DEPARTMENT OF STATE  

22 CFR Part 121  
[Public Notice: 9110]  
RIN 1400–AD32  
Amendment to the International Traffic in Arms Regulations: Revision of U.S. Munitions List Category XII  

AGENCY: Department of State.  
ACTION: Proposed rule.  

SUMMARY: As part of the President’s Export Control Reform effort, the Department of State proposes to amend the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120–130) to revise Category XII (fire control, range finder, optical and guidance and control equipment) of the U.S. Munitions List (USML) to more precisely describe the articles controlled on the USML. The Department of State’s full plan to address the President’s request for export control reform is available at www.pmddtc.state.gov.

DATES: The Department of State will accept comments on this proposed rule until July 6, 2015.

ADDRESSES: Interested parties may submit comments within 60 days of the date of publication by one of the following methods:

- Email: DDTCPublicComments@state.gov with the subject line, “ITAR Amendment—Category XII.”
- Internet: At www.regulations.gov, search for this notice by using this rule’s RIN (1400–AD32).

Revision of Category XII

This proposed rule revises USML Category XII, covering fire control, range finder, optical and guidance and control equipment, to advance the national security objectives set forth above and to more accurately describe the articles within the category, in order to establish a “bright line” between the USML and the CCL for the control of these articles. Paragraph (a) is revised to add subparagraphs (1) through (9) to more clearly describe the articles controlled in (a).

Paragraph (a)(1) is added for fire control systems and equipment.

Paragraph (a)(2) is added for weapons sights and weapons aiming or imaging systems, with certain infrared focal plane arrays, image intensifier tubes, ballistic computers, or lasers.

Paragraph (a)(3) is added for electronic or optical weapon positioning, laying, or spotting systems or equipment.

Paragraph (a)(4) is added for certain laser spot trackers and laser spot detectors.

Paragraph (a)(5) is added for bomb sights and bombing computers.

Paragraph (a)(6) is added for electro-optical missile or ordnance tracking or guidance systems.

Paragraph (a)(7) is added for electro-optical systems or equipment that automatically detect and locate weapons launch or fire.

Paragraph (a)(8) is added for certain remote wind sensing systems or equipment for enhanced targeting.

Paragraph (a)(9) is added for certain helmet mounted display (HMD) systems.

Paragraph (b) is revised to add subparagraphs (1) through (14) to more clearly describe the articles controlled in (b).

Paragraph (b)(1) is added for laser target designation or coded target markers.

Paragraph (b)(2) is added for certain infrared laser aiming or target illumination systems.

Paragraph (b)(3) is added for certain laser range finders.

Paragraph (b)(4) is added for certain targeting or target location systems.

Paragraph (b)(5) is added for optical augmentation systems.

Paragraph (b)(6) is added for certain light detection and ranging (LIDAR), laser detection and ranging (LADAR), or range-gated systems and includes a carve out for certain LIDAR systems for civil automotive applications.

Paragraph (b)(7) is added for certain synthetic aperture LIDAR or LADAR systems.

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Paragraph (a)(7) is added for electro-optical systems or equipment that automatically detect and locate weapons launch or fire.

Paragraph (a)(8) is added for certain remote wind sensing systems or equipment for enhanced targeting.

Paragraph (a)(9) is added for certain helmet mounted display (HMD) systems.

Paragraph (b) is revised to add subparagraphs (1) through (14) to more clearly describe the articles controlled in (b).

Paragraph (b)(1) is added for laser target designation or coded target markers.

Paragraph (b)(2) is added for certain infrared laser aiming or target illumination systems.

Paragraph (b)(3) is added for certain laser range finders.

Paragraph (b)(4) is added for certain targeting or target location systems.

Paragraph (b)(5) is added for optical augmentation systems.

Paragraph (b)(6) is added for certain light detection and ranging (LIDAR), laser detection and ranging (LADAR), or range-gated systems and includes a carve out for certain LIDAR systems for civil automotive applications.

Paragraph (b)(7) is added for certain synthetic aperture LIDAR or LADAR systems.
Paragraph (b)(8) is added for LIDAR, LADAR, or other laser range-gated identified in subparagraphs (i)–(vi).

Paragraph (b)(9) is added for certain lasers for electronic combat systems controlled in Category XI(a)(4).

Paragraph (b)(10) is added for certain tunable semiconductor lasers.

Paragraph (b)(11) is added for certain non-tunable single transverse mode semiconductor lasers.

Paragraph (b)(12) is added for certain non-tunable multiple transverse mode semiconductor lasers.

Paragraph (b)(13) is added for laser stacked arrays identified in subparagraphs (i)–(iv).

Paragraph (b)(14) is added for developmental lasers funded by the Department of Defense.

Paragraph (c) is revised to add subparagraphs (1) through (21) to more clearly describe the articles controlled in (c).

Paragraph (c)(1) is added for certain second and third generations image intensifier tubes (IITs).

Paragraph (c)(2) is added for certain photon detector, microbolometer detector, or multispectral detector infrared focal plane arrays (IRFPAs).

Paragraph (c)(3) is added for certain one-dimensional photon detector IRFPAs in a permanent encapsulated sensor assembly.

Paragraph (c)(4) is added for certain two-dimensional photon detector IRFPAs in a permanent encapsulated sensor assembly.

Paragraph (c)(5) is added for certain microbolometer IRFPAs in a permanent encapsulated sensor assembly.

Paragraph (c)(6) is added for multispectral IRFPAs in a permanent encapsulated sensor assembly.

Paragraph (c)(7) is added for certain charge multiplication focal plane arrays.

Paragraph (c)(8) is added for certain charge multiplication focal plane arrays in a permanent encapsulated sensor assembly.

