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DEPARTMENT OF STATE

22 CFR Parts 120, 121, and 124

RIN 1400-AD33

[Public Notice: 8728]

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

AGENCY: Department of State.

ACTION: Interim final rule.

SUMMARY: As part of the President's Export Control Reform (ECR) effort, the Department of State is amending the International Traffic in Arms Regulations (ITAR) to revise Category XV (Spacecraft and Related Articles) of the U.S. Munitions List (USML) to describe more precisely the articles warranting control in that category. The revisions contained in this rule are part of the Department of State's retrospective plan under Executive Order 13563 completed on August 17, 2011. This rule is published as an interim final rule because the Department believes that substantial national security benefits will flow from the changes to the controls on spacecraft and related items, but acknowledges that additional analysis of and public comment on the control thresholds for remote sensing satellites are warranted.

DATES: This rule is effective [insert date 180 days after date of publication in the *Federal Register*], except for §121.1, Category XV(d), which is effective [insert date 45 days after date of publication in the *Federal Register*]. Interested parties may submit comments on paragraphs (a)(7) and (e)(11) of USML Category XV and ITAR §124.15 by [insert date 45 days after date of publication in the *Federal Register*].

ADDRESSES: Interested parties may submit comments on paragraphs (a)(7) and (e)(11) of USML Category XV and ITAR §124.15 within 45 days of the date of publication by one of the following methods:

- E-mail: *DDTCResponseTeam@state.gov* with the subject line, "USML Category XV(a)(7) and (e)(11) and ITAR §124.15."
- Internet: At *www.regulations.gov,* search for this notice by using this notice's RIN (1400-AD33).

Comments received after that date may be considered if feasible, but consideration cannot be assured. Those submitting comments should not include any personally identifying information they do not desire to be made public or information for which a claim of confidentiality is asserted because those comments and/or transmittal e-mails will be made available for public inspection and copying after the close of the comment period via the Directorate of Defense Trade Controls website at *www.pmddtc.state.gov*. Parties who wish to comment anonymously may do so by submitting their comments via *www.regulations.gov*, leaving the fields that would identify the commenter blank and including no identifying information in the comment itself. Comments submitted via *www.regulations.gov* are immediately available for public inspection.

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. The Department of State's full retrospective plan can be accessed at http://www.state.gov/documents/organization/181028.pdf.

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 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, reexports, and retransfers. 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 and defense services 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 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.

Changes in this Rule

The following changes are made to the ITAR with this interim final rule: (i) revision of U.S. Munitions List (USML) Category XV (Spacecraft and Related Articles); (ii) amendment to paragraph (i) of USML Category IV, regarding spacecraft-launch vehicle integration and launch failure analysis services; (iii) conforming edits to ITAR §124.15, regarding special export controls for satellites and satellite launches; and (iv) amendment to ITAR §120.10(b) to include telemetry data to the list of exclusions from technical data. The Department notes that there is a shorter implementation period for radiation-hardened microelectronic circuits formerly described in paragraph (d) of USML Category XV; 45 days following publication of this rule, they are controlled in ECCN 9A515.d. In addition, microelectronic circuits that would otherwise have been within the scope of paragraph (e) of USML Category XV are no longer subject to the ITAR 45 days following the publication of this rule; instead, they are controlled in ECCN 9A515.e. Software and technical data directly related to such microelectronic circuits are controlled in ECCNs 9D515 and 9E515, respectively, 45 days following the publication of this rule as well.

When moving items from the USML to the jurisdiction of the CCL, the Department coordinates the publication of rules with the Department of Commerce so there is uninterrupted regulatory coverage for the items changing jurisdiction. The Department of Commerce's companion to this rule is, "Revisions to the Export Administration Regulations (EAR): Control of Spacecraft Systems and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML)." It is published elsewhere in this issue of the *Federal Register.*

The revised definition for defense services, published with the USML Category XV proposed rule (RINs 1400-AC80 and 1400-AD33) on May 24, 2013, will be the subject of a separate rule.

Impact on Licensing Burden

As required by Executive Order 13563, the Department intends to review this rule's impact on the licensing burden on exporters. Licensing and export data are routinely collected on an ongoing basis, including from the Department's electronic licensing database, from the Automated Export System, and from public comments. This information has been, and will continue to form, the basis for ongoing reviews of this rule and other rules promulgated pursuant to ECR. As part of its plan for retrospective analysis under Executive Order 13563, the Department intends to conduct periodic reviews of this rule and to modify, or repeal, aspects of this rule, as appropriate, after public notice and comment. With regard to a number of aspects of this rule, assessments and refinements will be made on an ongoing basis. This is particularly the case with regard to possible modifications that will be considered based on the public comments.

Revision of USML Category XV

This interim final rule revises USML Category XV, covering spacecraft and related articles, to remove from it certain articles that are now subject to the EAR, and to more clearly describe the articles controlled therein.

This rule follows a change to section 1513 of Public Law 105-261, the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, which required that space-related items, including all satellites, were to be controlled as defense articles and removed the President's authority to move these items off the USML.

Section 1248 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) provided that the Secretaries of Defense and State carry out an assessment of the risks associated with removing satellites and related components from the USML. The Departments of Defense and State conducted this review and identified certain satellites and related items that are not critical to national security, do not contain technologies unique to the United States, and are more appropriately subject to the EAR, which allows for the creation of license exceptions for exports to certain destinations and complete controls for exports to others. This report was provided to the Congress in April 2012.

The National Defense Authorization Act for Fiscal Year 2013 (Public Law 112-239), in section 1261, returned to the President the authority to determine which satellites and related articles are controlled on the USML. With this authority, and consistent with the President's Export Control Reform (ECR) effort, the Department made the following revisions to USML Category XV.

Paragraphs (a) and (e) are revised to more specifically describe the articles controlled therein. Certain commercial communications and remote sensing satellites are not enumerated in paragraph (a); they are now subject to the EAR.

Paragraph (b) is revised to limit its scope to ground control systems and training simulators specially designed for telemetry, tracking, and control of spacecraft in paragraph (a) of USML Category XV.

The articles currently covered in paragraph (c), certain Global Positioning System receiving equipment, will be proposed for control in USML Category XII. Until a revised USML Category XII is implemented, these articles will continue to be covered in paragraph (c).

