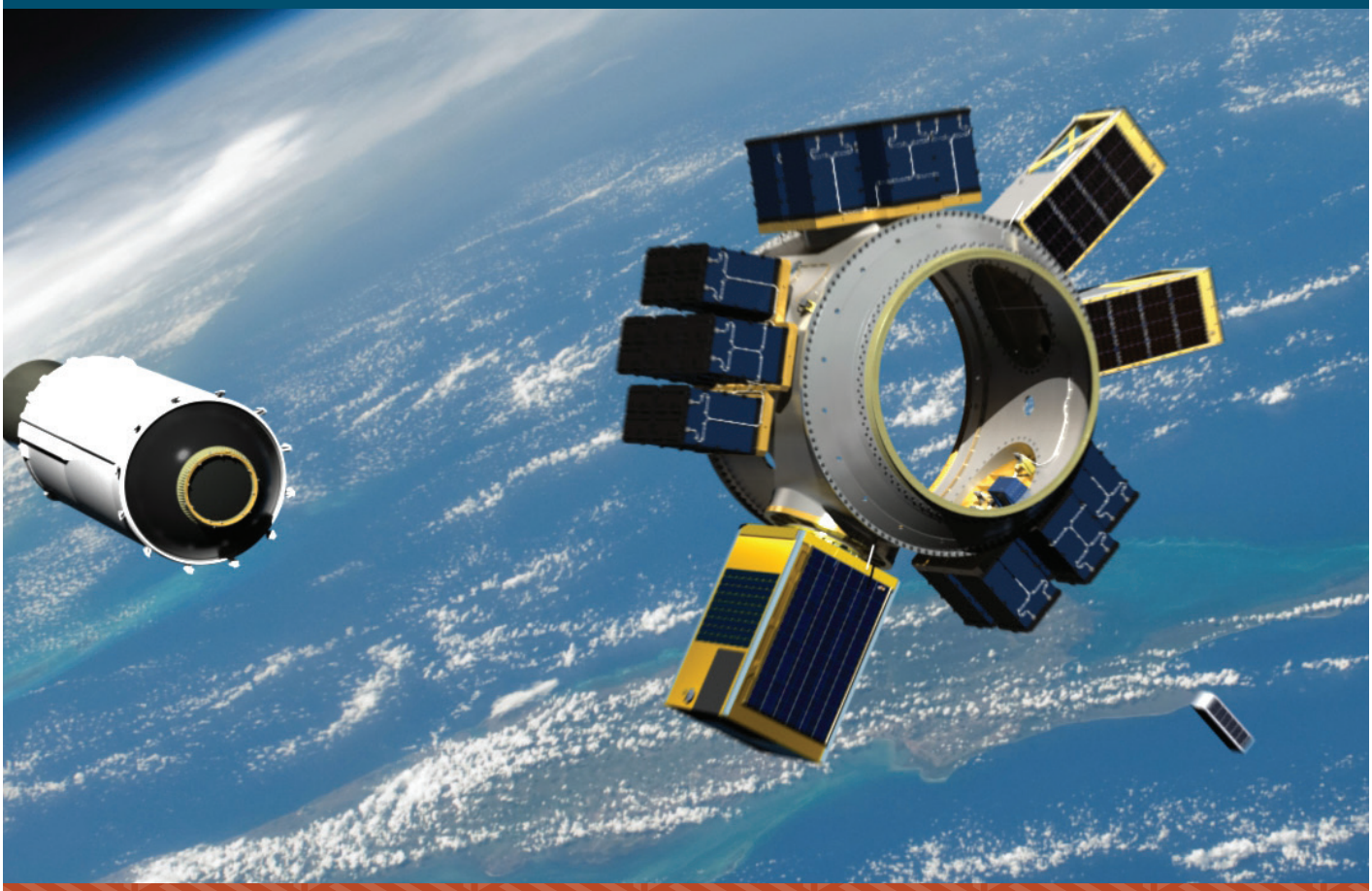
INTRODUCTION TO

U.S. Export Controls for the Commercial Space Industry



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Department of Commerce

Federal Aviation Administration





This publication was prepared by the U.S. Department of Commerce's Office of Space Commerce and the Federal Aviation Administration's Office of Commercial Space Transportation. For additional information, questions, or comments, please visit our websites:

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Purpose

This guidebook provides basic information to help commercial space organizations, especially emerging entrepreneurial firms, considering business in the international market. It is intended to serve as a starting point in the preparation for the export control process. This is an update to the 2008 edition and reflects changes due to the Export Control Reform initiative.

Because most space technologies are subject to export controls, it is your responsibility to be aware of the steps necessary to ensure that your operations are lawful. While this guidebook gives an overview of the general responsibilities and procedures, it cannot replace a full understanding of export regulations or discussions with regulatory bodies and legal counsel prior to any technology or information export. Please consult with the Department of State and Department of Commerce to ensure that your organization has the most recent information.

In particular, please note that export control regulations are subject to ongoing revision. Be sure to compare any regulatory text quoted in this publication with the latest official online version.

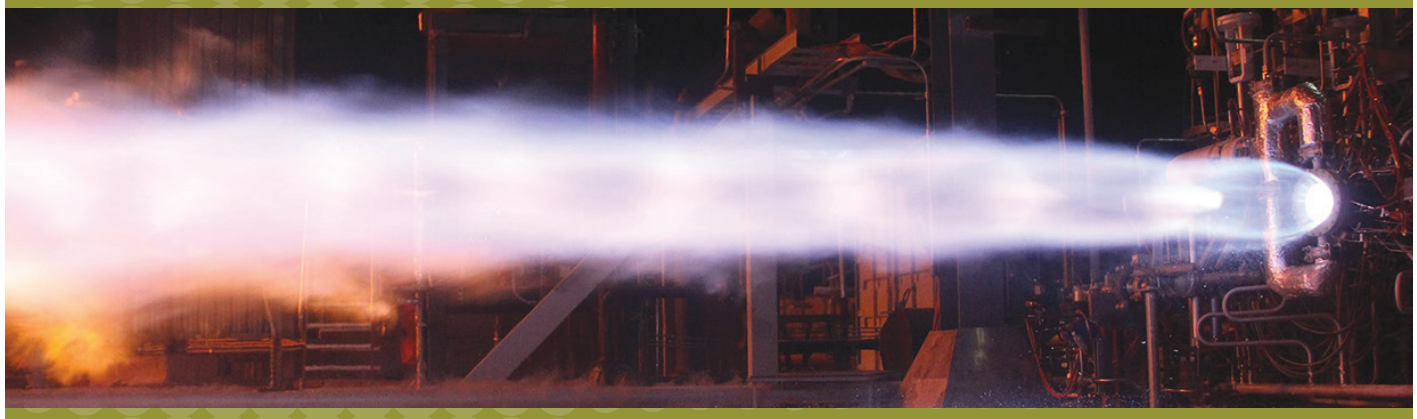
The U.S. Department of State is the final authority on International Traffic and Arms Regulations (ITAR).

www.pmddtc.state.gov

The U.S. Department of Commerce is the final authority on Export Administration Regulations (EAR).

www.bis.doc.gov

SECTION 1



BACKGROUND

1.1 Export Control 101

1.1.1 DEFINITIONS: EXPORTS, DEEMED EXPORTS, AND RE-EXPORTS

An **export** is defined as: (1) an actual shipment or transmission out of the United States; (2) releasing or otherwise transferring technical data to a foreign person in the United States (a "**deemed export**"); (3) transferring registration, control, or ownership of any aircraft, vessel, or satellite by a U.S. person to a foreign person; (4) releasing or otherwise transferring a defense article to an embassy in the United States; or (5) performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad.[1] A launch vehicle or payload shall not, by reason of the launching of such vehicle, be considered an export[2,3].

A **re-export** is the shipment or transmission of exported items from one foreign country to another, the deemed export of technical data within a foreign country, or the transfer of registration, control, or ownership of an exported aircraft, vessel, or satellite between foreign persons.[4,5]

1.1.2 THE REASONS FOR CONTROLS

The U.S. export control system is designed to prevent the spread of sensitive technologies to foreign actors that could threaten U.S. interests, while at the same time allowing U.S. companies to engage in legitimate commercial activity. Controlled technologies include defense articles (e.g., missiles), defense services (e.g., integration of a spacecraft onto a launcher), and dual use items (e.g., commercial spacecraft and components).

A U.S. company must seek and receive authorization from the U.S. government prior to exporting controlled technologies. Depending on the sensitivity of the item or service, the authorization may be in the form of a license, agreement, or license exception.

The deemed export rule requires companies to also seek and receive authorization from the U.S. government before releasing controlled technology

[1] 22 CFR § 120.17 and 15 CFR § 734.13
[2] 22 CFR § 120.17
[3] 15 CFR § 734.18
[4] 22 CFR § 120.19
[5] 15 CFR § 734.14

or technical data to foreign persons within the United States. The deemed export rule exempts a person with permanent residence status, U.S. citizenship, and/or granted status as "protected individual".[6]

Since exported technologies may be re-exported or diverted from commercial buyers to hostile actors, most U.S. export controls are based on an item or service's inherent technical capabilities, not on its intended end use. For example, all launch vehicles are subject to restrictive export controls even if designed to serve purely commercial markets.

1.1.3 REGULATIONS AND RESPONSIBLE DEPARTMENTS

The U.S. export control process involves two sets of regulations and two lead departments.

The International Traffic in Arms Regulations (ITAR) process has been developed under the jurisdiction of the Department of State and is administered by the **Directorate of Defense Trade Controls (DDTC)**. The ITAR process controls items, information, or activities that could be used for threatening foreign military purposes, whether actual products (defense articles) or assistance (defense services). These products and services are detailed in the ITAR under the **United States Munitions List (USML)** and can be found at www.pmddtc.state.gov/regulations_laws/itar.html.