Paragraph (c)(9) is added for certain integrated IRFPA dewar cooler assemblies (IDCAs).

Paragraph (c)(10) is added for gimbals with two or more axes of active stabilization having a minimum root-mean-square (RMS) stabilization better (less) than 200 microradians.

Paragraph (c)(11) is added for gimbals with two or more axes of active stabilization having a minimum root-mean-square (RMS) stabilization better (less) than 100 microradians.

Paragraph (c)(12) is added for infrared imaging camera cores identified in subparagraphs (i)–(x). Camera cores meeting the shock tolerance criteria described in (c)(12)(ii) are controlled on the USML whether or not they are tested to meet these criteria.

Paragraph (c)(13) is added for binoculars, bioculars, monoculars, goggles, or head- or helmet-mounted imaging systems with IITs or camera cores controlled in this category.

Paragraph (c)(14) is added for certain targeting systems.

Paragraph (c)(15) is added for infrared search and track (IRST) systems.

Paragraph (c)(16) is added for infrared imaging systems identified in subparagraphs (i)–(x).

Paragraph (c)(17) is added for certain terahertz imaging systems.

Paragraph (c)(18) is added for near-to-eye display systems or equipment, specially designed for articles controlled in this subchapter.

Paragraph (c)(19) is added for systems or equipment that project radiometrically calibrated scenes directly into the entrance aperture of an electro-optical or infrared (EO/IR) sensor controlled in this subchapter within either the spectral band exceeding 10 nm but not exceeding 400 nm, or the spectral band exceeding 900 nm but not exceeding 30,000 nm.

Paragraph (c)(20) is added for certain systems or equipment incorporating an infrared beacon or emitter specially designed for Identification Friend or Foe (IFF) and specially designed parts and components therefor.

Paragraph (c)(21) is added for developmental imaging systems funded by the Department of Defense.

A note is added to paragraph (c) to address the incorporation of these defense articles into commercial items. With minor exceptions, all bare IRFPAs are controlled in Category XII, paragraph (c)(2). However, once an IRFPA has been incorporated into a permanent encapsulated sensor assembly, it ceases to be controlled in paragraph (c)(2) because it is incorporated into a higher order assembly. The permanent encapsulated sensor assembly will be controlled in paragraphs (c)(3)–(6), if it meets the control parameters of one of those paragraphs. These control parameters are set at a level that the Department has determined excludes most commercial products. Further, once most IRFPAs and permanent encapsulated sensor assemblies are incorporated into a camera core, monocular, or binocular or other higher order system, that system will not be subject to the ITAR or require authorization from the Department for export, unless it is specifically enumerated. Most multispectral IRFPAs and IRFPAs with charge multiplication are excluded from the note and remain subject to the ITAR, even when incorporated into higher order assemblies or end-items. IRFPA, permanent encapsulated sensor assemblies, camera cores, monoculars, binoculars, and other higher order systems not enumerated on the USML are generally subject to the EAR.

Paragraph (d) is revised to move controls on Global Navigation Satellite System (GNSS) equipment from Category XV and to add subparagraphs (1) through (9) to more clearly describe the articles controlled in (d).

Paragraph (d)(1) is added for certain guidance or navigation systems.

Paragraph (d)(2) is added for certain accelerometers.

Paragraph (d)(3) is added for certain gyroscopes or angular rate sensors.

Paragraph (d)(4) is added for certain mobile relative gravimeters.

Paragraph (d)(5) is added for certain mobile gravity gradiometers.

Paragraph (d)(6) is added for Global Navigation Satellite System receiving equipment from Category XV.

Paragraph (d)(7) is added for certain GNSS anti-jam systems employing adaptive antennas.

Paragraph (d)(8) is added for certain GNSS security devices.

Paragraph (d)(9) is added for developmental guidance, navigation, or control devices, systems or equipment funded by the Department of Defense.

Paragraph (e) is revised to add subparagraphs (1) through (15) to more clearly describe the parts and components controlled in (e).

A significant aspect of this more positive, but not yet tiered, proposed USML category is that it does not contain controls on all generic parts, components, accessories, and attachments that are specifically designed or modified for a defense article, regardless of their significance to maintaining a military advantage for the United States. Rather, it contains, with a few exceptions, a positive list of specific types of parts, components, accessories, and attachments that continue to warrant control on the USML. The exceptions pertain to those parts, components, accessories, and attachments identified as “specially designed.”

Paragraph (e)(1) is added for specially designed optical sensors for electronic combat systems controlled in Category XI(a)(4).

Paragraph (e)(2) is added for certain image intensifier tube (IIT) parts and components identified in subparagraphs (i)–(vii).