The articles formerly covered in paragraph (d), certain radiation-hardened microelectronic circuits, are controlled on the CCL in new ECCN 9A515.d. To the extent paragraph (e) controlled any other microelectronic circuits, they are controlled on the CCL in new ECCN 9A515.e. Software and technical data directly related to such microelectronic circuits are controlled on the CCL in new ECCNs 9D515 and 9E515, respectively. The effective date for these changes in controls pertaining to microelectronic circuits is 45 days from the publication date of this rule.

Paragraph (f) is revised to explicitly provide that directly related defense services include the furnishing of assistance (including training) in the integration of a satellite or spacecraft to a launch vehicle, including both planning and onsite support, regardless of the jurisdiction, ownership, or origin of the satellite or spacecraft, or whether technical data is used. It also includes the furnishing of assistance (including training) in the launch failure analysis of a satellite or spacecraft, regardless of the jurisdiction, ownership, or origin of the satellite of spacecraft, or whether technical data is used. This text was part of the defense services definition published with the proposed rule for this category; the Department now provides it in paragraph (f).

Articles common to the Missile Technology Control Regime (MTCR) Annex and the USML are identified on the USML, including in USML Category XV, with the parenthetical "(MT)" at the end of each paragraph containing such articles.

A new "(x) paragraph" is added to USML Category XV, allowing ITAR licensing for commodities, software, and technology subject to the EAR, provided those commodities, software, and technology are to be used in or with defense articles controlled in USML Category XV and are

described in the purchase documentation submitted with the application. The Department notes that "technical data" instead of "technology" was used in the revised USML categories that have been published thus far, and that have a paragraph (x). Those paragraphs will be amended to adopt this change. The EAR definition of technology is operative in this paragraph.

Revised USML Category XV, along with a revised definition for defense services, was published as a proposed rule on May 24, 2013, for public comment (*see* "Amendment to the International Traffic in Arms Regulations: Revision of U.S. Munitions List Category XV and Definition of 'Defense Service,'" 78 FR 31444, RINs 1400-AC80 and 1400-AD33). The comment period ended July 8, 2013. The public comments were reviewed and considered by the Department and other agencies. The Department's evaluation of the written comments and recommendations for the defense services definition will be provided in a separate rule regarding defense services. The Department's evaluation of the written comments and recommendations for USML Category XV follows.

The Department notes that although the Administration sought the authority to decide the export licensing jurisdiction for spacecraft and related articles, the Department, along with the Department of Defense, reported to the Congress that currently only three broad types of articles are appropriate to control on the CCL: communication satellites that do not contain classified components or capability; remote sensing satellites with performances parameters below certain thresholds; and systems, subsystems, parts, and components associated with these satellites and with performance parameters below certain thresholds. The Department intends to control on the USML, and specifically provides for this in paragraph (a) introductory text, some spacecraft that have commercial end-use. Spacecraft that have

commercial end-use with capabilities above specified thresholds will still be controlled on the USML. Therefore, the Department did not accept recommendations to move off the USML certain spacecraft based on the rationale that established commercial end-use alone should determine export jurisdiction.

As an example, a commenting party recommended that satellites and associated articles pertaining to the Amateur Satellite Service not be controlled on the USML. To the greatest extent possible, the Department is revising the USML using the principle of control based on article capability, and not article end-use, believing the former to be the better standard for protecting the technologies of importance to national security. Based on this standard, the Department did not accept this recommendation or other recommendations to remove from USML Category XV satellites and associated articles based solely on potential or actual commercial application. As was the case before this revision, if a commercial or research activity requires the export of an article controlled under USML Category XV (to include the provision of technical data to a foreign person in the United States, but excluding certain instances where a defense article is incorporated into a spacecraft now subject to the EAR), ITAR licensing requirements apply.

Commenting parties recommended various articles that would be pertinent to the emerging civil and commercial space industry be moved from the USML to the CCL so as to facilitate its growth. The Department did not accept the premise of this recommendation. The review of USML Category XV was conducted with the intent of appropriately protecting military-critical technologies; the revisions to the category are consistent with this intention. While nurturing the civil and commercial space industry

is a laudable goal, certain of the technologies on which this industry may develop and operate are of critical military importance and concern, and therefore must remain controlled on the USML at this time. For example, launching spacecraft to sub-orbit or orbit requires MTCR Category I items, upon which are placed the greatest restraint with regard to export. The Department deems it appropriate that such articles are controlled on the USML. Spacecraft specially designed for human space flight that have integrated propulsion present another security concern, for such capabilities may be used for the purposes of weapons targeting from space. So, although these technologies and capabilities are used in commercial endeavors, they continue to merit control on the USML. As technologies develop, and as there may come to be a greater differentiation between military-critical and commercial technologies, their licensing jurisdiction will be reassessed, as provided for in section 38(f) of the AECA.

In response to the recommendation of commenting parties, the Department qualified the term "track" in paragraph (a)(2) by adding the terms "autonomously" and "real-time."

In response to the recommendation of a commenting party, the Department clarifies that paragraph (a)(3) does not capture signal interference mitigation technology and revised the paragraph to make clearer the intention of the paragraph.

Commenting parties recommended revising paragraph (a)(4), to except from it such services that are commercial in nature. The Department did not accept this recommendation. As the technology and applications in question are at an initial phase of development, the Department does not believe there is currently a commercial impact of this regulation. The

Department, though, modified the text to more precisely describe the articles controlled therein, and renumbered it as paragraph (a)(10).

Commenting parties recommended the aperture threshold for civil and commercial remote sensing satellites in paragraph (a)(7)(i) be increased from 0.35 meters to a threshold more appropriate for current world capabilities and market conditions. The Department did not accept this recommendation at this time. However, it, along with other agencies, understands that the technology and civil and commercial applications in this area are evolving. Thus, the Department has committed to reviewing during the six months after the publication of this rule whether further amendments to the USML controls on civil and commercial remote sensing satellites are warranted, and seeks additional public comment on this matter.

