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**DEPARTMENT OF COMMERCE**

**Bureau of Industry and Security**

**15 CFR Parts 734, 740, 742, 744, 772, and 774**

**[Docket No. 140221170-4170-01]**

**RIN 0694-AF75**

**Revisions to the Export Administration Regulations (EAR): Control of Fire Control, Range Finder, Optical, and Guidance and Control Equipment the President Determines No Longer Warrant Control Under the United States Munitions List (USML)**

**AGENCY:** Bureau of Industry and Security, Department of Commerce.

**ACTION:** Proposed rule.

**SUMMARY:** This proposed rule describes how articles the President determines no longer warrant control under Category XII (Fire Control, Range Finder, Optical and Guidance and Control Equipment) of the United States Munitions List (USML) of the International Traffic in Arms Regulations (ITAR) would be controlled under the Commerce Control List (CCL) by

creating new “600 series” Export Control Classification Numbers (ECCN)s 6A615, 6B615 and 6D615 for military fire control, range finder, and optical items, by revising ECCN 7A611 and by creating new ECCNs 7B611, 7C611 and 7E611 for military optical and guidance items. In addition, for certain night vision items currently subject to the Export Administration Regulations (EAR), this rule proposes to expand the scope of control, eliminate the use of some license exceptions, and create new ECCNs for certain software and technology related to night vision items. This proposed rule would also expand the scope of end-use restrictions on certain exports and reexports of certain cameras, systems, or equipment and expand the scope of military commodities described in ECCN 0A919.

**DATES:** Comments must be received by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may submit comments by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Search for this rule using its regulations.gov docket number: BIS-2015-0016
- By e-mail directly to [publiccomments@bis.doc.gov](mailto:publiccomments@bis.doc.gov). Include RIN 0694-AF75 in the subject line.
- By mail or delivery to Regulatory Policy Division, Bureau of Industry and Security, U.S. Department of Commerce, Room 2099B, 14th Street and Pennsylvania Avenue, NW, Washington, DC 20230. Refer to RIN 0694-AF75.

**FOR FURTHER INFORMATION CONTACT:** Dennis Krepp, Office of National Security and Technology Transfer Controls, Bureau of Industry and Security, Telephone: 202-482-1309, E-mail: [Dennis.Krepp@bis.doc.gov](mailto:Dennis.Krepp@bis.doc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

This proposed rule is part of the Administration's Export Control Reform Initiative, the objective of which is to protect and enhance U.S. national security interests. The Initiative began in August 2009 when President Obama directed the Administration to conduct a broad-based review of the U.S. export control system to identify additional ways to enhance national security. Once the Department of State's International Traffic in Arms Regulations (ITAR) and its U.S. Munitions List (USML) are amended to control only the items that provide the United States with a critical military or intelligence advantage or otherwise warrant such controls, and the Export Administration Regulations (EAR) are amended to control military items that do not warrant USML controls, the U.S. export control system will enhance national security by (i) improving interoperability of U.S. military forces with allied countries, (ii) strengthening the U.S. industrial base by, among other things, reducing incentives for foreign manufacturers to design out and avoid US-origin content and services, and (iii) allowing export control officials to focus government resources on transactions that pose greater concern.

Pursuant to section 38(f) of the Arms Export Control Act (AECA), the President is obligated to review the USML "to determine what items, if any, no longer warrant export

controls under” the AECA. The President must report the results of the review to Congress and wait 30 days before removing any such items from the USML. The report must “describe the nature of any controls to be imposed on that item under any other provision of law.”

22 U.S.C. 2778(f)(1).

BIS has published and will continue to publish additional *Federal Register* notices containing proposed amendments to the CCL that describe proposed controls for additional categories of articles to the extent the President determines such articles no longer warrant control under the USML. The State Department will publish concurrently proposed amendments to the USML that correspond to the BIS notices. BIS will also publish proposed rules to further align the CCL with the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies’ Munitions List (Wassenaar Arrangement Munitions List or WAML) and the Missile Technology Control Regime’s Equipment, Software and Technology Annex (MTCR Annex).

Following the structure set forth in the final rule entitled “Revisions to the Export Administration Regulations: Initial Implementation of Export Control Reform” (78 FR 22660, April 16, 2013) (“April 16 (initial implementation) rule”), this proposed rule describes BIS’s proposal for controlling under the EAR and its CCL fire control, range finder, optical, and guidance and control equipment, and related articles now controlled by the ITAR’s USML Category XII. The proposed changes described in this proposed rule and the corresponding changes in the State Department’s proposed amendment to Category XII of the USML are based on a review of Category XII by the Defense Department, which worked with the Departments of State and Commerce in preparing the proposed amendments. The review was focused on identifying the types of articles that are currently controlled by USML Category XII that are

either (i) inherently military and otherwise warrant control on the USML or (ii) if it is a type common to non-military equipment, possess parameters or characteristics that provide a critical military or intelligence advantage to the United States, and that are almost exclusively available from the United States. If an article satisfied one or both of those criteria, the article remained on the USML. If an article did not satisfy either standard, but was nonetheless a type of article that is, as a result of differences in form and fit, “specially designed” for military applications, it was identified in current or new ECCNs proposed in this notice.

In the April 16 (initial implementation) rule, BIS created a series of new ECCNs to control items that would be removed from the USML, or that are items from the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies Munitions List (Wassenaar Arrangement Munitions List or WAML) that are already controlled elsewhere on the CCL. That final rule referred to this series as the “600 series” because the third character in each of the new ECCNs would be a “6.” The first two characters of the 600 series ECCNs serve the same function as any other ECCN as described in § 738.2 of the EAR. The first character is a digit in the range 0 through 9 that identifies the Category on the CCL in which the ECCN is located. The second character is a letter in the range A through E that identifies the product group within a CCL Category. In the 600 series, the third character is the number 6. With few exceptions, the final two characters identify the WAML category that covers items that are the same or similar to items in a particular 600 series ECCN.

A “600 series” ECCN will not be created, however, if an existing ECCN is subject to controls for reasons other than Anti-Terrorism (AT) reasons and allows for identification, classification, and control of items transferred from the USML. Many of the items controlled under Category XII of the ITAR would also be subject to controls established by the Wassenaar

Arrangement List of Dual-Use Goods and Technologies, which are reflected in many existing ECCNs on the CCL. Consequently, for many items, the review identified control parameters to delineate those items that would remain controlled under USML Category XII of the ITAR from those that would be subject to the lower threshold controls identified in the CCL. Accordingly, this proposed rule would revise the following existing ECCNs: 0A987, optical sighting devices for firearms; 2A984, concealed object detection equipment; 6A004, optical equipment and components; 6A005, lasers, components, and optical equipment; 6A007, gravity meters and gravity gradiometers; 6A008, radar systems, equipment, and assemblies; 6A107, gravity meters and gravity gradiometers; 7A001, accelerometers; 7A002, gyros or angular rate sensors; 7A003, inertial measurement equipment or systems; 7A005, Global Navigation Satellite Systems receiving equipment; 7A101, accelerometers; and 7A102, gyros. In order to maintain consistency with the Wassenaar Arrangement, proposed revisions to these ECCNs would not amend the control parameters in the Items paragraph of the ECCNs. Rather, most amendments add notes to the Related Controls paragraph or specific subparagraphs of the Items paragraph to reference the corresponding control under Category XII of the USML.

The review also identified several sensors and cameras that provide important night vision capability for military use but are also widely used in civil products and applications. In order to address the sensitivity of these items that are currently on the Wassenaar Arrangement's Dual-Use Control List and thus controlled under ECCNs 6A002 (optical sensors or equipment and components therefor) and 6A003 (cameras, systems or equipment, and components therefor) on the Commerce Control List, this proposed rule would amend the availability of License Exceptions STA and APR for certain items; revise the license review policy; expand the license requirement in § 744.9; expand software controls related to ECCNs 6A002 and 6A003 by

revising ECCNs 6D002, 6D003, and 6D991; and create new ECCNs 6D994 and 6E994 for repair, maintenance, or overhaul software or technology for ECCNs 6A002, 6A003, or 6A990 commodities. In addition, this proposed rule proposes to revise controls for certain read-out integrated circuits in ECCN 6A990 and related software and technology in ECCNs 6D991 and 6E990, as well as newly proposed ECCNs 6D994 and 6E994. To ensure interagency review of all items in ECCNs 6A002 and 6A990, this proposed rule would establish a new RS control that would require a license to export or reexport these commodities, as well as related software and technology, to all destinations, including Canada. This worldwide RS control, described further in § 742.6(a)(8), would effectively add a license requirement for Canada for all exports and reexports of ECCNs 6A002 and 6A990 commodities.

This proposed rule would also amend ECCN 6A002 to specify that focal plane arrays controlled under that ECCN include certain focal plane arrays in a “permanent encapsulated sensor assembly”, as that term is proposed to be defined in § 772.1, are subject to the EAR. Under this proposed rule, focal plane arrays described in ECCN 6A002 that are not in a “permanent encapsulated sensor assembly” would be subject to the ITAR. Although these items are proposed to be subject to a worldwide license requirement, these commodities would be eligible for *de minimis* treatment (unless subject to § 734.4(a)(5)) under the EAR and clearly included on the CCL, thus addressing concerns foreign manufacturers have expressed regarding jurisdictional uncertainty on components incorporated in foreign-made commercial items.

This proposed rule would also revise controls pertaining to cameras classified under ECCN 6A993.a as a result of meeting the criteria to Note 3.a to ECCN 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9 Hz). The interagency review found that these 9 Hz cameras have been incorporated into foreign military commodities. As a result, this proposed

rule would amend § 744.9 to include such 9 Hz cameras and subject them to the license requirements described in that section. This change is described more fully below. Additionally, this proposed rule would create new ECCN 0E987 to control technology required for the development or production of ECCN 0A987 commodities that incorporate a focal plane array or image intensifier tube.

For those items being transferred from Category XII of the ITAR that are not covered by an existing ECCN that have controls for reasons other than AT reasons, this proposed rule would create (or revise in the case of 7A611) the following “600 series” ECCNs: 6A615, military fire control, range finder, and optical equipment; 6B615, test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of military fire control, range finder, and optical equipment; 6D615, software “specially designed” for the “development,” “production,” operation, or maintenance of military fire control, range finder, and optical equipment controlled by ECCNs 6A615 or 6B615; 6E615, technology “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of military fire control, range finder, and optical equipment controlled by 6A615 or 6B615 or software controlled under 6D615; 7A611, military guidance and control equipment; 7B611, test, inspection, and production “equipment” and related commodities “specially designed” for military guidance and control equipment; 7D611, software “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 7A611 or equipment controlled by 7B611; and 7E611, technology “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities controlled by 7A611, equipment controlled by 7B611, or software controlled by 7D611.



As the U.S. Government works through the proposed revisions to the USML and the related proposed new controls on the CCL, the agencies recognize that some proposed control parameters may control items in normal commercial use and on the Wassenaar Arrangement's Dual Use List. BIS believes that multiple perspectives would be beneficial to this process, and, while welcoming comments from all interested persons concerning any aspect of this proposed rule, it believes that input from users of the lists on the following issues would be particularly helpful.

1) A key goal of this rulemaking is to ensure the USML and the CCL together control all items that meet Wassenaar Arrangement commitments embodied in USML Category XII. To that end, the public is asked to identify any potential lack of coverage brought about by the proposed rules when reviewed together.

2) Another key goal of this rulemaking is to identify items proposed for control on the USML or the CCL that are not controlled on the Wassenaar Arrangement's Munitions or Dual Use List. The public is asked to identify any items proposed for control on the CCL that are not controlled on the Wassenaar Arrangement's Munitions or Dual Use List.

3) A third key goal of this rulemaking is to establish a "bright line" between the USML and the CCL, and between the CCL's 600 series and the rest of the CCL, for control of the items at issue. The public is asked to provide specific examples of control criteria that do not clearly describe items that would be defense articles, and thus do not establish a "bright line" between the USML and the CCL, or between the 600 series and the rest of the CCL.

4) Although the proposed revisions to the USML and the CCL do not preclude the possibility that items in normal commercial use would or should be ITAR-controlled because, *e.g.*, they provide the United States with a critical military or intelligence advantage, or

controlled in the EAR's 600 series controls, the U.S. Government does not want to inadvertently control items on the ITAR or in the 600 series that are in normal commercial use. As described in the State Department's proposed rule, items that would be controlled on the USML have been identified as possessing parameters or characteristics that provide a critical military or intelligence advantage. The corresponding 600 series entries would control all other such items not meeting this standard, but that are nonetheless "specially designed" for military applications. The public is thus asked to provide specific examples of items, if any, that would be controlled by the revised USML Category XII or the new 600 series entries proposed in this rule that are now in normal commercial use and should thus be controlled elsewhere on the CCL. The examples should demonstrate actual commercial use, not just potential or theoretical use, with supporting documents, as well as foreign availability of such items.

5) If there are any criteria proposed in the revised USML Category XII or new 600 series entries that the public believes control items in normal commercial use, the public is asked to identify different parameters or characteristics that would cover items exclusively or primarily in military use.

6) If there are any criteria the public believes control items in normal commercial use, the public is asked to identify the multilateral controls (such as the Wassenaar Arrangement's Dual Use List), if any, for such items, and the consequences of such items being controlled on the USML or the 600 series entries.

7) BIS seeks public comment on the use of the phrase "permanent encapsulated sensor assembly" in this proposed rule.

8) BIS also encourages comments on the proposed expansion of license requirements and removal of license exception availability on items, as described in this rule, that are currently exportable without a license or under a license exception.

9) Finally, BIS seeks comments on the impact of the proposed new license requirements for the export to Canada of items described in this rule.

### **Detailed Description of Changes in this Proposed Rule – Increased Controls for Night Vision Items**

To address concerns regarding the control of night vision items currently subject to the EAR or proposed to be transferred from USML Category XII to the CCL, as well as foreign-made military commodities incorporating night vision items, this proposed rule would revise the policies for night vision items controlled in Category 6 by amending §§ 734.4(a), 740.16, 740.20, 742.6, and 744.9 of the EAR. These changes are described more fully herein.

#### *Revisions to Section 734.4*

Section 734.4(a)(5) of the EAR currently provides that there is no *de minimis* level for foreign military commodities, as described in ECCN 0A919, that incorporate certain night vision items. Since this proposed rule would expand the scope of items controlled under ECCN 0A919, as described further below, § 734.4(a)(5) would also be revised to reflect changes to that ECCN. Under this proposed rule, there would be no *de minimis* level for foreign-made military commodities described in ECCN 0A919, which incorporate commodities classified under

ECCNs 6A002, 6A003, 6A990, or 6A993.a (that meet the criteria of Note 3.a to ECCN 6A003.b.4.b).

*Addition to Section 740.2*

Section 740.2 sets forth restrictions on all license exceptions. This rule would make technology for production of commodities defined in ECCNs 6A002.a.2 (image intensifier tubes), 6A002.a.3 (certain focal plane arrays), or 6A990 (read-out integrated circuits specially designed for focal plane arrays controlled by ECCN 6A003.a.2) and controlled under ECCNs 6E002 or 6E990 ineligible for any license exception. The restriction is being proposed because of the potential use of these tubes, arrays and integrated circuits in night vision devices.