Paragraph (e)(3) is added for certain wafers incorporating structures for Read-Out Integrated Circuits (ROICs)
controlled in (e)(4) or (e)(5) or for IRFPA
detectors controlled in (e)(2).
Paragraph (e)(4) is added for ROICs
specially designed for IRFPAs.
Paragraph (e)(5) is added for certain
ROICs specially designed for a system,
camera core, or packaged IRFPA
controlled in paragraph (c).
Paragraph (e)(6) is added for specially
designed vacuum packages or other
sealed enclosures for an IRFPA or IT
controlled in paragraph (c).
Paragraph (e)(7) is added for
integrated IRFPA dewar cooler assembly
(IDCA) parts and components identified
in subparagraphs (i)–(iv).
Paragraph (e)(8) is added for specially
designed IRFPA Joule-Thomson (JT)
self-regulating cryostats.
Paragraph (e)(9) is added for specially
designed infrared lenses, mirrors, beam
splitters or combiners, filters, and
treatments and coatings.
Paragraph (e)(10) is added for specially
designed drive, control, signal
or image processing electronics
identified in (e)(6) that are added for signal
processing electronics identified in
subparagraphs (i)–(iii).
Paragraph (e)(12) is added for
specially designed near-to-eye displays.
Paragraph (e)(13) is added for
specially designed resonators, receivers,
transmitters, modulators, gain media,
and drive electronics or frequency
converters.
Paragraph (e)(14) is added for two-
dimensional infrared scene projector
emitter arrays (i.e., resistive arrays) that
emit infrared radiation within the 900
nm to 30,000 nm wavelength range.
Paragraph (e)(15) is added for
classified parts, components,
accessories, attachments, and associated
equipment.
A note is added to paragraph (e) to
address the incorporation of these
defense articles into commercial items.
Paragraph (f) is revised to more
clearly describe the technical data and
defense services controlled in paragraph
(f).
Three notes are added to paragraph (f)
to address technical data and defense
services when incorporating defense
articles into commercial items. Note 1
clarifies that technical data directly
related to IITs, IRFPAs, integrated
IRFPA dewar cooler assemblies and
related wafers and ROICs controlled in
this Category remains USML controlled,
even when those defense articles are
part of a system that is subject to the
EAR. Note 2 enumerates certain
technical data and software that are
directly related to the defense articles
controlled in paragraphs A, B, and C. It also includes
a note to paragraph A, identifying
certain technology that is not technical
data. Note 3 states that certain
technology for the incorporation or
integration of IRFPAs and IITs in to
items subject to the EAR, including into
permanent encapsulated sensor
assemblies, is subject to the EAR.
A new (x) paragraph has been added to
USML Category XII, allowing ITAR
licensing for commodities, software, and
technology subject to the EAR provided
those commodities, software, and
technology are to be used in or with
defense articles controlled in USML
Category XII and are described in the
purchase documentation submitted with
the application.
Finally, articles common to the
Missile Technology Control Regime
(MTCR) Annex and the USML are to be
identified on the USML with the
parenthetical “(MT)” at the end of each
section containing such articles. A
separate proposed rule will address the
sections in the ITAR that include MTCR
definitions.
The following definitions explain and
amplify terms used in this Category and
are provided to assist exporters in
understanding the scope of the
proposed control.
Charge multiplication is a form of
electronic image amplification, the
generation of charge carriers as a result
of an impact ionization gain process.
Focal plane array is a linear or two-
dimensional planar layer, or
combination of planar layers, of
individual detector elements, with or
without readout electronics, which
work in the focal plane.
Note: This definition does not include a
stack of single detector elements or any two,
three, or four element detectors provided
time delay and integration is not performed
within the element.
Image intensifier tube refers to an
imaging device that incorporates a
photomissive transducer (i.e.,
photocathode) and achieves electron
image amplification in the vacuum
space.
Microbolometer is 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 a usable
signal.
Multispectral refers to producing
discrete outputs associated with more
than one spectral band of response.

Request for Comments
As the U.S. Government works
through the proposed revisions to the
USML, some control parameters are
proposed recognizing that they will
control items in normal commercial use
and on the Wassenaar Arrangement’s
Dual Use List. With the thought that
multiple perspectives would be
beneficial to the USML revision process,
the Department welcomes the assistance
of users of the lists and requests input
on the following:

(1) A key goal of this rulemaking is to
ensure the USML and the CCL together
control all the items that meet
Wassenaar Arrangement commitments
embodied in Munitions List Categories
5, 11 and 15 (WA–ML15) and the
relevant Dual Use List Categories
including the IRFPAs in Category 6
(WA–DU 6.A.2). To that end, the public
is asked to identify any potential lack of
coverage brought about by the proposed
rules for Category XII contained in
this notice and the new and revised ECCNs
published separately by the Department
of Commerce 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 USML
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 for the control
of these materials. 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.

(4) Although the proposed revisions
to the USML 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, the
U.S. government does not want to
inadvertently control items on the ITAR
that are in normal commercial use.
Items that would be controlled on the
USML in this proposed rule have been
identified as possessing parameters or
characteristics that provide a critical
military or intelligence advantage. The
public is thus asked to provide specific
elements of items, if any, that would be
controlled by the revised USML
Category XII that are now in normal
commercial use. 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) For any criteria the public believes
currently controlled items in commercial use,
the public is asked to identify
parameters or characteristics that cover
items exclusively or primarily in military use.

(6) For any criteria the public believes control items in non-erosional 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.

(7) DDTC seeks public comments on each paragraph of the proposed USML Category XII. In addition, DDTC specifically seeks public comments on the following concepts that are introduced in proposed USML Category XII: A) Using integration of an IRFPA into a permanent encapsulated sensor assembly as a control parameter; B) using the incorporation of an IRFPA into an infrared imaging camera core as a control parameter and the definition of camera cores in the note to XII(c)(12); C) the weapon shock load control criterion in XII(c)(12)(ii); and D) proposed controls on specific technical data in XII(f).

Regulatory Analysis and Notices

Administrative Procedure Act

The Department of State is of the opinion that controlling the import and export of defense articles and services is a foreign affairs function of the United States Government and that rules implementing this function are exempt from sections 553 (rulemaking) and 554 (adjudications) of the Administrative Procedure Act (APA). Although the Department is of the opinion that this rule is exempt from the rulemaking provisions of the APA, the Department is publishing this rule with a 60-day provision for public comment and without prejudice to its determination that controlling the import and export of defense services is a foreign affairs function.

Regulatory Flexibility Act

Since this rule is exempt from the rulemaking provisions of 5 U.S.C. 553, it does not require analysis under the Regulatory Flexibility Act.