In response to the recommendation of a commenting party, the Department confirms that satellites with payloads designed to supplement the signals produced by other satellite-based or terrestrial navigation systems for specific geographic areas or terrestrial applications are not covered by paragraph (a)(9). Therefore, a satellite or spacecraft that provides only a differential correction broadcast for the purposes of positioning, navigation, or timing is controlled in ECCN 9A515.

In response to commenting parties, the Department removed as a control parameter the text of paragraph (c)(2) ("designed for producing navigation results above 60,000 feet altitude and at 1,000 knots velocity or greater") for Global Positioning System receiving equipment. That control parameter has been updated based upon the MTCR Annex. Therefore, Global Positioning System receiving equipment designed or modified for airborne applications and capable of providing navigation information at speeds in excess of 600 m/s (1,165 nautical mph), and specially designed

parts and components therefor, are controlled in ECCN 7A105. Paragraph (c) controls Global Positioning System receiving equipment based upon the three remaining criteria.

In response to the recommendation of commenting parties, the Department provided a shorter implementation period for radiation-hardened microelectronic circuits. The articles formerly described in paragraph (d) are controlled in ECCN 9A515.d, 45 days following publication of this rule. In addition, microelectronic circuits that would otherwise have been within the scope of paragraph (e) are no longer subject to the ITAR 45 days following the publication of this rule; instead, they are controlled in ECCN 9A515.e. Software and technical data directly related to such microelectronic circuits are controlled in ECCNs 9D515 and 9E515, respectively, 45 days following the publication of this rule as well. The Department notes that these items cannot be exported via a Department license intended to export only USML Category XV articles until paragraph (x) of USML Category XV takes effect (and provided the other criteria for use of paragraph (x) are met).

In response to the recommendation of commenting parties, the Department revised the text in paragraph (e)(1) to clarify that antennas on spacecraft are controlled therein, and not ground-based antennas.

A commenting party recommended that the diameter of the antenna system described in paragraph (e)(1) be increased from greater than 25 meters to greater than 35 meters, and the aperture dimension provided for space-qualified optics in paragraph (e)(2) be increased. The Department did not accept these recommendations. The Department notes that, as provided in a note to paragraph (e), spacecraft and other items described in ECCN

9A515 remain subject to the EAR, even if defense articles are incorporated therein, provided the resultant spacecraft is not described in paragraph (a).

In response to commenting parties, the Department clarifies that paragraph (e)(7) does not control space-qualified laser radar or Light Detection and Ranging (LIDAR) equipment, and notes that none of the items excluded from USML control, as formerly identified in a note to paragraph (e), are included in this revised USML Category XV.

A commenting party requested clarification of the term "space-based" in paragraph (e)(8), and how it is differentiated from the term "space-qualified." The Department moved the controls of paragraph (e)(8) to (e)(7), and removed paragraph (e)(8) and use of the term "space-based." The Department included in a note to paragraph (e) the information that the terms "designed" and "manufactured" in the space-qualified definition are synonymous with the specially designed definition of ITAR §120.41. The Department also notes that use in the ITAR of the "space-qualified" definition, a central criterion of which is the altitude aspect, does not indicate that the U.S. government has accepted that the altitude of 100 km above the surface of the Earth represents a legal demarcation between national air space and outer space under United States or international law.

The Department notes that paragraph (e)(11) has been expanded to include other space-based systems that were not included in the proposed rule. In the proposed rule, paragraph (e)(11) read thus: "Space-based nuclear thermionic or non-nuclear thermionic converters or generators, and specially designed parts and components therefor." In this rule, paragraph (e)(11) reads thus: "Space-based systems, and specially designed parts and components therefor, as follows: (i) nuclear reactors and associated power conversion systems (*e.g.*, liquid metal or gas-cooled fast reactors); (ii)

radioisotope-based power systems (*e.g.,* radioisotope thermoelectric generators); or (iii) nuclear thermal propulsion systems (*e.g.*, solid core, liquid core, gas core fission." The Department is seeking comment on this revision of paragraph (e)(11).

In response to commenting parties, the Department revised the regulation at paragraph (e)(13) to capture those control moment gyroscopes that are specially designed for spacecraft. The Department notes that paragraph (e)(13) does not control fly wheels or reaction wheels.

Commenting parties requested clarification that an ITAR-controlled hosted payload on a satellite subject to the EAR would not change the licensing jurisdiction of the satellite, making it a satellite controlled on the USML. The Department added a note to paragraph (e)(17) stipulating that a satellite subject to the EAR that has such a hosted payload that performs any of the functions described in paragraph (a) will remain subject to the EAR. In addition, the note also provides that a satellite with a primary or secondary payload that performs any of the functions described in paragraph (a) is a satellite controlled on the USML.

The Department did not accept the recommendation of commenting parties to remove the paragraph controlling payloads developed with Department of Defense funding, but it did provide for certain exclusions, and added a provision delaying the effective date of the paragraph for six months beyond the effective date of the revised category. One such exclusion is that a payload developed with Department of Defense funding can nonetheless be determined to be subject to the EAR pursuant to a Commodity Jurisdiction determination. This means that, with respect to secondary or hosted payload, or specially designed parts or components therefor, that are subject to the ITAR only by virtue having been developed

with Defense Department funding (*i.e.*, no other parts of USML Category XV apply to the articles), one may request the Department to exercise its discretion to determine under ITAR §120.4 that the article is nonetheless not subject to the ITAR. The Department will process such requests on a case-by-case basis based on whether the article at issue would otherwise meet the standards for being included on the USML.

Commenting parties recommended the Department confirm that various types of telemetry – *i.e.*, communications to and from satellites and other spacecraft, whether on the ground, in the air, or in space – are not subject to the ITAR or the EAR, or, if so, to exclude them from the controls for satellite and spacecraft technical data and technology in paragraph (f) and ECCN 9E515. Based on a review of the comments and the types of information pertaining to satellites and spacecraft that warrant control, the Departments of State and Commerce have determined to codify existing policy within the regulations that data transmitted to or from a satellite or spacecraft, whether real or simulated, is not subject to the ITAR and, if within the scope of the EAR's definition of "technology," is designated as EAR99 if it is limited to information about the health, operational status, or function of, or raw sensor output from, the spacecraft, spacecraft payload, or its associated subsystems or components. Such information is often referred to as "housekeeping data." In addition, 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. To implement this determination, the Department added a note to paragraph (f) that such information is not subject to the ITAR and the Department of Commerce added a note to ECCN 9E515 that such information, to the extent it would be subject to the

EAR, is EAR99. Other types of technical data, as defined in ITAR §120.10, directly related to USML Category XV articles and other types of technology, as defined in EAR §772.1, required for 9A515 items, are still controlled. In addition, the notes to paragraph (f) and 9E515 do not change the ITAR-control status of classified information directly related to defense articles and defense services on the USML and 600-series items subject to the EAR, as well as information covered by an invention secrecy order. "Classified," for these purposes, means that which is classified pursuant to Executive Order 13526, a predecessor or successor order, or to the corresponding classification rules of another government or international organization.