*Availability of License Exception APR*

Section 740.16 of the EAR currently authorizes specified reexports of items subject to the EAR by certain countries to specified destinations without individual licenses from BIS. To ensure appropriate control for items in ECCNs 6A002, 6A003, and 6A990, as well as items covered by ECCN 0A919 incorporating such items, this rule proposes to remove APR availability for reexports from Country Group A:1 or cooperating countries for items described in ECCNs 6A002, 6A003, and 6A990. However, cameras described in ECCN 6A003 may be exported or reexported under License Exception APR to and among Albania, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, and the United Kingdom if such cameras are fully packaged for use as consumer ready civil products or

such cameras with not more than 111,000 elements are to be embedded in civil products. This rule also would make commodities described in ECCN 0A897 (optical sighting devices for firearms) that incorporate an image intensifier tube ineligible for export to and among countries in Country Group A:1 and cooperating countries under License Exception APR because of the night vision capability of those devices.

#### *Availability of License Exception STA*

The EAR currently restricts the use of License Exception STA for specific commodities controlled by ECCNs 6A002 or 6A003, as well as related technology controlled by 6E001 or 6E002, for export or reexport to countries listed in § 740.20(c)(2). By amending § 740.20(b)(2), this rule proposes to remove License Exception STA availability for newly-proposed technology controlled under ECCN 0E987; all commodities controlled under ECCN 6A002; commodities controlled under ECCN 6A990; software controlled under ECCN 6D002 for the “use” of commodities controlled under ECCN 6A002.b; software controlled under ECCN 6D003.c; software controlled under ECCN 6D991 for the “development,” “production,” or “use” of commodities controlled under ECCNs 6A002, 6A003, or 6A990; software controlled under new ECCN 6D994; technology controlled under ECCN 6E001 for the “development” of commodities controlled under ECCNs 6A002 or 6A003; technology controlled under ECCN 6E002 for the “production” of commodities controlled under ECCNs 6A002 or 6A003; technology controlled under ECCN 6E990; and technology controlled under new 6E994.

#### *Revisions to Regional Stability Licensing Policy*

Section 742.6 sets forth controls that support U.S. foreign policy to maintain regional stability. This proposed rule would add new § 742.6(a)(8) to require a license worldwide for the

export or reexport of some Category 0 and 6 items. Specifically, the new provision would pertain to: commodities described in ECCNs 6A002 or 6A990; “software” described in ECCN 6D002 for the “use” of ECCN 6A002.b commodities; “software” described in ECCN 6D003.c; “software” described in ECCN 6D991 for the “development,” “production,” or “use” of ECCN 6A002, 6A003, or 6A990 commodities; “software” described in ECCN 6D994; “technology” described in ECCN 0E987; “technology” described in ECCN 6E001 for the “development” of ECCN 6A002 or 6A003 commodities; “technology” described in ECCN 6E002 for the “production” of ECCN 6A002 or 6A003 commodities; “technology” described in ECCN 6E990; and “technology” described in ECCN 6E994.

With the exception of military commodities controlled under ECCN 0A919, license applications for all commodities described above subject to the worldwide RS control will be reviewed on a case-by-case basis, as described in § 742.6(b)(1)(ii). However, license applications for all items described in the above paragraph, including military commodities controlled under ECCN 0A919, would be subject to ITAR licensing policies for exports or reexports of such items to military end users described in § 744.9(d) or for incorporation into a “military commodity” controlled by ECCN 0A919.

This rule further proposes to revise § 742.6(b)(1) to set forth a presumption of denial for exports or reexports of software controlled under ECCNs 6D002 (for the “use” of ECCN 6A002.b commodities), 6D003.c, and 6D991 (for the “development,” “production,” or “use” of commodities controlled under ECCNs 6A002, 6A003, or 6A990). Software controlled under ECCN 6D994, however, would be reviewed on a case-by-case basis.

With respect to technology, this proposed rule would revise § 742.6(b)(1) to set forth a presumption of denial for exports or reexports of technology controlled under ECCNs 0E987, 6E001 (for “development” of ECCN 6A002 or 6A003 commodities), 6E002 (for “production” of ECCN 6A002 or 6A003 commodities except for technology required for integration, mounting, inspection, testing, or quality assurance), and 6E990. However, applications for ECCN 6E002 “build-to-print technology” that is required for integration, mounting, inspection, testing, or quality assurance would be reviewed on a case-by-case basis.

This rule also would add ECCN 6A003.b (certain imaging cameras) to § 742.6(b)(1)(iii)(C) to apply the license application review policy of the ITAR if being exported or reexported for incorporation into a “military commodity” controlled by ECCN 0A919.

Finally, this rule proposes no substantive changes to the existing licensing policy described in current § 742.6(b)(1), but this rule does propose to re-structure the description of those policies under § 742.6(b)(1)(i) – (b)(1)(iv).

#### *Revisions to End-Use/End-User Controls*

Section 744.9 currently requires a license for the export or reexport to any destination other than Canada for cameras controlled by ECCNs 6A003.b.3, 6A003.b.4.b, or 6A003.b.4.c when the exporter knows or is informed that the item is intended to be used by a “military end-user” or to be incorporated into a “military commodity” controlled by ECCN 0A919, in addition to other applicable license requirements in the EAR.

This proposed rule would revise § 744.9 to require a license for exports, reexports, or transfers (in-country) of commodities controlled by ECCN 0A987 (incorporating items in ECCNs 6A002 and 6A003, or certain cameras in 6A993.a), ECCN 6A002, ECCN 6A003, ECCN 6A990, ECCN 6A993.a commodities meeting the criteria of Note 3.a to ECCN 6A003.b.4.b., ECCN 8A002.d.1.c, and ECCN 8A002.d.2, when the exporter or reexporter knows or is informed that the item is intended to be used by a “military end-user” or to be incorporated into a “military commodity” controlled by ECCN 0A919. Commodities controlled by ECCN 6A993.a as a result of meeting the criteria of Note 3.a to ECCN 6A003.b.4.b are cameras with a maximum frame rate equal to or less than 9 Hz. Although these 9 Hz cameras are subject only to Anti-Terrorism controls, the U.S. Government determined that 9 Hz cameras are used in foreign-made military commodities and thus merited inclusion in § 744.9.

License applications submitted as a result of the proposed revisions of § 744.9 would be reviewed under the ITAR licensing policy described in §§ 742.6(b)(1)(iii) and 744.9(c).

#### *Addition of Definition to Part 772*

To more precisely address the jurisdictional split for focal plane arrays described in ECCN 6A002, this rule proposes to add a definition for focal plane arrays in a “permanent encapsulated sensor assembly”. Focal plane arrays described in ECCN 6A002 that are focal plane arrays in a “permanent encapsulated sensor assembly” and are not otherwise subject to the ITAR would be subject to the EAR, while focal plane arrays described in ECCN 6A002 that are not in a “permanent encapsulated sensor assembly” would be subject to the ITAR.

#### *Revisions to ECCN 0A919*



ECCN 0A919 currently controls “military commodities” produced and located outside the United States that are not subject to the ITAR, and incorporate one or more cameras controlled under ECCNs 6A003.b.3, 6A003.b.4.b, or 6A003.b.4.c. In addition, ECCN 0A919 controls such “military commodities” if they incorporate more than a *de minimis* amount of U.S.-origin 600 series content or are the direct products of U.S.-origin 600 series technology or software.

To control the reexport of such military commodities that incorporate a wider group of items on the CCL, this proposed rule would revise ECCN 0A919 to control military commodities produced outside the United States that are not subject to the ITAR, and have any of the following characteristics: (i) incorporate one or more commodities classified under ECCNs 6A002, 6A003, or 6A990; (ii) incorporate one or more commodities controlled under ECCN 6A993.a as a result of meeting the criteria specified in Note 3.a to ECCN 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9 Hz); (iii) incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content; or (iv) are direct products of U.S.-origin “600 series” technology.

#### *Establishment of ECCN 0E987*

This proposed rule would create a new ECCN for technology required for the “development” or “production” of commodities controlled by ECCN 0A987, if such commodities incorporate a focal plane array or image intensifier tube. ECCN 0E987 would be subject to a worldwide RS control and Anti-Terrorism (AT Column 1) control. In addition, items controlled by 0E987 would not be eligible for License Exception STA.

#### *Revisions to ECCN 6A002*

ECCN 6A002 currently controls specified optical sensors or equipment and components therefor. The Department of State's proposed rule for Category XII, which is being published concurrently with this rule, enumerates certain optical sensors and components, such as image intensifier tubes and focal plane arrays, that are subject to the ITAR. Consequently, this proposed rule adds references to the ITAR in the Related Controls paragraph of ECCN 6A002, as well as references to ECCN 0A919, § 744.9, and other related ECCNs.

ECCN 6A002 is currently subject to National Security (NS), Missile Technology (MT), Crime Control (CC), RS, Anti-Terrorism (AT), and United Nations (UN) reasons for control. To ensure interagency review of any proposed export or reexport of an ECCN 6A002 commodity, this proposed rule would revise this ECCN's RS control to require a license for all destinations, including Canada, for the entire entry. The proposed worldwide RS control eliminates the need to maintain the current RS column 1 control. Consequently, this proposed rule would revise the License Requirements section of ECCN 6A002 accordingly. Also, this rule proposes to add notes within the Items paragraph of the ECCN to further specify when items described in ECCN 6A002 (and on the Wassenaar Arrangement's Lists of Dual-Use Goods and Technologies) would be subject to the ITAR.

#### *Revisions to ECCN 6A003*

ECCN 6A003 currently controls specified cameras, systems or equipment and components therefor. Under the Department of State's proposed rule, Category XII(c) more positively enumerates certain items that are also described by ECCN 6A003. Consequently, this proposed rule adds a reference to USML Category XII(c) in the Related Controls paragraph of

ECCN 6A003. Also, this rule revises the Related Controls references to ECCN 0A919 and § 744.9 to reflect the expansion of the applicability of those provisions to all of ECCN 6A003.

*Revisions to ECCN 6A990*

Under the Department of State’s proposed rule to revise USML Category XII, certain read-out integrated circuits would be controlled under XII(e). Read-out integrated circuits (ROICs) that are “specially designed” for focal plane arrays controlled under ECCN 6A002.a.3 would be classified under ECCN 6A990 and subject to the worldwide RS control described in § 742.6(a)(8). In addition, these items would not be eligible for License Exception STA and would be subject to the limitations on the use of License Exception APR in § 740.16(a)(2) and (b)(2). This rule also proposes to insert references to Category XII(e), ECCN 0A919, and § 744.9 under the Related Controls paragraph. Also, this rule would allow for the use of License Exception LVS for this ECCN with a \$500 value limit. This change would ensure that controls on ROICs subject to the EAR are not more restrictive than controls for ROICs proposed to be controlled in USML Category XII(e), which would be eligible for the exemption in § 123.16(b)(2) of the ITAR.

*Revisions to ECCN 6A993*

As previously mentioned, § 744.9 is proposed to be revised to require a license for 9 Hz cameras if exported to a “military end user” or if incorporated into a “military commodity.” To remind readers of the applicability of § 744.9 and ECCN 0A919 to 9 Hz cameras, this rule provides a reference to those provisions under the Related Controls paragraph of 6A993.

*Revisions to ECCNs 6D002, 6D003, and 6D991, and Establishment of 6D994*

The Wassenaar Arrangement's Lists of Dual-Use Goods and Technologies impose limited controls on software related to commodities controlled under ECCNs 6A002 and 6A003. As a result, the CCL currently has the following multilateral and unilateral software controls related to such items: ECCN 6D002 (software "specially designed" for the "use" of commodities controlled under ECCN 6A002.b), ECCN 6D003.c (software designed or modified for cameras incorporating "focal plane arrays" specified by ECCN 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the frame rate specified in ECCN 6A003.b.4 Note 3.a), and ECCN 6D991 (software specially designed for the "use" of commodities controlled under ECCN 6A002.a.1.d).

To address concerns regarding the lack of comprehensive software controls related to commodities controlled under ECCNs 6A002 and 6A003, as well as read-out integrated circuits in 6A990, this proposed rule would consolidate existing, unilateral software controls and would expand them to revise ECCN 6D991 to also control software, not elsewhere specified, that is "specially designed" for the "development," "production," or "use" of commodities controlled by ECCNs 6A002, 6A003, or 6A990. In addition, this proposed rule would create ECCN 6D994 to control software, not elsewhere specified, that is "specially designed" for the maintenance, repair, or overhaul of commodities controlled by ECCNs 6A002, 6A003, or 6A990. Under this proposed rule, ECCNs 6D002 (for ECCN 6A002.b commodities only), 6D003.c, 6D991 (for ECCNs 6A002, 6A003, or 6A990), and 6D994 would impose a worldwide RS control, which would be subject to the licensing policy described in § 742.6(a)(8). Also, this proposed rule would remove eligibility to use License Exception TSR for the software described above in ECCNs 6D002 and 6D003.

To prevent confusion over multiple ECCNs potentially controlling the same software, this proposed rule would add language to the Related Controls paragraphs of ECCNs 6D991 and 6D994 to confirm that software currently controlled under ECCNs 6D002 and 6D003.c would remain controlled under those provisions. To reflect this understanding, this proposed rule would also revise the Related Controls paragraphs of ECCNs 6D002 and 6D003 to provide references to ECCNs 6D991 and 6D994. Additionally, to ensure consistency of controls among ECCNs 6D002, 6D003, 6D991, and 6D994, this proposed rule would establish a worldwide RS control for 6D002 software “specially designed” for the “use” of commodities controlled under 6A002.b and for 6D003.c software.

*Revisions to ECCNs 6E001 and 6E002*

ECCNs 6E001 and 6E002 currently control “development” and “production” technology, respectively, related to multiple ECCNs in Category 6, including items related to night vision in ECCNs 6A002 and 6A003. Since this proposed rule would expand the level of control for commodities in ECCNs 6A002 and 6A003 by adding a worldwide RS control, this rule would also add a worldwide RS control for 6E001 technology related to commodities controlled under ECCNs 6A002 or 6A003. Similarly, this rule would add a worldwide RS control for 6E002 technology related to commodities controlled under ECCNs 6A002 or 6A003. While this new RS control would remove the need to maintain an RS column 1 control for such technology, such level of control would remain for technology related to commodities controlled under ECCN 6A008.j.1. License applications for ECCN 6E001 and 6E002 technology that are subject to the worldwide RS requirement would be subject to the licensing policy described in § 742.6(b)(1)(iv). In addition, this proposed rule would remove eligibility for License Exception TSR for all 6E001 or 6E002 technology related to commodities controlled under 6A002 or

6A003, and this proposed rule would add guidance to the Related Controls paragraphs in ECCNs 6E001 and 6E002 to provide clarity on technology controls related to satellites and focal plane arrays.

#### *Revisions to ECCN 6E990*

Since this rule proposes to revise the entry for read-out integrated circuits in ECCN 6A990, which would be subject to a worldwide RS control, this rule would also revise ECCN 6E990, which would apply to “development” and “production” technology for such read-out integrated circuits. To ensure consistency of control, this proposed rule would add a worldwide RS license requirement, as described in § 742.6(a)(8), for such technology.

