DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Parts 740, 742, and 774

[Docket No. 020726182–2182–01]

RIN 0694–AC49

Licensing Jurisdiction for ''Space Qualified'' Items and Telecommunications Items for Use on Board Satellites

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Final rule.

SUMMARY: This final rule amends the Export Administration Regulations (EAR) to clarify what ''space qualified'' items are controlled on the Commerce Control List (CCL) and are therefore subject to the EAR. This rule also removes the License Exception eligibility and amends the CCL for certain ''space qualified'' items. In addition, this rule adds ''regional stability'' as the reason for control for certain items. The Department of State is publishing in the **Federal Register** a separate rule that will clarify what ''space qualified'' items are on the U.S. Munitions List, and therefore subject to the International Traffic in Arms Regulations.

DATES: This rule is effective: September 23, 2002.

FOR FURTHER INFORMATION CONTACT: Gene Christiansen in the Office of Strategic Trade and Foreign Policy Controls, Bureau of Industry and Security, U.S. Department of Commerce at (202) 482–1837.

SUPPLEMENTARY INFORMATION:

Background

Section 1513(a) of the National Defense Authorization Act for FY 1999 (NDAA FY99) mandated the transfer of satellites and ''related items'' from the Department of Commerce, Commerce Control List (CCL) to the Department of State, United States Munitions List (USML). The transfer of ''related items'' has engendered confusion concerning licensing authority for certain ''space qualified'' items—*i.e.*, items designed, manufactured and tested to meet the special electrical, mechanical or environmental requirements for use in the launch and deployment of satellites or high-altitude flight systems operating at altitudes of 100 kilometers or higher.

This rule clarifies the licensing jurisdiction of certain ''space qualified'' items. This rule is consistent with the existing licensing jurisdiction for items specifically designed or modified for items with military applications. Such items are under the licensing jurisdiction of the Department of State. Items on the USML are exclusively controlled for export or reexport by the Department of State and are not within the scope of the Export Administration Regulations.

This rule is the result of extensive review of the affected ''space qualified'' items by the Departments of Commerce, Defense, and State. It provides for the transfer of ''space qualified'' atomic frequency standards (formerly controlled by Export Control Classification Number (ECCN) 3A002.g.2), solid state detectors (formerly ECCN 6A002.a.1), imaging sensors (formerly ECCN 6A002.b.2.b.1), cryocoolers (formerly ECCN 6A002.d.1), optical systems parts (formerly ECCN 6A004.c) and optical control equipment (formerly ECCN 6A004.d.1) from the CCL to the USML. This rule also provides criteria governing the split jurisdiction between the Departments of Commerce and State over ''space qualified'' traveling wave tubes (ECCN 3A001.b.1.a.4.c), photovoltaic arrays (ECCN 3A001.e.1.c), telecommunications equipment for use on board satellites (ECCN 5A001.a.2 and a.3), and the technology to develop and produce telecommunications equipment for use on board satellites (ECCN 5E001.b.1). Finally, this rule confirms Department of Commerce jurisdiction of ''space qualified'' tape recorders (ECCN 3A002.a.3.b), data recorders (ECCN 3A992.b.3), laser radar (ECCN 6A008.j.1), and focal plane arrays and the technology to make focal plane arrays (ECCN 6A002.e).

Please note, that software for ''space qualified'' cryocoolers remains on the U.S. Munitions List (22 CFR 121.1) under Category XV, Space Systems and Associated Equipment.

Pursuant to consultations with the Department of State, this rule adds regional stability controls (RS Column 1) for ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment, including ''space qualified'' LIDAR equipment specially designed for surveying or for meteorological observation (ECCN 6A998.b, software therefor 6D991, technology therefor 6E991), ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) (6A008.j.1, software therefor 6D001 and 6D002, technology therefor 6E001), and focal plane arrays (ECCN 6A002.e, software therefor 6D991, technology therefor 6E001 and 6E002). The expansion of RS controls for this equipment is described in a report to the Congress, dated August 19, 2002.

This rule supercedes any commodity classification decisions and advisory opinions issued by the Department of Commerce prior to the effective date of this rule concerning items which this rule either (i) transfers to State Department jurisdiction or (ii) retains under Commerce Department jurisdiction but removes from eligibility for export or reexport under License Exception authorization or without a license. Items licensed by the Department of Commerce as of September 23, 2002, including those already exported, remain subject to the EAR and the licenses remain in effect in accordance with their terms.

Specifically, this rule makes revisions to the following ECCNs:

In Category 3, Electronics:

• 3A001 is amended by:

(1) Revising the Related Controls paragraph to specify that the following items are now subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121):

(A) ''Space qualified'' helix tubes (traveling wave tubes), or derivatives thereof operating at frequencies higher than 31 GHz and defined in 3A001.b.1.a.4.c;

(B) ''Space qualified'' microwave solid state amplifiers operating at frequencies higher than 31 GHz defined in 3A001.b.4.b;

(C) ''Space qualified'' microwave ''assemblies'' capable of operating at frequencies exceeding 31 GHz and defined in 3A001.b.6;

(D) ''Space qualified'' microwave power amplifiers operating at frequencies higher than 31 GHz and defined in 3A001.b.8.; and

(E) ''Space qualified'' and radiation hardened photovoltaic arrays as defined in 3A001.e.1.c (*i.e.*, not having silicon cells or not having single, dual or triple junction solar cells that have gallium arsenide as one of the junctions), spacecraft/satellite solar concentrators and batteries.