The Department received proposals for alternative phrasing of the regulatory text in USML Category XV. When the recommended changes added to the clarity of the regulation and were consistent with the Administration's ECR effort, the Department accepted them.

As stated above, the Department will address public comments on the proposed revision of the defense services definition in a separate rule. However, the Department addresses here one of the comments that resulted in a change to USML Categories IV and XV. A commenting party recommended that paragraphs (a)(5) and (a)(6) of the proposed defense services definition, regarding the furnishing of assistance in the integration of a spacecraft to a launch vehicle and in the launch failure analysis of a spacecraft or launch vehicle, respectively, be removed, and that those activities be described in the USML categories covering spacecraft and launch vehicles, on the basis that a general definition should not have such program-specific clauses. The Department accepted this recommendation and revised paragraph (f) of USML Category XV and paragraph (i) of

USML Category IV accordingly. The revision includes the recommendation of commenting parties to specifically provide that the service must be provided to a foreign person in order for it to be a licensable activity.

Additional Changes

The Department revised the definition of technical data at ITAR §120.10 to specify that it does not include telemetry data as defined in note 3 to USML Category XV(f).

The Department amended paragraph (i) of USML Category IV to specify that directly related defense services include the furnishing of assistance (including training) in the integration of a satellite or spacecraft to a launch vehicle, including both planning and onsite support, regardless of the jurisdiction, ownership, or origin of the satellite or spacecraft, or whether technical data is used. It also includes the furnishing of assistance (including training) in the launch failure analysis of a launch vehicle, regardless of the jurisdiction, ownership, or origin of the launch vehicle, or whether technical data is used. This text was part of the defense services definition published with the proposed rule for USML Category XV; the Department now provides it in paragraph (i) of USML Category IV.

The Department revised ITAR §124.15 to clarify which special export controls apply to satellites and related items subject to the ITAR and which controls apply to satellites and related items subject to the ITAR or the EAR.. For certain of the special export controls, the Department of Commerce is adding consistent controls in its companion interim final rule for satellites subject to the EAR. Because the changes to this section were not in the proposed rule, the Department is now requesting comment.

REGULATORY ANALYSIS AND NOTICES

Administrative Procedure Act

The Department of State is of the opinion that controlling 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 sections 553 (rulemaking) and 554 (adjudications) of the Administrative Procedure Act (APA). Although the Department is of the opinion that this rule is exempt from the rulemaking provisions of the APA, the Department published this rule as proposed rule with a 45-day provision for public comment and without prejudice to its determination that controlling the import and export of defense services is a foreign affairs function.

Regulatory Flexibility Act

Since the Department is of the opinion that this 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

For purposes of the Small Business Regulatory Enforcement Fairness Act of 1996 (the "Act"), a "major" rule is a rule that the Administrator of the OMB Office of Information and Regulatory Affairs finds has resulted or is likely to result in 1) an annual effect on the economy of $100,000,000 or more; 2) a major increase in costs or prices for consumers, individual

industries, federal, state, or local government agencies, or geographic regions; or 3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and foreign markets.

The Department does not believe this rulemaking will have an annual effect on the economy of $100,000,000 or more. Articles that are being removed from coverage in the U.S. Munitions List categories contained in this rule will still require licensing for export, but from the Department of Commerce. While the licensing regime of the Department of Commerce is more flexible than that of the Department of State, it is not expected that the change in jurisdiction of these articles will result in an export difference of $100,000,000 or more.

The Department also does not believe that this rulemaking will result in a major increase in costs or prices for consumers, individual industries, federal, state, or local government agencies, or geographic regions, or have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and foreign markets.

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," although not economically significant, under section 3(f) of 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 sections 3(a) and 3(b)(2) 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

Following is a listing of approved collections that will be affected by revision of the USML and the CCL pursuant to ECR. This final rule continues the implementation of ECR. The list of collections and the description of the manner in which they will be affected pertains to revision

of the USML in its entirety, not only to the category published in this rule. In accordance with the Paperwork Reduction Act, the Department of State will request comment on these collections from all interested persons. In particular, the Department will seek comment on changes to licensing burden based on implementation of regulatory changes pursuant to ECR, and on projected changes based on continued implementation of regulatory changes pursuant to ECR. The affected information collections are as follows:

1) Statement of Registration, DS-2032, OMB No. 1405-0002. The Department estimates that up to 5,000 of currently-registered persons will not need to maintain registration following full revision of the USML. This would result in a burden reduction of 10,000 hours annually, based on a revised time burden of two hours to complete a Statement of Registration.

2) Application/License for Permanent Export of Unclassified Defense Articles and Related Unclassified Technical Data, DSP-5, OMB No. 1405-0003. The Department estimates that there will be 35,000 fewer DSP-5 submissions annually following full revision of the USML. This would result in a burden reduction of 35,000 hours annually.

3) Application/License for Temporary Import of Unclassified Defense Articles, DSP-61, OMB No. 1405-0013. The Department estimates that there will be 200 fewer DSP-61 submissions annually following full revision of the USML. This would result in a burden reduction of 100 hours annually.

4) Application/License for Temporary Export of Unclassified Defense Articles, DSP-73, OMB No. 1405-0023. The Department estimates that there will be 800 fewer DSP-73 submissions annually following full revision

of the USML. This would result in a burden reduction of 800 hours annually.