#### *Establishment of ECCN 6E994*

Since not all technology moving from USML Category XII to the CCL would be controlled under ECCN 6E615 or 7E611, this proposed rule would create new ECCN 6E994 to control technology required for the repair, maintenance, or overhaul of commodities controlled under ECCNs 6A002, 6A003, or 6A990. Such technology is not currently controlled under existing technology ECCNs in Category 6. Technology controlled under ECCN 6E994 would be subject to an RS control, which would impose a worldwide license requirement. License applications for 6E994 technology would be reviewed on a case-by-case basis, as described in proposed § 742.6(b)(1)(ii).

#### **Detailed Description of Changes Proposed by this Rule – Establishment of “600 Series” for Military Fire Control, Range Finder, and Optical Equipment under new ECCNs 6A615, 6B615, 6D615, and 6E615**

This proposed rule would create new ECCN 6A615 to control fire control, range finder, and optical commodities that would be removed from the USML and would not be covered by an existing ECCN subject to controls for reasons other than Anti-Terrorism (AT) reasons. ECCN 6A615.a through .c controls light detection and ranging (LIDAR), laser detection and ranging (LADAR), or laser range-gated systems or equipment having a resolution (i.e., ground point spacing) less (better) than 0.4 m from an altitude above ground level of 16,500 ft. or greater, and incorporating a gimbal-mounted transmitter or beam director; certain gimbals permanently configured to contain a camera payload operating exclusively in the visible spectrum (i.e., 400 nm to 760 nm); and certain zinc selenide, zinc sulfide, germanium, or chalcogenide optics blanks. ECCN 6A615.d through .g is proposed to control weapon sights, weapon aiming systems or equipment, and weapon imaging systems (e.g., clip-ons) or equipment having a peak response wavelength exceeding 700 nm but not exceeding 1,000 nm and not controlled under USML Category XII or ECCN 0A987; targeting or target location systems or equipment incorporating or “specially designed” to incorporate a laser rangefinder controlled in USML Category XII(b)(3); mobile reconnaissance, scout, or surveillance systems or equipment providing real-time target location and not controlled in USML Category XII; and certain combat vehicle, tactical wheeled vehicle, naval vessel, or aircraft pilotage systems or equipment. ECCN 6A615.h through .w are reserved. Paragraph .x is proposed to control “parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by ECCN 6A615 (except 6A615.y) or a defense article in Category XII and not controlled elsewhere on the USML or in ECCNs 6A615.y or 3A611.y. Items controlled under 6A615 (excluding 6A615.y) would be controlled for NS, RS, AT, and UN reasons. Paragraph .y controls specific “parts,” “components,” “accessories,” and “attachments” “specially designed”

for a commodity subject to control in ECCN 6A615 and not elsewhere specified on the USML or in the CCL, as well as “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor. No items are listed in 6A615.y under this proposed rule, but should any items be added, they would be subject to AT controls only.

New ECCN 6B615 would control test, inspection, and production equipment and related commodities “specially designed” for the “development” or “production” of commodities described in ECCN 6A615 or military fire control, range finder, and optical equipment described in USML Category XII. Paragraph .a would impose controls on test, inspection, and production equipment “specially designed” for items controlled in ECCN 6A615 (excluding any items to be added to 6A615.y) or USML Category XII that are not enumerated in USML Category XII or controlled by a “600 series” ECCN. Paragraph .b would control environmental test facilities “specially designed” for certification, qualification, or testing of commodities controlled in ECCN 6A615 (except 6A615.y) or USML Category XII that are not enumerated in USML Category XII or a “600 series” ECCN. ECCN 6B615.c through .w would be reserved. Paragraph .x would control “parts,” “components,” “accessories,” and “attachments” that are “specially designed” for such test, inspection and production end items and equipment that are not enumerated on the USML or controlled by another “600 series” ECCN. Items in ECCN 6B615 would be controlled for NS, RS, AT, and UN reasons.

New ECCN 6D615 would control software “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 6A615 or 6B615. Such software would be controlled for NS, RS, AT, and UN reasons, with the exception of any software that would be added to 6D615.y, which would be controlled for AT reasons only.



New ECCN 6E615 would control “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of items controlled by 6A615, 6B615, or 6D615. Such technology would be controlled for NS, RS, AT, and UN reasons, with the exception of any technology that would be added to 6E615.y, which would be controlled for AT reasons only.

### **Detailed Description of Changes Proposed by this Rule – Revisions to the CCL for Guidance and Control Equipment**

#### *Establishment of “600 Series” for Military Guidance and Control Equipment under ECCNs 7A611, 7B611, 7D611, and 7E611*

This proposed rule would establish a “600 series” under ECCNs 7A611, 7B611, 7D611, and 7E611 for military guidance and control equipment, software, and technology. Categories 6 and 7 of the CCL currently control certain guidance and control equipment that correlate to guidance and control equipment currently in USML Category XII. In order to ease understanding and use of this “600 series,” BIS is proposing to consolidate such controls under Category 7 rather than both Categories 6 and 7. However, should readers look for military guidance and control equipment, such as gravity meters (gravimeters), under Category 6, this proposed rule would amend ECCN 6A611 to refer readers to Category 7 for such items. ECCN 6A611 was added to the CCL by a previously published final rule entitled Revisions to the Export Administration Regulations (EAR): Control of Military Electronic Equipment and Other Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML), 79 FR 37551 (July 1, 2014). Also, to assist readers in locating controls for navigation and avionics items “specially designed” for a military application, this proposed rule

would move the current heading of ECCN 7A611 into the Related Controls paragraph of proposed ECCN 7A611.

Under this proposed “600 series,” ECCN 7A611 would control military guidance and control equipment that would be removed from USML Category XII and that are not covered by an existing ECCN subject to controls for reasons other than Anti-Terrorism (AT) reasons. Paragraph .a would control guidance, navigation, or control systems “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN and meeting any of the parameters described in 7A611.a.1 through a.5. Paragraph .b would control inertial measurement units, inertial reference units, or attitude and heading reference systems “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and incorporating accelerometers controlled by 7A611.c.1 or certain gyros controlled by 7A611.d. Paragraph .c would control accelerometers “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN and meeting any of the parameters described in 7A611.c.1 through c.3. Paragraph .d would control gyros “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN and meeting any of the parameters described in 7A611.d.1 through d.3. Paragraph .e would control gravity meters (gravimeters) “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having automatic motion compensation and an accuracy of less (better) than 2 mGal and greater (worse) than 1 mGal. Paragraphs .f through .w would be reserved. Paragraph .x would control “parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by ECCN 7A611 (except 7A611.y) or a guidance and control defense article in USML Category XII and not controlled elsewhere on the USML or in 7A611.y or 3A611.y. All items controlled under 7A611 (excluding 7A611.y) would be controlled for NS,

RS, AT, and UN reasons, while some of such items would also be controlled for MT reasons. Paragraph .y would control specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in ECCN 7A611, or a guidance and control defense article in USML Category XII and not elsewhere specified on the USML or in the CCL, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor. No items would be listed in 7A611.y under this proposed rule, but should any items be added, they would be subject to AT controls only.

New ECCN 7B611 would impose controls on test, inspection, and production equipment and related commodities “specially designed” for military guidance and control equipment. Paragraph .a would control such equipment “specially designed” for the “production,” “development,” repair, overhaul, or refurbishing of items controlled in ECCN 7A611 or guidance and control items in USML Category XII that are not enumerated in USML Category XII or controlled by a “600 series” ECCN. Paragraph .b would control environmental test facilities “specially designed” for certification, qualification, or testing of commodities controlled in ECCN 7A611 (except 7A611.y) or guidance and control commodities in USML Category XII that are not enumerated in USML Category XII or a “600 series” ECCN. Paragraphs .c through .w are reserved. Paragraph .x would control parts, components, accessories, and attachments that are “specially designed” for such test, inspection and production equipment that are not enumerated on the USML or controlled by another “600 series” ECCN. Items in ECCN 7B611 would be controlled for NS, RS, AT, and UN reasons, with some items also being controlled for MT reasons.

New ECCN 7D611 would control software “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 7A611 or equipment

controlled by 7B611. Such software would be controlled for NS, RS, AT, and UN reasons, with some software also being controlled for MT reasons. Any software added to 7D611.y would be controlled for AT reasons only. “Development” and “production” software described in 7D611.a would not be eligible for License Exception STA.

New ECCN 7E611 would control technology “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of items controlled by 7A611, 7B611, or 7D611. Such technology would be controlled for NS, RS, AT, and UN reasons, with some technology also being controlled for MT reasons. Any technology added to 7E611.y would be controlled for AT reasons only. “Development” and “production” technology described in 7E611.a would not be eligible for License Exception STA.

*Revisions to ECCNs 6A007 and 6A107*

ECCNs 6A007 and 6A107 currently control certain gravity meters (gravimeters) and gravity gradiometers. Under the State Department’s proposed rule, gravity meters and gravity gradiometers subject to the ITAR would be controlled under USML Category XII(d)(4) and (d)(5), respectively. Consequently, this proposed rule would add references to the Related Controls paragraphs of ECCNs 6A007 and 6A107 to refer readers to Category XII(d)(4) and (d)(5), as well as to gravity meters controlled under proposed ECCN 7A611.

*Revisions to ECCNs 7A001 and 7A101*

ECCN 7A001 currently controls linear accelerometers in ECCN 7A001.a and angular or rotational accelerometers in ECCN 7A001.b that meet the parameters identified in those provisions. These parameters serve as the threshold for control under the Wassenaar

Arrangement List of Dual-Use Goods and Technologies. Under the State Department's proposed rule, proposed Category XII(d)(2) identifies those parameters for accelerometers that would be subject to the ITAR. This proposed rule would add language to the Related Controls paragraph of ECCN 7A001 to refer readers to Category XII(d)(2) to help ensure jurisdictional clarity. Additionally, this rule proposes to add a reference to ECCN 7A611 for accelerometers controlled under the new 600 series.

ECCN 7A101 controls accelerometers other than those controlled under ECCN 7A001. As with the amendment to ECCN 7A001, this proposed rule would also add language to the Related Controls section of ECCN 7A101 to refer readers to the State Department's Category XII(d)(2) for accelerometers subject to the ITAR and to ECCN 7A611 for accelerometers controlled under the new 600 series.

*Revisions to ECCNs 7A002 and 7A102*

ECCN 7A002 controls gyros or angular rate sensors that meet the specifications set forth in the Wassenaar Arrangement List of Dual-Use Goods and Technologies. Under the State Department's proposed rule, proposed Category XII(d)(3) identifies those gyros that would be subject to the ITAR and distinguishes them from gyros subject to the EAR that meet the parameters established by the Wassenaar Arrangement. As such, this proposed rule would amend the Related Controls paragraph of ECCN 7A002 to add a reference to gyros controlled under proposed Category XII(d)(3). For gyros and angular rate sensors proposed to be moved from Category XII to the new 600 series, this rule proposes to add a reference to ECCN 7A611.

ECCN 7A102 controls gyros, other than those controlled under ECCN 7A002. As with the amendment to ECCN 7A002, this proposed rule would also add language to the Related

Controls section of ECCN 7A102 to refer readers to the State Department's Category XII(d)(3) for gyros subject to the ITAR and to ECCN 7A611 for gyros controlled under the new "600 series." This rule would also add references to ECCNs 7A002 and 7A994.

#### *Revisions to ECCN 7A003*

ECCN 7A003 controls inertial measurement equipment or systems that meet the parameters set forth in the Wassenaar Arrangement List of Dual-Use Goods and Technologies. Largely using many of the parameters identified by Wassenaar, proposed Category XII(d)(1) sets the threshold for guidance or navigation systems to be subject to the ITAR. As a result, this proposed rule would amend the Related Controls paragraph of ECCN 7A003 to refer readers to Category XII(d)(1) for such systems. In addition, this rule proposes to add a reference to ECCN 7A611 for inertial measurement units, inertial reference units, or heading reference systems controlled under the new "600 series."

### **Detailed Description of Changes Proposed by this Rule – Revisions to Other ECCNs**

#### *Revisions to ECCN 0A987*

ECCN 0A987 currently controls specified optical sighting devices, and this proposed rule revises ECCN 0A987.f to specify that the entry controls laser aiming devices or laser illuminators designed for use on firearms, and having an operational wavelength exceeding 400 nm but not exceeding 710 nm with an output power less than or equal to 5 mW. A proposed note to ECCN 0A987.f would further specify that the entry does not control laser boresighting devices that must be placed in the bore or chamber to provide a reference for aligning the firearms sights. This proposed rule would also provide jurisdictional guidance in the Related

Controls paragraph to more clearly delineate jurisdiction between USML Category XII and ECCN 0A987.

*Revisions to ECCN 2A984*

ECCN 2A984 currently controls concealed object detection equipment that operates in the frequency range from 30 GHz to 3000 GHz and has a spatial resolution of 0.5 milliradians up to and including 1 milliradian at a standoff distance of 100 meters. Under the Department of State's proposed revisions to USML Category XII, terahertz imaging equipment or systems having a peak response in the same frequency range but having a better resolution (i.e., resolution less than 0.5 milliradians at a standoff range of 100 meters) would be controlled under XII(c)(17). Consequently, this proposed rule would add a reference to Category XII(c)(17) of the Related Controls paragraph of ECCN 2A984.

No items would move from the USML to ECCN 2A984 as a result of this proposed amendment. Rather, this proposed amendment helps establish a bright line to determine export control jurisdiction for these items.

*Revisions to ECCN 6A004*

ECCN 6A004 currently controls optical equipment and components, including gimbals meeting a number of parameters, including slew, bandwidth, angular pointing error, diameter, and angular acceleration. The Department of State proposes to control gimbals under Category XII(c) based on number of axes of active stabilization, minimum root-mean-square stabilization, and in some instances whether they are "specially designed" for items controlled under Category XII. Since the control parameters between ECCN 6A004 and Category XII(c) vary, this

proposed rule would classify gimbals moving from the USML to the CCL under the 600 series ECCN 6A615. In addition, the proposed use of ECCN 6A615 over ECCN 6A004 reflects the concern that the gimbals should be controlled for RS column 1 reasons rather than national security (NS) column 2 reasons. To aid in properly determining jurisdiction and classification of gimbals, this proposed rule would amend the Related Controls paragraph of ECCN 6A004 to reference gimbals controlled under Category XII(c), gimbals controlled under new ECCN 6A615, and certain “space qualified” components subject to the ITAR.

#### *Revisions to ECCN 6A005*

ECCN 6A005 currently controls specified lasers, components and optical equipment. The Department of State’s proposed rule for Category XII would establish controls for lasers under XII(b)(9) through (b)(13) that largely follow the control parameters established by the Wassenaar Arrangement List of Dual-Use Goods and Technologies. Essentially, the current Wassenaar controls establish a baseline of controls with no upper limit to designate those lasers that are inherently military. Therefore, the State Department’s proposed rule amending Category XII would establish the upper threshold parameters for lasers subject to the ITAR. To reflect these parameters, this proposed rule would amend ECCN 6A005 to provide corresponding references under the applicable Items subparagraph. For example, this proposed rule would add a note to tunable lasers having an output wavelength exceeding 1,400 nm controlled under ECCN 6A005.c.3.b to refer readers to tunable semiconductor lasers in the same wavelength parameter that are controlled under USML Category XII(b)(10). This proposed rule would add similar reference notes to ECCNs 6A005.d.1.a.2, d.1.b.3, d.1.d.1.d, d.1.d.2.d, and d.1.d.3.b.