Unfunded Mandates Reform Act of 1995

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

Small Business Regulatory Enforcement Fairness Act of 1996

This proposed amendment has been found not to be a major rule within the meaning of the Small Business Regulatory Enforcement Fairness Act of 1996.

Executive Orders 12372 and 13132

This proposed amendment will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, it is determined that this proposed amendment does not have sufficient federalism implications to require consultations or warrant the preparation of a federalism summary impact statement. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities do not apply to this proposed amendment.

Executive Orders 12866 and 13563

Executive Orders 13563 and 12866 direct agencies to assess costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributed impacts, and equity). 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).

Executive Order 12988

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

Executive Order 13175

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

Paperwork Reduction Act

Following is a listing of approved Department of State collections that will be affected by revision of the U.S. Munitions List (USML) and the Commerce Control List pursuant to the President’s Export Control Reform (ECR) initiative. The list of collections and the description of the manner in which they will be affected pertains to revision of the USML in its entirety, not only to the categories published in this rule. In accordance with the Paperwork Reduction Act, the Department of State will request comment on these collections from all interested persons at the appropriate time. In particular, the Department will seek comment on changes to licensing burden based on implementation of regulatory changes pursuant to ECR, and on projected changes based on continued implementation of regulatory changes pursuant to ECR. The information collections are as follows:

(1) Statement of Registration, DS–2032, OMB No. 1405–0002. The Department estimates that between 3,000 and 5,000 of the currently-registered persons will not need to maintain registration following full revision of the USML. This would result in a burden reduction of between 6,000 and 10,000 hours annually, based on a revised time burden of two hours to complete a Statement of Registration.

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

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

(4) Application/License for Temporary Export of Unclassified Defense Articles, DSP–73, OMB No. 1405–0023. The Department estimates that there will be 800 fewer DSP–73 submissions annually following full revision of the USML. This would result in a burden reduction of 800 hours annually.

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

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

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

List of Subjects in 22 CFR Part 121

Arms and munitions, Exports.

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

PART 121—THE UNITED STATES MUNITIONS LIST

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


§ 121.1 [Amended]

2. Section 121.1 is amended by removing and reserving paragraph (g) in U.S. Munitions List Category VIII.

3. Section 121.1 is amended by revising U.S. Munitions List Category XII to read as follows:

§ 121.1 The United States Munitions List.

* * * * * * Category XII—Fire Control, Range Finder, Optical and Guidance and Control Equipment

*(a) Fire control, weapons sights, aiming, and imaging systems and equipment, as follows:

(1) Fire control systems or equipment, and specially designed parts and components therefor;

(2) Weapon sights, weapon aiming systems or equipment, and weapon imaging systems or equipment (e.g., clip-on), with or without an integrated viewer, display, or reticle, and incorporating or specially designed to incorporate any of the following:

(i) An infrared focal plane array having a peak response at a wavelength exceeding 1,000 nm;

(ii) An article subject to this subchapter; or

(iii) A ballistic computer for adjusting the aim point display;

(3) Electronic or optical weapon positioning, laying, or spotting systems or equipment;

(4) Laser spot trackers or laser spot detection, location or imaging systems or equipment, with an operational wavelength shorter than 400 nm or longer than 710 nm, and a detection range greater than 300 m;

Note to paragraph (a)(4): For controls on LIDAR, see paragraph (b)(8) of this category.

(5) Bomb sights or bombing computers;

(6) Electro-optical missile or ordnance tracking systems or equipment, or electro-optical ordnance guidance systems or equipment;

(7) Electro-optical systems or equipment that automatically detect and locate weapons launch or fire;

(8) Remote wind-sensing systems or equipment specially designed for ballistic-corrected aiming, and specially designed parts and components therefor;

(9) Helmet mounted display (HMD) systems or equipment, incorporating optical sights or slewing devices, which include the ability to aim, launch, track, or manage munitions, or control infrared imaging systems or equipment, other than such items controlled in Category VIII, (e.g., Combat Vehicle Crew HMD, Mounted Warrior HMD, Integrated Helmet Assembly Subsystem, Drivers Head Tracked Vision System).

*(b) Lasers, and laser systems and equipment, as follows:

(1) Laser target designators or coded target markers;

(2) Aiming or target illumination systems or equipment having a laser output wavelength exceeding 710 nm;

(3) Laser rangefinders having any of the following:

(i) Q-switched laser pulse; or

(ii) Laser output wavelength exceeding 1,000 nm;

(4) Targeting or target location systems or equipment incorporating or specially designed to incorporate a laser rangefinder controlled in paragraph (b)(3) of this category, and incorporating or specially designed to incorporate a Global Navigation Satellite System (GNSS), guidance or navigation article controlled in paragraph (d) of this category (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km);

(5) Systems or equipment that use laser energy with an output wavelength exceeding 710 nm to exploit differential target-background retroreflectance in order to detect personnel or optical/electro-optical equipment (e.g., optical augmentation systems);

(6) Light detection and ranging (LIDAR), laser detection and ranging (LADAR), or range-gated systems or equipment, incorporating or specially designed to incorporate an article controlled in this subchapter (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km);

Note to paragraph (b)(6): This paragraph does not control LIDAR systems or equipment for civil automotive applications having a range limited to 200 m or less.

