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DEPARTMENT OF STATE

22 CFR Part 121

[Public Notice: 9688]

RIN 1400-AD33

International Traffic in Arms Regulations: Revision of U.S. Munitions List Category XV

AGENCY: Department of State.

ACTION: Final rule.

SUMMARY: As part of the President's Export Control Reform (ECR) initiative, the Department published an interim final rule on May 13, 2014 that revised Category XV (Spacecraft and Related Articles) of the U.S. Munitions List (USML). After reviewing comments to the interim final rule, the Department of State is amending the International Traffic in Arms Regulations (ITAR) to further revise Category XV of the USML to describe more precisely the articles warranting control in that category.

DATES: This final rule is effective on January 15, 2017.

FOR FURTHER INFORMATION CONTACT: Mr. C. Edward Peartree, Director, Office of Defense Trade Controls Policy, Department of State, telephone: (202) 663-2792; e-mail: *DDTCResponseTeam@state.gov*.

ATTN: Regulatory Change, USML Category XV.

SUPPLEMENTARY INFORMATION: The Directorate of Defense Trade Controls (DDTC), U.S. Department of State, administers the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120-130). The items subject to the jurisdiction of the ITAR, *i.e.*, "defense articles" and "defense services," are identified on the ITAR's U.S. Munitions List (USML) (22 CFR 121.1). With few exceptions, items not subject to the

export control jurisdiction of the ITAR are subject to the jurisdiction of the Export Administration Regulations (“EAR,” 15 CFR parts 730-774, which includes the Commerce Control List (CCL) in Supplement No. 1 to part 774), administered by the Bureau of Industry and Security (BIS), U.S. Department of Commerce. Both the ITAR and the EAR impose license requirements on exports and reexports. Items not subject to the ITAR or to the exclusive licensing jurisdiction of any other set of regulations are subject to the EAR.

All references to the USML in this rule are to the list of defense articles controlled for the purpose of export or temporary import pursuant to the ITAR, and not to the defense articles on the USML that are controlled by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) for the purpose of permanent import under its regulations. *See* 27 CFR part 447. Pursuant to section 38(a)(1) of the Arms Export Control Act (AECA), all defense articles controlled for export or import are part of the USML under the AECA. For the sake of clarity, the list of defense articles controlled by ATF for the purpose of permanent import is the U.S. Munitions Import List (USMIL). The transfer of defense articles from the ITAR’s USML to the EAR’s CCL for the purpose of export control does not affect the list of defense articles controlled on the USMIL under the AECA for the purpose of permanent import.

The Department published an interim final rule revising USML Category XV on May 13, 2014 (79 FR 27180) and received 11 public comments on the proposed changes to the ITAR. The interim final rule became effective November 10, 2014, and this final rule is making changes

in response to the previously received comments received on the interim final rule.

Changes in this Rule:

Paragraphs (a)(2), (a)(10), (a)(11), (a)(12), (e)(4), (e)(5), (e)(11)(iv), (e)(12), (e)(20), and Note 3 to paragraph (a) and Note 3 to paragraph (f) are amended to better reflect the intended scope of control with regard to autonomous tracking systems, logistics, propulsion systems, cryocoolers and vibration suppression systems. Paragraphs (a)(7)(i) and (e)(2) are amended to clarify the size of the respective aperture dimension of specific electro-optical remote sensing capabilities and space qualified optics.

Three commenters stated that the aperture dimensions in paragraph (a)(7)(i) (electro-optical satellite systems) should be raised from 0.35m to at or below 1.1m to reflect the commercial market for satellite imagery and account for technical advances in apertures and ground resolution capabilities. The Department acknowledges this comment and that aperture technology is evolving, and has revised (a)(7)(i) to 0.50m to reflect the current status of technology that provides the United States with a critical military or intelligence advantage and warrants control on the USML.

Two commenters stated that (a)(12) should be revised to include a definition of “spaceflight,” or an inclusion of the word “human” in front of “spaceflight,” as well as to clarify that the provision does not control satellites subject to the jurisdiction of the Department of Commerce. The Department disagrees with this comment because the word “spaceflight” was removed from paragraph (a) in a November 10, 2014 clean-up rule (79 FR 66608). In addition, the revisions to paragraph (a)(12) herein clarify that

the rule does not control satellites subject to the jurisdiction of the Department of Commerce.