This proposed rule also proposes to revise the Related Controls paragraph of ECCN 6A005 to provide general references to lasers controlled under USML Category XII based on the parameters established by Wassenaar. Additionally, this proposed rule would add references in the Related Controls paragraph to XII(b)(9) for certain lasers for electronic combat systems controlled in Category XI, XII(b)(14) for developmental laser and laser systems funded by the Department of Defense, and XVIII for certain laser-based directed energy weapon items.

*Revisions to ECCN 6A008*

ECCN 6A008 currently controls radar systems, equipment, and assemblies, including certain laser detection and ranging (LADAR) and light detection and ranging (LIDAR) equipment under ECCN 6A008.j. The Department of State's proposed rule would control certain LIDAR, LADAR, and range-gated systems and equipment described in USML Category XII(b). Consequently, this proposed rule would amend the Related Controls paragraph of ECCN 6A008 to add references to those provisions of Category XII. In addition, LIDAR, LADAR, and range-gated systems or equipment having a resolution less (better) than 0.4 m from an altitude above ground level of 16,500 feet or greater, and incorporating a gimbal-mounted transmitter or beam director, would be moved from the USML to ECCN 6A615. This proposed rule would move these items to ECCN 6A615 rather than ECCN 6A005 due to differences in control parameters between ECCNs 6A008 and 6A615. Accordingly, this proposed rule would also add a reference to ECCN 6A615 in the Related Controls section of ECCN 6A008.

*Revisions to ECCN 7A005*

ECCN 7A005 currently controls specified Global Navigation Satellite Systems (GNSS) receiving equipment. No GNSS receiving equipment, including Global Position Satellite

equipment, is proposed to move from the USML to the CCL as a result of the review of Category XII of the ITAR. However, this proposed rule proposes to amend the Related Controls section of ECCN 7A005 to use “GNSS” in place of “GPS” and to provide a reference to Categories XI and XII, which are the USML locations of such receivers.

#### *Revisions to ECCN 8A002*

To reflect the expansion of the scope of § 744.9 to apply to 8A002.d.1.c and .d.2 items, this proposed rule would add an additional sentence regarding § 744.9 to the Related Controls paragraph of 8A002.

#### **Effects of this Proposed Rule**

##### *De minimis*

The April 16 (initial implementation) rule imposed certain unique *de minimis* requirements on items controlled under the new “600 series” ECCNs. Section 734.3 of the EAR provides, *inter alia*, that under certain conditions, items made outside the United States that incorporate items subject to the EAR are not subject to the EAR if they do not exceed a *de minimis* percentage of controlled U.S.-origin content. Under the April 16 (initial implementation) rule, there is no *de minimis* eligibility for “600 series” items destined for countries subject to a U.S. arms embargo, but there is a 25% *de minimis* percentage for “600 series” items destined for all countries not subject to U.S. arms embargoes. The fire control, range finder, optical, and guidance and control items that would be subject to the EAR as a result of this proposed rule would become eligible for *de minimis* treatment, so long as they are not

subject to the proposed restrictions described in § 734.4(a)(5) for incorporation into foreign military commodities and are not destined for a country subject to a U.S. arms embargo.

#### *Use of License Exceptions*

Unless subject to the restrictions on the use of STA in § 740.20(b)(2), many of the fire control, range finder, optical, and guidance and control items described in this proposed rule would become eligible for several license exceptions, including STA, which would be available for exports to certain government agencies of NATO and other multi-regime allies. The exchange of information and statements required under STA is substantially less burdensome than the license application requirements currently required under the ITAR, as discussed in more detail in the “Regulatory Requirements” section of this proposed rule. Some items covered by this rule also would be eligible for the following license exceptions: LVS (limited value shipments), up to \$1500, and RPL (servicing and parts replacement).

#### *Alignment with the Wassenaar Arrangement Munitions List.*

The Administration has stated since the beginning of the Export Control Reform Initiative that the reforms will be consistent with U.S. obligations to the multilateral export control regimes. Accordingly, the Administration will, in this proposed rule, exercise its national discretion to implement, clarify, and, to the extent feasible, align its controls with those of the regimes. USML Category XII encompasses multiple WAML categories, including ML 5 (e.g., fire control and range-finding systems), ML 11 (e.g., “guidance and navigation equipment”), and ML 15 (e.g., imaging equipment). This proposed rule uses two of these categories – ML 15 (“[i]maging or countermeasure equipment...specially designed for military use, and specially designed components and accessories therefor”) and ML 11 (“electronic equipment specially

designed for military use,” including “guidance and navigation equipment”) – to add items moving from USML Category XII to the new 600 series ECCNs ending in “15” and “11.”

### **Request for Comments**

BIS seeks comments on this proposed rule. BIS will consider all comments received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. All comments must be in writing and submitted via one or more of the methods listed under the “ADDRESSES” caption to this notice. All comments (including any personal identifiable information or information for which a claim of confidentiality is asserted either in those comments or their transmittal e-mails) will be available for public inspection and copying. Parties who wish to comment anonymously may do so by submitting their comments via [www.regulations.gov](http://www.regulations.gov), leaving the fields for information that would identify the commenter blank, and including no identifying information in the comment itself.

### **Export Administration Act**

Since August 21, 2001, the Export Administration Act of 1979, as amended, has been in lapse. However, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as amended by Executive Order 13637 of March 8, 2013, 78 FR 16129 (March 13, 2013), and as extended by the Notice of August 7, 2014, 79 FR 46959 (August 11, 2014) has continued the EAR in effect under the International Emergency Economic Powers Act. BIS continues to carry out the provisions of the Export Administration Act, as appropriate and to the extent permitted by law, pursuant to Executive Order 13222 as amended by Executive Order 13637.

## Rulemaking Requirements

1. Executive Orders 13563 and 12866 direct agencies to assess all 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, distribute impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule has been designated a “significant regulatory action,” although not economically significant, under section 3(f) of Executive Order 12866. Accordingly, the rule has been reviewed by the Office of Management and Budget (OMB).

2. Notwithstanding any other provision of law, no person is required to respond to, nor is subject to a penalty for failure to comply with, a collection of information, subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid OMB control number. This proposed rule would affect two approved collections: Simplified Network Application Processing + System (control number 0694-0088), which includes, among other things, license applications, and License Exceptions and Exclusions (0694-0137).

As stated in the proposed rule published on July 15, 2011 (76 FR 41958) (“July 15 proposed rule”), BIS initially believed that the combined effect of all rules to be published adding items to the EAR that will be removed from the ITAR as part of the administration’s Export Control Reform Initiative will increase the number of license applications to be submitted by approximately 16,000 annually. As the review of the USML has progressed, the interagency group has gained more specific information about the number of items that will come under BIS

jurisdiction and whether those items would be eligible for export under license exception. As of June 21, 2012, BIS revised that estimate to an increase in license applications of 30,000 annually, resulting in an increase in burden hours of 8,500 (30,000 transactions at 17 minutes each) under control number 0694–0088. BIS continues to believe that its revised estimate is accurate.

Some items formerly on the USML would become eligible for License Exception STA under this rule. As stated in the July 15 proposed rule, BIS believes that the increased use of License Exception STA resulting from the combined effect of all rules to be published adding items to the EAR that would be removed from the ITAR as part of the Administration’s Export Control Reform Initiative would increase the burden associated with control number 0694–0137 by about 23,858 hours (20,450 transactions at 1 hour and 10 minutes each).

BIS expects that this increase in burden would be more than offset by a reduction in burden hours associated with approved collections related to the ITAR. This proposed rule addresses controls on fire control, range finder, optical, and guidance and control items. With few exceptions, most exports of such items, even when destined to NATO member states and other close allies, require State Department authorization. In addition, the exports of technology necessary to produce such items in the inventories of the United States and its NATO and other close allies require State Department authorizations. Under the EAR, as proposed, such technology would become eligible for export to NATO member states and other close allies under License Exception STA unless otherwise specifically excluded. Use of License Exception STA imposes a paperwork and compliance burden because, for example, exporters must furnish information about the item being exported to the consignee and obtain from the consignee an acknowledgement and commitment to comply with the EAR. However, the Administration

believes that complying with the requirements of STA is likely less burdensome than applying for licenses. For example, under License Exception STA, a single consignee statement can apply to an unlimited number of products, need not have an expiration date, and need not be submitted to the government in advance for approval. Suppliers with regular customers can tailor a single statement and assurance to match their business relationship rather than applying repeatedly for licenses with every purchase order to supply reliable customers in countries that are close allies or members of export control regimes or both.

This proposed rule would also require licenses for Canada for the following ECCNs that do not currently require a license for that destination: 6A002, 6A990, 6D002 (for 6A002.b items), 6D003.c, 6E001 (for 6A002 or 6A003 items), 6E002 (for 6A002 or 6A003 items), and 6E990. Further, this proposed rule would implement a worldwide license requirement for the following ECCNs that are currently controlled for anti-terrorism reasons or for new ECCNs that would control items currently designated as EAR99: 0E987; 6D991 (for 6A002, 6A003, or 6A990); and 6E994. In addition, the items described in this paragraph would be ineligible for License Exception STA under this proposed rule. BIS anticipates that these proposed changes would increase the number of license applications submitted and the number of § 743.3 reports submitted under control number 0694-0137. However, these proposed changes would also apply to items moving from Category XII of the USML to the CCL, and the burden likely will be reduced for such items when comparing license requirements of the ITAR to those of the EAR. In particular, license applications for exports of technology transferred from the USML to the CCL are likely to be less complex and burdensome than the authorizations required to export ITAR-controlled technology, i.e., Manufacturing License Agreements and Technical Assistance Agreements.

3. This rule does not contain policies with Federalism implications as that term is defined under E.O. 13132.

4. The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to the notice and comment rulemaking requirements under the Administrative Procedure Act (5 U.S.C. 553) or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Under section 605(b) of the RFA, however, if the head of an agency (or his or her designee) certifies that a rule will not have a significant impact on a substantial number of small entities, the statute does not require the agency to prepare a regulatory flexibility analysis. Pursuant to section 605(b), the Chief Counsel for Regulation, Department of Commerce, submitted a memorandum to the Chief Counsel for Advocacy, Small Business Administration, certifying that the November 28 (military electronics) rule would not have a significant impact on a substantial number of small entities. The rationale for that certification was set forth in the preamble to that proposed rule (77 FR 70945, 70950 – 70951, November 28, 2012). Although BIS received no comments on that rationale, and has accordingly made no changes to the proposed rule based on the RFA certification, BIS has determined that, in the interest of openness and transparency, it will briefly restate the rationale behind the certification here.

This proposed rule is part of the Administration's Export Control Reform Initiative, which seeks to revise the USML to a positive list – one that does not use generic, catch-all controls for items listed – and to move some items that the President has determined no longer merit control under the ITAR to control under the CCL.



Although BIS does not collect data on the size of entities that apply for and are issued export licenses, and is therefore unable to estimate the exact number of small entities – as defined by the Small Business Administration’s regulations implementing the RFA – BIS acknowledges that some small entities may be affected by this proposed rule.

The main effects on small entities resulting from this rule will be in application times, costs, and delays in receiving licenses to export goods subject to the CCL. However, while small entities may experience some costs and time delays for exports due to the license requirements of the CCL, these costs and delays will likely be significantly less than they were for items previously subject to the USML. BIS believes that in fact this rule will result in significantly reduced administrative costs and delays for exports of items that will, upon this rule’s implementation, be subject to the EAR rather than the ITAR. Currently, USML applicants must pay to use the USML licensing procedure even if they never actually are authorized to export. Registration fees for manufacturers and exporters of articles on the USML start at \$2,250 per year, increase to \$2,750 for organizations applying for one to ten licenses per year and further increases to \$2,750 plus \$250 per license application (subject to a maximum of three percent of total application value) for those who need to apply for more than ten licenses per year. By contrast, BIS is statutorily prohibited from imposing licensing fees. In addition, exporters and reexporters of goods that would become subject to the EAR under this rule would need fewer licenses because their transactions would become eligible for license exceptions that were not available under the ITAR. Additionally, the ITAR controls parts and components even when they are incorporated – in any amount – into a foreign-made product. That limitation on the use of US-made goods subject to the ITAR discouraged foreign manufacturers from importing US

goods. However, the EAR has a *de minimis* exception for US-manufactured goods that are incorporated into foreign-made products. This exception may benefit small entities by encouraging foreign producers to use more US-made items in their goods.

Even where an exporter or reexporter would need to obtain a license under the EAR, that process is both cheaper and the process is more flexible than obtaining a license under the ITAR. For example, unlike the ITAR, the EAR does not require license applicants to provide BIS with a purchase order with the application, meaning that small (or any) entities can enter into negotiations or contracts for the sale of goods without having to caveat any sale presentations with a reference to the need to obtain a license under the ITAR before shipment can occur. Second, the EAR allows license applicants to obtain licenses to cover all expected exports or reexports to a particular consignee over the life of a license, rather than having to obtain a new license for every transaction.

In short, BIS expects that the changes to the EAR proposed in this rule will have a positive effect on all affected entities, including small entities. While BIS acknowledges that this rule may have some cost impacts to small (and other) entities, those costs are more than offset by the benefits to the entities from the licensing procedures under the EAR, which are much less costly and less time consuming than the procedures under the ITAR. Accordingly, the Chief Counsel for Regulation for the Department of Commerce has certified that this rule, if implemented, will not have a significant economic impact on a substantial number of small entities. Accordingly, an initial regulatory flexibility analysis is not required, and none has been prepared.

## **List of Subjects**

### *15 CFR Part 734*

Administrative practice and procedure, Exports, Inventions and patents, Research Science and technology.

### *15 CFR Part 740*

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

### *15 CFR Part 742*

Exports, Terrorism.

### *15 CFR Part 744*

Exports, Reporting and recordkeeping requirements, Terrorism.

### *15 CFR Part 772*

Exports.

### *15 CFR Part 774*

Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, the Export Administration Regulations (15 CFR parts 730-774) are proposed to be amended as follows:

**PART 734 – [AMENDED]**

1. The authority citation for 15 CFR part 734 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 13020, 61 FR 54079, 3 CFR, 1996 Comp., p. 219; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13637 of March 8, 2013, 78 FR 16129 (March 13, 2013); Notice of August 7, 2014, 79 FR 46959 (August 11, 2014); Notice of November 7, 2014, 79 FR 67035 (November 12, 2014).

2. Section 734.4 is amended by revising paragraph (a)(5) to read as follows:

**§ 734.4 *De minimis* U.S. content.**

(a) \*\*\*

(5) There is no *de minimis* level for foreign made military commodities described in ECCN 0A919.a.1.