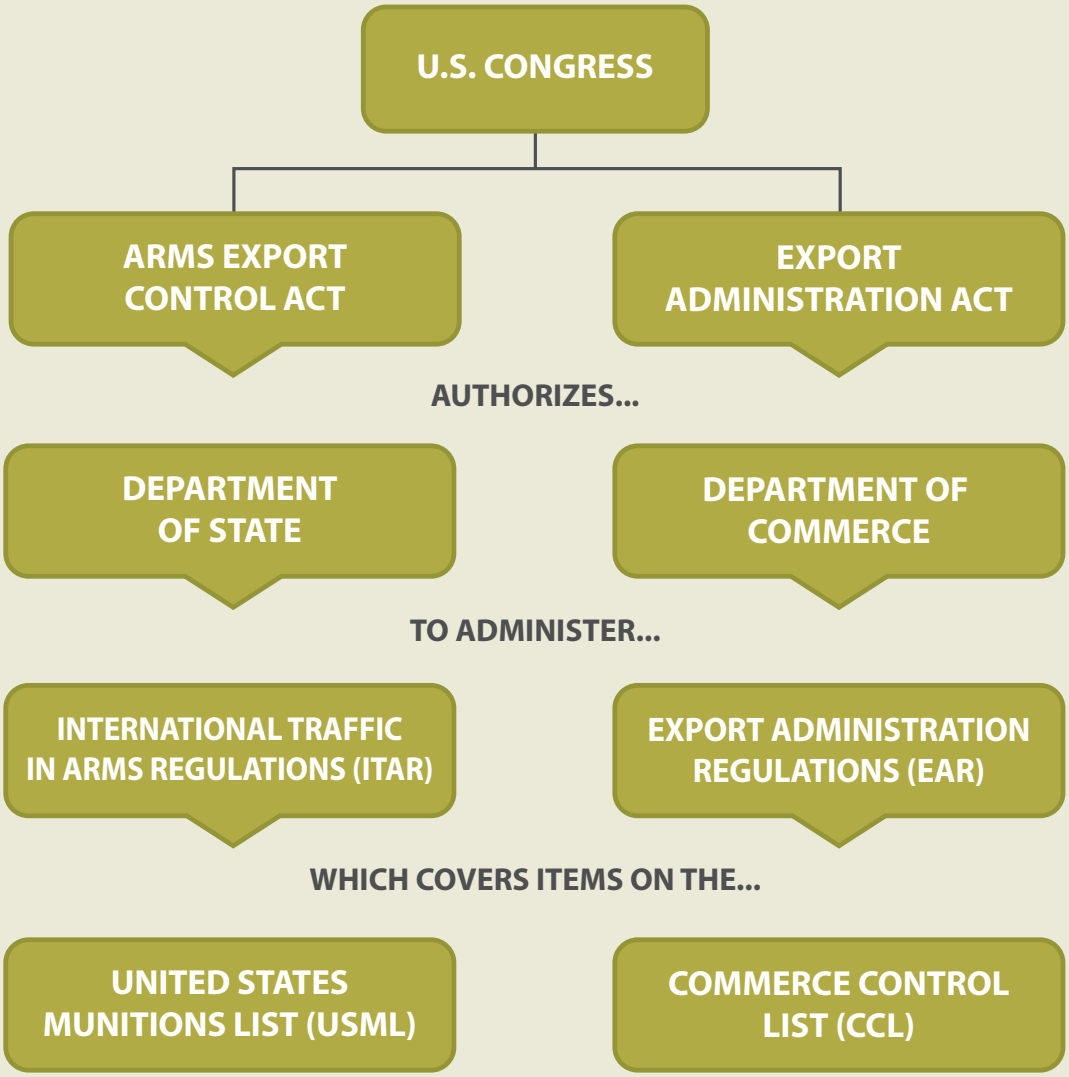
The **Export Administration Regulations (EAR)** process controls items and technologies considered to be "dual use", meaning applicable to commercial or military use. These items are detailed in the EAR under the **Commerce Control List (CCL)**. The Commerce Department's **Bureau of Industry and Security (BIS)** administers the EAR process.

> *The vast majority of commercial spacecraft and components fall under the jurisdiction of the EAR.*

Complete information about the CCL can be found at:
www.bis.doc.gov/regulations/export-administration-regulations-ear.

[6] 8 U.S.C. § 1324b(a)(3)

Figure 1: Authorization Hierarchy for U.S. Export Controls



1.1.4 MULTILATERAL COMMITMENTS

The United States aligns its export control regulations with several major multilateral control regimes to which it is committed. Of particular interest to commercial space companies are the Missile Technology Control Regime (MTCR), which controls items needed for missile development, production, and operation, and the Wassenaar Arrangement (WA), charged with promoting transparency and greater responsibility in transfers of conventional arms and dual use goods and technologies to prevent destabilizing accumulations. Additional information on MTCR and WA, including a list of member states, can be found at www.mtcr.info and www.wassenaar.org, respectively.

1.2 What's Changed Under Export Control Reform

1.2.1 SATELLITE EXPORT CONTROL REFORM

The National Defense Authorization Act for Fiscal Year 2013 authorized the removal of satellites and related items from the USML. As a result, the Department of State revised the ITAR and USML Category XV (Spacecraft and Related Articles) in rules that became effective in November 2014.[7,8] The Commerce Department made parallel revisions to the EAR and CCL.[9,10] The Category XV revision was one element of a broader Export Control Reform initiative begun in 2009 to place "higher walls" around a smaller set of "crown jewels" and unleash U.S. exports of products and services outside the walls. The government now focuses its oversight on the most critical national security priorities while enabling U.S. businesses to improve their competitiveness in key defense and technology sectors.

The Category XV update represented a sea change for the space industry, ending a 15-year period during which nearly all U.S. satellites and components were controlled as defense articles under ITAR. Prior to satellite export control reform, Category XV was a short list of very broad controls with little or no performance criteria to distinguish capabilities. This meant that anything from a complete space system to every nut, bolt, and screw used on that system was ITAR controlled. Today, both the USML and the CCL provide greater clarity on what is controlled, removing many items from stricter ITAR controls and making it easier for you to understand and comply with export regulations.

The USML now functions as a "positive control list" describing the few items and services remaining under ITAR, with the rest falling to EAR. Satellite export control reform reversed the ITAR "see through rule"[11] (see Section 2.2.4) and rationalized most controls based on technical criteria. With so many space-

[7] 79 FR 27180 (May 13, 2014)
[8] 79 FR 66608 (November 10, 2014)
[9] 79 FR 27417 (May 13, 2014)
[10] 79 FR 67055 (May 13, 2014)
[11] Prior to 2014, if a satellite contained any part or component controlled under the ITAR, the entire satellite was subject to the ITAR. Today, satellites subject to the EAR generally remain under the EAR even if they contain ITAR-controlled components.

related items and services removed from ITAR control, U.S. exporters now face a lighter burden in terms of licensing and compliance.

Items and services transferred from the USML to the CCL include (but are not limited to):

- *Communication satellites that do not contain classified components;*
- *Remote sensing satellites with certain performance parameters;*
- *Any spacecraft parts, components, accessories, attachments, equipment, or systems that are not specifically identified in the USML; and*
- *Most radiation-hardened microelectronic circuits.*

1.2.2 MAJOR PROCESS CHANGES UNDER EXPORT CONTROL REFORM

The revised export control regulations now allow companies to export and re-export items and components to designated foreign allies without any licensing for the vast majority of their export activities. Most items on the CCL are eligible for several license exceptions, including a **Strategic Trade Authorization (STA)**, that allows the unlicensed export, re-export, and in-country transfer of products to 36 U.S. allies. Eight other countries are eligible to receive certain items under STA, provided all terms of the license exceptions have been met. Complete information about STA exceptions can be found in 15 CFR § 740.20.

With USML Category XV now serving as a positive control list, the former practice of requesting a Commodity Jurisdiction (CJ) determination (of whether a space-related item is covered by ITAR or EAR) is now largely unnecessary. The Departments of State and Commerce continue to conduct regular reviews of USML Category XV in consultation with industry to identify additional items that should be moved to EAR jurisdiction.

Satellite export control reform has created a less restrictive environment for foreign nationals working on U.S. space projects.[12] Previously, foreign nation-

[12] 22 CFR § 120.16

As of the date of this publication, the 36 allied countries eligible for License Exception STA are: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom. Licensing Exception STA also contains limited exceptions for the following countries: Albania, Hong Kong, India, Israel, Malta, Singapore, South Africa, and Taiwan.

als required an ITAR license or agreement to work on any element of a satellite that contained ITAR controlled parts. Today, an organization can maintain appropriate controls on ITAR-controlled parts while allowing foreign nationals to work on the rest of the spacecraft, if it is controlled by the EAR. If the entire satellite is subject to the EAR, foreign national cooperation is even easier, especially if the foreign national is from an STA eligible country.

SECTION 2



UNDERSTANDING THE CONTROL LISTS AND HOW THEY WORK

2.1 Overview

The purpose of this section is to familiarize you with the regulatory framework established by the satellite export control reform, including the revised U.S. Munitions List, the revised Commerce Control List, and the "Order of Review" that describes how to use the lists. You will need a proper understanding of the overarching framework and the two control lists before proceeding to Section 3 (How to Apply for a License or Use a License Exception).

2.1.1 POSITIVE CONTROLS

Under satellite export control reform, the USML and CCL function with "positive" controls. This means the lists contain paragraphs of "control text" providing specific descriptions of the items and services they control. An item or service that matches the control text of a given paragraph is considered "captured" by that paragraph and by the list in which the paragraph appears.

Conversely, an item that does not meet *all* of the specified criteria in a paragraph of control text is not captured by that paragraph. Positive control text generally does not state what it *doesn't* capture. The USML does include notes clarifying what isn't captured by certain paragraphs, but the notes are not considered control text.

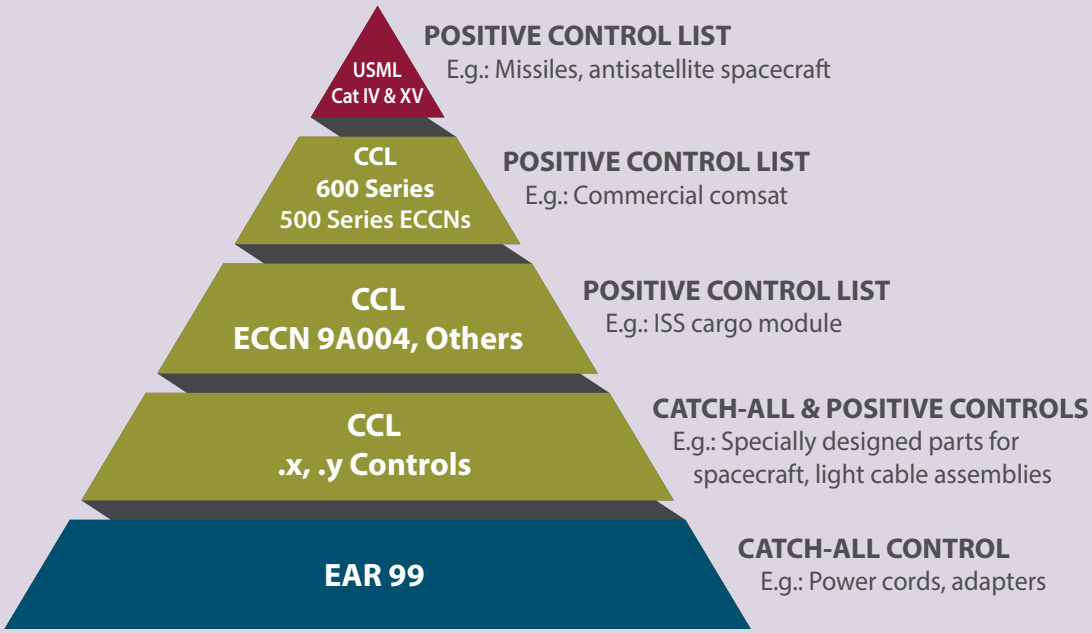
As an example, USML Category XV(a)(2) describes spacecraft that "autonomously detect and track moving ground, airborne, missile, or space objects other than celestial bodies, in real-time using imaging, infrared, radar, or laser systems." A commercial satellite that tracks ships via their Automated Information System (AIS) transmissions, but does *not* use imaging, infrared, radar, or laser systems, would not be captured by this paragraph.