(2) Adding a definition for photovoltaic arrays to the Related Definitions section.

• 3A002 is amended by revising the Related Controls paragraph to note that ''space qualified'' atomic frequency standards defined in 3A002.g.2 are now subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

• 3D001 is amended by revising:

(1) The Related Controls paragraph to note that ''software'' specially designed for the ''development'' or ''production'' of the following equipment is under the export licensing authority of the

Department of State, Office of Defense Trade Controls (22 CFR part 121): (1.) When operating at frequencies higher than 31 GHz and ''space qualified'': helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; microwave ''assemblies'' defined in 3A001.b.6; and traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (2.) ''Space qualified'' and radiation hardened photovoltaic arrays defined in 3A001.e.1.c (*i.e.*, not having silicon cells or single, dual or triple junction solar cells that have gallium arsenide as one of the junctions), spacecraft/satellite solar concentrators and batteries; and (3.) ''Space qualified'' atomic frequency standards defined in 3A002.g.2.

(2) Revising TSR eligibility under the License Exception section of 3D001, to note the removal of ''software'' specially designed for the ''development'' or ''production'' of Traveling Wave Tube Amplifiers described in 3A001.b.8 having operating frequencies exceeding 18 GHz from License Exception TSR eligibility.

(3) The Related Definitions section to add a definition for photovoltaic arrays.

• 3E001 is amended by:

(1) Revising the Related Controls paragraph to note that ''Technology'' according to the General Technology Note for the ''development'' or ''production'' of the following equipment is under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): (1.) When operating at frequencies higher than 31 GHz and ''space qualified'': helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; microwave ''assemblies'' defined in 3A001.b.6; and traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (2.) ''Space qualified'' and radiation hardened photovoltaic arrays defined in 3A001.e.1.c (*i.e.*, not having silicon cells or single, dual or triple junction solar cells that have gallium arsenide as one of the junctions), spacecraft/satellite solar concentrators and batteries; and (3.) ''Space qualified'' atomic frequency standards defined in 3A002.g.2.

(2) Revising TSR eligibility under the License Exception section of 3D001, to note the removal of ''technology'' specially designed for the ''development'' or ''production'' of Traveling Wave Tube Amplifiers described in 3A001.b.8 having operating frequencies exceeding 18 GHz from License Exception TSR eligibility.

(3) Revising the Related Definitions section to add a definition for photovoltaic arrays.

In Category 5, Telecommunications and ''Information Security'', Part I (Telecommunications):

• 5A001 is amended by revising the Related Controls paragraph to note that telecommunications equipment defined in 5A001.a.1 through 5A001.a.3 for use on board satellites is now subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

• 5A991 is amended by:

(1) Adding a Related Control note that states telecommunication equipment defined in 5A991 for use on board satellites is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

(2) Adding references to related controls in 5E101 and 5E991.

(3) Removing from the List of Items controlled the note under paragraph 5A991.b.1 that reads, ''5A991.b.1 does not control equipment specially designed to be integrated and operated in any satellite system for civil use.''

• 5E001 is amended by revising:

(1) The Related Controls paragraph to note that ''technology'' defined in 5E001.b.1, 5E001.b.2, 5E001.b.4, and 5E001.c for use on board satellites is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). Technology defined in 5E001.b.1 for *non*-satellite uses remains subject to the export licensing authority of the Department of Commerce, Bureau of Industry and Security.

In Category 6, Sensors and Lasers:

• 6A002 is amended by:

(1) Moving the notes contained in the Related Definitions paragraph to the Related Controls paragraph;

(2) Revising the Related Controls paragraph to note that:

(a) The following commodities are now subject to the export licensing authority of U.S. Department of State, Office of Defense Trade Controls (22 CFR part 121): ''space qualified'' solid-state detectors defined in 6A002.a.1, ''space qualified'' imaging sensors (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and ''space qualified'' cryocoolers defined in 6A002.d.1, unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security;

(b) ''Space qualified'' ''focal plane arrays'' defined in 6A002.e remain subject to the export licensing authority of the Department of Commerce, Bureau of Industry and Security, but are removed from License Exception eligibility; and

(c) Exporters may apply for a commodity jurisdiction request with the Department of State, Office of Defense Trade Controls for ''space qualified'' solid-state detectors defined in 6A002.a.1 and ''imaging sensors'' (*e.g.*, ''monospectral imaging sensors'' and multispectral imaging sensors'') defined in 6A002.b.2.b.1 that may have predominantly civil applications.

(3) Adding RS Column 1 controls for 6A002.e, ''space qualified'' ''focal plane arrays.''