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**PART 740 – [AMENDED]**

3. The authority citation for 15 CFR part 740 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 7201 *et seq.*; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2014, 79 FR 46959 (August 11, 2014).

4. Section 740.2 is amended by revising paragraph (a)(7) as follows:

**§ 740.2 Restrictions on all license exceptions.**

(a) \*\*\*

(7) Technology for “production” of commodities defined in ECCNs 6A002.a.2, 6A002.a.3, or 6A990 that is controlled under ECCNs 6E002 or 6E990.

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5. Section 740.16 is amended by revising paragraphs (a)(2), (b)(2), and (b)(3) to read as follows:

**§ 740.16 Additional permissive reexports (APR).**

(a) \*\*\*

(2) The commodities being reexported are not controlled for NP, CB, MT, SI or CC reasons and are not military commodities described in ECCN 0A919; commodities described in 3A001.b.2 or b.3 (except those that are being reexported for use in civil telecommunications applications); or commodities described in ECCNs 6A002, 6A003, or 6A990; and

\*\*\*\*\*

(b) \*\*\*

(2) Except as provided in paragraph (b)(3) of this section, “military commodities” described in ECCN 0A919 and commodities described in ECCNs 6A002, 6A003, or 6A990 or commodities described in ECCN 0A987 incorporating an image intensifier tube, may not be reexported under this paragraph (b).

(3) Cameras described in ECCNs 6A003 may be exported or reexported to and among countries in Albania, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, and the United Kingdom if:

(i) Such cameras are fully packaged for use as consumer ready civil products; or,

(ii) Such cameras with not more than 111,000 elements are to be embedded in civil products.

6. Section 740.20 is amended by revising paragraphs (b)(2)(ii) and (b)(2)(x), to read as follows:

**§ 740.20 License Exception Strategic Trade Authorization (STA).**

\*\*\*\*\*

(b) \*\*\*

(2) \*\*\*

(ii) License Exception STA may not be used for any item controlled under ECCNs 0A981, 0A982, 0A983, 0A985, 0E982, or 0E987.

\*\*\*\*\*

(x) License Exception STA may not be used for items controlled by ECCNs 6A002; 6A990; 6D002 (software specially designed for the “use” of commodities controlled under 6A002.b); 6D003.c; 6D991 (software “specially designed” for the “development,” “production,” or “use” of commodities controlled under 6A002, 6A003, or 6A990); 6D994; 6E001 (“technology” for the “development” of commodities controlled under ECCNs 6A002 or 6A003); 6E002 “technology” (for the “production” of commodities controlled under ECCNs 6A002 or 6A003); 6E990; or 6E994.

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## **PART 742 – [AMENDED]**

7. The authority citation for 15 CFR part 742 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 3201 *et seq.*; 42 U.S.C. 2139a; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; Sec. 1503, Pub. L. 108–11, 117 Stat. 559; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Presidential Determination 2003–23 of May 7, 2003, 68 FR 26459, May 16, 2003; Notice of August 7, 2014, 79 FR 46959 (August 11, 2014); Notice of November 7, 2014, 79 FR 67035 (November 12, 2014).

8. Section § 742.6 is amended by:

a. Adding paragraph (a)(8); and

b. Revising paragraph (b)(1), to read as follows:

**§ 742.6 Regional stability.**

(a) \*\*\*

(8) *Special worldwide RS license requirement for specified items controlled in Category 0 or 6.* A license is required to export or reexport the following items to all destinations, including Canada:

(i) “Technology” controlled under ECCN 0E987;

(ii) All commodities controlled under ECCNs 6A002;

(iii) All commodities controlled under ECCN 6A990;

(iv) “Software” controlled under ECCN 6D002 for the “use” of commodities controlled under 6A002.b;

(v) “Software” controlled under ECCN 6D003.c;

(vi) “Software” controlled under ECCN 6D991 for the “development,” “production,” or “use” of commodities controlled under ECCNs 6A002, 6A003, or 6A990;

(vii) “Software” controlled under ECCN 6D994;



(viii) “Technology” controlled under ECCN 6E001 for the “development” of commodities controlled under 6A002 or 6A003;

(ix) “Technology” controlled under ECCN 6E002 for the “production” of commodities controlled under 6A002 or 6A003;

(x) “Technology” controlled under 6E990; and

(xi) “Technology” controlled under ECCN 6E994.

(b) *Licensing policy.* -- (1) *Licensing policy for RS Column 1 items or items subject to worldwide RS control.*

(i) Applications for exports and reexports of 9x515 and “600 series” items will be reviewed on a case-by-case basis to determine whether the transaction is contrary to the national security or foreign policy interests of the United States, including the foreign policy interest of promoting the observance of human rights throughout the world. Applications for export or reexport of items classified under any 9x515 or “600 series” ECCN requiring a license in accordance with paragraph (a)(1) of this section will also be reviewed consistent with United States arms embargo policies in § 126.1 of the ITAR if destined to a country set forth in Country Group D:5 in Supplement No. 1 to part 740 of the EAR. Applications for export or reexport of “parts,” “components,” “accessories,” “attachments,” “software,” or “technology” “specially designed” or otherwise required for the F-14 aircraft will generally be denied. When destined to the People’s Republic of China or a country listed in Country Group E:1 in Supplement No. 1 to Part 740 of the EAR, items classified under any 9x515 ECCN will be subject to a policy of denial.

(ii) Applications for exports and reexports described in paragraphs (a)(1), (a)(2), (a)(6), (a)(7), (a)(8)(ii), (a)(8)(iii), (a)(8)(vii), and (a)(8)(xi) of this section will be reviewed on a case-by-case basis to determine whether the export or reexport could contribute directly or indirectly to any country's military capabilities in a manner that would alter or destabilize a region's military balance contrary to the foreign policy interests of the United States.

(iii) The following applications will be reviewed applying the policies for similar items that are subject to the International Traffic in Arms Regulations (22 CFR Parts 120 - 130):

(A) Reexports of items described in paragraph (a)(3) of this section;

(B) Exports or reexports of items described in paragraph (a)(8) of this section to military end users described in § 744.9(d); and

(C) Exports or reexports of commodities described in paragraphs (a)(8)(ii) and (a)(8)(iii) of this section or in ECCN 6A003.b for incorporation into a "military commodity" controlled by ECCN 0A919.

(iv) Applications for exports or reexports of software or technology described in paragraphs (a)(8)(i), (a)(8)(iv), (a)(8)(v), (a)(8)(vi), (a)(8)(viii), and (a)(8)(x) will be reviewed with a presumption of denial. There is also a presumption of denial for technology described in paragraph (a)(8)(ix), unless it is "build-to-print technology" that is required for integration, mounting, inspection, testing, or quality assurance (e.g., necessary to meet International Standards Organization (ISO) certification), which will be reviewed on a case-by-case basis.

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## **PART 744 – [AMENDED]**

9. The authority citation for 15 CFR part 744 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 3201 *et seq.*; 42 U.S.C. 2139a; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 12947, 60 FR 5079, 3 CFR, 1995 Comp., p. 356; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13099, 63 FR 45167, 3 CFR, 1998 Comp., p. 208; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13224, 66 FR 49079, 3 CFR, 2001 Comp., p. 786; Notice of August 7, 2014, 79 FR 46959 (August 11, 2014); Notice of September 17, 2014, 79 FR 56475 (September 19, 2014); Notice of November 7, 2014, 79 FR 67035 (November 12, 2014); Notice of January 21, 2015, 80 FR 3461 (January 22, 2015).

10. Section 744.9 is amended by revising the heading and paragraphs (a) and (b) to read as follows:

### **§ 744.9 Restrictions on certain exports and reexports of certain cameras, systems, or equipment.**

(a) *General prohibitions.* In addition to the applicable license requirements for national security, regional stability, anti-terrorism and United Nations embargo reasons in §§ 742.4, 742.6, 742.8, 746.3, and 746.8 of the EAR, a license is required to export, reexport, or transfer (in-country) to any destination commodities described in ECCNs 0A987 (incorporating commodities controlled by ECCNs 6A002 or 6A003, or commodities controlled by 6A993.a that meet the criterion of Note 3.a to 6A003.b.4), 6A002, 6A003, 6A990, or 6A993.a (having a

maximum frame rate equal to or less than 9 Hz and thus meeting the criteria of Note 3.a to 6A003.b.4), 8A002.d.1.c, or 8A002.d.2 if at the time of export, reexport, or transfer, the exporter, reexporter, or transferor knows or is informed, or is unable to determine whether the item will be or is intended to be:

(1) Used by a “military end-user,” as defined in paragraph (d) of this section; or

(2) Incorporated into a “military commodity” controlled by ECCN 0A919.

(b) *Additional prohibition on exporters or reexporters informed by BIS.* BIS may inform an exporter, reexporter, or transferor, either individually by specific notice or through amendment to the EAR, that a license is required for the export, reexport, or transfer of commodities described in ECCNs 0A987 (incorporating commodities controlled by ECCNs 6A002 or 6A003, or commodities controlled by 6A993.a that meet the criterion of Note 3.a to 6A003.b.4), 6A002, 6A003, 6A990, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criteria of Note 3.a to 6A003.b.4), 8A002.d.1.c, or 8A002.d.2 to specified end users, because BIS has determined that there is an unacceptable risk of diversion to the users or unauthorized incorporation into the “military commodities” described in paragraph (a) of this section. Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration. When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration.

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**PART 772 – [AMENDED]**

11. The authority citation for part 772 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2014, 79 FR 46959 (August 11, 2014).

12. Section 772.1 is amended by adding a definition for “permanent encapsulated sensor assembly” in alphabetical order to read as follows:

**§ 772.1 Definitions of terms as used in the Export Administration Regulations (EAR).**

\*\*\*\*\*

*Permanent encapsulated sensor assembly.* (Cat 6) A permanent encapsulated sensor assembly (e.g. sealed enclosure, vacuum package) containing an infra-red focal plane array (IRFPA) that prevents direct access to the IRFPA, disassembly of the sensor assembly, and removal of the IRFPA without destruction or damage to the IRFPA.

\*\*\*\*\*

**PART 774 – [AMENDED]**

13. The authority citation for part 774 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*; 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 15 U.S.C. 1824a; 50 U.S.C. app. 5; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228;

E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2014, 79 FR 46959 (August 11, 2014).

**Supplement No. 1 to Part 774 [Amended]**

14. In Supplement No. 1 to part 774, Category 0, ECCN 0A919 is amended by revising the Items paragraph of the List of Items Controlled section to read as follows:

**Supplement No. 1 to Part 774 – The Commerce Control List**

\*\*\*\*\*

**0A919 “Military commodities” located and produced outside the United States as follows (see List of Items Controlled).**

\*\*\*\*\*

**List of Items Controlled**

\*\*\*\*\*

*Items:*

a. “Military commodities” produced and located outside the United States that are not subject to the International Traffic in Arms Regulations (22 CFR Parts 120-130) and having any of the following characteristics:

a.1. Incorporate one or more commodities classified under ECCNs 6A002, 6A003, 6A990, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criterion of Note 3.a to 6A003.b.4);

a.2. Incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content (see §734.4 of the EAR); *or*

a.3. Are direct products of U.S.-origin “600 series” technology or software (see § 736.2(b)(3) of the EAR).

b. [Reserved]

15. In Supplement No. 1 to part 774, Category 0, ECCN 0A987 is amended by:

a. Revising the Related Controls paragraph in the List of Items Controlled section;

b. Revising paragraph f. in the Items paragraph in the List of Items Controlled section; and

c. Adding a note to 0A987.f, to read as follows:

**0A987 Optical sighting devices for firearms (including shotguns controlled by 0A984); and “components” as follows (See List of Items Controlled).**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* (1) Sighting devices operating outside the visible spectrum, as enumerated in USML Category XII, or laser aiming or laser illumination equipment not specified in 0A987.f are subject to the ITAR. (2) Section 744.9 imposes a license requirement on certain commodities described in 0A987 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919.

\*\*\*\*\*

*Items:*

\*\*\*\*\*

f. Laser aiming devices or laser illuminators designed for use on firearms, and having an operational wavelength exceeding 400 nm but not exceeding 710 nm with an output power less than or equal to 5 mW.

*Note: 0A987.f does not control laser boresighting devices that must be placed in the bore or chamber to provide a reference for aligning the firearms sights.*

\*\*\*\*\*

16. In Supplement No. 1 to part 774, Category 0, add ECCN 0E987 between ECCN 0E984 and EAR99, to read as follows:

**0E987 “Technology” “required” for the “development,” or “production” of commodities controlled by 0A987 that incorporate a focal plane array or image intensifier tube.**

**License Requirements**

*Reason for Control:* RS, AT.

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
RS applies to entire entry	A license is required to export and reexport these



	items to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (see § 742.6(a)(8)).
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV: N/A*

*TSR: N/A*

**List of Items Controlled**

*Related Controls: N/A*

*Related Definitions: N/A*

*Items:*

The list of items controlled is contained in the ECCN heading.

17. In Supplement No. 1 to part 774, Category 2, ECCN 2A984 is amended by adding Note 4 to the end of the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**2A984 Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution of 0.5 milliradian up to and including 1 milliradian at a standoff distance of 100 meters; and “parts” and “components,” n.e.s.**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* \*\*\* (4) See USML Category XII(c)(17) for terahertz imaging equipment or systems having a peak response in the frequency range exceeding 30 GHz but not exceeding 3000 GHz and having a resolution less (better) than 0.5 milliradians at a standoff range of 100 m.

\*\*\*\*\*

18. In Supplement No. 1 to part 774, Category 6, ECCN 6A002 is amended by:

- a. Revising the Control(s) table in the License Requirements section;
- b. Removing the “Special Conditions for STA” section;
- c. Revising the Related Controls paragraph in the List of Items Controlled section;
- d. Revising paragraphs a.2 and a.3 in the Items paragraph of the List of Items Controlled section.

The revisions to read as follows:

**6A002 Optical sensors and equipment and “components” therefor, as follows (see List of Items Controlled).**

### **License Requirements**

\* \* \* \* \*

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry	NS Column 2.
MT applies to optical detectors in 6A002.a.1 or a.3 that are “specially designed” or modified to protect “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles”	MT Column 1.
RS applies to entire entry	A license is required to export and reexport these items to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
CC applies to police-model infrared viewers in 6A002.c	CC Column 1.

AT applies to entire entry	AT Column 1.
UN applies to 6A002.a.1, a.2, a.3 and c	See § 746.1(b) for UN controls.

\*\*\*\*\*

### List of Items Controlled

\*\*\*\*\*

*Related Controls:* (1) The following commodities are “subject to the ITAR” (see 22 CFR parts 120 through 130): (a) “Image intensifiers” defined in 6A002.a.2 and “focal plane arrays” defined in 6A002.a.3 “specially designed,” modified, or configured for military use and not part of civil equipment; (b) “Space qualified” solid-state detectors defined in 6A002.a.1, “space qualified” imaging sensors (e.g., “monospectral imaging sensors” and “multispectral imaging sensors”) defined in 6A002.b.2.b.1, and “space qualified” cryocoolers defined in 6A002.d.1, unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination indicating the commodity is subject to the EAR. (2) See also ECCNs 6A102, 6A202, and 6A992. (3) See ECCN 0A919 for foreign-made military commodities that incorporate commodities described in 6A002. (4) Section 744.9 imposes a license requirement on commodities described in ECCN 6A002 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919. (5) Image intensifier tubes described in ECCN 6A002.a.2 that are second generation image intensification tubes are “subject to the ITAR.” (6) See the Related Controls paragraphs

to ECCNs 6E001 and 6E002 for controls on technology for the “development” or “production” of focal plane arrays in a “permanent encapsulated sensor assembly” subject to the EAR.