2.1.2 THE ORDER OF REVIEW: FIRST ITAR, THEN EAR

The relationship between the USML and the CCL is established by the "Order of Review," a step-by-step process used to determine which export regulations apply to an item or service. The Order of Review starts with the most sensitive technologies, which are subject to the strictest export controls, and proceeds through progressively lower levels of sensitivity and control.

The USML includes this guidance on the Order of Review: "In order to classify an item on the USML, begin with a review of the general characteristics of

Figure 2: Export Controls on Space Related Items



the item. This should guide you to the appropriate category, whereupon you should attempt to match the particular characteristics and functions of the article to a specific entry within that category…. articles not controlled on the USML may be subject to another U.S. government regulatory agency."[13] For space systems, USML Category XV provides further guidance on the Order of Review; Paragraphs XV(a), XV(b), and XV(e) end with notes stating that any spacecraft, ground control system, or spacecraft part not described by the USML automatically falls to EAR control. The EAR includes an appendix providing step-by-step instructions for following the Order of Review within the CCL.[14]

Figure 2 shows the overall concept behind the Order of Review. At the top is the USML, which lists the most critical space technologies. Below that is the CCL, which captures other space technologies. At the bottom is a loosely controlled category known as "EAR99" that applies to the least sensitive exports. The pyramid shape is meant to convey that the USML lists only a few space related items and services, while the CCL controls the majority of them, and many others are simply EAR99.

Following the Order of Review means starting at the top of the pyramid and working your way down until an item or service is captured. If an item or service is not fully described in one tier of control, then you proceed to the next tier until it is captured. Once you know which tier it falls under, then you know which controls apply to the export – e.g., ITAR licensing, EAR licensing, or license exceptions.

The overview above describes the Order of Review at the broadest level. Within each control list, there are finer levels of detail to the Order of Review. For each category (e.g., USML Category XV), a review must start at the first paragraph of control text and proceed stepwise through each enumerated entry until reaching the end of the paragraph. You must do this for each paragraph until reaching the end of the entire category. Individual paragraphs or entries may employ logical constructs affecting the Order of Review, including catch-all controls, catch and release constructs, and carve-outs.

[13] 22 CFR § 121.1(b)
[14] 15 CFR § 774, Supp. No. 4

2.1.3 CATCH-ALL CONTROLS

A catch-all control is one that does not capture specific items by name or functional capability but by other means. An example would be USML Category XV(a)(13), which captures all classified spacecraft regardless of function. Another example is ECCN 9A515.x, which controls unspecified parts, components, accessories, or attachments that are "specially designed" for a spacecraft but are not listed on the USML or ECCN 9A515. (See section 2.1.5 of this guidebook.)

2.1.4 CATCH AND RELEASE

Some enumerated paragraphs on the USML and CCL use a "catch and release" construct that initially captures a range of items but then applies a second criterion, which if met releases less sensitive items from the paragraph. Sometimes the release criteria appear in notes, so it is important to check all notes associated with the control text. See Appendix B for an example of how the catch and release construct applies to hosted payloads funded by the Department of Defense.

Once an item or service is released from a given paragraph, you must still evaluate it against the following paragraphs before you can be sure it is released from the entire category. In the case of the USML, you must evaluate the item or service against all relevant categories before you can be sure it is released from ITAR control.

2.1.5 SPECIALLY DESIGNED

The "specially designed" criteria appear throughout the USML and CCL to narrow the scope of some control paragraphs. The term is defined using the catch and release framework. An item may be caught by the specially designed criteria if (and only if) it:

(1) as a result of development, has properties peculiarly responsible for achieving or exceeding the performance levels, characteristics, or functions in the relevant ECCN or USML paragraph; or

(2) is a part, component, accessory, attachment, or software for use in or with a controlled commodity or defense article.

However, the item drops out of the specially designed definition if it meets any of the release criteria identifying it as a general commodity. For example,

fasteners and wires are not "specially designed," even when built for USML satellites. Refer to 22 CFR § 120.41 and 15 CFR § 772.1 for the complete release criteria applicable to the USML and CCL.

The Departments of State and Commerce offer online tools to help you determine whether items are specially designed. These are available at: www.pmddtc.state.gov/licensing/dt_SpeciallyDesigned.htm (ITAR) and www.bis.doc.gov/index.php/specially-designed-tool (EAR).

2.1.6 SPACE-QUALIFIED

Like "specially designed," the term "space-qualified" appears throughout the USML and CCL to narrow the scope of some control paragraphs. An item is space-qualified if it is designed, manufactured, or qualified through successful testing for operation at altitudes greater than 100 km above the surface of the Earth. [15, 16] An item only needs to meet one of the three criteria to be considered space-qualified. "Designed" and "manufactured" are synonymous with "specially designed," so the catch and release construct described in Section 2.1.5 applies if using those criteria.[17,18]

A determination that a specific item is space-qualified by virtue of testing alone does not mean that other items in the same production run or model series are space-qualified if not individually tested. For example, the act of space-qualifying an individual chip designed for ground use does not make the chip's entire product line "space-qualified" and subject to tighter export controls.[19,20]

2.1.7 CARVE-OUTS

USML Category XV contains several notes making explicit exceptions or "carve-outs" to the ITAR controls for space-related articles and technology, including but not limited to:

- International Space Station (ISS) - Technology exports specifically designed for use on the ISS are subject to the EAR jurisdiction and do

[15] 22 CFR § 121.1, Note 3 to USML Category XV(e)
[16] 15 CFR § 772.1
[17] 22 CFR § 121.1, Note 4 to USML Category XV(e)
[18] 15 CFR § 772.1, Note 2 to "Space-qualified" definition
[19] 22 CFR § 121.1, Note 4 to USML Category XV(e)
[20] 15 CFR § 772.1, Note 1 to "Space-qualified" definition

not require a license under certain conditions.[21]

- James Webb Space Telescope (JWST) – Control of the JWST has been transferred to the jurisdiction of the EAR (ECCN 9A004), including primary and secondary payloads as well as the parts, components, accessories, or attachments that are specially designed for use in or with the telescope.[22]
- Telemetry Data – Telemetry data as defined in the ITAR is subject to the EAR and designated EAR99.[23] Additionally, processing of such data does not cause such data to be subject to the ITAR or EAR regulations.
- Spaceflight Passenger or Participant Experience – Activities and technology/technical data required for spaceflight passenger or participant experience (space tourism, research, education, etc.) are also not subject to the ITAR or EAR.[24]

[21] 15 CFR § 774, Supp. No. 1, ECCN 9A004, (w)-(y)
[22] 15 CFR § 774, Supp. No. 1, ECCN 9A004, (u)-(v) and (y)
[23] 22 CFR § 121.1, Note 3 to USML Category XV(f) and 15 CFR § 774, Supp. No. 1, Note 2 to Category 9E
[24] 15 CFR § 774, Supp. No. 1, Note 2 to ECCN 9E515(e)

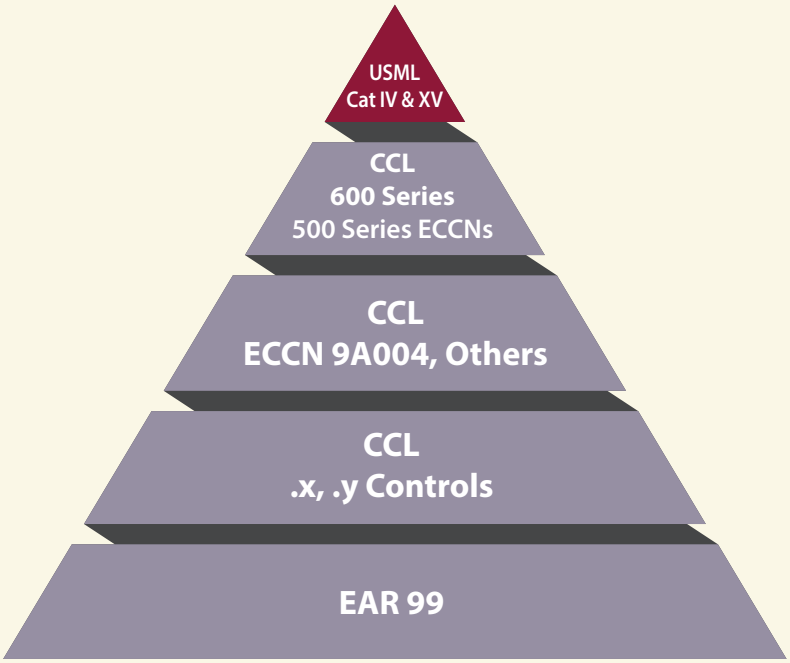
2.2 The United States Munitions List

2.2.1 USML OVERVIEW

The United States Munitions List (USML) is a list of articles, services, and related technical data designated as defense articles and defense services pursuant to the Arms Export Control Act.[25] Your organization should obtain a working knowledge of export restrictions under the USML as they apply to items or services you may potentially send overseas.

All items and services described on the USML require export authorization by the State Department. Items require licenses and services require approved agreements such as a Technical Assistance Agreement (TAA).

Figure 3: The USML Category IV and XV



[25] 22 CFR § 121.1

2.2.2. USML CATEGORIES IV AND XV

The USML is divided into 21 categories of defense articles and services. Those most relevant to the space industry are **Category IV** and **Category XV.** Relevant paragraphs from each category are summarized below.

Category IV — Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines
(a) Rockets, space launch vehicles (SLVs), missiles, bombs, torpedoes, depth charges, mines, and grenades
(b) Launchers for rockets, SLVs, and missiles
(c) Apparatus and devices specially designed for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles enumerated in paragraphs (a) and (b)
(d) Rocket, SLV, and missile power plants
(h) Systems, subsystems, parts, components, accessories, attachments, or associated equipment
(i) Technical data and defense services directly related to the defense articles described in paragraphs (a) through (h) and classified technical data directly related to items controlled in ECCNs 0A604, 0B604, 0D604, 9A604, 9B604, or 9D604 and defense services using the classified technical data

Category XV — Spacecraft and Related Articles
(a) Spacecraft, including satellites and space vehicles, that meet certain criteria
(b) Ground control systems or training simulators, specially designed for telemetry, tracking, and control (TT&C) of spacecraft in paragraph (a)
(e) Spacecraft parts, components, accessories, attachments, equipment, or systems, as described
(f) Technical data and defense services directly related to the defense articles described in paragraphs (a) through (e) and classified technical data directly related to items controlled in ECCNs 9A515, 9B515, or 9D515 and defense services using the classified technical data

2.2.3 SPECIAL CONTROLS ON THE USML

Note that paragraphs may be marked with a leading asterisk (*), or a trailing "(MT)". These markings will aid you in understanding that the specified items fall under special controls in addition to those established by the applicable ITAR/EAR control text.

