defense article, even if all of the information used in the defense service is in the public domain. The proposed definition relies on the knowledge of an individual's past experience and memory. This is a highly subjective criterion, which will be difficult from both a compliance and enforcement standpoint.

**Proposed revised language for §120.9(a)(1):**

“(1) The furnishing of assistance (including training) . . . by a U.S. person or foreign person in the United States who either uses U.S.-origin technical data directly related to the defense article that is the subject of the assistance in the course of providing the assistance or who bases the assistance on U.S.-origin technical data directly related to the defense article that is the subject of the assistance.”

**§120.9(a)(2)**

Paragraph (a)(2) covers the furnishing of assistance in “the development of a defense article, or the integration of a defense article with any other item regardless of whether that item is subject to the ITAR or technical data is used”.

As a preliminary matter, we appreciate that the Department has worked to clarify the distinction between basic and applied research on the one hand and “development” on the other. Our comments on §120.47 “Development” appear below.

However, we are concerned that changes to the definition of defense services in paragraph (a)(2) (i.e., “integration” using public domain information) may adversely affect a number of university activities traditionally understood to be outside the scope of regulation under the ITAR. For example, in 2002, the Department noted that the ITAR generated considerable debate in the late 1970s and early 1980s over whether it might regulate academic exchanges of information. In response to those concerns, the State Department published revisions to the ITAR in December 1984 to state more clearly that “publicly available information and academic exchanges are not treated as controlled technical data.” (67 Fed. Reg. 15099-15100, Mar. 29, 2002) AUECO understands that the 1984 ITAR amendments were promulgated in part to render moot litigation challenging the then existing regulations as an impermissible prior restraint on speech and publication protected under the First Amendment. The current proposed rule should not march into the same Constitutionally unfirm territory.

Additionally, by its own admission the State Department follows the Ninth Circuit Court of Appeals' holding in U.S. v. Edler<sup>1</sup>. The Edler court stated that the ITAR can only prohibit the exportation of technical data (including the provision of assistance and defense services)

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<sup>1</sup> See 49 Fed. Reg. 47683 “The Department's long-standing practice of regulating only information that is directly related to defense articles, as reflected in U.S. v. Edler, 579 F. 2d 516 (9th Cir. 1978), remains unchanged.” See also DDTC's response to two commenting parties, confirming the definition of “defense service” would preclude any interpretation of the term capturing data and service not directly related to defense articles (78 Fed. Reg. 22740).

“significantly and directly related to specific articles on the [United States] Munitions List.”<sup>2</sup> This limitation on the scope of the ITAR was necessary to “both adhere to the purpose of the [Arms Export Control Act, and its predecessor the Mutual Security Act], and to avoid serious interference with the interchange of scientific and technological information.”<sup>3</sup>

Noticeably absent from the proposed changes to “defense services” is consistent qualification of technical data or assistance “significantly and directly related to” defense articles on the USML. Currently, §120.9(a)(2) appears to be drafted specifically to capture exchanges that are not significantly and directly related to defense articles on the USML. Without the “significantly and directly related to [a defense article]” qualifier, the definition of defense services is unduly broad, and implicates First Amendment protected expression, including the very type of scientific research, publishing, and international scientific exchanges used by the Edler court to justify its narrowing of the State Department’s interpretation.<sup>4</sup>

The regulatory preamble notes the Department’s belief that, in most cases, the normal duties of a university employee do not encompass the furnishing of assistance to a foreign person in the activities described in paragraph (a). (80 Fed. Reg. 31532) The Department adds, in the context of employment with the university, it does not perceive that the foreign person’s use of the “technical data” [provided under the §125.4(b)(10)] would be described by ITAR §120.9(a)(2), or any part of paragraph (a). We agree.

In fact, we believe the same logic should be extended further. If §120.9(a) does not apply to assistance to the bona-fide, full-time regular university employee who has been provided technical data, then it also should not apply to assistance to the foreign student or visiting scholar who is being provided assistance where no technical data is involved as part of a fundamental research project, even where the activity involves integration.