\*\*\*\*\*

*Items:*

a. \*\*\*

a.1. \*\*\*

a.2. Image intensifier tubes and “specially designed” “components” therefor, as follows:

*Note 1: Image intensifier tubes described in 6A002.a.2 having a luminous sensitivity exceeding 500 microamps per lumen are “subject to the ITAR.”*

*Note 2: 6A002.a.2 does not control non-imaging photomultiplier tubes having an electron sensing device in the vacuum space limited solely to any of the following:*

*a. A single metal anode; or*

*b. Metal anodes with a center to center spacing greater than 500  $\mu\text{m}$ .*

*Technical Note: ‘Charge multiplication’ is a form of electronic image amplification and is defined as the generation of charge carriers as a result of an impact ionization gain process.*

*‘Charge multiplication’ sensors may take the form of an image intensifier tube, solid state detector or “focal plane array.”*

a.2.a. Image intensifier tubes having all of the following:

a.2.a.1. A peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm;

a.2.a.2. Electron image amplification using any of the following:

a.2.a.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less; *or*

a.2.a.2.b. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve ‘charge multiplication’ other than by a microchannel plate; *and*

a.2.a.3. Any of the following photocathodes:

a.2.a.3.a. Multialkali photocathodes (e.g., S-20 and S-25) having a luminous sensitivity exceeding 350  $\mu\text{A}/\text{lm}$ ;

a.2.a.3.b. GaAs or GaInAs photocathodes; *or*

a.2.a.3.c. Other “III-V compound” semiconductor photocathodes having a maximum “radiant sensitivity” exceeding 10  $\text{mA}/\text{W}$ ;

a.2.b. Image intensifier tubes having all of the following:

a.2.b.1. A peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm;

a.2.b.2. Electron image amplification using any of the following:

a.2.b.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less; *or*

a.2.b.2.b. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve 'charge multiplication' other than by a microchannel plate; *and*

a.2.b.3. “III/V compound” semiconductor (e.g., GaAs or GaInAs) photocathodes and transferred electron photocathodes, having a maximum “radiant sensitivity” exceeding 15 mA/W;

a.2.c. “Specially designed” “components” as follows:

a.2.c.1. Microchannel plates having a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less;

a.2.c.2. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve 'charge multiplication' other than by a microchannel plate;

a.2.c.3. “III-V compound” semiconductor (e.g., GaAs or GaInAs) photocathodes and transferred electron photocathodes;

*Note: 6A002.a.2.c.3 does not control compound semiconductor photocathodes designed to achieve a maximum “radiant sensitivity” of any of the following:*

*a. 10 mA/W or less at the peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm; or*

*b. 15 mA/W or less at the peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm.*

*a.3. Non-“space-qualified” “focal plane arrays” as follows:*

***N.B.:** ‘Microbolometer’ non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.*

***Technical Note:** Linear or two-dimensional multi-element detector arrays are referred to as “focal plane arrays”;*

***Note 1:** 6A002.a.3 includes photoconductive arrays and photovoltaic arrays.*

***Note 2:** 6A002.a.3 does not control:*

*a. Multi-element (not to exceed 16 elements) encapsulated photoconductive cells using either lead sulphide or lead selenide;*

*b. Pyroelectric detectors using any of the following:*

*b.1. Triglycine sulphate and variants;*

*b.2. Lead-lanthanum-zirconium titanate and variants;*

*b.3. Lithium tantalate;*

*b.4. Polyvinylidene fluoride and variants; or*

*b.5. Strontium barium niobate and variants.*



c. “Focal plane arrays” “specially designed” or modified to achieve ‘charge multiplication’ and limited by design to have a maximum “radiant sensitivity” of 10 mA/W or less for wavelengths exceeding 760 nm, having all of the following:

c.1. Incorporating a response limiting mechanism designed not to be removed or modified; and

c.2 .Any of the following:

c.2.a. The response limiting mechanism is integral to or combined with the detector element; or

c.2.b. The “focal plane array” is only operable with the response limiting mechanism in place.

**Note 3:** Focal plane arrays described in 6A002.a.3 that are not in a “permanent encapsulated sensor assembly” subject to the EAR are “subject to the ITAR.”

**Technical Note:** A response limiting mechanism integral to the detector element is designed not to be removed or modified without rendering the detector inoperable.

a.3.a. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.a.1. Individual elements with a peak response within the wavelength range exceeding 900 nm but not exceeding 1,050 nm; and

a.3.a.2. Any of the following:

a.3.a.2.a. A response “time constant” of less than 0.5 ns; or

a.3.a.2.b. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.b. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.b.1. Individual elements with a peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,200 nm; *and*

a.3.b.2. Any of the following:

a.3.b.2.a. A response “time constant” of 95 ns or less; *or*

a.3.b.2.b. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.c. Non-“space-qualified” non-linear (2-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

*N.B.: Silicon and other material based 'microbolometer' non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.*

a.3.d. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having all of the following:

a.3.d.1. Individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 3,000 nm; *and*

a.3.d.2. Any of the following:

a.3.d.2.a. A ratio of 'scan direction' dimension of the detector element to the 'cross-scan direction' dimension of the detector element of less than 3.8; *or*

a.3.d.2.b. Signal processing in the detector elements;

*Note: 6A002.a.3.d does not control “focal plane arrays” (not to exceed 32 elements) having detector elements limited solely to germanium material.*

**Technical Note:** *For the purposes of 6A002.a.3.d, 'cross-scan direction' is defined as the axis parallel to the linear array of detector elements and the 'scan direction' is defined as the axis perpendicular to the linear array of detector elements.*

a.3.e. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 3,000 nm but not exceeding 30,000 nm;

a.3.f. Non-“space-qualified” non-linear (2-dimensional) infrared “focal plane arrays” based on 'microbolometer' material having individual elements with an unfiltered response in the wavelength range equal to or exceeding 8,000 nm but not exceeding 14,000 nm;

**Technical Note:** *For the purposes of 6A002.a.3.f, 'microbolometer' is defined as a thermal imaging detector that, as a result of a temperature change in the detector caused by the absorption of infrared radiation, is used to generate any usable signal.*

a.3.g. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.g.1. Individual detector elements with a peak response in the wavelength range exceeding 400 nm but not exceeding 900 nm;

a.3.g.2. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W for wavelengths exceeding 760 nm; *and*

a.3.g.3. Greater than 32 elements;

\*\*\*\*\*

19. In Supplement No. 1 to part 774, Category 6, ECCN 6A003 is amended by:

a. Revising note 5 in the Related Controls paragraph in the List of items Controlled section; and

b. Adding note 6 to the Related Controls paragraph in the List of items Controlled section, to read as follows:

**6A003 Cameras, systems or equipment, and “components” therefor, as follows (see List of Items Controlled).**

\*\*\*\*\*

### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* \*\*\* (5) Section 744.9 imposes a license requirement on cameras described in 6A003 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into a commodity controlled by ECCN 0A919. (6) See USML Category XII(c) for cameras “subject to the ITAR.”

\*\*\*\*\*

20. In Supplement No. 1 to part 774, Category 6, ECCN 6A004 is amended by revising the Related Controls paragraph in the List of Items Controlled section to read as follows:

**6A004 Optical equipment and “components,” as follows (see List of Items Controlled).**

\*\*\*\*\*

### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) For optical mirrors or ‘aspheric optical elements’ “specially designed” for lithography “equipment,” see ECCN 3B001. (2) See USML Category XII(c) for gimbals “subject to the ITAR.” (3) See ECCN 6A615.b for gimbals containing a camera payload operating exclusively in the visible spectrum (i.e., 400 nm to 760 nm). (4) “Space qualified” components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1 are “subject to the ITAR.” (5) See also 6A994.

\*\*\*\*\*

21. In Supplement No. 1 to part 774, Category 6, ECCN 6A005 is amended by:

a. Revising the Related Controls paragraph in the List of Items Controlled section; and

b. Adding Notes to paragraphs c.3.b, d.1.a.2, d.1.b.3, d.1.d.1.d, d.1.d.2.d, and d.1.d.3.b in the Items paragraph of the List of Items Controlled section, to read as follows:

**6A005 “Lasers,” “components” and optical equipment, as follows (see List of Items Controlled), excluding items that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).**

\*\*\*\*\*

### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) See ECCN 6D001 for “software” for items controlled under this entry. (2) See ECCNs 6E001 (“development”), 6E002 (“production”), and 6E201 (“use”) for technology for items controlled under this entry. (3) Also see ECCNs 6A205 and 6A995. (4) See ECCN 3B001 for excimer “lasers” “specially designed” for lithography equipment. (5) “Lasers” “specially designed” or prepared for use in isotope separation are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (6) See USML Category XII(b)(10) for certain tunable semiconductor lasers. (7) See USML Category XII(b)(11) for certain non-tunable single transverse mode semiconductor lasers. (8) See USML Category XII(b)(12) for certain non-tunable multiple transverse mode semiconductor lasers. (9) See USML Category XII(b)(13) for certain laser stacked arrays. (10) See USML Category XII(b)(9) for certain lasers for electronic combat systems controlled in USML Category XI. (11) See USML Category XII(b)(14) for developmental laser and laser systems funded by the Department of Defense. (12) See USML Category XVIII for certain laser-based directed energy weapon systems, equipment, and components.

*Related Definitions:* \*\*\*

*Items:*

\*\*\*\*\*

c. \*\*\*

c.3. \*\*\*

c.3.b. \*\*\*

*Note: See USML Category XII(b)(10) for tunable semiconductor lasers having an output wavelength exceeding 1,400 nm and an output power greater than 1 W.*

\*\*\*\*\*

d. \*\*\*

d.1. \*\*\*

d.1.a. \*\*\*

d.1.a.2. \*\*\*

*Note: See USML Category XII(b)(11) for non-tunable single transverse mode semiconductor lasers having an output wavelength exceeding 1,510 nm and either an average output power or continuous wave (CW) output power greater than 2 W.*

\*\*\*\*\*

d.1.b. \*\*\*

d.1.b.3. \*\*\*

*Note: See USML Category XII(b)(12) for non-tunable multiple transverse mode semiconductor lasers having an output wavelength exceeding 1,900 nm and either an average output power or CW output power greater than 2 W.*

\*\*\*\*\*

d.1.d. \*\*\*

d.1.d.1. \*\*\*

d.1.d.1.d. \*\*\*

*Note: See USML Category XII(b)(13)(i) for laser stacked arrays having an output wavelength less than 1,400 nm and a peak pulsed power density greater than 3,300 W/cm<sup>2</sup>.*

\*\*\*\*\*

d.1.d.2. \*\*\*

d.1.d.2.d. \*\*\*

*Note: See USML Category XII(b)(13)(ii) for laser stacked arrays having an output wavelength exceeding 1,400 nm but less than 1,900 nm and a peak pulsed power density greater than 700 W/cm<sup>2</sup>.*

\*\*\*\*\*

d.1.d.3. \*\*\*



d.1.d.3.b. \*\*\*

*Note: See USML Category XII(b)(13)(iii) for laser stacked arrays having an output wavelength exceeding 1,900 nm and a peak pulsed power density greater than 70 W/cm<sup>2</sup>. See also USML Category XII(b)(13)(iv) for laser stacked arrays having an output wavelength exceeding 1,900 nm, and either an average output power or CW output power greater than 20 W.*

\*\*\*\*\*

22. In Supplement No. 1 to part 774, Category 6, ECCN 6A007 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6A007 Gravity meters (gravimeters) and gravity gradiometers, as follows (see List of Items Controlled).**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* (1) See USML Category XII(d)(4) for certain gravity meters (gravimeters). (2) See USML Category XII(d)(5) for certain gravity gradiometers. (3) See ECCN 7A611 for gravity meters (gravimeters) “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having automatic motion compensation and an accuracy of less (better) than 2 mGal and greater (worse) than 1mGal. (4) See also ECCNs 6A107 and 6A997.

\*\*\*\*\*

23. In Supplement No. 1 to part 774, Category 6, ECCN 6A008 is amended by revising the Related Controls paragraph in the List of Items Controlled section to read as follows:

**6A008 Radar systems, equipment and assemblies, having any of the following (see List of Items Controlled), and “specially designed” “components” therefor.**

\*\*\*\*\*

#### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* This entry does not control: Secondary surveillance radar (SSR); Car radar designed for collision prevention; Displays or monitors used for Air Traffic Control (ATC) having no more than 12 resolvable elements per mm; Meteorological (weather) radar. See also ECCNs 6A108 and 6A998. ECCN 6A998 controls, *inter alia*, the Light Detection and Ranging (LIDAR) equipment excluded by the note to paragraph j of this ECCN (6A008). See USML Category XII(b) for certain LIDAR, Laser Detection and Ranging (LADAR), or range-gated systems or equipment. See ECCN 6A615 for LIDAR, LADAR, or range-gated systems or equipment having a resolution (*i.e.*, ground point spacing) less (better) than 0.4 m from an altitude above ground level of 16,500 ft. or greater, and incorporating a gimbal-mounted transmitter or beam director.

\*\*\*\*\*

24. In Supplement No. 1 to part 774, Category 6, ECCN 6A107 is amended by revising the Related Controls paragraph in the List of Items Controlled section to read as follows:

**6A107 Gravity meters (gravimeters) or gravity gradiometers, other than those controlled by 6A007, designed or modified for airborne or marine use, as follows, (see List of Items Controlled) and “specially designed” “parts” and “components” therefor.**

\*\*\*\*\*

#### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) See USML Category XII(d)(4) for certain gravity meters (gravimeters) subject to the ITAR. (2) See USML Category XII(d)(5) for certain gravity gradiometers subject to the ITAR. (3) See ECCN 7A611 for gravity meters (gravimeters) “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having automatic motion compensation and an accuracy of less (better) than 2 mGal and greater (worse) than 1mGal.

\*\*\*\*\*

25. In Supplement No. 1 to part 774, Category 6, ECCN 6A611 is revised to read as follows:

**6A611 Acoustic systems and equipment, radar, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, “specially designed” for a military application that are not enumerated in any USML category or other ECCN are controlled by ECCN 3A611. Military guidance and control equipment, including certain gravity meters (gravimeters), that are not enumerated in any USML category or ECCN are controlled by ECCN 7A611.**

26. In Supplement No. 1 to part 774, Category 6, add ECCN 6A615 between ECCNs 6A611 and 6A990, to read as follows:

**6A615 Military fire control, range finder, and optical, equipment, and “specially designed” “parts,” “components,” “accessories,” and “attachments,” as follows (See List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry except 6A615.y	NS Column 1
RS applies to entire entry except 6A615.y	RS Column 1

AT applies to entire entry	AT Column 1
UN applies to entire entry except 6A615.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS*: \$1500

*GBS*: N/A

*CIV*: N/A

**Special Conditions for STA**

*STA*: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2)) of the EAR may not be used for any item in 6A615.