Be sure to read the Category and its corresponding paragraphs as well as all of the technologies encompassed by the paragraph, including the SME and MTCR designators and the explanatory notes embedded in the paragraphs, to help with analyzing the classification of the technology you wish to export.

Cue	What does this tell me?
*	The paragraph lists Significant Military Equipment (SME) - special export controls are imposed
(MT)	The paragraph lists items that fall under the Missile Technology Control Regime (MTCR) Annex - special export controls are set in this agreement
(MT if…) or (MT for…)	Items described in the paragraph that also meet the criteria in the parentheses are subject to MTCR controls. Items that only meet the criteria outside the parentheses are subject to ITAR/EAR controls and not MTCR controls.
Note	Notes at end of paragraph give added explanation on intended coverage and term definitions

2.2.4 INTEGRATION RULE AND HOSTED PAYLOADS

Export Control Reform brought a paradigm shift for EAR controlled satellites containing ITAR controlled components. The inclusion of such components in a satellite no longer "flips" its jurisdiction from EAR to ITAR, as it did under the old "see-through rule." Under the new "integration rule," an ITAR controlled component moves to EAR control upon its (irreversible) integration into an EAR spacecraft.

This is documented in Note 1 to USML Category XV(a), which states, "Spacecraft described in ECCNs 9A004 and 9A515 remain subject to the EAR even if defense articles described on the USML are incorporated therein, except

when such incorporation results in a spacecraft described in this paragraph."

Furthermore, adding an ITAR-controlled hosted payload to an EAR-controlled satellite also does not "flip" the satellite to ITAR. This is documented in Note 2 to USML Category XV(e), which states, "An ECCN 9A004 or ECCN 9A515.a spacecraft remains a spacecraft subject to the EAR even when incorporating a hosted payload performing a function described in paragraph (a) of this category."

BEFORE REFORM	AFTER REFORM
SEE-THROUGH RULE The presence of an ITAR-controlled part or component rendered an entire spacecraft subject to ITAR controls	**INTEGRATION RULE** Spacecraft generally remain subject to EAR controls even if they contain ITAR-controlled parts or components
ITAR HOSTED PAYLOADS FLIP EAR SATELLITES A satellite integrating a hosted payload that included ITAR-controlled items or characteristics was subject to ITAR controls	**HOSTED PAYLOADS DON'T FLIP EAR SATELLITES** An EAR-controlled satellite generally remains subject to the EAR, even if its hosted payload has characteristics described in Category XV (a) of the USML

Be sure to familiarize yourself with the definitions of primary, secondary, and hosted payloads in Chapter XV Note 1 to paragraph (e)(17) of the USML. See Appendix B for an example of how the Order of Review applies to a DoD-funded hosted payload.

2.2.5 LAUNCH-RELATED SERVICES

With regard to satellite launch-related changes to the USML, Categories IV and XV more precisely describe the defense services that still warrant control under the ITAR:

- Providing assistance (including training) in the integration of a satellite to a launch vehicle, including both planning and on-site support, regardless of (i) the jurisdiction (EAR or ITAR), ownership, or origin of the satellite or (ii) whether technical data is used; and,
- Providing assistance (including training) in the launch failure analysis of a launch vehicle, regardless of (i) the jurisdiction (EAR or ITAR), ownership, or origin of the launch vehicle or (ii) whether technical data is used.

2.3 The Commerce Control List

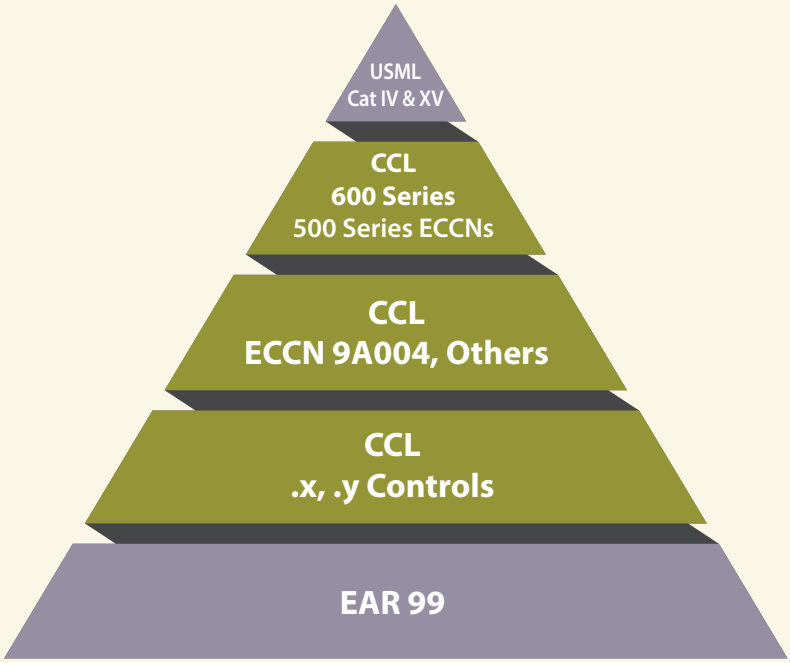
2.3.1 CCL OVERVIEW

The Commerce Control List (CCL) is a list of commercial or dual use items (i.e., commodities, software, and technology) subject to the EAR licensing authority of the Bureau of Industry and Security (BIS), part of the Department of Commerce.[26]

The CCL divides items into ten broad **Categories**, with spacecraft and related items falling under Category 9 (Aerospace and Propulsion).

Each CCL category is subdivided into five **Product Groups**: (A) Equipment, Assemblies, and Components; (B) Test, Inspection and Production Equipment; (C) Materials; (D) Software; and (E) Technology.

Figure 4: Commerce Control List



[26] 15 CFR § 774

An item that falls into a specific category and product group is given an **Export Control Classification Number (ECCN).** An ECCN categorizes items based on the nature of the product, i.e. type of commodity, software, or technology and its respective technical parameters.

2.3.2 CCL CONTROLS

Each ECCN begins with a table citing which licensing requirements and licensing policies (control policies) apply to which of the following paragraphs, along with the applicable recipient countries.[27] The control policies are shown using two-letter codes such as NS (national security), MT (missile technology), and RS (regional stability). 15 CFR § 742 explains each of the CCL control policies.

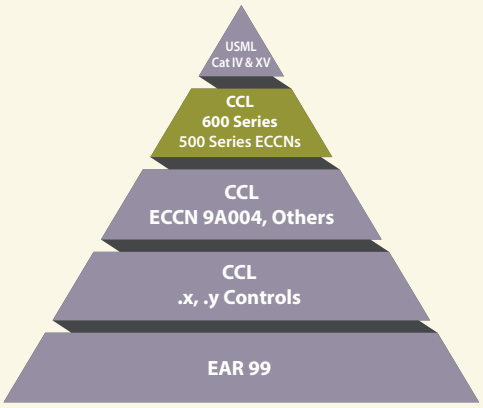
For example, ECCN 9A515 indicates that MT controls apply to microcircuits in paragraphs 9A515.d and 9A515.e(2) when usable in missiles for protecting missiles against nuclear effects. Among other things, this means that such microcircuits are ineligible for unlicensed export under License Exception STA.[28]

Reason for Controls	
AT - Anti-Terrorism	**NS** - National Security
CB - Chemical & Biological Weapons	**NP** - Nuclear Nonproliferation
CC - Crime Control	**RS** - Regional Stability
CW - Chemical Weapons Convention	**SS** - Short Supply
EI - Encryption Items	**UN** - United Nations Embargo
FC - Firearms Convention	**SI** - Significant Items
MT - Missile Technology	**SL** - Surreptitious Listening

[27] 15 CFR § 738
[28] 15 CFR § 740.20(b)(2)(iii)

2.3.3 ECCN 600 SERIES

As part of the ECR, BIS has added a "600 Series" to the CCL to control less sensitive military items, which no longer warrant control on the USML. The 600 series items are subject to more flexible licensing provisions than under the ITAR, but will be subject to somewhat stricter export and re-export licensing controls than most other items controlled under the EAR. Licenses from BIS will still be required to export and re-export most 600 series items worldwide (minus Canada), unless an EAR license exception is available. (See Section 3.3 of this guidebook.)

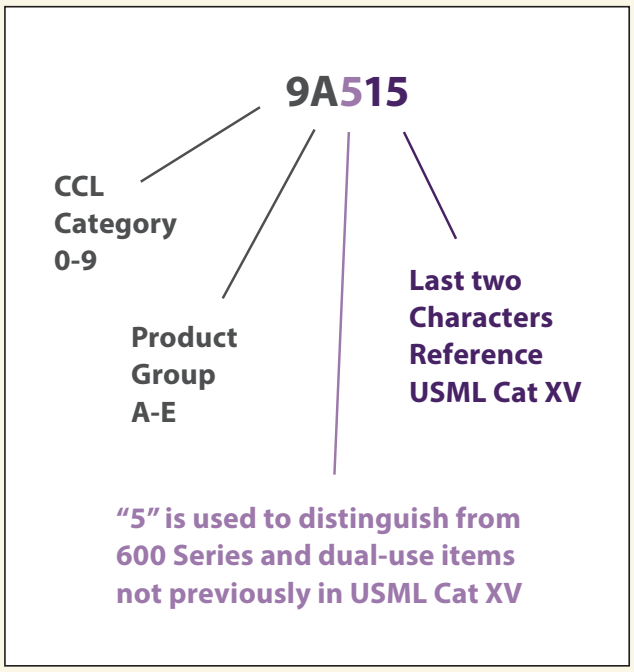


2.3.4 ECCN 500 SERIES (9X515)

Under the ECR initiative, dual use satellite technologies removed from USML Category XV were added to the CCL under ECCNs 9A515, 9B515, 9D515, and 9E515, which are collectively referred to as "9x515".