Two commenters suggested that (c)(4) be amended to better reflect the controls imposed by both the EAR and Missile Technology Control Regime, and to avoid any regulatory confusion caused by the fact that drones and UAVs are already controlled under Category VIII of the ITAR. The Department acknowledges the comments, and proposed removal of paragraph (c) to Category XII (Fire Control, Range Finder, Optical and Guidance and Control Equipment) (*see* 81 FR 8438, Feb. 18, 2016). All public comments pertaining to (c) will be addressed in that final rule.

One commenter stated that the aperture dimensions in paragraph (e)(2) should be raised from 0.35m to 1.1m to reflect the commercial market for satellite imagery. The Department acknowledges this comment and that aperture technology is evolving, and has revised the dimension in (e)(2)(ii) to 0.50m to reflect the current status of technology that provides the United States with a critical military or intelligence advantage and warrants control on the USML.

One commenter noted that paragraph (e)(4), which concerns space qualified mechanical cryocoolers, uses the term “specially designed” to describe the electronics captured in that provision, but that the words “specially designed” are omitted from (e)(5), resulting in certain commercial control electronics being inadvertently caught under the ITAR. The Department agrees with this comment, and has added the words “specially designed” to (e)(5).

One commenter expressed concern with possible unintended consequences of the interim final rule on space qualified laser radar, or light

detection and ranging (LIDAR). Specifically, while the interim final rule clarified that (e)(7) does not control space qualified LIDAR, the commenter expressed concern that it could still be caught by paragraph (e)(3). The Department clarifies that paragraph (e)(3) could not inadvertently catch space qualified LIDAR, because note 2 to paragraph (e) makes clear that when the articles described in Category XV(e) are “integrated into and included as an integral part” of an item subject to the EAR, they are subject to the EAR. A space qualified focal plane array by itself would be caught by (e)(3), but once integrated and integral to an item subject to the EAR, such as an EAR-controlled space qualified LIDAR, the space qualified focal plane array would be subject to the EAR.

One commenter stated that Note 3 to paragraph (f) should be amended to clarify that “housekeeping” data from spacecraft are not subject to the ITAR or EAR, and that the ITAR should be updated to reflect the language of Note 2 to Product Group E, Category 9 of the Commerce Control List (CCL). The Department accepts this comment and aligns note 3 to paragraph (f) with the corresponding Note 2 published in Product Group E, Category 9 of the CCL for the purpose of consistency between the USML and CCL.

Two commenters asserted that ITAR §124.15 imposes “special export controls” over and above the standard licensing controls without a corresponding national security consideration, and the provisions should be amended to reflect that the additional scrutiny imposed would only be used in limited and particular circumstances. In addition, the commenters stated that the Departments of State and Commerce should jointly revise the regulatory requirements to remove the de facto pre-licensing requirement for

satellite exports subject to the EAR intended for launch in NATO and major non-NATO allied countries. The Department does not accept these comments as §124.15 only applies to satellites and related items controlled by Category XV of the USML. These controls do not apply to the EAR, which has its own analogous form of controls.

Additional Changes

The Department also makes a number of other revisions to Category XV to limit the controls to those items that provide a critical military or intelligence advantage to the United States and warrant controls on the USML, which are detailed below.

This final rule amends paragraph (a)(2) to clarify that the control applies to spacecraft that perform real-time autonomous detection and tracking of moving objects, other than celestial bodies. The control does not include systems that can track fixed points to determine their own movement based on the relative position of the fixed points over time.

This final rule amends paragraphs (a)(10) and (11) to clarify the nature of the technology and defense articles controlled. Paragraph (a)(10) is revised to control spacecraft that autonomously perform collision avoidance. Paragraph (a)(11) is revised to control sub-orbital craft that incorporate a propulsion system described in either paragraph (e) or Category IV(d)(1)-(6), and are specially designed for atmospheric entry or re-entry. The Department also makes a corresponding change to paragraph (e)(20) to reflect the forms of propulsion controlled in paragraph (a)(11). The Department also removes the Note 3 paragraph (a) regarding attitude control. A new Note 3 to paragraph (a) is added to remove the James Webb Space Telescope from the jurisdiction of the USML and transfer its control

to the EAR. A new sentence is also to Note 2 to paragraph (e)(17) removing the primary and secondary payloads of the James Webb Space Telescope from the jurisdiction of the USML and transferring their control to the EAR. Any parts and components of the James Webb Space Telescope that are controlled in other entries of paragraph (e) remain on the USML, except as described in Note 2 to paragraph (e).