**List of Items Controlled**

*Related Controls*: (1) Military fire control, range finder, optical, and guidance and control equipment that are enumerated on the USML Category XII, and technical data (including software) directly related thereto, are “subject to the ITAR.” (2) See Related Controls in ECCNs 0A987, 2A984, 6A002, 6A003, 6A004, 6A005, 6A007, 6A008, 7A001, 7A002, 7A003, 7A005, and 7A101. (3) See ECCN 3A611 and USML Category XI for controls on countermeasure equipment. (4) See ECCN 0A919 for controls on foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions*: N/A

*Items:*

a. Light Detection and Ranging (LIDAR), Laser Detection and Ranging (LADAR), or laser range-gated systems or equipment having a resolution (i.e., ground point spacing) less (better) than 0.4 m from an altitude above ground level of 16,500 ft. or greater, and incorporating a gimbal-mounted transmitter or beam director.

b. Gimbals permanently configured to contain a single payload consisting of a camera operating exclusively in the visible spectrum (i.e., 400 nm to 760 nm) and having a minimum root-mean-square (RMS) stabilization better (less) than 35 microradians.

c. Zinc selenide, zinc sulfide, germanium or chalcogenide optics blanks, being flat or initially curved, and having any of the following:

c.1. Diameter exceeding 3 inches and thickness exceeding 1.5 inches;

c.2. Diameter exceeding 5 inches;

c.3. Length and width both exceeding 3 inches and thicknesses exceeding 1.5 inches; or

c.4. Length and width both exceeding 5 inches.

d. Weapon sights, weapon aiming systems or equipment, and weapon imaging systems or equipment (e.g. clip-on), having peak response at a wavelength exceeding 700 nm but not exceeding 1,000 nm, and not controlled by OA987.

e. Targeting or target location systems or equipment incorporating or “specially designed” to incorporate a laser rangefinder controlled in USML Cat XII(b)(3).

f. Mobile reconnaissance, scout or surveillance systems or equipment providing real-time target location.

g. Combat vehicle, tactical wheeled vehicle, naval vessel, or aircraft pilotage systems or equipment incorporating a variable field of view or field of regard, and incorporating a photon detector-based infrared focal plane array having less than 640 elements.

h. to w. [RESERVED]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 6A615 (except 6A615.y) or a defense article enumerated or otherwise described in Category XII and not elsewhere specified on the USML, in 6A615.y, or 3A611.y.

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this ECCN or a fire control, range finder, or optical defense article in USML Category XII and not elsewhere specified on the USML or in the CCL, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1 [RESERVED]

27. In Supplement No. 1 to part 774, Category 6, ECCN 6A990, the License Requirements Section, the List Based License Exceptions Section and the related controls paragraph of the List of Items Controlled Section are revised to read as follows:

**6A990 Read-out integrated circuits “specially designed” for “focal plane arrays” controlled by 6A002.a.3.**

**License Requirements**

*Reason for Control:* RS, AT

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
RS applies to entire entry	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
AT applies to entire entry	AT Column 1.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500

*GBS:* N/A

*CIV:* N/A

**List of Items Controlled**



*Related Controls:* (1) See USML Category XII(e) for read-out integrated circuits “subject to the ITAR.” (2) See ECCN 0A919 for foreign made military commodities that incorporate commodities described in 6A990. (3) Section 744.9 imposes a license requirement on commodities described in 6A990 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into a commodity controlled by ECCN 0A919.

\*\*\*\*\*

28. In Supplement No. 1 to part 774, Category 6, ECCN 6A993 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6A993 Cameras, not controlled by 6A003 or 6A203, as follows (see List of Items Controlled).**

\*\*\*\*\*

#### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) See ECCN 0A919 for foreign made military commodities that incorporate cameras described in 6A993.a that meet the criteria specified in Note 3.a to 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9 Hz). (2) Section 744.9 imposes license requirements on cameras described in 6A993.a as a result of meeting the criteria specified in Note 3.a to 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9

Hz) if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into a commodity controlled by ECCN 0A919.

\*\*\*\*\*

29. In Supplement No. 1 to part 774, Category 6, add ECCN 6B615 between ECCNs 6B108 and 6B995, to read as follows:

**6B615 Test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities enumerated or otherwise described in ECCN 6A615 or military fire control, range finder, and optical equipment enumerated or otherwise described in USML Category XII (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1

UN applies to entire entry	See § 746.1(b) for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* N/A

*CIV:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 6B615.

**List of Items Controlled**

*Related Controls:* (1) See Related Controls in ECCNs 0A987, 2A984, 6A002, 6A003, 6A004, 6A005, 6A007, 6A008, 7A001, 7A003, 7A005, and 7A101. (2) See ECCN 0A919 for controls on foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Test, inspection, and production equipment (other than production equipment and components controlled in paragraph .y of this entry) “specially designed” for the “production” or “development” of commodities controlled in ECCN 6A615 (except 6A615.y) or USML Category XII that are not enumerated in USML Category XII or “600 series” ECCN.

b. Environmental test facilities “specially designed” for the certification, qualification or testing of commodities controlled in ECCN 6A615 (except 6A615.y) or USML Category XII that are not enumerated in USML Category XII or “600 series” ECCN.

c. to w.[RESERVED]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity listed in this entry and that are not enumerated on the USML or controlled by another “600 series” ECCN.

30. In Supplement No. 1 to part 774, Category 6, ECCN 6D002 is amended by:

a. Revising the License Requirements section;

b. Revising the List Based License Exceptions section; and

c. Revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6D002 “Software” “specially designed” for the “use” of equipment controlled by 6A002.b, 6A008 or 6B008.**

## License Requirements

*Reason for Control:* NS, MT, RS, AT

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry	NS Column 1.
MT applies to “software” for equipment controlled by 6A008 or 6B008 for MT reasons	MT Column 1.
RS applies to “software” for equipment controlled by 6A002.b	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
RS applies to “software” for equipment controlled by 6A008.j.1	RS Column 1.

AT applies to entire entry	AT Column 1.
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* Yes, except N/A for the following: (1) Items controlled for MT reasons; (2) “Software” “specially designed” for the “use” of “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or (3) “Software” “specially designed” for the “use” of commodities controlled by 6A002.b.

**List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) “Software” “specially designed” for the “use” of “space-qualified” LIDAR “equipment” “specially designed” for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in 6D991. (2) See also 6D102, 6D991, 6D992, and 6D994.

\*\*\*\*\*

31. In Supplement No. 1 to part 774, Category 6, ECCN 6D003 is amended by:

- a. Revising the Control(s) table in the License Requirements section;
- b. Revising the List Based License Exceptions section; and

c. Revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6D003 Other “software” as follows (see List of Items Controlled).**

**License Requirements**

\* \* \* \* \*

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry	NS Column 1
RS applies to 6D003.c	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
AT applies to entire entry	AT Column 1

\*\*\*\*\*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV*: Yes for 6D003.h.1

*TSR*: Yes, except for 6D003.c and except for exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “software” for items controlled by 6D003.a.

\*\*\*\*\*

**List of Items Controlled**

\*\*\*\*\*

*Related Controls*: See also 6D103, 6D991, 6D993, and 6D994.

\*\*\*\*\*

32. In Supplement No. 1 to part 774, Category 6, add ECCN 6D615 between ECCNs 6D201 and 6D991, to read as follows:

**6D615 “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 6A615 or equipment controlled by 6B615 (see List of Items Controlled).**

**License Requirements**



*Reason for Control:* NS, RS, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry except 6D615.y	NS Column 1
RS applies to entire entry except 6D615.y	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 6D615.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in 6D615.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated in USML Category XII is subject of USML paragraph XII(f). (2) See Related Controls in ECCNs 0A987, 2A984, 6A002, 6A003, 6A004, 6A005, 6A007, 6A008, 7A001, 7A003, 7A005, and 7A101. (3) See ECCN 0A919 for controls on foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by ECCNs 6A615 (except 6A615.y) or 6B615.

b. to x. [RESERVED]

y. Specific “software” “specially designed” for the “production,” “development,” or operation or maintenance of commodities described in 6A615.y.

33. In Supplement No. 1 to part 774, Category 6, ECCN 6D991 is revised to read as follows:

**6D991 “Software,” n.e.s., “specially designed” for the “development”, “production”, or “use” of commodities controlled by 6A002, 6A003, 6A990, 6A991, 6A996, 6A997, or 6A998.**

### **License Requirements**

*Reason for Control:* RS, AT

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
RS applies to “software” for commodities controlled by 6A002, 6A003, and 6A990	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
RS applies to “software” for commodities controlled by 6A998.b	RS Column 1
RS applies to “software” for commodities controlled by 6A998.c	RS Column 2
AT applies to entire entry, except “software” for commodities controlled by 6A991	AT Column 1
AT applies to “software” for commodities controlled by 6A991	AT Column 2

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

### **List of Items Controlled**

*Related Controls:* (1) See ECCN 6D002 for “software” “specially designed” for the “use” of commodities controlled under ECCN 6A002.b. (2) See ECCN 6D003.c for “software” “specially designed” for cameras incorporating “focal plane arrays” specified by 6A002.a.3.f and “specially designed” to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

34. In Supplement No. 1 to part 774, Category 6, add ECCN 6D994 between ECCNs 6D993 and the header that reads “E. Technology”, to read as follows:

**6D994 “Software”, n.e.s., “specially designed” for the maintenance, repair, or overhaul of commodities controlled by 6A002, 6A003, or 6A990.**

### **License Requirements**

*Reason for Control:* RS, AT

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
RS applies to entire entry	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (see § 742.6(a)(8)).
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 6D002 for software “specially designed” for the “use” of commodities controlled under ECCN 6A002.b. (2) See ECCN 6D003.c for software designed or modified for cameras incorporating “focal plane arrays” specified by 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

35. In Supplement No. 1 to part 774, Category 6, ECCN 6E001 is amended by:

- a. Revising the Reason for Control paragraph and the Table in the License Requirements section;
- b. Revising the CIV and TSR paragraphs in the List Based License Exceptions section; and
- c. Revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6E001 “Technology” according to the General Technology Note for the “development” of equipment, materials or “software” controlled by 6A (except 6A990, 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998, or 6A999.c), 6B (except 6B995), 6C (except 6C992 or 6C994), or 6D (except 6D991, 6D992, or 6D993).**

**License Requirements**

*Reason for Control:* NS, MT, NP, RS, CC, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
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<p>NS applies to “technology” for items controlled by 6A001 to 6A008, 6B004 to 6B008, 6C002 to 6C005, or 6D001 to 6D003</p>	<p>NS Column 1.</p>
<p>MT applies to “technology” for items controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, 6B108, 6D001, 6D002, 6D102 or 6D103 for MT reasons</p>	<p>MT Column 1.</p>
<p>NP applies to “technology” for equipment controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225, 6A226, 6D001, or 6D201 for NP reasons</p>	<p>NP Column 1.</p>
<p>RS applies to “technology” for commodities controlled by 6A002 or 6A003</p>	<p>A license is required to export and reexport these items to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See</p>

	§ 742.6(a)(8)).
RS applies to “technology” for items controlled by 6A002.a.1, .a.2, .a.3, or .c, 6A003.b.3 or .b.4, or 6A008.j.1	RS Column 1.
CC applies to “technology” for equipment controlled by 6A002 for CC reasons	CC Column 1.
AT applies to entire entry	AT Column 1.
UN applies to “technology” for equipment controlled by 6A002 or 6A003 for UN reasons	See § 746.1(b) for UN controls.

\*\*\*\*\*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* Yes, except for the following: (1) Items controlled for MT reasons; (2) “Technology” for commodities controlled by 6A002, 6A003, 6A004.e or 6A008.j.1; (3) “Technology” for “software” “specially designed” for “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1 and controlled by 6D001 or 6D002; or (4) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the



“development” of the following: 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A001.a.2.d, 6A001.a.2.e., 6A004.c, 6A004.d, , 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, 6B008, 6D003.a; (b) Equipment controlled by 6A001.a.2.c or 6A001.a.2.f when “specially designed” for real time applications; or (c) “Software” controlled by 6D001 and “specially designed” for the “development” or “production” of equipment controlled by 6B008, or 6D003.a.

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) See also 6E101, 6E201, and 6E991. (3) Technology for incorporating or integrating infrared focal plane arrays (IRFPAs) into permanent encapsulated sensor assemblies subject to the EAR, or integrating such assemblies into an item subject to the EAR, and integrating image intensifier tubes (IITs) into an item subject to the EAR, including integrating items subject to the EAR into foreign military commodities outside the United States is subject to the EAR. This technology includes the testing, operation instructions for a focal plane array in a “permanent encapsulated sensor assembly” subject to the EAR, mechanical dimensions and physical characteristics of the sensor assembly, provided such information does not include design methodology, engineering analysis, or manufacturing know-how.

\*\*\*\*\*

36. In Supplement No. 1 to part 774, Category 6, ECCN 6E002 is amended by:

- a. Revising the Reason for Control paragraph and the Table in the License Requirements section;
- b. Revising the CIV and TSR paragraphs in the List Based License Exceptions section; and
- c. Revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**6E002 “Technology” according to the General Technology Note for the “production” of equipment or materials controlled by 6A (except 6A990, 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998 or 6A999.c), 6B (except 6B995) or 6C (except 6C992 or 6C994).**

**License Requirements**

*Reason for Control:* NS, MT, NP, RS, CC, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to “technology” for equipment controlled by 6A001 to 6A008, 6B004 to 6B008, or 6C002 to 6C005	NS Column 1.
MT applies to “technology” for equipment controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, or 6B108 for MT reasons	MT Column 1.

<p>NP applies to “technology” for equipment controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225 or 6A226 for NP reasons</p>	<p>NP Column 1.</p>
<p>RS applies to “technology” for items controlled by 6A002 or 6A003</p>	<p>A license is required to export and reexport these items to all countries, including Canada.</p> <p>A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).</p>
<p>RS applies to “technology” for items controlled by 6A008.j.1</p>	<p>RS Column 1.</p>
<p>CC applies to “technology” for equipment controlled by 6A002 for CC reasons</p>	<p>CC Column 1.</p>
<p>AT applies to entire entry</p>	<p>AT Column 1.</p>
<p>UN applies to “technology” for equipment controlled by 6A002 or 6A003</p>	<p>See § 746.1(b) for</p>

for UN reasons	UN controls.
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* Yes, except for the following:

- 1) Items controlled for MT reasons;
- 2) “Technology” for commodities controlled by 6A002, 6A003, 6A004.e, 6A008.j.1; or
- 3) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “production” of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, 6B008; and (b) Items controlled by 6A001.a.2.c and 6A001.a.2.f when “specially designed” for real time applications.