• 6A004 is amended by revising the Related Controls paragraph to note that ''space qualified'' components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1 are subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

• 6A008 is amended by:

(1.) Revising the License Exception section to note that equipment defined in 6A008.j.1 (''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment) is no longer eligible for License Exception LVS;

(2.) Revising the License Requirement section to add RS Column 1 controls to 6A008.j.1 (''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR));

(3.) Revising the ''Related Controls'' paragraph to note specifically that LIDAR equipment specially designed for surveying or for meteorological observation is controlled under ECCN 6A998.b

• 6A998 is amended by:

(1) Revising the heading;

(2) Moving the airborne radar equipment from the heading to 6A998.a; and (3) Adding the ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment specially designed for surveying or for meteorological observation, released from control under the note in 6A008.j, to 6A998.b; and controlling them under regional stability controls (RS column 1) and antiterrorism (AT Column 1).

• 6D001 is amended by:

(1) Revising the License Requirements to add regional stability as a reason for control to software for equipment controlled by 6A008.j.1.

(2) Revising the License Exception section to note that ''software'' for the ''development'' or ''production'' of equipment defined in 6A008.j.1 is not eligible for License Exception TSR; and

(3) Revising the Related Controls paragraph in the List of Items Controlled section to note that ''software'' specially designed for the ''development'' or ''production'' of the following commodities is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): ''space qualified'' components for optical systems defined in 6A004.c and ''space qualified'' optical control equipment defined in 6A004.d.1.

• 6D002 is amended by:

(1) Revising the License Requirements section to add regional stability as a reason for control to software for equipment controlled by 6A008.j.1.

(2) Revising the License Exception section to note that ''software'' for the ''use'' of equipment defined in 6A008.j.1 is not eligible for License Exception TSR; and

(3) Revising the Related Controls paragraph in the List of Items Controlled section to note that ''software'' specially designed for the ''use'' of ''space qualified'' ''imaging sensors'' (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1 are now subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121), unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security.

• 6D104 is amended by revising the Related Controls paragraph in the List of Items Controlled section to note that ''software'' specially designed for the ''use'' of ''space qualified'' solid-state (optical) detectors defined in 6A002.a.1 is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121), unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security.

• 6D991 is amended by:

(1) Revising the header to include 6A002.e; and

(2) Adding regional stability controls (RS column 1) to ''software'' for equipment controlled by 6A002.e and 6A998.b.

• 6E001 is amended by:

(1) Revising the Reason for Control section to add regional stability as a reason for control for technology for items controlled by 6A002.e, 6A003.b.4, or 6A008.j.1.

(2) Revising the License Exception section to note that ''technology'' for the ''development'' of commodities defined in 6A002.e or 6A008.j.1; and ''software'' for commodities defined in 6A002.e or 6A008.j.1 and controlled in 6D001, 6D002, or 6D104 are no longer eligible for License Exception TSR; and

(3) Revising the Related Controls paragraph in the List of Items Controlled section to note that ''Technology'' according to the General Technology Note for the ''development'' of the following commodities is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): ''Space qualified''

(1) Components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1.;

(2) Solid-state detectors defined in 6A002.a.1, ''imaging sensors'' (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security.

• 6E002 is amended by:

(1) Revising the Reason for Control section to add regional stability as a reason for control for technology for items controlled by 6A002.e, 6A003.b.4, or 6A008.j.1.

(2) Revising the License Exception section to note that ''technology'' for the ''production'' of commodities defined in 6A002.e or 6A008.j.1 is no longer eligible for License Exception TSR.

(3) Revising the Related Controls paragraph in the List of Items Controlled section to note that ''Technology'' according to the General Technology Note for the ''production'' of the following commodities is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): (1) Components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1.; (2) Solid-state detectors defined in 6A002.a.1, sbull I11''imaging sensors'' (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security.

• 6E991 is amended by adding regional stability controls (RS column 1) for ''technology'' for equipment controlled by 6A998.b.

In addition to the revisions made to the CCL, this rule adds a restriction that applies to all License Exceptions in section 740.2. Specifically, this rule adds paragraph (a)(6) to this section, which removes the following items from License Exception eligibility: Commodities defined in 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b; ''software'' for commodities defined in 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b and controlled under ECCNs 3D001 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6D001, 6D002, 6D104, 6D991; and ''technology'' for commodities defined in ECCNs 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b and controlled under ECCNs 3E001, 6E001, 6E002, 6E101, 6E102, 6E991.

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001 (66 FR 44025 (August 22, 2001)), has continued the Export Administration Regulations in effect under the International Emergency Economic Powers Act.

Savings Clause

Shipments of items which this rule either (i) transfers to State Department jurisdiction or (ii) retains under Commerce Department jurisdiction but removes from eligibility for export or reexport under License Exception authorization or without a license (''NLR''—no license required) that were on dock for loading, on lighter, laden aboard an exporting carrier or en route aboard a carrier to a port of export on September 23, 2002, pursuant to actual orders for export to that destination, may proceed to that destination under the previous License Exception or NLR authorization provision so long as they have been exported from the United States before October 21, 2002. Any such items not actually exported before midnight October 21, 2002 require a license in accordance with this regulation.

Rulemaking Requirements

1. This final rule has been determined to be not significant for purposes of E.O. 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply

with a collection of information, subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid Office of Management and Budget Control Number. This rule involves a collection of information subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). This collection has been approved by the Office of Management and Budget under control number 0694–0088, ''Multi-Purpose Application,'' which carries a burden hour estimate of 45 minutes for a manual submission and 40 minutes for an electronic submission.