### **120.9(a)(3)**

Paragraph (a)(3) covers the furnishing of assistance in “the employment of a defense article” and like (a)(2) also does not require the use of “technical data”. The previously proposed version of this definition included the word “tactical” preceding “employment”. The following justification is provided for removing the term “tactical” in the regulatory preamble: “After ECR, those items that remain ‘defense articles’ are the most sensitive and militarily critical equipment that have a significant national security or intelligence application. Allowing training and other services to foreign nationals in the employment of these “defense articles” without a license would not be appropriate.” (80 Fed. Reg. 31531, June 3, 2015)

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<sup>2</sup> 579 F.2d 516 at 521.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.* at 519.

We would like to point out that there are still many instances of “defense articles” after ECR that have common non-military applications. For example, in our previously submitted comment letter for the proposed USML Category XII, we point out that the proposed revisions leave in many commercial and scientific instruments (laser trackers, FLIR cameras, LIDAR systems) which have applications in astronomy and space science, oceanography, telecommunication, photonics, computer processor-memory interconnects, materials engineering, thermal management, energy storage, energy conversion, photovoltaic devices, groundwater management, computational ophthalmology, and molecular medical diagnostic tools. We strongly suggest narrowing §120.9(a)(3) to cover only services related to the military specific usage of a defense article.

**Proposed revised language for §120.9(a):**

“(3) The furnishing of assistance (including training) to a foreign person (see § 120.16), regardless of whether technical data is used, whether in the United States or abroad, in the employment of a defense article for its military application, other than basic operation of a defense article authorized by the U.S. government for export to the same recipient;”

**Proposed revised language for §120.9(a):**

“**Note to paragraph (a):** The following are examples of activities that are not defense services:

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9. The instruction in scientific, mathematical, or engineering principles, processes, and techniques taught in schools and released by instruction in a catalog course or associated teaching laboratory of an academic institution.

10. The integration of a defense article with any other item when performed as a fundamental research activity under §120.49.”

**Conforming Changes to §124.1 and Licensing Guidance**

AUECO notes that whatever the final form of §120.9(a), the requirements applicable to manufacturing license agreements and technical assistance agreements in §124.1 will need to be revised to clarify that a defense service requiring such an agreement no longer includes a defense service using only public domain information. Conforming changes will also be required for DDTC’s licensing guidance.

**Changes to Public Domain**

The revised §120.11 definition for “public domain” includes information that is submitted to co-authors, editors, or reviewers of journals, magazines, newspapers or trade publications, or to organizers of open conferences or other open gatherings for review for publication. The preamble to the proposed change states that this includes information that is submitted for

review prior to actual publication. However, the revised §120.11(a)(5) appears to require that information also be accepted for publication to qualify as “public domain”. AUECO requests that the language be changed to clarify that information submitted for review for publication qualifies as “public domain” under §120.11(a)(5) regardless of acceptance for publication or actual publication. This clarification would allow information that is not favorably received or actually published to still qualify as “public domain” and would help the Department with its goal to simplify, update, and introduce greater versatility into this definition.

**Proposed revised language for §120.11(a)(5):**

“(5) Submission of a written composition, manuscript or presentation to domestic or foreign co-authors, editors, or reviewers of journals, magazines, newspapers or trade publications, or to organizers of open conferences or other open gatherings, with the intention that the compositions, manuscripts, or publications will be made publically available. The information need not be accepted for publication or actually published to qualify as ‘public domain’.”

**Changes to Fundamental Research**

**§120.49(a)**

AUECO believes that the description of fundamental research that appears in the jurisdictional language of §120.6 should carry through to §120.49. That is, information and software that arise during, or result from, fundamental research should not be subject to the ITAR. Such information and software is not simply a different species of technical data. Using the term “information” is also consistent with National Security Decision Direction 189 (NSDD-189) upon which §120.49 and its regulatory predecessors are based.

As presently drafted, to qualify as fundamental research, the research must be:

- “(1) Conducted in the United States at an accredited institution of higher learning located; [sic] or
- (2) Funded, in whole or in part, by the U.S. government.”

However, it should be the open, publishable character of the research that should determine whether it qualifies as fundamental research not the geographic locus or nature of the sponsor. If, for example, a US university researcher travels to the United Kingdom to perform research funded by one of the Research Councils of the UK, and no publication, dissemination or access restrictions apply, such research should still qualify as fundamental research.