\*\*\*\*\*

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) See also 6E992. (3) Technology for incorporating or integrating IRFPAs into “permanent encapsulated sensor assemblies” subject to the EAR, or integrating such assemblies into an item

subject to the EAR, and integrating image intensifier tubes (IITs) into an item subject to the EAR, including integrating items subject to the EAR into foreign military commodities outside the United States, is subject to the EAR. This technology includes the testing results, interface and operation instructions for a focal plane array in a “permanent encapsulated sensor assembly” subject to the EAR, mechanical dimensions and physical characteristics of the sensor assembly, provided such information does not include design methodology, engineering analysis, or manufacturing know-how.

\*\*\*\*\*

37. In Supplement No. 1 to part 774, Category 6, add ECCN 6E615 between ECCNs 6E202 and 6E990, to read as follows:

**6E615 “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities controlled by 6A615, equipment controlled by 6B615, or “software” controlled by 6D615 (see List of Items Controlled).**

#### **License Requirements**

*Reason for Control:* NS, RS, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry except 6E615.y	NS Column 1
RS applies to entire entry except 6E615.y	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 6E615.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 6E615.

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to articles enumerated or otherwise described in USML Category XII are subject to the control of USML Category XII(f). (2) See Related Controls in ECCNs 0A987, 2A984, 6A002, 6A003, 6A004, 6A005, 6A007, 6A008, 7A001, 7A003, 7A005, and 7A101.

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled by ECCNs 6A615 (except 6A615.y), 6B615, or 6D615 (except 6D615.y).

b. through x. [RESERVED]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, or overhaul of commodities or “software” in ECCN 6A615.y or 6D615.y.

38. In Supplement No. 1 to part 774, Category 6, revise ECCN 6E990 to read as follows:

**6E990 “Technology” “required” for the “development” or “production” of commodities controlled by ECCN 6A990.**

**License Requirements**

*Reason for Control:* RS, AT

<b>Control(s)</b>	<b>Country chart (See Supp. No. 1 to part 738)</b>
RS applies to	A license is required to export and reexport to all countries, including Canada. A

entire entry	column specific to this control does not appear on the Commerce Country Chart.  (See § 742.6(a)(8)).
AT applies to entire entry	AT Column 1.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV: N/A*

*TSR: N/A*

**List of Items Controlled**

*Related Controls: N/A*

*Related Definitions: N/A*

*Items:*

The list of items controlled is contained in the ECCN heading.

39. In Supplement No. 1 to part 774, Category 6, add a new ECCN 6E994 between ECCNs 6E993 and EAR99, to read as follows:



**6E994 “Technology” “required” for the maintenance, repair, or overhaul of commodities controlled under 6A002, 6A003, or 6A990.**

**License Requirements**

*Reason for Control:* RS, AT

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
RS applies to entire entry	A license is required to export and reexport to all countries, including Canada. A column specific to this control does not appear on the Commerce Country Chart. (See § 742.6(a)(8)).
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 6E001 for “development” technology and ECCN 6E002 for “production” technology. (2) See ECCN 6E990 for “development” and “production” technology for commodities controlled by 6A990.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

40. In Supplement No. 1 to part 774, Category 7, ECCN 7A001 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A001 Accelerometers as follows (see List of Items Controlled) and “specially designed” “components” therefor.**

\*\*\*\*\*

### **List of Items Controlled**

\*\*\*\*\*

*Related Controls:* (1) See USML Category XII(d)(2) for accelerometers having a bias stability of less (better) than 20 micro g, a scale factor stability of less (better) than 20 parts per million, or capable of measuring greater than 100,000 g. (2) See ECCN 7A611 for accelerometers “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and meeting certain specifications described in 7A611. (3) See also ECCNs

7A101 and 7A994. For angular or rotational accelerometers, see ECCN7A001.b. MT controls do not apply to accelerometers that are “specially designed” and developed as Measurement While Drilling (MWD) sensors for use in downhole well service applications.

\*\*\*\*\*

41. In Supplement No. 1 to part 774, Category 7, ECCN 7A002 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A002 Gyros or angular rate sensors, having any of the following (see List of Items Controlled) and “specially designed” “components” therefor.**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* (1) See USML Category XII(d)(3) for gyros or angular rate sensors having an angle random walk of less (better) than 0.00125 degree per square root hour or having a bias stability less (better) than 0.0015 degrees per hour. (2) See also ECCNs 7A102 and 7A994. For angular or rotational accelerometers, see ECCN 7A001.b. (3) See ECCN 7A611 for gyros or angular rate sensors “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and meeting certain specifications described in 7A611.

\*\*\*\*\*

42. In Supplement No. 1 to part 774, Category 7, ECCN 7A003 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A003 ‘Inertial measurement equipment or systems,’ having any of the following (see List of Items Controlled).**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* See also ECCNs 7A103 and 7A994. See USML Category XII(d)(1) for guidance or navigation systems: (i) having a CEP of position error rate less (better) than 0.35 nautical miles per hour; (ii) having a heading error or true north determination of less (better) than 0.50 mrad secant (latitude); or (iii) specified to function at linear acceleration levels exceeding 25 g. See ECCN 7A611 for inertial measurement units, inertial reference units, or heading reference systems “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and meeting certain specifications described in 7A611.

\*\*\*\*\*

43. In Supplement No. 1 to part 774, Category 7, amend ECCN 7A005 by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A005 Global Navigation Satellite Systems (GNSS) receiving equipment having any of the following (see List of Items Controlled) and “specially designed” “components” therefor.**

\*\*\*\*\*

### List of Items Controlled

*Related Controls:* (1) See also ECCNs 7A105 and 7A994. Typically commercially available GNSS receivers do not employ decryption or adaptive antennas and are classified as 7A994. (2) For equipment “specially designed” for military use, see USML Categories XI and XII.

\*\*\*\*\*

44. In Supplement No. 1 to part 774, Category 7, ECCN 7A101 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A101 Accelerometers, other than those controlled by 7A001 (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.**

\*\*\*\*\*

### List of Items Controlled

*Related Controls:* (1) See USML Category XII(d)(2) for accelerometers having a bias stability of less (better) than 20 micro g, a scale factor stability of less (better) than 20 parts per million, or capable of measuring greater than 100,000 g. (2) See ECCN 7A611 for accelerometers “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and meeting certain specifications described in 7A611. (3) This entry does not

control accelerometers that are “specially designed” and developed as MWD (Measurement While Drilling) sensors for use in downhole well service operations.

\*\*\*\*\*

45. In Supplement No. 1 to part 774, Category 7, ECCN 7A102 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**7A102 Gyros, other than those controlled by 7A002 (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.**

\*\*\*\*\*

### **List of Items Controlled**

*Related Controls:* (1) See USML Category XII(d)(3) for gyros or angular rate sensors having an angle random walk of less (better) than 0.00125 degree per square root hour or having a bias stability less (better) than 0.0015 degrees per hour. (2) See ECCN 7A611 for gyros “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and meeting certain specifications described in 7A611. (3) See also ECCNs 7A002 and 7A994.

\*\*\*\*\*

46. In Supplement No. 1 to part 774, Category 7, ECCN 7A611 is revised to read as follows:

**7A611 Military guidance and control equipment, as follows (see List of Items Controlled).**

## License Requirements

*Reason for Control:* NS, RS, MT, AT, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry except 7A611.y	NS Column 1
RS applies to entire entry except 7A611.y	RS Column 1
MT applies to commodities in 7A611.b, .c, and .d that meet or exceed the parameters of 7A101, 7A102, or 7A103	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 7A611.y	See § 746.1(b) for UN controls

### List Based License Exceptions (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* N/A

*CIV:* N/A

### Special Conditions for STA

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 7A611.

### **List of Items Controlled**

*Related Controls:* (1) Navigation and avionics equipment and systems, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, “specially designed” for a military application that are not enumerated in any USML category or another “600 series” ECCN are controlled by ECCN 3A611. (2) Military guidance and control equipment that are enumerated on the USML Category XII, and technical data (including software) directly related thereto, are “subject to the ITAR.” (3) See ECCNs 6A007, 7A001, 7A002, 7A003, 7A101, and 7A102. (4) See ECCN 3A611 and USML Category XI for controls on countermeasure equipment. (5) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S. origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Guidance, navigation, or control systems “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having any of the following:

a.1. A “CEP” of position error rate of less (better) than or equal to 0.70 nautical miles per hour and greater (worse) than 0.35 nautical miles per hour;



a.2. A heading error or true north determination of less (better) than or equal to 0.060 degree secant (latitude) and greater (worse) than 0.02865 degree secant (latitude);

a.3. Specified to function at linear acceleration levels exceeding 6 g and less than or equal to 25 g;

a.4. Stored heading aircraft carrier alignment features; or

a.5. Inertial measurement equipment or systems designed to use data from Global Navigation Satellite System (GNSS) or “DBRN” systems and having an INS navigation position accuracy subsequent to normal alignment of:

a.5.a. 20 meters CEP after loss of GNSS or “DBRN” for a period greater than 4 minutes but less than or equal to 30 minutes; or

a.5.b. 30 meters CEP after loss of GNSS or “DBRN” for a period greater than 30 minutes;

b. Inertial measurement units, inertial reference units, or attitude and heading reference systems “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and incorporating accelerometers meeting the control thresholds of 7A611.c.1, 7A611.c.2, 7A611.c.3, or USML Category XII(d), or gyros meeting the control thresholds of 7A611.d.1, 7A611.d.2, 7A611.d.3, or USML Category XII(d);

c. Accelerometers “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having any of the following:

c.1. A bias stability of less (better) than or equal to 200 micro g and greater (worse) than or equal to 20 micro g;

c.2. A scale factor stability of less (better) than or equal to 200 parts per million and greater than or equal to 20 parts per million; or

c.3. Specified to function at linear acceleration levels exceeding 10 g;

d. Gyros or angular rate sensors “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having any of the following:

d.1. An “angle random walk” of less (better) than or equal to 0.010 degree per square root hour and greater than or equal to 0.00125degrees per square root hour;

d.2. A bias stability of less (better) than or equal to 0.015 degree per hour and greater than or equal to 0.0015 degrees per hour; or

d.3. Specified to function at linear acceleration levels exceeding 10 g;

e. Gravity meters (gravimeters) “specially designed” for a defense article enumerated on the USML or for a “600 series” ECCN, and having automatic motion compensation and an accuracy of less (better) than 2 mGal and greater (worse) than 1mGal.

f. to w. [RESERVED]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 7A611 (except 7A611.y) or a guidance and control defense article in Category XII and not elsewhere specified on the USML, in 7A611.y, or 3A611.y.

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this ECCN or a guidance and control defense article in Category XII and not elsewhere specified on the USML or in the CCL, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1 [RESERVED]

47. In Supplement No. 1 to part 774, Category 7, add ECCN 7B611 between ECCNs 7B103 and 7B994, to read as follows:

**7B611 Test, inspection, and production “equipment” and related commodities “specially designed” for military guidance and control equipment, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1

<p>MT applies to “equipment” and related commodities “specially designed” for commodities controlled for MT reasons in 7A611</p>	<p>MT Column 1</p>
<p>AT applies to entire entry</p>	<p>AT Column 1</p>
<p>UN applies to entire entry</p>	<p>See § 746.1(b) for UN controls</p>

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS*: \$1500

*GBS*: N/A

*CIV*: N/A

**Special Conditions for STA**

*STA*: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 7B611.

**List of Items Controlled**

*Related Controls:* (1) See Related Controls in ECCNs 6A007, 7A001, 7A002, 7A003, 7A101, and 7A102. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S. origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Test, inspection, and production “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled in ECCN 7A611 or guidance and control equipment in USML Category XII that are not enumerated in USML Category XII or “600 series” ECCN.

b. Environmental test facilities “specially designed” for the certification, qualification, or testing of commodities controlled in ECCN 7A611 (except 7A611.y) or guidance and control equipment in USML Category XII that are not enumerated in USML Category XII or “600 series” ECCN.

c. to w. [RESERVED]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity listed in this entry and that are not enumerated on the USML or controlled by another “600 series” ECCN.

48. In Supplement No. 1 to part 774, Category 7, add ECCN 7D611 between ECCNs 7D103 and 7D994, to read as follows:

**7D611 “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 7A611 or equipment controlled by 7B611 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry except 7D611.y	NS Column 1
RS applies to entire entry except 7D611.y	RS Column 1
MT applies to “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled for MT reasons in 7A611 or 7B611	MT Column 1
AT applies to entire entry	AT Column 1

UN applies to entire entry except 7D611.y	See § 746.1(b) for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV:* N/A

*TSR:* N/A

**Special Conditions for STA**

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for “development” or “production” “software” in 7D611.a. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in 7D611.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated in USML Category XII is subject of USML paragraph XII(f). (2) See Related Controls in ECCNs 6A007, 7A001, 7A002, 7A003, 7A101, and 7A102. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S. origin “600 series” controlled content.

*Related Definitions:*

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by ECCNs 7A611 (except 7A611.y) or 7B611.

b. to x. [RESERVED]

y. Specific “software” “specially designed” for the “production,” “development,” or operation or maintenance of commodities described in 7A611.y.

49. In Supplement No. 1 to part 774, Category 7, add ECCN 7E611 between ECCNs 7E104 and 7E994, to read as follows:

**7E611 “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities controlled by 7A611, equipment controlled by 7B611, or software controlled by 7D611, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<b>Control(s)</b>	<b>Country Chart (See Supp. No. 1 to part 738)</b>
NS applies to entire entry except 7E611.y	NS Column 1



RS applies to entire entry except 7E611.y	RS Column 1
MT applies to “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled for MT reasons in 7A611, 7B611, or 7D611	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 7E611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*CIV*: N/A

*TSR*: N/A

**Special Conditions for STA**

*STA*: (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for “development” or “production” “technology” in 7E611.a. (2) Paragraph (c)(2) of

License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 7E611.

### **List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category XII are subject to the control of USML Category XII(f).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or “software” controlled by ECCNs 7A611 (except 7A611.y), 7B611, or 7D611 (except 7D611.y).

b. through x. [RESERVED]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, or overhaul of commodities or software controlled by ECCNs 7A611.y or 7D611.y.

50. In Supplement No. 1 to part 774, Category 7, ECCN 8A002 is amended by revising the Related Controls paragraph in the List of Items Controlled section, to read as follows:

**8A002 Marine systems, equipment, “parts” and “components,” as follows (see List of Items Controlled).**

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### **List of Items Controlled**

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*Related Controls:* (1) See also 8A992 and for underwater communications systems, see Category 5, Part I - Telecommunications. (2) See also 8A992 for self-contained underwater breathing apparatus that is not controlled by 8A002 or released for control by the 8A002.q Note. (3) For electronic imaging systems “specially designed” or modified for underwater use incorporating image intensifier tubes specified by 6A002.a.2.a or 6A002.a.2.b, see 6A003.b.3. (4) For electronic imaging systems “specially designed” or modified for underwater use incorporating “focal plane arrays” specified by 6A002.a.3.g, see 6A003.b.4.c. (5) Section 744.9 imposes a license requirement on commodities described in 8A002.d.1.c or .d.2 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919.

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Dated: April 16, 2015

Kevin J. Wolf

Assistant Secretary of Commerce for Export Administration

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