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

4. The provisions of the Administrative Procedure Act (5 U.S.C. 553) requiring notice of proposed rulemaking, the opportunity for public participation, and a delay in effective date, are inapplicable because this regulation involves a military and foreign affairs function of the United States (5 U.S.C. 553(a)(1)). Further, no other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this interim rule. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule under the Administrative Procedure Act or by any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable. Therefore, this regulation is issued in final form. Although there is no formal comment period, public comments on this regulation are welcome on a continuing basis. Comments should be submitted to Sharron Cook, Office of Exporter Services, Bureau of Industry and Security, Department of Commerce, P.O. Box 273, Washington, DC 20044.

List of Subjects

15 CFR Part 740

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

15 CFR Parts 742 and 774

Exports, Foreign trade.

Accordingly, parts 740, 742, and 774 of the Export Administration Regulations (15 CFR parts 730–799) are amended as follows:

1. The authority citation for 15 CFR part 740 is revised to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; Sec. 901–911, Pub. L. 106–387; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 14, 2002, 67 FR 53721, August 16, 2002.

2. The authority citation for 15 CFR part 742 is revised to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 18 U.S.C. 2510 *et seq.*; 22 U.S.C. 3201 *et seq.*; 42 U.S.C. 2139a; Sec. 901–911, Pub. L. 106–387; Sec. 221, Pub. L. 107–56; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of November 9, 2001, 66 FR 56965, 3 CFR, 2001 Comp., p. 917; Notice of August 14, 2002, 67 FR 53721, August 16, 2002.

3. The authority citation for 15 CFR part 774 is revised to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 18 U.S.C. 2510 *et seq.*; 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*, 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 46 U.S.C. app. 466c; 50 U.S.C. app. 5; Sec. 901–911, Pub. L. 106–387; Sec. 221, Pub. L. 107–56; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 14, 2002, 67 FR 53721, August 16, 2002.

PART 740—[AMENDED]

4. Section 740.2 is amended by adding paragraph (a)(7) to read as follows:

§ 740.2 Restrictions on all License Exceptions.

* * * * *

(a) * * *

(7) *''Space qualified'' items.* Commodities defined in ECCNs 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b; ''software'' for commodities defined in ECCNs 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b and controlled under ECCNs 3D001 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6D001, 6D002, 6D104, 6D991; and ''technology'' for commodities defined in ECCNs 3A001.b.8 (Traveling Wave Tube Amplifiers (TWTAs) exceeding 18 GHz), 6A002.e, 6A008.j.1, or 6A998.b and controlled under ECCNs 3E001, 6E001, 6E002, 6E101, 6E102, 6E991.

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PART 742—[AMENDED]

5. Section 742.6 is amended by revising paragraph (a)(1), to read as follows:

§ 742.6 Regional stability.

(a) * * *

(1) As indicated in the CCL and in RS Column 1 of the Country Chart (see Supplement No. 1 to part 738 of the EAR), a license is required to all destinations, except Canada, for items described on the CCL under ECCNs 6A002.a.1, a.2, a.3, .c, or .e; 6A003.b.3 and b.4; 6A008.j.1; 6A998.b; 6D001 (only ''software'' for the ''development'' or ''production'' of items in 6A002.a.1, a.2, a.3, .c; 6A003.b.3 and .b.4; or 6A008.j.1); 6D002 (only ''software'' for the ''use'' of items in 6A002.a.1, a.2, a.3, .c; 6A003.b.3 and .b.4; or 6A008.j.1); 6D991 (only ''software'' for the ''development,'' ''production,'' or ''use'' of equipment controlled by 6A002.e or 6A998.b); 6E001 (only ''technology'' for ''development'' of items in 6A002.a.1, a.2, a.3, and .c or .e, 6A003.b.3 and b.4, or 6A008.j.1); 6E002 (only ''technology'' for ''production'' of items in 6A002.a.1, a.2, a.3, .c, or .e, 6A003.b.3 or b.4, or 6A008.j.1); 6E991 (only ''technology'' for the ''development,'' ldquo;production,'' or ''use'' of equipment controlled by 6A998.b); 7D001 (only ''software'' for ''development'' or ''production'' of items in 7A001, 7A002, or 7A003); 7E001 (only ''technology'' for the ''development'' of inertial navigation systems, inertial equipment, and specially designed components therefor for civil aircraft); 7E002 (only ''technology'' for the ''production'' of inertial navigation systems, inertial equipment, and specially designed components therefor for civil aircraft); 7E101 (only ''technology'' for the ''use'' of inertial navigation systems, inertial equipment, and specially designed components for civil aircraft).

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PART 774—[AMENDED]

6. Supplement No. 1 to part 774, Category 3 (Electronics), is amended by:

a. Revising the *Related Controls* and *Related Definitions* paragraph in the List of Items Controlled section of ECCNs 3A001 and 3A002; and

b. Revising the License Exceptions and List of Items Controlled sections of ECCNs 3D001 and 3E001, to read as follows:

3A001 Electronic Components, as Follows (see List of Items Controlled).