(7) Synthetic aperture LIDAR or LADAR systems or equipment, having a stand-off range of 100 m or greater (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km);

(8) LIDAR, LADAR, or other laser range-gated systems or equipment, as follows (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km):

(i) Systems or equipment having a resolution (i.e., ground point spacing) of 0.2 m or less (better) from an altitude above ground level of greater than 16,500 ft, and incorporating or specially designed to incorporate a gimbal-mounted transmitter or beam director, and specially designed parts and components therefor;

(ii) Aircraft systems or equipment having a laser output wavelength exceeding 1,000 nm and a detection range exceeding 500 m for an obstacle
with a diameter or width less than or equal to 10 mm (e.g., wire, power line); (iii) Systems or equipment having an electrical bandwidth of 100 MHz or greater, and incorporating or specially designed to incorporate either a Geiger-mode detector array having at least 32 elements or a linear-mode detector array having at least 128 elements; (iv) Systems or equipment employing coherent heterodyne or coherent homodyne detection techniques, having an angular resolution of less (better) than 100 microradians and an operational carrier noise ratio (CNR) less than 10; (v) Systems or equipment that automatically classify or identify submersibles, mines, unexploded ordnance or improvised explosive devices (IEDs); or (vi) Systems or equipment specially designed for obstacle avoidance or autonomous navigation in ground vehicles controlled in Category VII;

Note to paragraphs (b)(4) and (b)(6) through (8): “Payload” is the total mass that can be carried or delivered by the specified rocket, missile, SLV, drone or unmanned aerial vehicle that is not used to maintain flight. For definition of “range” as it pertains to rocket systems, see note 1 to paragraph (a) of USML Category IV. For definition of “range” as it pertains to aircraft systems, see note to paragraph (a) of USML Category VIII.

(9) Lasers operating at a wavelength exceeding 3,000 nm that provide a modulated output for systems or equipment controlled in Category XII(a)(4);

(10) Tunable semiconductor lasers having an output wavelength exceeding 1,400 nm and an output power greater than 1 W;

(11) 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;

(12) 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;

(13) Laser stacked arrays as follows: (i) Having an output wavelength not exceeding 1,400 nm and a peak pulsed power density greater than 3,300 W/cm²; (ii) Having an output wavelength exceeding 1,400 nm but less than 1,900 nm and a peak pulsed power density greater than 700 W/cm²;

(iii) Having an output wavelength exceeding 1,900 nm and a peak pulsed power density greater than 70 W/cm²; or (iv) Having an output wavelength exceeding 1,900 nm, and either an average output power or CW output power greater than 20W;

(14) Developmental lasers and laser systems or equipment funded by the Department of Defense;

Note 1 to paragraph (b)(14): This paragraph does not control developmental lasers and laser systems or equipment (a) in production, (b) determined to be subject to the EAR via a commodity jurisdiction determination (see § 120.4 of this subchapter), or (c) identified in the relevant Department of Defense contract or other funding authorization as being developed for both civil and military applications.

Note 2 to paragraph (b)(14): Note 1 does not apply to defense articles enumerated on the U.S. Munitions List, whether in production or development.

Note 3 to paragraph (b)(14): This provision is applicable to those contracts or other funding authorizations that are dated XXXX, 2016, or later.

*(c) Infrared focal plane arrays, image intensifier tubes, night vision, electro-optic, infrared and terahertz systems, equipment and accessories, including cameras and cores, as follows:

(1) Image intensifier tubes (IITs) having a peak response within the wavelength range exceeding 400 nm but not exceeding 2,050 nm and incorporating either a microchannel plate described in paragraph (e)(2)(i) of this category or electron sensing device described in paragraph (e)(2)(iv) of this category, as follows, and specially designed parts and components therefor:

(i) Incorporating a multialkali photocathode having a luminous sensitivity exceeding 500 microamps per lumen (e.g., GEN 2 IITs);

(ii) Incorporating a compound semiconductor photocathode having a peak response within the wavelength range exceeding 900 nm but not exceeding 50,000 nm and having a maximum radiant sensitivity exceeding 50 mA/W for any wavelength exceeding 760 nm and not exceeding 900 nm, and avalanche detector elements therefor;

(2) Photon detector, microbolometer detector, or multispectral detector infrared focal plane arrays (IRFPAs) having a peak response within the wavelength range exceeding 900 nm but not exceeding 30,000 nm and not integrated into a permanent encapsulated sensor assembly, and detector elements therefor;

(3) Charge multiplication focal plane arrays described in paragraph (c)(7) of this category in a permanent encapsulated sensor assembly, and avalanche detector elements therefor;

(4) Integrated IRFPAs having any of the following:

(1) Cryocoolers having a cooling source temperature below 218 K and a mean-time-to-failure (MTTF) in excess of 3000 hours;

(ii) Active cold fingers;

(iii) Variable or dual aperture mechanisms; or

(iv) Dewars specially designed for articles controlled in paragraphs (a), (b), or (c) of this category;

(5) Gimbals with two or more axes of active stabilization having a minimum root-mean-square (RMS) stabilization better (less) than 200 microradians, and specially designed for articles controlled in this subchapter;

(6) Gimbals with two or more axes of active stabilization having a minimum root-mean-square (RMS) stabilization better (less) than 100 microradians;

Note to paragraph (c)(11): This paragraph does not control gimbals containing only a non-removable camera payload operating exclusively in the visible spectrum (i.e., 400 nm to 760 nm).