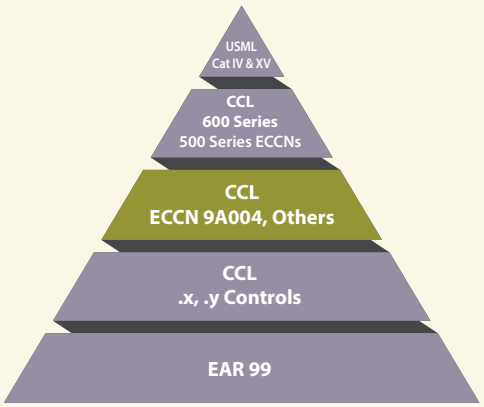
ECCN	Items Described
9A515	Spacecraft, ground control systems and training simulators, microelectronic circuits and discrete electronic components, pressure suits, remote sensing satellite components, and specially designed parts, components, accessories, and attachments
9B515	Related test, inspection, and production equipment
9D515	Related software
9E515	Related technology

Figure 5: Decoding ECCN Notations



2.3.5 ECCN 9A004

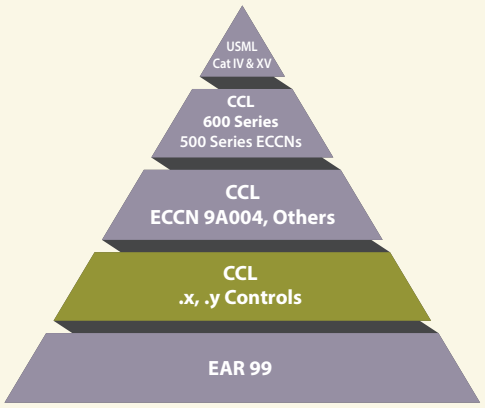
In addition to 9x515, the CCL includes ECCN 9A004, which is applicable to the International Space Station (ISS) and all specially designed parts and components, as well as the James Webb Space Telescope (JWST) and most specially designed parts and components. Inclusion of these two large-scale, international projects in the CCL facilitates collaboration across international borders without jeopardizing national security.



Paragraphs a. through f. of ECCN 9A004 apply to certain space launch vehicles, spacecraft, spacecraft buses, spacecraft payloads, on-board systems or equipment, and terrestrial equipment. They are listed here in order to harmonize ECCN 9A004 with the Wassenaar Dual-Use List, even though the controls for these items are found under ECCN 9A515.

2.3.6 USE OF THE NEW PARAGRAPHS .X AND .Y IN THE CCL

The revised EAR regulations introduced two new constructs known as paragraphs .x and .y to certain ECCNs. The .x paragraph is a catch-all control that captures specially designed items that were not previously enumerated in a given ECCN. For example, ECCN 9A515 lists various spacecraft and related commodities in paragraphs .a through .e, then 9A515.x captures all other specially designed parts, components, accessories, and attachments for spacecraft and related commodities that are not specifically listed.



The paragraph .y construct is an enumerated list that follows the .x catch-all control. A .y control covers items that would otherwise be within scope of a .x control but have been identified in an interagency-cleared commodity classification as warranting a higher level of control than EAR 99. For example, 9A515.y includes flight cable assemblies for spacecraft applications.

2.3.7 HOSTED PAYLOADS SUBJECT TO EAR

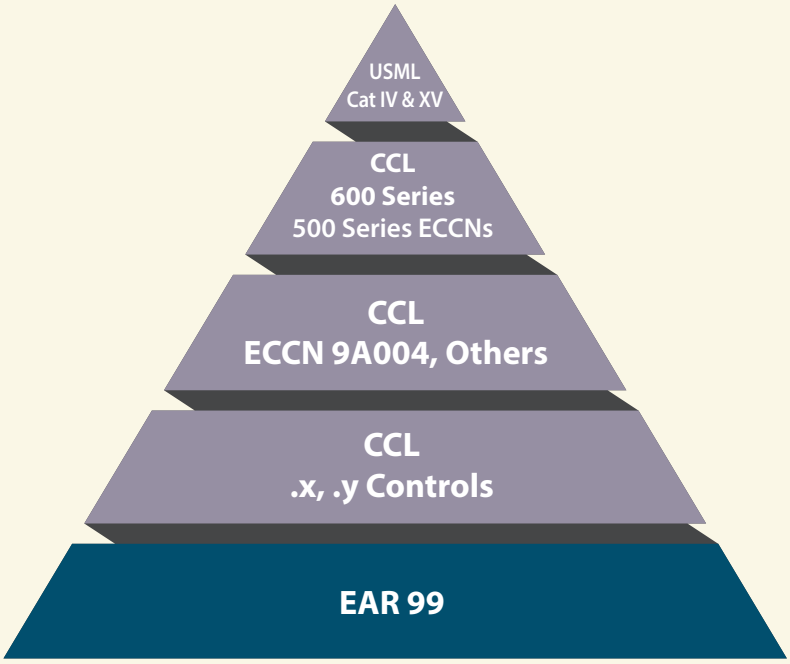
Spacecraft enumerated in categories 9A004 or 9A515.a remain subject to the EAR even when incorporating a hosted payload performing a function described in USML Category XV(a). All spacecraft incorporating primary or secondary payloads that perform a function described in Category XV(a) are controlled in Category XV(a).[29]

[29] 22 CFR § 121.1, Note 2 to USML Category XV(e)(17)

2.4 EAR99

Items subject to the EAR but not identified on the CCL are identified by the designator "EAR99." EAR99 items generally consist of low-technology consumer goods and do not require a license in many situations. However, if you plan to export an EAR99 item to an embargoed country, to an end-user of concern, or in support of a prohibited end-use, you may be required to obtain a license.

Figure 6: EAR 99



SECTION 3



HOW TO APPLY FOR A LICENSE OR USE A LICENSE EXCEPTION

3.1 Perform Self-Assessment

Determination of the relevant export control jurisdiction for exported products, data, and services is a key component of any export compliance program. Be fully aware of your company's products, services, technology, and the extent of your engagement in business practices that involve foreign nationals or foreign operations (i.e. facility tours, design, development, delivery, insurance) prior to export. You should know or be able to ascertain:

- What technology or information you are exporting,
- Where you are exporting it,
- Who will receive it,
- Why it is needed, and
- How it will be used.

3.1.1 FOLLOW THE ORDER OF REVIEW

To determine which controls apply to your company's item, you must assess it according to steps outlined in the Order of Review. The following outline is an overview of the steps you should take to make your determination:

1. Review the USML category by category and paragraph by paragraph, in the order they appear on the ITAR. You can use the Order of Review online decision tool provided by the Department of State at: www.pmddtc.state.gov/licensing/dt_OrderofReview.htm

2. If you find that your item or service matches any of the descriptions listed on the USML, then it is subject to ITAR controls. (Proceed to Section 3.5 of this guidebook.)

3. If your item has not been described and enumerated on the USML, it is a dual use item subject to the EAR and you will need to determine the licensing requirements for your item or technology.

4. Next, review the Export Control Classification Numbers (ECCNs) of the CCL to determine whether any of them apply to your item or technology. You should begin by reviewing the 600 series items on the CCL.

5. If your item or technology is not controlled by the 600 series, review the 500 series items. For space companies, the most relevant 500 series ECCNs are 9A515, 9B515, 9D515, 9E515. Items specific to the Interna-

tional Space Station or James Webb Space Telescope are classified as 9A004.

6. If your item does not fall in any of the above categories, it could be found elsewhere so be sure to check other ECCNs. If after review of the other ECCNs, you find your item is not listed, it is designated EAR99 and does not require a license. (Proceed to Section 3.2 of this guidebook.)

7. If your item is classified by an ECCN, you will need to determine if you are eligible for a Strategic Trade Authorization (STA) license exception. An STA authorizes the unlicensed export, re-export, and in-country transfer of specified items on the CCL to 36 NATO countries and certain other allies, provided all requirements for the use of the license have been met. Note that 9x515 items that are controlled for missile technology (MT) reasons may not be exported, re-exported, or transferred (in-country) under License Exception STA. (Proceed to Section 3.3 of this document.)

8. If your item or technology does not qualify for an STA, you may be eligible for other 500 series license exceptions. If you determine that your export is eligible for a license exception, you may use the coded designation of that license exception on your export documents. For example, use the code "LVS" for shipments of limited value or "RPL" for replacement parts and equipment, among others. (Proceed to Section 3.3 of this document.)

9. If your item is not eligible for an STA or other License Exception, then you must apply for an export license. (Proceed to Section 3.4 of this document.)

10. Finally, you may wish to consider applying for a dual license (both ITAR and EAR) depending on the nature of your export. (Proceed to Section 3.6 of this document.)

3.1.2 USE THE BIS ORDER OF REVIEW DECISION TREE

In addition to the guidance found in 15 CFR § 774, Supp. No. 4, you can also use the corresponding web-based decision tool at: www.bis.doc.gov/export-control-classification-interactive-tool.

3.1.3 DE MINIMIS RULE

Integrating U.S. components into a foreign made spacecraft does not cause that spacecraft to fall under U.S. export controls if certain conditions are met. Under the *de minimis* rule, the foreign-made spacecraft is not subject to U.S. jurisdiction under the EAR as long as: (1) the value of the controlled U.S. content comprises 25% or less of the total value of the item and is not destined for a country subject to U.S. arms embargo; or (2) the value of the controlled U.S. content comprises 10% or less of the total value of the item and is destined for a country subject to a U.S. embargo.[30]

Guidelines regarding the de minimis rules can be found at: www.bis.doc.gov/forms-documents/pdfs/1382-de-minimis-guidance/file

BIS also provides a tool to assist you in determining whether a non-U.S.-made item located outside the United States is subject to the EAR and can be found at: www.bis.doc.gov/de-minimis-direct-product-rules-decision-tool

3.1.4 SPECIAL CONSIDERATIONS FOR LAUNCH VEHICLES

By U.S. statute, the launch of a launch vehicle, reentry vehicle, or payload is not considered an export, if the launch occurs from the United States (or U.S. territory). Therefore, a launch vehicle does not require an export license from the Department of State or Department of Commerce when built and launched in the United States.[31] However, the operation of the commercial launch vehicle generally requires a launch license or permit from the Federal Aviation Administration (FAA). FAA licensing requirements are in place to protect public health and safety, property, U.S. national security and foreign policy interests, and international obligations of the U.S.[32]

The launch of a U.S. launch vehicle outside the United States requires ITAR authorization in compliance with MTCR controls. The applicable MTCR con-

[30] As of the date of this publication, Cuba, Iran, North Korea, Sudan and Syria are comprehensively embargoed countries (15 CFR § 740, Supp. No. 1, Country Group E).

[31] 51 U.S.C. § 50919(f)

[32] Information on FAA launch licensing can be found at ast.faa.gov.

trols establish a presumption of denial for exports of U.S. launch vehicles, even to other launching states.

A U.S. company wishing to apply for a launch vehicle export license must work with the State Department and the government of the recipient nation to establish a Technology Safeguards Agreement (TSA) covering the export. Contact information for the State Department is in Appendix A.