* * * * *

License Exceptions

LVS: N/A for MT or NP
Yes for:
$1500: 3A001.c
$3000: 3A001.b.1, b.2, b.3, .d, .e

and .f
$5000: 3A001.a, and .b.4 to b.7
GBS: Yes for 3A001.a.1.b, a.2 to a.12, b.2, and b.8 (except for TWTAs exceeding 18 GHz)
CIV: Yes for 3A001.a.3.a (for processors with a CTP less than or equal to 12,000 MTOPS), a.3.b, a.3.c, a.4, a.7, and a.11.

List of Items Controlled

Unit: * * *

Related Controls: (1.) The following commodities are under the export licensing authority of the Department of State, Office of Defense

Trade Controls (22 CFR part 121) when ''space qualified'' and operating at frequencies higher than 31 GHz: helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; microwave ''assemblies'' defined in 3A001.b.6; traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; and derivatives thereof; 2.) ''Space qualified'' and radiation hardened photovoltaic arrays, as defined in 3A001.e.1.c, having silicon cells or having single, dual or triple junction solar cells that have gallium arsenide as one of the junctions, are subject to the export licensing authority of the Department of Commerce. All other ''space qualified'' and radiation hardened photovoltaic arrays defined in 3A001.e.1.c and spacecraft/satellite concentrators and batteries are under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). See also 3A101, 3A201, and 3A991

Related Definitions: For the purposes of integrated circuits in 3A001.a.1, 5 x 10^3 Gy(Si) = 5 x 10^5 Rads (Si); 5 x 10^6 Gy (Si)/s = 5 x 10^8 Rads (Si)/s. For purposes of photovoltaic arrays in 3A001.e.1.c, an array predominately consists of: a substrate; solar cells having silicon cells or having single, dual, and or triple junction solar cells that have gallium arsenide as one of the junctions; coverglass; ultra-violet coating(s); and bonding agent(s). Spacecraft/satellite: solar concentrators, power conditioners and or controllers, bearing and power transfer assembly, and or deployment hardware/systems are controlled under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

Items:

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3A002 General purpose electronic equipment, as follows (see List of Items Controlled).

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List of Items Controlled

Unit: * * *

Related Controls: ''Space qualified'' atomic frequency standards defined in 3A002.g.2 are subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). See also 3A292 and 3A992.

Related Definitions: N/A

Items:

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3D001 ''Software'' Specially Designed for the ''Development'' or ''Production'' of Equipment Controlled by 3A001.b to 3A002.g or 3B (Except 3B991 and 3B992).

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License Exceptions

CIV: N/A

TSR: Yes, except for ''software'' specially designed for the ''development'' or ''production'' of Traveling Wave Tube Amplifiers described in 3A001.b.8 having operating frequencies exceeding 18 GHz.

List of Items Controlled

Unit: $ value.

Related Controls: ''Software'' specially designed for the ''development'' or ''production'' of the following equipment is under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): (a) When operating at frequencies higher than 31 GHz and ''space qualified'': Helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; microwave ''assemblies'' defined in 3A001.b.6; and traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (b) ''Space qualified'' and radiation hardened photovoltaic arrays defined in 3A001.e.1.c (*i.e.*, not having silicon cells or single, dual or triple junction solar cells that have gallium arsenide as one of the junctions), spacecraft/satellite solar concentrators and batteries; and (c) ''Space qualified'' atomic frequency standards defined in 3A002.g.2. See also 3D101

Related Definitions: For purposes of photovoltaic arrays in 3A001.e.1.c, an array predominately consists of: a substrate; solar cells having silicon cells or having single, dual, and or triple junction solar cells that have gallium arsenide as one of the junctions; coverglass; ultra-violet coating(s); and bonding agent(s). Spacecraft/satellite: solar concentrators, power conditioners and or controllers, bearing and power transfer assembly, and or deployment hardware/systems are controlled under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

Items:

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

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3E001 ''Technology'' According to the General Technology Note for the Development'' or ''Production'' of Equipment or Materials Controlled by 3A (Except 3A292, 3A980, 3A981, 3A991 or 3A992), 3B (Except 3B991 or 3B992) or 3C.

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License Exceptions

CIV: N/A

TSR: Yes, except N/A for MT, and ''technology'' specially designed for the ''development'' or ''production'' of Traveling Wave Tube Amplifiers described in 3A001.b.8 having operating frequencies exceeding 18 GHz.

List of Items Controlled

Unit: N/A

Related Controls: (1.) See also 3E101 and 3E201. (2.) 3E001 does not control ''technology'' for the ''development'' or ''production'' of: (a) Microwave transistors operating at frequencies below 31 GHz; (b) Integrated circuits controlled by 3A001.a.3 to a.12, having all of the following: 1. Using ''technology'' of 0.7 micrometer or more, AND 2. Not incorporating multi-layer structures. (3.) The term multi-layer structures in this entry does not include devices incorporating a maximum of two metal layers and two polysilicon layers. (4.) ''Technology'' according to the General Technology Note for the ''development'' or ''production'' of the following commodities is under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): (a) When operating at frequencies higher than 31 GHz and ''space qualified'': helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; microwave ''assemblies'' defined in 3A001.b.6; or traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (b) ''Space qualified'' and radiation hardened photovoltaic arrays defined in 3A001.e.1.c (*i.e.*, not having silicon cells or single, dual or triple junction solar cells that have gallium arsenide as one of the junctions), and spacecraft/satellite solar concentrators and batteries; and (b) ''Space qualified'' atomic frequency standards defined in 3A002.g.2.