This final rule amends paragraphs (e)(4) and (e)(5) to clarify the type of systems controlled. Specifically, the word “systems” is added to both provisions to make it clear that the provisions are designed to control “cold finger systems” in (e)(4) and “vibration suppression systems” and “active dampening systems” in (e)(5).

This final rule amends paragraphs (e)(11)(iv) and (e)(12) to clarify the type of propulsions systems controlled. Paragraph (e)(11)(iv) is revised to control electric propulsion systems, such as plasma and ion based systems, that provide greater than 300 milli-Newton's of thrust and a specific impulse greater than 1,500 sec; or that operate at an input power of more than 15kW. Paragraph (e)(12) is revised to control bi-propellants or mono-propellant rocket engines with which provide greater than 150 lbf (*i.e.*, 667.23 N) vacuum thrust.

REGULATORY ANALYSIS AND NOTICES

Administrative Procedure Act

The import and export of defense articles and services is a foreign affairs function of the United States government and that rules implementing this function are exempt from §§553 (rulemaking) and 554 (adjudications) of the Administrative Procedure Act (APA). Although this rule is exempt from the rulemaking provisions of the APA and without prejudice to the

Department's determination that controlling the import and export of defense services is a foreign affairs function, the Department allowed a 45-day public comment period for the interim final rule. The Department has made additional refinements to what was proposed based on the public comments received, which helps to further the objectives described in the interim final rule that is published as a final rule today. This final rule will be effective on January 15, 2017.

Regulatory Flexibility Act

Since this final rule is exempt from the provisions of 5 U.S.C. 553, there is no requirement for an analysis under the Regulatory Flexibility Act.

Unfunded Mandates Reform Act of 1995

This rulemaking does not involve a mandate that will result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any year and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995.

Small Business Regulatory Enforcement Fairness Act of 1996

This rulemaking is not a major rule as defined in 5 U.S.C. 804.

Executive Orders 12372 and 13132

This rulemaking will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, it is determined that this rulemaking does not have sufficient federalism implications to require consultations or warrant the preparation of a

federalism summary impact statement. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities do not apply to this rulemaking.

Executive Orders 12866 and 13563

Executive Orders 12866 and 13563 direct agencies to assess costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributed impacts, and equity). These executive orders stress the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rulemaking has been designated a “significant regulatory action,” under Executive Order 12866. Accordingly, this rule has been reviewed by the Office of Management and Budget (OMB).

Executive Order 12988

The Department of State reviewed this rulemaking in light of Executive Order 12988 to eliminate ambiguity, minimize litigation, establish clear legal standards, and reduce burden.

Executive Order 13175

The Department of State determined that this rulemaking will not have tribal implications, will not impose substantial direct compliance costs on Indian tribal governments, and will not preempt tribal law. Accordingly, the requirements of Executive Order 13175 do not apply to this rulemaking.

Paperwork Reduction Act

This rule does not impose any new reporting or recordkeeping requirements subject the Paperwork Reduction Act 44 U.S.C. Chapter 35.

List of Subjects in 22 CFR Part 121

Arms and munitions, Classified information, Exports, Technical assistance.

Accordingly, for the reasons set forth above, title 22, chapter I, subchapter M, part 121 is amended as follows:

PART 121 – THE UNITED STATES MUNITIONS LIST

1. The authority citation for part 121 continues to read as follows:

Authority: Secs. 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); 22 U.S.C. 2651a; Pub. L. 105–261, 112 Stat. 1920; Section 1261, Pub. L. 112-239; E.O. 13637, 78 FR 16129.

2. In § 121.1, under Category XV:

- a. Revise paragraphs (a)(2), (a)(7)(i), and (a)(10) through (12).
- b. Add Note to paragraph (a)(12).
- c. Revise Note 3 to paragraph (a).
- d. Revise paragraphs (e)(2), (4), and (5), (e)(11)(iv), and (e)(12).
- e. Revise Note 2 to paragraph (e)(17).
- f. Revise paragraph (e)(20).
- g. Revise Note 3 to paragraph (f).

The revisions and addition read as follows:

§121.1 The United States Munitions List.