(12) Infrared imaging camera cores (e.g., modules, engines, kits), and specially designed electronics and
optics therefor, having any of the following:

(i) An image intensifier tube described in paragraph (c)(1) of this category;

(ii) Output imagery when subject to more than 20 weapon shock load events of 325 g for 0.4 ms and a microbolometer IRFPA having greater than 111,000 detector elements;

(iii) A microbolometer IRFPA described in paragraph (c)(2) of this category having greater than 328,000 detector elements, or a microbolometer IRFPA described in paragraph (c)(3) of this category;

(iv) An IDCA described in paragraph (c)(9) of this category, or IDCA parts or components described in paragraph (e)(7) of this category;

(v) A one-dimensional photon detector IRFPA described in paragraph (c)(2) of this category having a peak response within the wavelength range exceeding 900 nm but not exceeding 2,500 nm and greater than 640 detector elements;

(vi) A one-dimensional or two-dimensional photon detector IRFPA described in paragraph (c)(2) of this category having a peak response within the wavelength range exceeding 2,500 nm but not exceeding 30,000 nm and greater than 256 detector elements;

(vii) A one-dimensional photon detector IRFPA described in paragraph (c)(3) of this category;

(viii) A two-dimensional photon detector IRFPA described in paragraph (c)(2) or (4) of this category having a peak response within the wavelength range exceeding 900 nm but not exceeding 2,500 nm, and greater than 111,000 detector elements;

(ix) A two-dimensional photon detector IRFPA described in paragraph (c)(4) of this category having a peak response within the wavelength range exceeding 2,500 nm but not exceeding 30,000 nm;

(x) A multispectral infrared focal plane array described in paragraph (c)(2) or (6) of this category; or

(xi) A charge multiplication IRFPA controlled in paragraph (c)(7) or (8) of this category.

Note to paragraph (c)(12): The articles controlled by this paragraph have sufficient electronics to enable as a minimum the output of an analog or digital signal once power is applied.

(i) An IIT controlled in this category; or

(ii) An infrared imaging camera core controlled in paragraph (c)(12)(i) through (xi) of this category.

Note to paragraph (c)(13): The articles controlled in this paragraph include binoculars, bioculars, monoculars, goggles, or head- or helmet-mounted imaging systems or equipment (including video-based articles having a separate near-to-eye display) that incorporate or are specially designed to incorporate any of the following, and specially designed electronics, optics, and displays therefor:

(i) An IIT controlled in this category; or

(ii) An infrared imaging camera core controlled in paragraph (c)(12)(i) through (xi) of this category.

Note to paragraph (c)(22): This paragraph does not control imaging systems or equipment (a) in production; (b) determined to be subject to the EAR via a commodity jurisdiction determination (see §120.4 of this subchapter), or (c) identified in the relevant Department of Defense contract or other funding authorization as being developed for both civil and military applications.

Note to paragraph (c)(21): Note 1 does not apply to defense articles enumerated on the U.S. Munitions List, whether in production or development.

Note 3 to paragraph (c)(21): This provision is applicable to those contracts or other funding authorizations that are dated XXXX, 2016, or later.

Note 1 to paragraph (c): A permanent encapsulated sensor assembly (e.g., sealed enclosure, vacuum package) prevents direct access to the IRFPA, disassembly of the sensor assembly, and removal of the IRFPA without destruction or damage to the IRFPA.
Note 2 to paragraph (c): The articles described in paragraphs (c)(1) through (5), (c)(7), (c)(8), and (c)(12) other than (c)(12)(ix) having greater than 640 detector elements in any dimension, and (c)(12)(x) are subject to the EAR when, prior to export, reexport, retransfer, or temporary import, they are integrated into and included as an integral part of an item subject to the EAR, and cannot be removed without destruction or damage to the article or render the item inoperable. Articles are not subject to the EAR until integrated into the item subject to the EAR. Detectors intended to be integrated, and technical data and defense services directly related thereto remain subject to the ITAR prior to integration. See paragraph (f) of this category for enumerated technical data and software, and specific information subject to the EAR.

(d) Guidance, navigation, and control systems and equipment as follows:

(1) Navigation systems (e.g., inertial navigation systems, inertial measurement units, inertial reference units, attitude and heading reference systems) as follows (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of a range greater than or equal to 300 km):

(i) Having a circle of equal probability (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) (0.02865 degrees secant (latitude)); or

(iii) Specified to function at linear acceleration levels exceeding 25 g.

Note to paragraph (d)(1): For aircraft and unmanned aerial vehicle guidance or navigation systems, see USML Category VIII(e). For rocket or missile flight control and guidance systems (including guidance sets), see USML Category IV(h).

(2) Accelerometers having a bias stability of less (better) than 20 µg, a scale factor stability of less (better) than 20 parts per million, or capable of measuring greater than 100,000 g (MT if having a scale factor repeatability less (better) than 1250 ppm and bias repeatability less (better) than 1250 micro g or specified to function at acceleration levels greater than 100 g);

Note 1 to paragraph (d)(2): For weapon fuze accelerometers, see USML Category III(d) or IV(h).

Note 2 to paragraph (d)(2): MT designation does not include accelerometers that are designed to measure vibration or shock.

(3) Gyroscopes 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 0.00125 degrees per hour (MT if having a rated drift stability of less than 0.5 degrees (1 sigma or rms) per hour in a 1 g environment or specified to function at acceleration levels greater than 100 g);

(4) Mobile relative gravimeters, having automatic motion compensation, with an in-service accuracy of less (better) than 0.4 mGal (MT if designed or modified for airborne or marine use and having a time to steady-state registration of two minutes or less);

(5) Mobile gravity gradiometers having an accuracy of less (better) than 10 Eötvös squared per radian per second for any component of the gravity gradient tensor, and having a spatial gravity wavelength resolution of 30 m or less (MT if designed or modified for airborne or marine use);

Note to paragraph (d)(5): “Eötvös” is a unit of acceleration divided by distance that was used in conjunction with the older centimeter-gram-second system of units. The Eötvös is defined as 1/1,000,000,000 Galileo (Gal) per centimeter.