Related Definition: For purposes of photovoltaic arrays in 3A001.e.1.c, an array predominately consists of: a substrate; solar cells having silicon cells or having single, dual, and or triple junction solar cells that have gallium arsenide as one of the junctions; coverglass; ultra-violet coating(s); and bonding agent(s). Spacecraft/satellite: solar concentrators, power conditioners and or controllers, bearing and power transfer assembly, and or deployment hardware/systems are controlled under the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121).

Items:

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

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7. In Supplement No. 1 to part 774, Category 5 (Telecommunications and ''Information Security'', Part I—Telecommunications), ECCNs 5A001, 5A991, and 5E001, List of Items Controlled sections are revised to read as follows:

5A001 Telecommunications Systems, Equipment, and Components.

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List of Items Controlled

Unit: Equipment in number; parts and accessories in $ value.

Related Controls: Telecommunications equipment defined in 5A001.a.1 through 5A001.a.3 for use on board satellites is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). *See also* 5A101 and 5A991.

Related Definitions: N/A

Items:

a. Any type of telecommunications equipment having any of the following characteristics, functions or features:

a.1. Specially designed to withstand transitory electronic effects or electromagnetic pulse effects, both arising from a nuclear explosion;

a.2. Specially hardened to withstand gamma, neutron or ion radiation; or

a.3. Specially designed to operate outside the temperature range from 218 K (−55° C) to 397 K (124° C).

Note: 5A001.a.3 applies only to electronic equipment.

Note: 5A001.a.2 and 5A001.a.3 do not apply to equipment on board satellites.

b. Telecommunication transmission equipment and systems, and specially designed components and accessories therefor, having any of the following characteristics, functions or features:

b.1 Being underwater communications systems having any of the following characteristics:

b.1.a. An acoustic carrier frequency outside the range from 20 KHz to 60 KHz;

b.1.b. Using an electromagnetic carrier frequency below 30 KHz; or

b.1.c. Using electronic beam steering techniques;

b.2. Being radio equipment operating in the 1.5 MHz to 87.5 MHz band and having any of the following characteristics:

b.2.a. Incorporating adaptive techniques providing more than 15 dB suppression of an interfering signal; or

b.2.b. Having all of the following:

b.2.b.1. Automatically predicting and selecting frequencies and ''total digital transfer rates'' per channel to optimize the transmission; and

b.2.b.2. Incorporating a linear power amplifier configuration having a capability to support multiple signals simultaneously at an output power of 1 kW or more in the 1.5 MHz to 30 MHz frequency range or 250 W or more in the 30 MHz to 87.5 MHz frequency range, over an ''instantaneous bandwidth'' of one octave or more and with an output harmonic and distortion content of better than −80 dB;

b.3. Being radio equipment employing ''spread spectrum'' techniques, including ''frequency hopping'' techniques, having any of the following characteristics:

b.3.a. User programmable spreading codes; or

b.3.b. A total transmitted bandwidth which is 100 or more times the bandwidth of any one information channel and in excess of 50 KHz;

Note: 5A001.b.3.b does not control radio equipment specially designed for use with civil cellular radio-communications systems.

Note: 5A001.b.3 does not control equipment operating at an output power of 1.0 Watt or less.

b.4. Being digitally controlled radio receivers having all of the following:

b.4.a. More than 1,000 channels;

b.4.b. A ''frequency switching time'' of less than 1 ms;

b.4.c. Automatic searching or scanning of a part of the electromagnetic spectrum; and

b.4.d. Identification of the received signals or the type of transmitter; or

Note: 5A001.b.4 does not control radio equipment specially designed for use with civil cellular radio-communications systems.

b.5. Employing functions of digital ''signal processing'' to provide voice coding at rates of less than 2,400 bit/s.

c. Optical fiber communication cables, optical fibers and accessories, as follows:

c.1. Optical fibers of more than 500 m in length specified by the manufacturer as being capable of withstanding a proof test tensile stress of 2×10^9 N/m^2 or more;

Technical Note: Proof Test: on-line or off-line production screen testing that dynamically applies a prescribed tensile stress over a 0.5 to 3 m length of fiber at a running rate of 2 to 5 m/s while passing between capstans approximately 150 mm in diameter. The ambient temperature is a nominal 293 K (20° C) and relative humidity 40%. Equivalent national standards may be used for executing the proof test.

c.2. Optical fiber cables and accessories designed for underwater use.

Note: 5A001.c.2 does not control standard civil telecommunication cables and accessories.

N.B. 1: For underwater umbilical cables, and connectors thereof, see 8A002.a.3.

N.B. 2: For fiber-optic hull penetrators or connectors, see 8A002.c.

d. ''Electronically steerable phased array antennae'' operating above 31 GHz.