Category XV— Spacecraft and Related Articles

(a) ***

*(2) Autonomously detect and track moving ground, airborne, missile, or space objects other than celestial bodies, in real-time using imaging, infrared, radar, or laser systems;

(7) ***

(i) Electro-optical visible and near infrared (VNIR) (*i.e.*, 400nm to 1,000nm) or infrared (*i.e.*, greater than 1,000nm to 30,000nm) with less than 40 spectral bands and having a clear aperture greater than 0.50m;

(10) Autonomously perform collision avoidance;

(11) Are sub-orbital, incorporate propulsion systems described in paragraph (e) of this category or Category IV(d)(1)-(6) of this section, and are specially designed for atmospheric entry or re-entry;

(12) Are specially designed to provide inspection or surveillance of another spacecraft, or service another spacecraft via grappling or docking; or

Note to paragraph (a)(12): This paragraph does not control spacecraft that dock exclusively via the NASA Docking System (NDS), which are controlled by ECCN 9A515.a.4.

Note 3 to paragraph (a): This paragraph does not control the James Webb Space Telescope, which is subject to the EAR.

(e) ***

(2) Space-qualified optics (*i.e.*, lens, mirror or membrane) having one of the following:

- (i) Active properties (*e.g.*, adaptive, deformable) with a largest lateral clear aperture dimension greater than 0.35m; or
- (ii) A largest lateral clear aperture dimension greater than 0.50m;

- (4) Space-qualified mechanical (*i.e.*, active) cryocooler or active cold finger systems, and associated control electronics specially designed therefor;
- (5) Space-qualified active vibration suppression systems, including active isolation and active dampening systems, and associated control electronics specially designed therefor;

- (11) ***
 - (iv) Electric (Plasma/Ion) propulsion systems that provide a thrust greater than 300 milli-Newton and a specific impulse greater than 1,500 sec; or that operate at an input power of more than 15kW;
 - (12) Thrusters (*e.g.*, spacecraft or rocket engines) using bi-propellants or mono-propellant that provide greater than 150 lbf (*i.e.*, 667.23 N) vacuum thrust (MT for rocket motors or engines having a total impulse capacity equal to or greater than 8.41×10^5 newton seconds);

Note 2 to paragraph (e)(17): An ECCN 9A004 or ECCN 9A515.a spacecraft remains a spacecraft subject to the EAR even when incorporating a hosted payload performing a function described in paragraph (a) of this category. All spacecraft that incorporate primary or secondary payloads that perform a function described in paragraph (a) of this category are controlled by that paragraph. This paragraph does not control primary or secondary payloads of the James Webb Space Telescope, which are subject to the EAR.

- (20) Equipment modules, stages, or compartments that incorporate propulsion systems described in paragraph (e) of this category or Category

IV(d)(1)-(6) of this section, and can be separated or jettisoned from another spacecraft; or

Note 3 to paragraph (f): Paragraph (f) and ECCNs 9E001, 9E002 and 9E515 do not control the data transmitted to or from a satellite or spacecraft, whether real or simulated, when limited to information about the health, operational status, or measurements or function of, or raw sensor output from, the spacecraft, spacecraft payload(s), or its associated subsystems or components. Such information is not within the scope of information captured within the definition of technology in the EAR for purposes of Category 9 Product Group E. Examples of such information, which are commonly referred to as “housekeeping data,” include (i) system, hardware, component configuration, and operation status information pertaining to temperatures, pressures, power, currents, voltages, and battery charges; (ii) spacecraft or payload orientation or position information, such as state vector or ephemeris information; (iii) payload raw mission or science output, such as images, spectra, particle measurements, or field measurements; (iv) command responses; (v) accurate timing information; and (vi) link budget data. The act of processing such telemetry data—i.e., converting raw data into engineering units or readable products—or encrypting it does not, in and of itself, cause the telemetry data to become subject to the ITAR or to ECCN 9E515 for purposes of 9A515, or to ECCNs 9E001 or 9E002 for purposes of 9A004. All classified technical data directly related to items controlled in USML Category XV or ECCNs 9A515, and defense services using the classified technical data, remains subject to the ITAR. This note does not affect controls in USML XV(f), ECCN 9D515, or ECCN 9E515 on

software source code or commands that control a spacecraft, payload, or associated subsystems for purposes of 9A515. This note also does not affect controls in ECCNs 9D001, 9D002, 9E001, or 9E002 on software source code or commands that control a spacecraft, payload, or associated subsystems for purposes of 9A004.

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December 22, 2016

Dated

Tom Countryman,
Acting Under Secretary,
Arms Control and International Security,
Department of State.

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