**Proposed revised language for §120.49:**

**“§120.49 Information and software that arises during, or results from, fundamental research.**

*(a) Information and software arising during, or resulting from, fundamental research.*  
Unclassified information or software that arises during, or results from, fundamental research as defined in paragraph (c) of this section.

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**Note 1 to paragraph (a):** The inputs used to conduct fundamental research, such as information, equipment, or software are not excluded from control as “defense articles” or “technical data” except to the extent that such information, equipment, or software arose during or resulted from fundamental research.”

### **Changes to §120.49(b)**

AUECO has a far more serious objection with respect to §120.49(b). As drafted, the technical data that arises during, or results from, fundamental research and that is intended to be published only qualifies to the extent that the researchers are free to publish the “technical data” contained in the research “without any restriction or delay”, including “U.S. government-imposed access and dissemination controls or research sponsor proprietary information review.” (Emphasis added.) This approach is not harmonized with the EAR and is completely at odds with the way DDTC, the Department of Commerce, and the Department of Defense have interpreted the concept of fundamental research since it was first adopted in the EAR and ITAR.

NSDD-189 distinguishes fundamental research, the results of which are published and shared broadly within the scientific community, from proprietary and restricted research, the results of which are restricted for proprietary or national security reasons. The key point is the restriction. As described in the EAR §734.8(b)(2), “[p]ublication review by a sponsor of university research solely to insure that the publication would not inadvertently divulge proprietary information that the sponsor has furnished to the researchers does not change the status of the research as fundamental research.” Similarly, the EAR provides that “[p]ublication review by a sponsor of university research solely to ensure that the publication would not compromise patent rights does not change the status of fundamental research, so long as the review causes no more than a temporary delay in publication of the research results.” (15 CFR §734.8(b)(3)) We acknowledge that when proprietary technical information is furnished by outside sources, the furnished data and any derivative data do not fall under the same protected status as the data resulting from fundamental research. AUECO believes that the proposed rule confuses two very different concepts. In the case of governmental access and dissemination controls, the government does not simply review a research publication but makes a decision to approve the publication for public release or to restrict the release based on national security considerations. Industry sponsors of university fundamental research insist on reviews simply to ensure that none of the company’s proprietary material has made its way in to the research report before it is published and to give it a brief opportunity to decide whether the research has resulted in any patentable inventions. Once any proprietary material is removed and it has made its patenting decision, the company has no further interest in controlling or restricting the publication. If, by contrast,

the research sponsor has reserved for itself the ability to restrict the research for proprietary reasons and will use the research results for proprietary purposes, then it no longer qualifies as fundamental research under NSDD-189, the EAR (present or revised), or the present version of the ITAR.

At the beginning of the proposed rule, the Department notes that it will harmonize certain terms under the ITAR with terms under the EAR to the extent appropriate. AUECO acknowledges that it may not be possible to make all of the definitions identical under the two sets of regulations due to differences in the underlying reasons for control of items on the U.S. Munitions List or Commerce Control List. However, because information arising during, or resulting from, fundamental research is publicly available and shared broadly in the scientific community, and is therefore not subject to control under either set of regulations, there is no reason not to harmonize the definition of “fundamental research” across both regulatory regimes.

A non-locus based approach to evaluating fundamental research correctly allows for the First Amendment protections afforded to information arising during and resulting from fundamental research, even in other countries. The courts and federal agencies have long recognized this First Amendment protection. For example, in U.S. v. Bernstein, the Department of Justice (DOJ) (arguing on behalf of the State Department’s interpretation of the ITAR) recognized the overseas First Amendment protection afforded to educational films, and the court reinforced DOJ’s recognition of such<sup>5</sup>. Additionally, the Bureau of Industry and Security has long held that it is the intent and freedom to publish, not the institutional locus, that identifies fundamental research<sup>6</sup>.

Since fundamental research by its very definition does not involve ITAR-controlled technical data, there should not be any overriding national security consideration that would allow DDTC to impose ITAR licensing requirements on protected expression. Requiring an institutional locus within the United States in order to qualify information as fundamental research unnecessarily and unconstitutionally limits protected expression abroad.