5) Application for Amendment to License for Export or Import of Classified or Unclassified Defense Articles and Related Technical Data, DSP-6, -62, -74, -119, OMB No. 1405-0092. The Department estimates that there will be 2,000 fewer amendment submissions annually following full revision of the USML. This would result in a burden reduction of 1,000 hours annually.

6) Request for Approval of Manufacturing License Agreements, Technical Assistance Agreements, and Other Agreements, DSP-5, OMB No. 1405-0093. The Department estimates that there will be 1,000 fewer agreement submissions annually following full revision of the USML. This would result in a burden reduction of 2,000 hours annually.

7) Maintenance of Records by Registrants, OMB No. 1405-0111. The requirement to actively maintain records pursuant to provisions of the International Traffic in Arms Regulations (ITAR) will decline commensurate with the drop in the number of persons who will be required to register with the Department pursuant to the ITAR. As stated above, the Department estimates that up to 5,000 of the currently-registered persons will not need to maintain registration following full revision of the USML. This would result in a burden reduction of 100,000 hours annually. However, the ITAR does provide for the maintenance of records for a period of five years. Therefore, persons newly relieved of the requirement to register with the Department may still be required to maintain records.

8) Export Declaration of Defense Technical Data or Services, DS-4071, OMB No. 1405-0157. The Department estimates that there will be 2,000 fewer declaration submissions annually following full revision of the USML. This would result in a burden reduction of 1,000 hours annually.

List of Subjects

22 CFR Parts 120 and 121

Arms and munitions, Classified information, Exports.

22 CFR Part 124

Arms and munitions, Exports, Technical assistance.

Accordingly, for the reasons set forth above, Title 22, Chapter I, Subchapter M, parts 120, 121, and 124 are amended as follows:

PART 120 – PURPOSE AND DEFINITIONS

1. The authority citation for part 120 continues to read as follows:

Authority: Sections 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); 22 U.S.C. 2794; 22 U.S.C. 2651a; Pub. L. 105–261, 112 Stat. 1920; Pub. L. 111–266; Section 1261, Pub. L. 112-239; E.O. 13637, 78 FR 16129.

2. Section 120.10 is amended by revising paragraph (b) to read as follows:

§120.10 Technical data.

* * * * *

(b) The definition in paragraph (a) of this section does not include information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, or information in the public domain as defined in §120.11 of this subchapter or telemetry data as defined in note 3 to Category XV(f) of part 121 of this subchapter. It also does not include basic marketing information on function or purpose or general system descriptions of defense articles.

PART 121 – THE UNITED STATES MUNITIONS LIST

3. 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.

4. Section 121.1 is amended by revising paragraph (i) of U.S. Munitions List Category IV and revising Category XV, to read as follows:

§121.1 General. The United States Munitions List.

* * * * *

Category IV— Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines

* * * * *

(i) Technical data (*see* §120.10 of this subchapter) and defense services (*see* §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category and classified technical data directly related to items controlled in ECCNs 0A604, 0B604, 0D604, 9A604, 9B604, or 9D604 and defense services using the classified technical data. Defense services include the furnishing of assistance (including training) in the integration of a satellite or spacecraft to a launch vehicle, including both planning and onsite support, regardless of the jurisdiction, ownership, or origin of the satellite or spacecraft, or whether technical data is used. It also includes the furnishing of assistance (including training) in the launch failure analysis of a launch vehicle, regardless of the jurisdiction, ownership, or origin of the launch vehicle, or whether technical data is used. (*See* §125.4 of this subchapter for exemptions, and §124.15 of this subchapter for special export controls for spacecraft and spacecraft launches.) (MT for technical data and defense services related to articles designated as such.)

* * * * *

Category XV— Spacecraft and Related Articles

(a) Spacecraft, including satellites and space vehicles, whether designated developmental, experimental, research, or scientific, or having a commercial, civil, or military end-use, that:

*(1) Are specially designed to mitigate effects (*e.g.*, scintillation) of or for detection of a nuclear detonation;

*(2) Autonomously track ground, airborne, missile, or space objects in real-time using imaging, infrared, radar, or laser systems;

*(3) Conduct signals intelligence (SIGINT) or measurement and signatures intelligence (MASINT);

*(4) Are specially designed to be used in a constellation or formation that when operated together, in essence or effect, form a virtual satellite (*e.g.*, functioning as if one satellite) with the characteristics or functions of other items in paragraph (a);

*(5) Are anti-satellite or anti-spacecraft (*e.g.*, kinetic, RF, laser, charged particle);

*(6) Have space-to-ground weapons systems (*e.g.*, kinetic or directed energy);

*(7) Have any of the following electro-optical remote sensing capabilities or characteristics:

(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 0.35 meters;

(ii) Electro-optical hyperspectral with 40 spectral bands or more in the VNIR, short-wavelength infrared (SWIR) (*i.e.*, greater than 1,000nm to 2,500nm) or any combination of the aforementioned and having a Ground Sample Distance (GSD) less than 30 meters;

(iii) Electro-optical hyperspectral with 40 spectral bands or more in the mid-wavelength infrared (MWIR) (*i.e.*, greater than 2,500nm to 5,500nm) having a narrow spectral bandwidth of $\Delta\lambda$ less than or equal to 20nm full width at half maximum (FWHM) or having a wide spectral bandwidth with $\Delta\lambda$ greater than 20nm FWHM and a GSD less than 200 meters; or

(iv) Electro-optical hyperspectral with 40 spectral bands or more in the long-wavelength infrared (LWIR) (*i.e.*, greater than 5,500nm to 30,000nm) having a narrow spectral bandwidth of $\Delta\lambda$ less than or equal to 50nm FWHM or having a wide spectral bandwidth with $\Delta\lambda$ greater than 50nm FWHM and a GSD less than 500 meters;

Note 1 to paragraph (a)(7): Ground Sample Distance (GSD) is measured from a spacecraft's nadir (*i.e.*, local vertical) position.

Note 2 to paragraph (a)(7): Optical remote sensing spacecraft or satellite spectral bandwidth is the smallest difference in wavelength (*i.e.*, $\Delta\lambda$) that can be distinguished at full width at half maximum (FWHM) of wavelength λ.

Note 3 to paragraph (a)(7): An optical satellite or spacecraft is not Significant Military Equipment (*see* §120.7 of this subchapter) if non-earth pointing.