(6) Global Navigation Satellite System (GNSS) receiving equipment, as follows, and specially designed parts and components therefor:

(i) Global Navigation Satellite System (GNSS) receiving equipment specially designed for military applications (MT if designed or modified for airborne applications and capable of providing navigation information at speeds in excess of 600 m/s);

(ii) Global Positioning System (GPS) receiving equipment specially designed for encryption or decryption (e.g., Y-Code, M-Code) of GPS precise positioning service (PPS) signals (MT if designed or modified for airborne applications);

(iii) GPS receiving equipment specially designed for use with a null steering antenna, an electronically steerable antenna, or including a null steering antenna designed to reduce or avoid jamming signals (MT if designed or modified for airborne applications);

Note to paragraph (d)(6)(iii): The articles described in this paragraph are subject to the EAR when, prior to export, reexport, retransfer, or temporary import, they are integrated into and included as an integral part of an item subject to the EAR. Articles do not become subject to the EAR until integrated into the item subject to the EAR. Export, reexport, retransfer, or temporary import of, and technical data and defense services directly related to, defense articles intended to be integrated, remain subject to the ITAR.

(iv) GPS receiving equipment specially designed for use with rockets, missiles, space launch vehicles (SLVs), drones, or unmanned aerial vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km (MT);

Note to paragraph (d)(6)(iv): “Payload” is the total mass that can be carried or delivered by the specified rocket, missile, SLV, drone or unmanned aerial vehicle that is not used to maintain flight. For definition of “range” as it pertains to rocket systems, see note 1 to paragraph (a) of USML Category IV. For definition of “range” as it pertains to aircraft systems, see note to paragraph (a) of USML Category VIII.

(7) GNSS anti-jam systems employing adaptive antennas that have a minimum of four antenna elements, add 35 dB or greater anti-jam margin, and produce nulls in the direction of jammers or high-gain beams in the direction of satellites at any ranging code frequency;

(8) GNSS security devices (e.g., Selective Availability Anti-Spoofing Modules, Security Modules, and Auxiliary Output Chips), Selective Availability Anti-Spoofing Module (SAASM), Security Module (SM) and Auxiliary Output Chip (AOC) chips; or

(9) Developmental guidance, navigation, or control devices, systems or equipment funded by the Department of Defense (MT if designed or modified for rockets, missiles, SLVs, drones, or unmanned aerial vehicle systems capable of a range equal to or greater than 300 km);

Note to paragraph (d)(9): This paragraph does not control guidance, navigation, or control systems, or equipment (a) in production, (b) determined to be subject to the EAR via a commodity jurisdiction determination (see §120.4 of this subchapter), or (c) identified in the relevant Department of Defense contract or other funding authorization as being developed for both civil and military applications.

Note 2 to paragraph (d)(9): Note 1 does not apply to defense articles enumerated on the U.S. Munitions List, whether in production or development.

Note 3 to paragraph (d)(9): This provision is applicable to those contracts or other funding authorizations that are dated XXXX, 2016, or later.

Note 4 to paragraph (d)(9): For definition of “range” as it pertains to rocket systems, see note 1 to paragraph (a) of USML Category IV. For definition of “range” as it pertains to aircraft systems, see note to paragraph (a) of USML Category VIII.

(e) Parts, components, accessories, attachments, and associated equipment as follows:

(1) Optical sensors having a spectral filter for systems or equipment controlled in USML Category XI(a)(4), or optical sensor assemblies that provide threat warning or tracking for systems or equipment controlled in Category...
XI(a)(4) and specially designed optics and electronics therefor;
(2) Image intensifier tube (IIT) parts and components as follows:
(i) Microchannel plates having a hole pitch (center-to-center spacing) of 12 \( \mu m \) or less;
(ii) Multialkali photocathodes (e.g., S–20 and S–25) having a luminous sensitivity exceeding 500 microamps per lumen;
(iii) III-V compound semiconductor (e.g., GaAs or GaInAs) photocathodes and transferred electron photocathodes having a radiant sensitivity exceeding 20 mA/W;
(iv) Electron sensing devices with detectors having a non-binned center-to-center spacing less than 100 \( \mu m \), and either achieving charge multiplication within the vacuum space other than by a microchannel plate or specially designed for operation with a microchannel plate;
(v) Phosphor screens, including output faceplates, specially designed for IIT's controlled in this category;
(vi) Miniature autogated power supplies providing internal sensing and control of the photocathode to increase the dynamic range of IITs controlled in this category; or
(vii) Fiber-optic inverters, couplers or tapers specially designed for IIT's controlled in this category;
(3) Wafers incorporating structures for a ROIC: controlled in paragraph (e)(4) or (5) of this category, or an IRFPA or detector elements therefor controlled in paragraph (c)(2) of this category;
(4) Read-Out Integrated Circuits (ROICs) specially designed for an IRFPA controlled in paragraph (c)(2) of this category or detector elements therefor, as follows:
(i) One-dimensional photon detector IRFPA having greater than 640 detector elements;
(ii) Two-dimensional photon detector IRFPA having greater than 256 detector elements;
(iii) A microbolometer IRFPA having greater than 19,200 elements;
(iv) Multispectral IRFPA;
Note to paragraph (e)(4): ROICs are specially designed for an infrared focal plane array detector even if the detector is incorporated into an item that is not enumerated on the U.S. Munitions List.
(5) ROICs specially designed for a camera/core/packaged IRFPA subject to the controls of this subchapter;
(6) Vacuum packages or other sealed enclosures for an IRFPA or IIT controlled in paragraph (c) of this category specially designed for incorporation or integration into an article controlled in paragraphs (a), (b), or (c) of this category;
(7) Integrated IRFPA dewar cooler assembly (IDCA) parts and components, as follows:
(i) Cryocoolers having a cooling source temperature below 218 K and a mean-time-to-failure (MTTF) in excess of 3000 hours;
(ii) Active cold fingers;
(iii) Variable or dual aperture mechanisms; or
(iv) Dewars specially designed for articles controlled in paragraphs (a), (b) or (c) of this category;
(8) IRFPA Joule-Thomson (JT) self-regulating cryostats specially designed for articles controlled in this subchapter;
(9) Infrared lenses, mirrors, beam splitters or combiners, filters, and treatments and coatings, specially designed for any article controlled in this category;
(10) Drive, control, signal or image processing electronics, specially designed for articles controlled in this category;
(11) Signal processing electronics, attachments or accessories that provide:
(i) Automatic or aided detection and recognition, classification, identification or discrimination of military or intelligence items;
(ii) Multi-sensor fusion other than image blending; or
Note to paragraph (e)(11)(ii): Multi-sensor fusion refers to automatically combining imagery or information from two or more sensors, including at least one article controlled in this category, to improve classification, identification, or tracking of targets relative to any of the individual sensors.
(iii) Target aim point adjustment;
(12) Near-to-eye displays specially designed for articles controlled in this category;
(13) Resonators, receivers, transmitters, modulators, gain media, and drive electronics or frequency converters specially designed for laser systems or equipment controlled in this category;
(14) Two-dimensional infrared scene projector emitter arrays (i.e., resistive arrays) that emit infrared radiation within the 900 nm to 30,000 nm wavelength range; or
(15) Any part, component, accessory, attachment, or associated equipment, that:
(i) Is “classified”;
(ii) Contains “classified” software;
(iii) Is manufactured using “classified” production data; or
(iv) Is being developed using “classified” information.
Note to paragraph (e)(15): “Classified” means classified pursuant to Executive Order 13526, or predecessor order, and a security classification guide developed pursuant thereto or equivalent, or to the corresponding classification rules of another government.