3.2 How to Export EAR99 Items

If your item falls under the U.S. Department of Commerce jurisdiction and is not listed on the CCL, it is designated with the ECCN code EAR99. These items generally consist of low-technology consumer goods and usually do not require a license, unless you find that you are exporting to an embargoed country, to an entity or end-user of concern, or in support of a prohibited end-use.

Most exports from the United States that are not under the jurisdiction of the ITAR do not require a license. This is because items either are not on the CCL (EAR99), or the ECCN controls do not apply to the country of destination. In these circumstances, you can export under the designation of "No License Required "and enter "NLR" in your export documents.

3.3 How to File EAR STA or Other License Exceptions

An export license exception is an authorization that allows you to export or re-export, under stated conditions, items subject to the EAR that would otherwise require a license. Each exception has a three-letter symbol that is used for export clearance purposes. There are many license exception designations and several of them have applicability to "500 series" items, such as Limited Value Shipments (LVS), government and International Organizations (GOV), Aircraft, Vessels, and Spacecraft (AVS), in addition to the aforementioned STA and others.[33] If you meet specified terms and conditions, you can declare one of the license exception designations, which will serve as a general authorization to export.

The following steps will help you determine if you are eligible for a License Exception and how to proceed with export clearance:

1. Use the BIS on-line tool to determine if you are eligible for License Exception STA. The tool can be found at: www.bis.doc.gov/statool.

2. If you are eligible for a License Exception, apply for an Automated Commercial Environment (ACE) account.[34] ACE is the primary system through which the U.S. government tracks, controls and processes all imported and exported goods. An Automated Export System (AES) filing is required for most exports from the United States to a foreign country if valued at U.S. $2,500 or more.

3. To complete the application, you will need your Employer Identification Number (EIN), which is also known as a Federal Tax Identification Number.

4. Next, access the AES through ACE to file your Electronic Export Information (EEI).[35] The first requirement for participation in AES is a Letter of Intent (LOI). The LOI is a written statement of a company's commitment to develop, maintain, and adhere to Customs and Border Patrol

[33] 15 CFR § 740

[34] Application form: ace.cbp.dhs.gov/acexpub/acexpub_Apps/ExporterAccountApplication/expForm.php

[35] 15 CFR § 758.1

and Census performance requirements and operations standards as a participant in AES. If you register to file exports to AES using the free internet application, AES*Direct*, your on-line registration satisfies the requirement for the LOI.[36]

5. In addition to the LOI and other information, you will need the following to complete your entry:

    a. EIN
    b. Correct License Code that corresponds to the appropriate License Exception symbol (e.g., LVS, GOV)
    c. Correct Export Control Classification Number (ECCN) (e.g., 9A515) for all exports of items under a license exception.
    d. Item description (must be stated in Commerce Control List (CCL) terms)
    e. Destination Control Statement (DCS)
    f. Power of attorney or other written authorization (if someone is acting as an authorized agent on your behalf)

    A complete guide to filling out your EEI can be found at: www.census.gov/foreign-trade/aes/aesdirect/AESDirect-User-Guide.pdf.

6. From the ACE portal it is possible to run reports of the EEI that have been submitted by your company or submitted by someone else on your company's behalf.

Remember, when using a license exception symbol, you are making a legal representation to the U.S. government that you have followed the appropriate guidelines and that the export meets all of the specified terms and conditions of the license exception you are using to authorize the export. License exceptions are still subject to routine reviews by BIS to ensure compliance with the EAR.

[36] www.cbp.gov/trade/aes/letter-intent/register

3.4 How to Apply for an EAR License When Required

If your product does not qualify for NLR, License Exception, or STA, then you must apply for an export license.

To apply for a license, use the Simplified Network Application Process (SNAP-R), the online license application system that the BIS provides to the public. As an exporter or re-exporter, you have the ability to submit export and re-export applications and commodity classification requests via the internet in a secure environment. You also will receive same day acknowledgment of your submission and can obtain online validations (e.g. electronic facsimile of export license) from BIS.

You must have a Company Identification Number (CIN) and an active user account to access SNAP-R. The first step to obtaining your CIN is to enter your information and agree to the *Terms & Conditions* for using the SNAP-R system as stated on the registration form at snapr.bis.doc.gov/snapr. The system will then verify the email address you entered; once verified, further instructions to set up your user account will be delivered.

Once your license application is received, the BIS will coordinate with the appropriate government agencies for review. You should budget approximately 45 days for this process.

For additional information, visit the BIS website at: www.bis.doc.gov/licensing/simplified-network-application-process-redesign-snap-r.

3.5 How to Apply for an ITAR License or Agreement When Required

3.5.1 REGISTER WITH STATE DDTC IF NEEDED

If you have concluded that the item or service you wish to export is subject to the ITAR, the next step is to register with the Directorate of Defense Trade Controls (DDTC), if you have not done so already. The period of validity for new and renewal registrations is twelve months from the date of issuance. Registration does not confer any export privileges but is a prerequisite to export licensing approval.

The registration process:

- Informs the U.S. government about the U.S. defense industry (legal status, export eligibility, foreign ownership/affiliations, legally responsible personnel, areas of activity);
- Serves as a channel to provide industry with information about export regulations and government concerns; and
- Helps validate the bona fides of U.S. firms engaged in defense trade, especially during the review of export license applications.

Registration submissions must be submitted electronically. The average review time for a registration request is 45 days. It is recommended that you send your complete registration package electronically up to a maximum of 60 days in advance of the renewal expiration.

There is a 3-tier schedule of ITAR Registration fees:

1. New $2,250 (or lapsed for over 90 days)
2. Renewal $2,750 if there were less than 11 license applications the previous year
3. Renewal $2,750 + ($250 for each license application over 10)

There is a maximum fee of 3% of the total value of the exports items and a minimum of $2,750.

Further information regarding registration with the DDTC can be found at: www.pmddtc.state.gov/registration.

3.5.2 FOR DEFENSE ARTICLES: ACCESS DTRADE SYSTEM TO SUBMIT LICENSE APPLICATION

The DDTC has set up an electronic licensing system called DTrade, which a registered U.S. exporter must use for most of its licensing needs. Through DTrade, the DDTC receives and authorizes requests regarding all unclassified export and temporary import defense **articles**.

Once you have registered with DDTC, they will provide you access to the DTrade system. Defense articles can be licensed for use through one of the following application forms:

- Form DSP-5: Application/License for Permanent Export of Unclassified Defense Articles and Related Unclassified Technical Data
- Form DSP-61: Application/License for Temporary Import of Unclassified Defense Articles
- Form DSP-73: Application/License for Temporary Export of Unclassified Defense Articles

Applicable forms and additional information can be found at: www.pmddtc.state.gov/DTRADE

3.5.3 TIMELINE FOR ITAR LICENSE PROCESSING

The Department of State is directed to complete the review and adjudication of license requests within 60 days of receipt, except in cases where national security exceptions apply.

Under special circumstances, the Department of State is required to provide notification to Congress prior to approving a license application, based on regulatory threshold value of a sales contract and the SME designation of the items being sold. For cases requiring Congressional notification, budget for an additional 30-90 calendar days. Information regarding Congressional notification can be found at 22 CFR § 123.15.

If an applicant has received an adverse decision, a request may be submitted in writing to the DDTC for reconsideration. The request must be submitted within 30 days of the decision. As part of this request, the applicant is given an opportunity to present additional information for consideration by the DDTC.

3.5.4 FOR DEFENSE SERVICES: OBTAIN APPROVAL FOR TECHNICAL ASSISTANCE AGREEMENTS OR OTHER AGREEMENTS

Whereas defense articles require a DDTC-issued license for export or temporary import, defense **services** require a DDTC-approved "Agreement". Defense services involve furnishing assistance to foreign persons in such things as the design, development, engineering, manufacture, production, assembly, maintenance, modification, operation, and the destruction of defense articles. They also include giving technical data or military training of foreign units or forces.[37]

The agreements that authorize these services are:

- **Technical Assistance Agreement (TAA)**[38] – The most common type of agreement in the space industry, the TAA is basically a contract for the performance of a defense service or the disclosure of technical data, as opposed to an agreement granting a license or right to manufacture defense articles. For example, the assembly of defense articles would require a TAA, unless production rights or manufacturing know-how are conveyed. If they are conveyed, then this activity would actually need to be covered by a Manufacturing License Agreement, described below.
- **Manufacturing License Agreement (MLA)**[39] **–** An agreement whereby a U.S. person grants a foreign person an authorization to manufacture defense articles abroad which involves:
    a. The export of defense articles or the performance of a defense service, or
    b. The use by the foreign person of technical data or defense articles previously exported by the U.S. person.
- **Warehouse and Distribution Agreement (WDA)**[40] – An agreement (e.g., a contract) to establish a warehouse or distribution point abroad for defense articles exported from the United States for subsequent distribution to entities in an approved sales territory.

[37] 22 CFR § 120.9 and 22 CFR § 120.10
[38] 22 CFR § 120.22
[39] 22 CFR § 120.21
[40] 22 CFR § 120.23

Activities Frequently Requiring Agreements

- *Launch Related Services*
- *Supporting Direct Commercial Sales to Foreign Parties*
- *Providing Overseas Maintenance or Training Support*
- *Technical Studies, Evaluations, Demonstrations or Consultations with Foreign Parties*
- *Release of Manufacturing Data or Rights*
- *Efforts to Import Technology from Abroad*
- *Supporting a Foreign Military Sales Case (Beyond scope of LOA: Letter of Offer and Acceptance)*
- *Supporting U.S. Government-Sponsored Foreign Contracts*

3.5.5 APPLICATION PROCESS FOR AGREEMENTS

The following is an outline of the process for obtaining approval for an agreement to export your organization's defense service:

1. If you have not already done so, register your organization with the DDTC.
2. Review the Agreements Guidelines set forth by DDTC.[41]
3. Prepare the agreement application. The documents listed below must be included:
    a. Transmittal Letter
    b. Proposed Agreement (with necessary appendices, exhibits, and annexes)
    c. Empowered Official Letter
    d. Supporting Documentation
4. Submit the completed application via the DPS-5 vehicle through DTrade

[41] www.pmddtc.state.gov/licensing/documents/AgreementGuidelinesRev44b.pdf

5. Monitor the application process via My Application Ready Yet (MARY), a web-based status retrieval system, which contains the status of DTrade submissions.

3.5.6 TIMELINE FOR APPROVAL OF AGREEMENTS

As with a license, an applicant whose agreement has been denied may submit to the DDTC a request for consideration within 30 days of being notified of the adverse decision[42]. As part of the request, the applicant is given the opportunity to present additional information.