*(8) Have radar remote sensing capabilities or characteristics (*e.g.*, active electronically scanned array (AESA), synthetic aperture radar (SAR), inverse synthetic aperture radar (ISAR), ultra-wideband SAR), except those having a center frequency equal to or greater than 1 GHz but less than or equal to 10 GHz and having a bandwidth less than 300 MHz;

(9) Provide Positioning, Navigation, and Timing (PNT) signals;

Note to paragraph (a)(9): This paragraph does not control a satellite or spacecraft that provides only a differential correction broadcast for the purposes of positioning, navigation, or timing.

(10) Provide space-based logistics, assembly, or servicing of any spacecraft (*e.g.*, refueling) and have integrated propulsion other than that required for attitude control;

(11) [Reserved]

(12) Provide for sub-orbital, Earth orbital, cis-lunar, lunar, deep space (*i.e.,* space beyond lunar orbit), and planetary spaceflight, or in-space human habitation, which have integrated propulsion other than that required for attitude control; or

*(13) Are classified, contain classified software or hardware, are manufactured using classified production data, or are being developed using classified information (*e.g.*, having classified requirements, specifications, functions, or operational characteristics or include classified cryptographic items controlled under USML Category XIII of this subchapter). "Classified" means classified pursuant to Executive Order 13526, or predecessor order, and a security classification guide developed pursuant thereto or equivalent, or to the corresponding classification rules of another government or international organization.

Note 1 to paragraph (a): Spacecraft not identified in this paragraph are subject to the EAR (*see* ECCNs 9A004 and 9A515). Spacecraft described in ECCNs 9A004 and 9A515 remain subject to the EAR even if defense articles described on the USML are incorporated therein, except when such incorporation results in a spacecraft described in this paragraph.

Note 2 to paragraph (a): This paragraph does not control (a) the International Space Station (ISS) and its specially designed (as defined in the EAR) parts and components, which are subject to the EAR, or (b) those articles for the ISS that are determined to be subject to the EAR via a commodity jurisdiction determination (*see* §120.4 of this subchapter). Use

of a defense article on the ISS that was not specially designed (as defined in the EAR) for the ISS does not cause the item to become subject to the EAR.

Note 3 to paragraph (a): Attitude control is the exercise of control over spacecraft orientation (*e.g.*, pointing) within an orbital plane, which may include orbit maintenance using the attitude control thrusters.

(b) Ground control systems or training simulators, specially designed for telemetry, tracking, and control (TT&C) of spacecraft in paragraph (a) of this category.

Note to paragraph (b): Parts, components, accessories, attachments, equipment, or systems that are common to ground control systems or training simulators controlled in this paragraph and those that are used for spacecraft not controlled in paragraph (a) of this category are subject to the EAR.

(c) Global Positioning System (GPS) receiving equipment specially designed for military application, or GPS receiving equipment with any of the following characteristics, and specially designed parts and components therefor:

(1) Specially designed for encryption or decryption (*e.g.*, Y-Code) of GPS precise positioning service (PPS) signals (MT if designed or modified for airborne applications);

(2) [Reserved]

(3) Specially designed for use with a null steering antenna, an electronically steerable antenna, or including a null steering antenna designed to reduce or avoid jamming signals (MT if designed or modified for airborne applications);

(4) Specially designed for use with rockets, missiles, SLVs, drones, or unmanned air vehicle systems capable of delivering at least a 500 kg

payload to a range of at least 300 km (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned air vehicle systems controlled in this subchapter).

Note to paragraph (c)(4): "Payload" is the total mass that can be carried or delivered by the specified rocket, missile, SLV, drone or unmanned aerial vehicle that is not used to maintain flight. For definition of "range" as it pertains to rocket systems, *see* note 1 to paragraph (a) of USML Category IV For definition of "range" as it pertains to aircraft systems, *see* note to paragraph (a) of USML Category VIII.

Note to paragraph (c): The articles described in this paragraph are subject to the EAR when, prior to export, reexport, retransfer, or temporary import, they are integrated into and included as an integral part of an item subject to the EAR.

(d) [Reserved]

(e) Spacecraft parts, components, accessories, attachments, equipment, or systems, as follows:

(1) Antenna systems specially designed for spacecraft that:

(i) Have a dimension greater than 25 meters in diameter or length of the major axis;

(ii) Employ active electronic scanning;

(iii) Are adaptive beam forming; or

(iv) Are for interferometric radar;

(2) Space-qualified optics (*i.e.*, lens or mirror), including optical coating, having active properties (*e.g.*, adaptive, deformable) with a largest lateral clear aperture dimension greater than 0.35 meters;

(3) Space-qualified focal plane arrays (FPA) having a peak response in the wavelength range exceeding 900nm and readout integrated circuit (ROIC), whether separate or integrated, specially designed therefor;
(4) Space-qualified mechanical (*i.e.*, active) cryocooler or active cold finger, and associated control electronics specially designed therefor;
(5) Space-qualified active vibration suppression, including active isolation and active dampening, and associated control electronics therefor;
(6) Optical bench assemblies specially designed to enable spacecraft to meet or exceed the parameters described in paragraph (a) of this category;
(7) Space-qualified kinetic or directed-energy systems (*e.g.*, RF, laser, charged particle) specially designed for spacecraft in paragraph (a)(5) or (a)(6) of this category, and specially designed parts and components therefor (*e.g.*, power conditioning and beam-handling/switching, propagation, tracking, and pointing equipment);
(8) [Reserved]
(9) Space-qualified cesium, rubidium, hydrogen maser, or quantum (*e.g.*, based upon Al, Hg, Yb, Sr, Be Ions) atomic clocks, and specially designed parts and components therefor;
(10) Attitude determination and control systems, and specially designed parts and components therefor, that provide a spacecraft's geolocation accuracy, without using Ground Location Points, better than or equal to:
(i) 5 meters (CE90) from low earth orbit (LEO);
(ii) 30 meters (CE90) from medium earth orbit (MEO);
(iii) 150 meters (CE90) from geosynchronous orbit (GEO); or
(iv) 225 meters (CE90) from high earth orbit (HEO);
(11) Space-based systems, and specially designed parts and components therefor, as follows:

(i) Nuclear reactors and associated power conversion systems (*e.g.*, liquid metal or gas-cooled fast reactors);
(ii) Radioisotope-based power systems (*e.g.,* radioisotope thermoelectric generators); or
(iii) Nuclear thermal propulsion systems (*e.g.*, solid core, liquid core, gas core fission;
(12) Thrusters (*e.g.*, rocket engines) 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 8.41x10^5 newton seconds);
(13) Control moment gyroscope (CMG) specially designed for spacecraft;
(14) Space-qualified monolithic microwave integrated circuits (MMIC) that combine transmit and receive (T/R) functions on a single die as follows:
(i) Having a power amplifier with maximum saturated peak output power (in watts), Psat, greater than 200 divided by the maximum operating frequency (in GHz) squared [Psat >200 W*GHz2/fGHz2]; or
(ii) Having a common path (*e.g.*, phase shifter-digital attenuator) circuit with greater than 3 bits phase shifting at operating frequencies 10 GHz or below, or greater than 4 bits phase shifting at operating frequencies above 10 GHz;
(15) Space-qualified oscillator for radar in paragraph (a) of this category with phase noise less than -120 dBc/Hz + (20 log10(RF) (in GHz)) measured at 2 KHz*RF (in GHz) from carrier;
(16) Space-qualified star tracker or star sensor with angular accuracy less than or equal to 1 arcsec (1-Sigma) per star coordinate, and a tracking rate equal to or greater than 3.0 deg/sec, and specially designed parts and components therefor (MT);
*(17) Primary, secondary, or hosted payload that performs any of the functions described in paragraph (a) of this category;

Note 1 to paragraph (e)(17): *Primary payload* is that complement of equipment designed from the outset to accomplish the prime mission function of the spacecraft payload mission set. The primary payload may operate independently from the secondary payload(s). *Secondary payload* is that complement of equipment designed from the outset to be fully integrated into the spacecraft payload mission set. The secondary payload may operate separately from the primary payload. *Hosted payload* is a complement of equipment or sensors that uses the available or excess capacity (mass, volume, power, etc.) of a spacecraft to accommodate an additional, independent mission. The hosted payload may share the spacecraft bus support infrastructure. The hosted payload performs an additional, independent mission which does not dictate control or operation of the spacecraft. A hosted payload is not capable of operating as an independent spacecraft. *Spacecraft bus* (distinct from the spacecraft payload), provides the support infrastructure of the spacecraft (*e.g.*, command and data handling, communications and antenna(s), electrical power, propulsion, thermal control, attitude and orbit control, guidance, navigation and control, structure and truss, life support (for crewed mission)) and location (*e.g.*, attachment, interface) for the spacecraft payload. *Spacecraft payload* is that complement of equipment attached to the spacecraft bus that performs a particular mission in space (*e.g.*, communications, observation, science).

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.

*(18) Secondary or hosted payload, and specially designed parts and components therefor, developed with Department of Defense-funding;

Note 1 to paragraph (e)(18): This paragraph does not control payloads that are (a) determined to be subject to the EAR via a commodity jurisdiction determination (*see* §120.4 of this subchapter), or (b) identified in the relevant Department of Defense contract or other funding authorization or agreement as being developed for both military and either civil or commercial applications.

Note 2 to paragraph (e)(18): This paragraph is applicable only to those contracts or funding authorizations or agreements that are dated XXXX XX, 2015, or later.

(19) Spacecraft heat shields or heat sinks specially designed for atmospheric entry or re-entry, and specially designed parts and components therefor (MT if usable in rockets, SLVs, missiles, drones, or UAVs capable of delivering a payload of at least 500 kg to a range of at least 300 km);

Note to paragraph (e)(19): "Payload" is the total mass that can be carried or delivered by the specified rocket, SLV, missile, drone, or UAV that is not used to maintain flight. For definition of "range" as it pertains to aircraft systems, *see* note to paragraph (a) of USML Category VIII. For definition of "range" as it pertains to rocket systems, *see* note 1 to paragraph (a) of USML Category IV.

(20) Equipment modules, stages, or compartments that contain propulsion other than that required for attitude control and can be separated or jettisoned from another spacecraft (*see* note 3 to paragraph (a) of this category); or

*(21) Any part, component, accessory, attachment, equipment, or system that:

(i) Is classified;

(ii) Contains classified software; or

(iii) Is being developed using classified information.

Note to paragraph (e)(21): "Classified" means classified pursuant to Executive Order 13526, or predecessor order, and a security classification guide developed pursuant thereto or equivalent, or to the corresponding classification rules of another government or international organization.

Note 1 to paragraph (e): Parts, components, accessories, attachments, equipment, or systems specially designed for spacecraft or other articles enumerated in this category but not listed in paragraph (e) are subject to the EAR.

Note 2 to paragraph (e): The articles described in this paragraph are subject to the EAR when, prior to export, reexport, retransfer, or temporary import, they are integrated into and included as an integral part of an item subject to the EAR (*see* note 2 to paragraph (e)(17) of this category).

Note 3 to paragraph (e): For the purposes of this paragraph, an article is space-qualified if it is designed, manufactured, or qualified through successful testing, for operation at altitudes greater than 100 km above the surface of the Earth. The use of an altitude of 100 km above the surface of the Earth in this paragraph does not represent a legal demarcation between national air space and outer space under United States or international law.

Note 4 to paragraph (e): (1) A determination that a specific article (or commodity) (*e.g.*, by product serial number) is space-qualified by virtue of testing alone does not mean that other articles in the same production run or model series are space-qualified if not individually tested. (2) “Article” is

synonymous with "commodity," as defined in EAR §772.1. (3) A specific article not designed or manufactured for use at altitudes greater than 100 km above the surface of the Earth is not space-qualified before it is successfully tested. (4) The terms "designed" and "manufactured" in this definition are synonymous with "specially designed."