Note: 5A001.d does not control ''electronically steerable phased array antennae'' for landing systems with instruments meeting ICAO standards covering microwave landing systems (MLS).

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5A991 Telecommunication Equipment, Not Controlled by 5A001.

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List of Items Controlled

Unit: * * *

Related Controls: Telecommunication equipment defined in 5A991 for use on board satellites is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). *See also* 5E101 and 5E991.

Related Definitions: * * *

Items:

a. Any type of telecommunications equipment, not controlled by 5A001.a, specially designed to operate outside the temperature range from 219 K (−54 °C) to 397 K (124 °C).

b. Telecommunication transmission equipment and systems, and specially designed components and accessories therefor, having any of the following characteristics, functions or features:

Note: Telecommunication transmission equipment:

a. Categorized as follows, or combinations thereof:

1. Radio equipment (e.g., transmitters, receivers and transceivers);
2. Line terminating equipment;
3. Intermediate amplifier equipment;
4. Repeater equipment;
5. Regenerator equipment;
6. Translation encoders (transcoders);
7. Multiplex equipment (statistical mutiplex included);
8. Modulators/demodulators (modems);
9. Transmultiplex equipment (see CCITT Rec. G701);
10. ''Stored program controlled'' digital crossconnection equipment;
11. ''Gateways'' and bridges;
12. ''Media access units''; and

b. Designed for use in single or multi-channel communication via any of the following:
1. Wire (line);
2. Coaxial cable;
3. Optical fiber cable;
4. Electromagnetic radiation; or
5. Underwater acoustic wave propagation.

b.1. Employing digital techniques, including digital processing of analog signals, and designed to operate at a ''digital transfer rate'' at the highest multiplex level exceeding 45 Mbit/s or a ''total digital transfer rate'' exceeding 90 Mbit/s;

b.2. Modems using the ''bandwidth of one voice channel'' with a ''data signaling rate'' exceeding 9,600 bits per second;

b.3. Being ''stored program controlled'' digital cross connect equipment with ''digital transfer rate'' exceeding 8.5 Mbit/s per port.

b.4. Being equipment containing any of the following:

b.4.a. ''Network access controllers'' and their related common medium having a ''digital transfer rate'' exceeding 33 Mbit/s; or

b.4.b. ''Communication channel controllers'' with a digital output having a ''data signaling rate'' exceeding 64,000 bit/s per channel;

Note: If any uncontrolled equipment contains a ''network access controller'', it cannot have any type of telecommunications interface, except those described in, but not controlled by 5A991.b.4.

b.5. Employing a ''laser'' and having any of the following characteristics:

b.5.a. A transmission wavelength exceeding 1,000 nm; or

b.5.b. Employing analog techniques and having a bandwidth exceeding 45 MHz;

Note: 5A991.b.5.b does not control commercial TV systems.

b.5.c. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);

b.5.d. Employing wavelength division multiplexing techniques; or

b.5.e. Performing ''optical amplification'';

b.6. Radio equipment operating at input or output frequencies exceeding:

b.6.1. 31 GHz for satellite-earth station applications; or

b.6.2. 26.5 GHz for other applications;

Note: 5A991.b.6. does not control equipment for civil use when conforming with an International Telecommunications Union (ITU) allocated band between 26.5 GHz and 31 GHz.

b.7. Being radio equipment employing any of the following:

b.7.a. Quadrature-amplitude-modulation (QAM) techniques above level 4 if the ''total digital transfer rate'' exceeds 8.5 Mbit/s;

b.7.b. QAM techniques above level 16 if the ''total digital transfer rate'' is equal to or less than 8.5 Mbit/s; or

b.7.c. Other digital modulation techniques and having a ''spectral efficiency'' exceeding 3 bit/sec/Hz;

Notes: 1. 5A991.b.7 does not control equipment specially designed to be integrated and operated in any satellite system for civil use.

2. 5A991.b.7 does not control radio relay equipment for operation in an ITU allocated band:

a. Having any of the following:

a.1. Not exceeding 960 MHz; or

a.2. With a ''total digital transfer rate'' not exceeding 8.5 Mbit/s; and

b. Having a ''spectral efficiency'' not exceeding 4 bit/sec/Hz.

b.8. Providing functions of digital ''signal processing'' as follows:

b.8.a. Voice coding at rates less than 2,400 bit/s;

b.8.b. Employing circuitry that incorporates ''user-accessible programmability'' of digital ''signal processing'' circuits exceeding the limits of 4A003.b.

c. ''Stored program controlled'' switching equipment and related signaling systems, having any of the following characteristics, functions or features, and specially designed components and accessories therefor:

Note: Statistical multiplexers with digital input and digital output which provide switching are treated as ''stored program controlled'' switches.

c.1. ''Data (message) switching'' equipment or systems designed for ''packet-mode operation'' and assemblies and components therefor, n.e.s.

c.2. Containing ''Integrated Services Digital Network'' (ISDN) functions and having any of the following:

c.2.a. Switch-terminal (e.g., subscriber line) interfaces with a ''digital transfer rate'' at the highest multiplex level exceeding 192,000 bit/s, including the associated signaling channel (e.g., 2B+D); or

c.2.b. The capability that a signaling message received by a switch on a given channel that is related to a communication on another channel may be passed through to another switch.