[42] 22 CFR § 126.7

3.6 How to Apply for a Dual License (ITAR and EAR)

The export control regulations incorporate modifications so that only a single license is required when exporting a commodity, software or technology subject to both USML and CCL controls. Under the updated regulations, the revised USML Categories IV and XV have a new paragraph (x), in order to allow for ITAR licensing of commodities, software, and technical data otherwise subject to the EAR. In both USML Categories, paragraph (x) and its explanatory note read as follows:

> (x) Commodities, software, and technology subject to the EAR (see § 120.42 of this subchapter) used in or with defense articles.
>
> Note to paragraph (x): Use of this paragraph is limited to license applications for defense articles where the purchase documentation also includes commodities, software, or technology subject to the EAR (see § 123.21(b) of this subchapter).

As noted, this regulatory solution ***only*** applies to CCL commodities, software, and technical data ***used with*** **or** ***integrated into*** defense articles on the USML and ***are included in*** the exported technology.

The value of a paragraph (x) export is not used to calculate the Congressional notification threshold described above. However, applicants are still required to list the accurate value of the paragraph (x) article on the license application that authorizes its export.

When submitting an application with paragraph (x) items, be sure to include purchase records that list both USML and CCL controlled commodities, noting that the CCL items are used "in or with" the USML articles being exported. The application must list the CCL commodities, software, and technical data separately by ECCN, including the value of those items as integrated into the export.

Licenses authorizing the export of paragraph (x) items will include the following paragraph:

> *The U.S. exporter must provide to the end-user and consignees in the purchase documentation or other support documentation submitted with the Depart-*

ment of State license or other approval request the appropriate EAR classification information for each item exported pursuant to a U.S. Munitions List "(x)" paragraph. This includes the appropriate ECCN or EAR99 designation.

SECTION 4



ENSURING COMPLIANCE AFTER EXPORT AUTHORIZATION

As an exporter or re-exporter, it is your responsibility to be aware of, and comply with, all existing and future regulations of any and all U.S. government agencies controlling U.S. exports. The Directorate of Defense Trade Controls (DDTC) and the Bureau of Industry and Security (BIS) strongly advise that registered exporters and manufacturers have in place comprehensive monitoring programs, to ensure compliance with U.S. export law and regulations.

4.1 Compliance for EAR99 Items

EAR99 items will generally ship under the designation "NLR", which stands for "No License Required". However, if your proposed export of an EAR99 item is to an embargoed country, to an end-user of concern, or in support of a prohibited end-use, you may be required to obtain an export license. Part 744 of the Export Administration Regulations spells out the specific regulations related to end-user and end-use controls. There are many prohibited end-users. The consolidated U.S. government screening list, including proscribed parties from the Department of State and the Department of Commerce, can be found at www.export.gov/article?id=Consolidated-Screening-List.

4.2 Compliance for Items Exported under License Exceptions (e.g., STA)

Once you determine you can use a license exception there may still be approvals or documentation you must produce. Below are examples of the types of compliance actions you made need to take.

- GOV Exception (Governments, International Organizations, International Inspections Under the Chemical Weapons Convention, and the International Space Station) requires an Electronic Export Information (EEI) filing of the ECCN, and requires a Destination Control Statement to be put into the commercial export documents.
- LVS Exception (Shipments of Limited Value) exception will require you to be able to prove that the limited value of the yearly shipments has not been exceeded.
- TMP Exception (Temporary Imports, Exports, Re-exports, Transfers) exception requires the item be securely controlled and items have been returned or destroyed.
- STA (Strategic Trade Authorization) allows you to transfer the item to another consignee, but you and each consecutive consignee must sign an agreement stating all the required conditions to allow the transfer. STA also requires an application (via SNAP-R) to be made to determine if the items are eligible.

It is important to read section 740 of the EAR carefully for the documentation, agreements, and records keeping that is required for any license exception.

4.3 Compliance for EAR Licensed Items

BIS recommends all organizations exporting goods and services under the Export Administration Regulations (EAR) have in place an Export Management and Compliance Program (EMCP). An EMCP will help prevent U.S.-origin dual use goods and technologies from being used against us.

An EMCP is a comprehensive, written set of export procedures, policies, and guidelines that provide an organization's management with a framework to ensure and evaluate whether or not the company/employees/products are in full compliance with EAR regulations. A well-written and fully implemented EMCP benefits an exporter by minimizing risk of noncompliance and can be a strong mitigating factor when determining penalties in cases of export violation.

While the EAR allows flexibility in the manner in which U.S. companies meet these compliance requirements, the BIS strongly recommends incorporating the nine key elements (listed below) and the screening of all parties to transactions, as part of their overall due diligence.

4.4 Elements of an Effective EAR Export Management and Compliance Program (EMCP)

1. Management Commitment: Senior management establishing written export compliance standards for the organization, committing sufficient resources for the export compliance program, and ensuring appropriate senior organizational official(s) are designated with the overall responsibility for the export compliance program to ensure adherence to export control laws and regulations
2. Continuous Risk Assessment of the Export Program
3. Formal Written Export Management and Compliance Program: Effective implementation and adherence to written policies and operational procedures
4. Ongoing Compliance Training and Awareness
5. Pre/Post Export Compliance Security and Screening: Screening of employees, contractors, customers, products, and transactions and implementation of compliance safeguards throughout the export life cycle including product development, jurisdiction, classification, sales, license decisions, supply chain, servicing channels, and post-shipment activity
6. Adherence to Recordkeeping Regulatory Requirements
7. Internal and External Compliance Monitoring and Periodic Audits
8. Maintaining a Program for Handling Compliance Problems, including Reporting Export Violations
9. Completing Appropriate Corrective Actions in Response to Export Violations

An effective EMCP will be tailored to address your organization's unique operations and will incorporate such factors as business locations, the size of your organization, the types of products, and the end-users/end-use of your products. The document should reflect the scale and scope of your export program and be flexible enough to adapt to the changes in your organization

and the regulatory environment. The BIS provides several resources to help your organization develop an EMCP, which can be found at: www.bis.doc.gov/compliance-a-training/export-management-a-compliance/compliance.

4.5 Compliance for ITAR Licensed Items

If your organization exports defense articles and defense-related services, you must employ a dedicated compliance officer to serve as an Empowered Official.[43] An Empowered Official is authorized by an organization to sign and process license applications on behalf of that organization and, if necessary, refuse to sign any license application without the threat of retribution.

In addition to the Empowered Official, DDTC recommends putting in place a comprehensive compliance program. The level of sophistication of your internal compliance controls will depend on the nature and scale of your business. Your program should include the organization's commitment to compliance with laws and regulations, procedures for dealing with licensing and compliance matters, identification and duties of empowered and responsible persons, and procedures for record keeping and internal auditing. To assist you, DDTC has outlined some elements that should be included in your compliance program: www.pmddtc.state.gov/compliance/documents/compliance_programs.pdf

[43] 22 CFR § 120.25

SECTION 5



HELPFUL HINTS

5.1 WHAT TO DO IF YOU NEED HELP

There is no substitute for direct communication with the organization that will handle your export control issues. There is a DDTC Response Team in place to answer questions regarding the ITAR and your technology issues before and during the licensing process. Additionally, you will be assigned a licensing officer for your case during the ITAR process. If you are following the EAR process, the Department of Commerce has specialized export counselors available to answer questions. Any of these official government resources can be contacted if you need help. (See Appendix A: Useful Contact Information.)

5.2 UNDERSTAND THE LANGUAGE AND AGENCIES INVOLVED

To succeed through the export control process, it is useful to understand the language and the government agencies with which you will be dealing. The appendices to this report provide acronym and terminology definitions, as well as important points of contact at various U.S. government agency offices.

5.3 PLAN SUFFICIENT RESOURCES AND TIME FOR THE PROCESS

The time required from start to finish for the export control licensing process is case-specific. Therefore, it is helpful to build in a sufficient time period to ensure the process does not hinder your operations.

5.4 AVOID DELAYS IN THE APPLICATION PROCESS

The timeline and process confusion are major concerns with export controls. There are simple actions that can help mitigate these concerns:

- Use the electronic applications that are available online.
- Fill out forms fully and correctly.
- Know who you need to contact throughout the process. (See Appendix A.)
- Know your company's processes and potential interactions with foreign nationals.
- Check for updates on policies and forms on the websites of the Departments of State or Commerce, depending on your situation.

5.5 TRAIN YOUR STAFF

The Department of State and Department of Commerce websites have links to their own training sessions. For instance, the DDTC conducts one-day, in-house seminars covering export licensing basics. The BIS provides webinars on the subject via their online training room.[44]

You can contract with outside organizations to evaluate and provide consultation on your company's specific import and export compliance issues. These companies can reduce the need for hiring full-time internal experts. Certain law and consulting firms specialize in export control or trade compliance issues, as well as in space industry regulatory issues.

Other specialized organizations can train personnel at a cost. These groups usually hold scheduled ITAR process-training sessions at various locations throughout the country.

[44] The online training room is accessible at: www.bis.doc.gov/compliance-a-training/export-administration-regulations-training/online-training-room



APPENDICES

Appendix A Useful Contact Information

This appendix provides the contact information for organizations that can assist a company engaged in or planning to begin the U.S. export control licensing process.

DEPARTMENT OF STATE, DDTC

- **Directorate of Defense Trade Controls (DDTC) General Contact Information**
  Telephone: 202-663-2980
  DDTC Contacts Website:
  pmddtc.state.gov/about/contact_information.html
- **Directorate of Defense Trade Controls (DDTC) Response Team:**
  The Response Team is set up to address a full range of defense trade inquiries and direct you to a secondary contact, if necessary.
  Telephone: 202-663-1282
  Email: DDTCResponseTeam@state.gov
- **Electronic Application Support:**
  For assistance, please contact the Help Desk.
  Telephone: 202-663-2838
  Email: dtradehelpdesk@state.gov

DEPARTMENT OF COMMERCE, BIS

- **Bureau of Industry and Security (BIS) General Contact Information:**
  www.bis.doc.gov/about-bis/contact-bis
- To speak with an Export Counselor:
  - Outreach & Educational Services Division (Washington, DC): 202-482-4811
  - Western Regional Office (Newport Beach, CA): 949-660-0144
  - Northern California Branch (San Jose, CA) 408-998-8806

You may also e-mail your inquiry to the Export Counseling Division of the Office of Exporter Services at: ECDOEXS@bis.doc.gov

System for Tracking Export License Applications (STELA):
snapr.bis.doc.gov/stela

Appendix B Case Study – Hosted Payload Funded by DOD

As part of the ECR Initiative, most commercial, scientific, and civil satellites and their components were transferred from jurisdiction under the International Traffic and Arms Regulations (ITAR) to the less restrictive Export Control Regulations (EAR). An ECCN 9A004 or 9A515 spacecraft is now subject to the less restrictive EAR even when incorporating a hosted payload that performs a function described in Category XV, paragraph (a) of the ITAR.