(f) Technical data (*see* §120.10 of this subchapter) and defense services (*see* §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category and classified technical data directly related to items controlled in ECCNs 9A515, 9B515, or 9D515 and defense services using the classified technical data. Defense services include the furnishing of assistance (including training) in the integration of a satellite or spacecraft to a launch vehicle, including both planning and onsite support, regardless of the jurisdiction, ownership, or origin of the satellite or spacecraft, or whether technical data is used. It also includes the furnishing of assistance (including training) in the launch failure analysis of a satellite or spacecraft, regardless of the jurisdiction, ownership, or origin of the satellite of spacecraft, or whether technical data is used. (*See* §125.4 of this subchapter for exemptions, and §124.15 of this subchapter for special export controls for satellites and satellite launches.) (MT for technical data and defense services related to articles designated as such.)

Note 1 to paragraph (f): The technical data control of this paragraph does not apply to technical data directly related to articles enumerated in paragraphs (c) or (e) of this category when such articles are integrated into and included as an integral part of a satellite subject to the EAR. For controls in these circumstances, *see* ECCN 9E515. This includes that level of technical data (including marketing data) necessary and reasonable for a purchaser to have assurance that a U.S. built item intended to operate in

space has been designed, manufactured, and tested in conformance with specified contract requirements (*e.g.*, operational performance, reliability, lifetime, product quality, or delivery expectations) as well as data necessary for normal orbit satellite operations, to evaluate in-orbit anomalies, and to operate and maintain associated ground station equipment (except encryption hardware).

Note 2 to paragraph (f): Activities and technology/technical data directly related to or required for the spaceflight (*e.g.*, sub-orbital, orbital, lunar, interplanetary, or otherwise beyond Earth orbit) passenger or participant experience, regardless of whether the passenger or participant experience is for space tourism, scientific or commercial research, commercial manufacturing/production activities, educational, media, or commercial transportation purposes, are not subject to the ITAR or the EAR. Such activities and technology/technical data include those directly related to or required for: (a) spacecraft access, ingress, and egress, including the operation of all spacecraft doors, hatches, and airlocks; (b) physiological training (*e.g.*, human-rated centrifuge training or parabolic flights, pressure suit or spacesuit training/operation); (c) medical evaluation or assessment of the spaceflight passenger or participant; (d) training for and operation by the passenger or participant of health and safety related hardware (*e.g.*, seating, environmental control and life support, hygiene facilities, food preparation, exercise equipment, fire suppression, communications equipment, safety-related clothing or headgear) or emergency procedures; (e) viewing of the interior and exterior of the spacecraft or terrestrial mock-ups; (f) observing spacecraft operations (*e.g.*, pre-flight checks, landing, in-flight status); (g) training in spacecraft or terrestrial mock-ups for connecting to or operating passenger or participant equipment used for purposes other than operating

the spacecraft; or (h) donning, wearing, or utilizing the passenger's or participant's flight suit, pressure suit, or spacesuit, and personal equipment.

Note 3 to paragraph (f): Neither paragraph (f) nor ECCN 9E515 controls the data transmitted to or from a satellite or spacecraft, whether real or simulated, when limited to information about the health, operational status, or function of, or measurements or raw sensor output from, the spacecraft, spacecraft payload(s), or their associated subsystems or components. Such data or technology is subject to the EAR and is designated EAR99. Examples of such data and technology, which are commonly referred to as "housekeeping data," include (a) system, hardware, component configuration, and operation status information pertaining to temperatures, pressures, power, currents, voltages, and battery charges; (b) spacecraft or payload orientation or position information, such as state vector or ephemeris information; (c) payload raw mission or science output, such as images, spectra, particle measurements, or field measurements; (d) command responses; (e) accurate timing information; and (f) 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. All classified technical data directly related to items controlled in USML Category XV or ECCNs 9A515, and defense services using the classified technical data, remain subject to the ITAR. This note does not affect controls in paragraph (f), ECCN 9D515, or ECCN 9E515 on software source code or commands that control a spacecraft, payload, or associated subsystem.

(g)-(w) [Reserved]

(x) Commodities, software, and technology subject to the EAR (*see* §120.42 of this subchapter) used in or with defense articles controlled in this category.

Note to paragraph (x): Use of this paragraph is limited to license applications for defense articles controlled in this category where the purchase documentation also includes commodities, software, or technology subject to the EAR (*see* §123.21(b) of this subchapter).

* * * * *

PART 124—AGREEMENTS, OFF-SHORE PROCUREMENT, AND OTHER DEFENSE SERVICES

5. The authority citation for part 124 is revised 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; 22 U.S.C. 2776; Section 1514, Pub. L. 105–261; Pub. L. 111–266; Section 1261, Pub. L. 112-239; E.O. 13637, 78 FR 16129.

6. Section 124.15 is amended by revising paragraphs (a) introductory text, (b) introductory text, (b)(2), and (c), to read as follows:

§124.15 Special Export Controls for Defense Articles and Defense Services Controlled under Category XV: Space Systems and Space Launches.

(a) The export of a satellite or related item controlled by Category XV of part 121 of this subchapter or any defense service controlled by this subchapter associated with the launch in, or by nationals of, a country that is not a member of the North Atlantic Treaty Organization (NATO) or a major non-NATO ally of the United States always requires special export controls, in addition to other export controls required by this subchapter, as follows:

* * * * *

(b) Mandatory licenses for launch failure (crash) investigations or analyses of any satellite controlled pursuant to this subchapter or subject to the EAR: In the event of a failure of a launch from a foreign country (including a post liftoff failure to reach proper orbit)—

* * * * *

(2) Officials of the Department of Defense must monitor all activities associated with the investigation or analyses to insure against unauthorized transfer of technical data or services and U.S. persons must follow the procedures set forth in paragraphs (a)(1) and (a)(2) of this section.

(c) Although Public Law 105–261 does not require the application of special export controls for the launch of U.S.-origin satellites and components from or by nationals of countries that are members of NATO or major non-NATO allies, such export controls may nonetheless be applied, in addition to any other export controls required under this subchapter, as appropriate in furtherance of the security and foreign policy of the United States. Further, the export of any article or defense service controlled under this subchapter to any destination may also require that the special export controls identified in paragraphs (a)(1) and (a)(2) of this section be applied in furtherance of the security and foreign policy of the United States.

* * * * *

Rose E. Gottemoeller,
Acting Under Secretary,
Arms Control and International Security,
Department of State.

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