**Proposed revision to §120.49(b):**

“(b) *Publication restrictions.* Information and software that arises during, or results from, fundamental research is intended to be published to the extent that the researchers are free to publish the information or software contained in the research without any restrictions based on U.S. government-imposed access and dissemination controls or research sponsor proprietary information restrictions. Prepublication review

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<sup>5</sup> See Bernstein v. United States Dep’t of Justice, 176 F.3d 1132 at footnote 9, citing Bullfrog Films v. Wick, 847 F.2d 502 (1988).

<sup>6</sup> See Frequently Asked Question (FAQ) D8, 15 C.F.R. 734 Supplement No. 1.

by a research sponsor solely to insure that the publication would not inadvertently divulge the sponsor's proprietary information or to protect patent rights related to the research does not change the status of the fundamental research, so long as the review causes no more than a temporary delay in publication of the research results."

### **Definitions of basic research, applied research, and development**

We appreciate the Department's efforts to clarify the distinctions between "basic research" and "applied research" within fundamental research as opposed to "development" as defined in §120.47. The emphasis on serial production as related to "development" is particularly useful. However, we believe that activities that may occur during "applied research" as part of a fundamental research project should be included in the "applied research" definition, even if they resemble some of the activities that occur during development. In this regard, we believe that the Department should include concepts and terms that is using in existing ITAR provisions such as §125.4(c)(3). We recommend an additional clause for the proposed definition of "applied research".

#### **Proposed revision to §120.49(c)(2):**

"(iv) Attempts to determine the means by which a recognized and specific need may be met, including a systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including the design, development, and improvement of prototypes and new processes to meet specific requirements."

For further clarity, we believe that it may be useful to add a note to paragraph (c) concerning the non-proprietary nature of applied research in the context of the fundamental research definition.

#### **Proposed revision to §120.49(c):**

**"Note 1 to paragraph (c):** Applied research does not include efforts whose principal aim is design, development, or test of specific items or services to be considered for sale; these efforts are within the definition of the term development, defined in this subsection."

### **End-to-End Encryption Standard §120.52(a)(4)**

The addition of §120.52 listing activities that are not exports, reexports or transfers is a useful addition to the ITAR. In particular, the exclusion of sending, taking or storing technical data or software that is secured using end to end encryption from export activities is welcome to the academic research community as it will reduce the faculty burden associated with international travel and the need to monitor and conduct research using main campus resources while

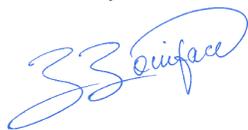
abroad. AUECO favors the proposed standard of FIPS 140-2 supplemented in accordance with NIST guidance or other similarly effective means.

**Effective Date of the Final Rule**

While the revised definitions do not make changes to the USML or the CCL, as written they have a significant impact on regulatory burden for U.S. universities. Most industry sponsors of university research, as well as many foundations, require limited time prepublication review to prevent the inadvertent disclosure of sponsor proprietary information and to permit seeking of patent protection as applicable. Most universities with policies on publication restrictions have defined limits written into their policy for prepublication reviews. U.S. universities have until now interpreted such reviews as within the scope of fundamental research. If the proposed changes to the ITAR §120.49(b) Prepublication Review go to final rule without changes, most universities will need to change their business practices associated with review and negotiation of sponsored research agreements as well as the management of access to sponsored research. These changes will require implementation of new procedures to determine applicability of the ITAR for fundamental research with prepublication review, determination of commodity jurisdictions for research awards with sponsor review (to determine whether EAR or ITAR definition of “fundamental research” applies), implementation of technology control plans and applications for export licenses for the participation of foreign nationals in the research, monitoring of those plans, and removal of the plans once the prepublication review has occurred, as well as revised export compliance training for affected departments on campus. Importantly, such review would be required retrospectively for current projects. We believe that these procedures will also require additional staffing for export compliance. Universities will not be able to meet the compliance obligations imposed by the addition of the prepublication review language of ITAR §120.49(b) within 30 days of the publication date. AUECO suggests at minimum a 6-month delay in effective date if the proposed definition remains unchanged.

AUECO appreciates the opportunity to provide comments on these proposed changes.

Sincerely,



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