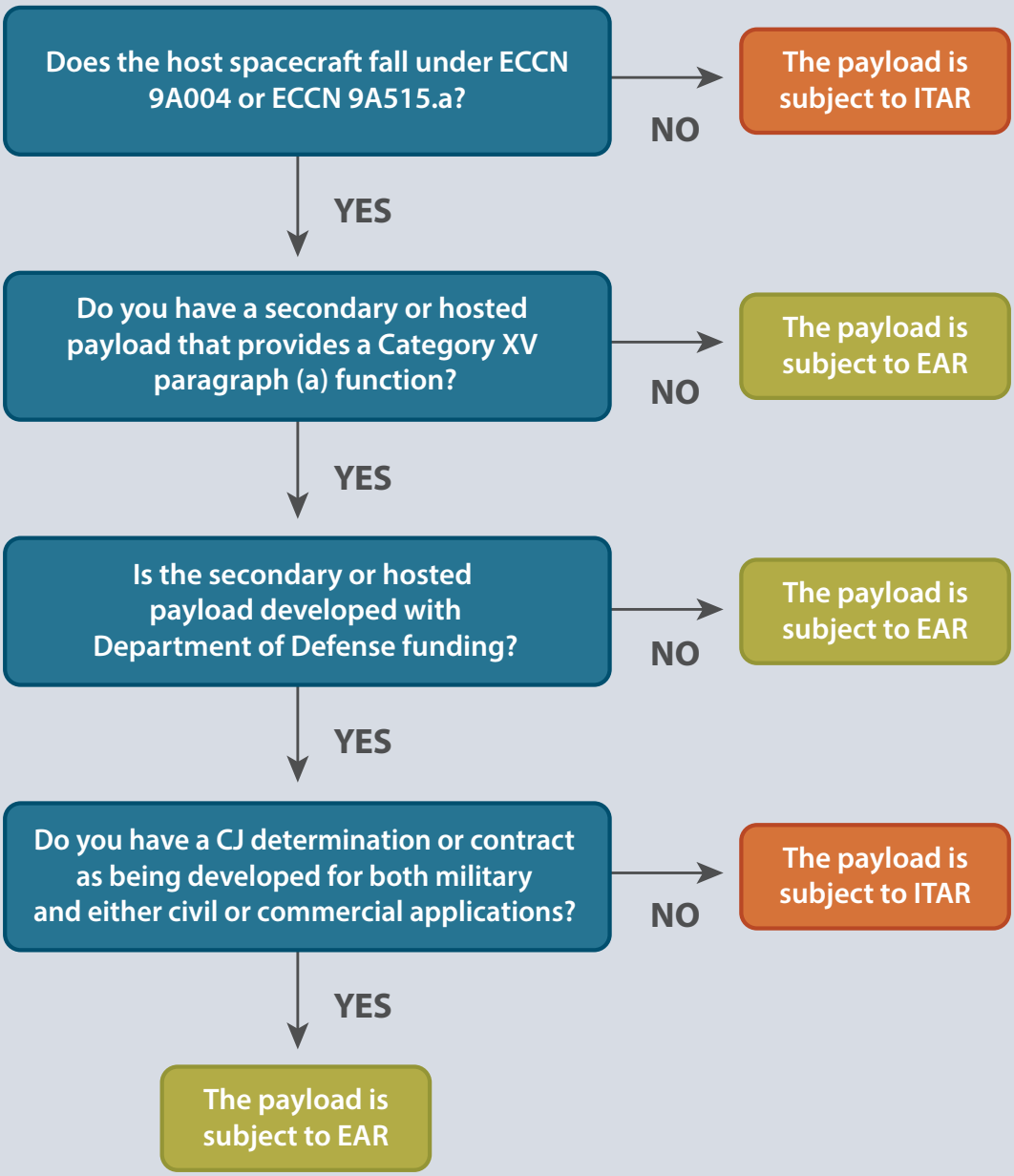
However, payloads funded by the Department of Defense (DoD) present a unique case. If a secondary or hosted payload and any specially designed parts or components related to it are developed with DoD funding and are incorporated into a spacecraft, the entire spacecraft is subject to the ITAR ***unless*** the payload is

(a) determined to be subject to the EAR via a Commodity Jurisdiction (CJ) determination, or

(b) is exempt in the relevant DoD contract or other agreement as being developed for both military and civil or commercial applications.[45]

[45] 22 CFR § 121.1, Notes 1 and 2 to USML Category XV(e)(18)

Figure B-1:
Hosted Payload Funded by Department of Defense Decision Tree



Appendix C Acronyms and Glossary

ACE – Automated Commercial Environment – The primary system through which the trade community reports imports and exports and the government determines admissibility.

AECA – Arms Export Control Act – The statute that authorizes the export and temporary import control activities of the Department of State.

AES – Automated Export System – The central point through which export shipment data required by multiple agencies is filed electronically to the U.S. Customs and Border Protection Agency.

BIS – Bureau of Industry and Security – An agency of the Department of Commerce that is responsible for administering and enforcing export controls on dual use items.

CCL – Commerce Control List – A list of items (commodities, software, and technology) subject to the Department of Commerce, Bureau of Industry and Security (BIS) export controls.

CFR – Code of Federal Regulations – The official codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

CJ – Commodity Jurisdiction – A determination as to whether an item or service is subject to the export licensing authority of the Department of Commerce or the Department of State, Directorate of Defense Trade Controls (DDTC).

Deemed Export – Release or transfer of "technology" or source code to a foreign person in the United States.

DDTC – Directorate of Defense Trade Controls – The office in the Department of State that administers licenses for defense services and defense (munitions) articles.

DTAG – Defense Trade Advisory Group – An advisory committee that provides the Bureau of Political-Military Affairs with a formal channel for regular consultation and coordination with U.S. private sector defense exporters and defense trade specialists on issues involving U.S. laws, policies, and regulations for munitions exports.

DTSA – Defense Technology Security Administration – An agency of the Department of Defense responsible for the development and implementation of policies on international transfers of defense-related munitions technology. The DTSA is also involved in the review of certain dual use export license applications.

Dual Use – Items that have both commercial and military or proliferation applications.

EAA – Export Administration Act – The statute that authorizes the export control and anti-boycott compliance activities of the Department of Commerce.

EAR – Export Administration Regulations – Regulations set forth in sections 730-774 of Title 15 of the Code of Federal Regulations and issued by the Department of Commerce to implement the Export Administration Act and other statutory requirements.

ECCN – Export Control Classification Number – A five character alphanumeric designation used on the Commerce Control List (CCL) to identify a dual-use item for export control purposes.

ECR – Export Control Reform – A fundamental reform of the U.S. export control system designed to enhance U.S. national security and the competitiveness of key U.S. manufacturing and technology sectors by focusing on current threats, as well as adapting to the changing economic and technological landscape.

EEI – Electronic Export Information – Electronic export data as filed in the Automated Export System (AES) for U.S. exports that contain a single commodity's value exceeding US $2,500.00.

The information collected by the Census Bureau is used for statistical purposes while the Bureau of Industry and Security and other export enforcement agencies uses it for export control and enforcement purposes.

EMCD – Export Management and Compliance Program – An optional program developed by the Bureau of Industry and Security to assist companies in complying with the export control provisions of the Export Administration Regulations.

Export – (1) An actual shipment or transmission out of the United States, including the sending or taking of an item out of the United States, in any manner; (2) releasing or otherwise transferring "technology" or source code

to a foreign person in the United States (a "deemed export") (3) transferring by a person in the United States of registration, control, or ownership of: (i) a spacecraft subject to the EAR that is not eligible for export under License Exception STA to a person in or a national of any other country (ii) any other spacecraft subject to export controls to a person in or a national of a Country Group D:5 country.

Hosted payload – A complement of equipment or sensors that uses the available or excess capacity (mass, volume, power, etc.) of a spacecraft to accommodate an additional, independent mission which does not dictate control or operation of the spacecraft.

ITAR – International Traffic in Arms Regulations – Regulations set forth in Sections 120-130 of Title 22 of the Code of Federal Regulations and issued by the Department of State to implement the Arms Export Control Act and other statutory requirements.

MTCR – Missile Technology Control Regime – A multilateral control regime consisting of the United States and other nations that have agreed to guidelines for restricting the export of dual use items that may contribute to the development of missiles.

MTEC – Missile Technology Export Committee – An interagency group, chaired by a representative of the Department of State, that reviews export license applications involving items controlled for missile technology reasons.

Primary payload – That complement of equipment designed from the outset to accomplish the prime mission function of the spacecraft payload mission set.

Re-export – (1) An actual shipment or the transmission of items subject to export regulations from one foreign country to another foreign country; (2) release or transfer of technical data or source code to a foreign person of a country other than the foreign country where the release or transfer takes place (a deemed re-export); (3) transfer of registration, control, or ownership of (i) any a spacecraft subject to export regulations that is not eligible for re-export under License Exception STA to a person in or a national of any other country; or (ii) any other spacecraft subject to the EAR to a person in or a national of Country Group D:5 country.

Secondary payload – That complement of equipment designed from the outset to be fully integrated into the spacecraft payload mission set. The secondary payload may operate separately from the primary payload.

SME – Significant Military Equipment – Articles for which special export controls are warranted because of their capacity for substantial military utility or capability.

SNAP-R – Simplified Network Application Process Redesign – An electronic method of submitting EAR export license applications.

Space Qualified – An item designed, manufactured, or qualified through successful testing, for operation at altitudes greater than 100 kilometers (km) above the surface of the Earth.

Specially Designed – An "item" that: (1) as a result of "development" has properties peculiarly responsible for achieving or exceeding the performance levels, characteristics, or functions in the relevant ECCN or U.S. Munitions List (USML) paragraph; or (2) Is a "part," "component," "accessory," "attachment," or "software" for use in or with a commodity or defense article 'enumerated' or otherwise described on the CCL or the USML.

ST – Strategic Trade Authorization – A license exception that authorizes, with conditions, the export, re-export, and transfer (in-country) of specified items to destinations that pose relatively low risk of unauthorized uses.

TAA – Technical Assistance Agreement – An agreement (e.g., contract) for the performance of a defense service(s) or the disclosure of technical data, as opposed to an agreement granting a right or license to manufacture defense articles. Assembly of defense articles is included under this section, provided production rights or manufacturing know-how are not conveyed.

TCP – Technology Control Plan – A formal plan required in cases when foreign nationals are employed at or assigned to security-cleared facilities or facilities that handle export-controlled items or information.

TTCP – Technology Transfer Control Plan – A detailed course of action that the exporter provides to the Department of State when applying for an ITAR license that explains how the exporter will maintain appropriate controls during the process of exporting items or services on the United States Munitions List.

USML – United States Munitions List – The list of defense articles, technology, and services under the export and temporary import jurisdiction of the Department of State. The USML is found in Part 121 of the ITAR.

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800 Independence Avenue, S.W., Room 331
Washington, D.C. 20591
ast.faa.gov