Note to paragraph (e): The articles described in this paragraph are subject to the EAR when, prior to export, reexport, retransfer, or temporary import, they are integrated into and included as an integral part of an item subject to the EAR, and cannot be removed without destruction or damage to the article or produce the item inoperable. Articles are not subject to the EAR until integrated into the item subject to the EAR. Defense articles intended to be integrated, and technical data and defense services directly related thereto, remain subject to the ITAR prior to integration. See paragraph (f) of this category for enumerated technical data and software, and specific information subject to the EAR.

*(f) Technical data (as defined in § 120.10 of this subchapter) and defense services (as defined in § 120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category. (See § 125.4 of this subchapter for exemptions.) (MT for technical data and defense services related to articles designated as such.)

Note 1 to paragraph (f): Technical data and defense services directly related to image intensifier tubes and specially designed parts and components thereof controlled in paragraph (c)(1) of this category, infrared focal plane arrays (IRFPAs) and detector elements therefor controlled in paragraph (c)(2) of this category, integrated IRFPA dewar cooler assemblies (IDCAs) controlled in paragraph (c)(9) of this category, wafers incorporating IRFPA or ROIC structures controlled in paragraph (e)(3) of this category, and specially designed readout integrated circuits (ROICs) controlled in paragraphs (e)(4) and (5) of this category, remain subject to the ITAR even if the technical data or defense services could also apply to items subject to the EAR.

Note 2 to paragraph (f): Software and technical data include:
A. Design or manufacturing process descriptions (e.g., steps, sequences, conditions, parameters) for lasers described in paragraphs (b)(6) and (b)(9) through (13) of this category, IITs controlled in paragraph (c)(1) of this category and their parts and components controlled in paragraph (e)(2) of this category (including tube sealing techniques, interface techniques within the vacuum space for photocathodes, microchannel plates, phosphor screens, input glass-window faceplates, input or output fiber optics (e.g., inverter), IRFPAs and detector elements therefor controlled in paragraph (c)(2) of this category, integrated IRFPA dewar cooler assemblies (IDCAs) controlled in paragraph (c)(9) of this category, wafers incorporating structures for an IRFPA and detector elements therefore controlled in paragraph (c)(2) or structures for ROICs controlled in paragraph (e)(4) or (5)
of this category, and specially designed
ROICs controlled in paragraphs (e)(4) and (5)
of this category (including bonding or mating
(e.g., hybridization of IRFPA detectors and
ROICs), prediction or optimization of IRFPAs
or ROICs at cryogenic temperatures, junction
formation, passivation).

Note to paragraph A of note 2 to
paragraph (f): Technical data does not
include information directly related to basic
operating instructions, testing results,
incorporating or integrating IRFPAs into
higher level packaged assemblies not
enumerated in this category, or external
interface control documentation associated
with such assemblies or assemblies subject to
the EAR, provided such information does not
include design methodology, engineering
analysis, or manufacturing know-how for a
USML controlled IRFPA.

B. Software that converts an article
controlled in this category into an item
subject to the EAR or an item subject to
the EAR into an article controlled in this
category is directly related to the
defense article controlled in this
category. When a defense article has
been converted into an item subject to
the EAR through software, the presence of
the software that prevents the item
from meeting or exceeding a USML
control parameter does not make the
item subject to the ITAR.

C. EO/IR simulation or projection
system software that replicates via
simulation either the output data or
information provided by any article
controlled in this category, a
radiometrically calibrated spectral
signature of any article controlled in
this subchapter, volumetric effects of
plumes or military operational
obscurants, or countermeasure effects.

Note 3 to paragraph (f): 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 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.

(g)–(w) [Reserved]
(x) Commodities, software, and
technology subject to the EAR (see
§ 120.42 of this subchapter) used in or
with defense articles controlled in this
category.

Note to paragraph (x): Use of this
paragraph is limited to license applications
for defense articles controlled in this category
where the purchase documentation includes
commodities, software, or technology subject
to the EAR (see § 123.1(b) of this subchapter).

§ 121.1 [Amended]
4. Section 121.1 is amended by
removing and reserving paragraph (c) in
U.S. Munitions List Category XV.

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