Note: 5A991.c does not preclude the evaluation and appropriate actions taken by the receiving switch or unrelated user message traffic on a D channel of ISDN.

c.3. Routing or switching of ''datagram'' packets;

c.4. Routing or switching of ''fast select'' packets;

Note: The restrictions in 5A991.c.3 and c.4 do not apply to networks restricted to using only ''network access controllers'' or to ''network access controllers'' themselves.

c.5. Multi-level priority and pre-emption for circuit switching;

Note: 5A991.c.5 does not control single-level call preemption.

c.6. Designed for automatic hand-off of cellular radio calls to other cellular switches or automatic connection to a centralized subscriber data base common to more than one switch;

c.7. Containing ''stored program controlled'' digital crossconnect equipment with ''digital transfer rate'' exceeding 8.5 Mbit/s per port.

c.8. ''Common channel signaling'' operating in either non-associated or quasi-associated mode of operation;

c.9. ''Dynamic adaptive routing'';

c.10. Being packet switches, circuit switches and routers with ports or lines exceeding any of the following:

c.10.a. A ''data signaling rate'' of 64,000 bit/s per channel for a ''communications channel controller''; or

Note: 5A991.c.10.a does not control multiplex composite links composed only of communication channels not individually controlled by 5A991.b.1.

c.10.b. A ''digital transfer rate'' of 33 Mbit/s for a ''network access controller'' and related common media;

Note: 5A991.c.10 does not control packet switches or routers with ports or lines not exceeding the limits in 5A991.c.10.

c.11. ''Optical switching'';

c.12. Employing ''Asynchronous Transfer Mode (''ATM'') techniques.

d. Optical fibers and optical fiber cables of more than 50 m in length designed for single mode operation;

e. Centralized network control having all of the following characteristics:

e.1. Receives data from the nodes; and

e.2. Process these data in order to provide control of traffic not requiring operator decisions, and thereby performing ''dynamic adaptive routing'';

Note: 5A991.e does not preclude control of traffic as a function of predictable statistical traffic conditions.

f. Phased array antennae, operating above 10.5 GHz, containing active elements and distributed components, and designed to permit electronic control of beam shaping and pointing, except for landing systems with instruments meeting International Civil Aviation Organization (ICAO) standards (microwave landing systems (MLS)).

g. Mobile communications equipment, n.e.s., and assemblies and components therefor; or

h. Radio relay communications equipment designed for use at frequencies equal to or exceeding 19.7 GHz and assemblies and components therefor, n.e.s.

5E001 ''Technology'', (see List of Items Controlled).

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List of Items Controlled

Unit: $ value.

Related Controls: Technology defined in 5E001.b.1, 5E001.b.2, 5E001.b.4, or 5E001.c for use on board satellites is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). See also 5E101 and 5E991

Related Definitions: N/A.

Items:

a. ''Technology'' according to the General Technology Note for the ''development'', ''production'' or ''use'' (excluding operation) of equipment, functions or features or ''software'' controlled by 5A001, 5B001 or 5D001.

b. Specific ''technologies'', as follows:

b.1. ''Required'' ''technology'' for the ''development'' or ''production'' of telecommunications equipment specially designed to be used on board satellites;

b.2. ''Technology'' for the ''development'' or ''use'' of ''laser'' communication techniques with the capability of automatically acquiring and tracking signals and maintaining communications through exoatmosphere or sub-surface (water) media;

b.3. ''Technology'' for the ''development'' of digital cellular radio systems;

b.4. ''Technology'' for the ''development'' of ''spread spectrum'' techniques, including ''frequency hopping'' techniques.

c. ''Technology'' according the General Technology Note for the ''development'' or ''production'' of any of the following telecommunication transmission or ''stored program controlled'' switching equipment, functions or features:

c.1. Equipment employing digital techniques, including ''Asynchronous Transfer Mode'' (''ATM''), designed to operate at a ''total digital transfer rate'' exceeding 1.5 Gbit/s;

c.2. Equipment employing a ''laser'' and having any of the following:

c.2.a. A transmission wavelength exceeding 1750 nm;

c.2.b. Performing ''optical amplification'' using praseodymium-doped fluoride fiber amplifiers (PDFFA);

c.2.c. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);

c.2.d. Employing wavelength division multiplexing techniques exceeding 8 optical carriers in a single optical window; or

c.2.e. Employing analog techniques and having a bandwidth exceeding 2.5 GHz;

Note: 5E001.c.2.e. does not control ''technology'' for the ''development'' or ''production'' of commercial TV systems.

c.3. Equipment employing ''optical switching''; or

c.4. Radio equipment having any of the following:

c.4.a. Quadrature-amplitude-modulation (QAM) techniques above level 128; or

c.4.b. Operating at input or output frequencies exceeding 31GHz; or

Note: 5E001.c.4.b. does not control ''technology'' for the ''development'' or ''production'' of equipment designed or modified for operation in any frequency band which is ''allocated by the ITU'' for radio-communications services, but not for radio-determination.

c.5. Equipment employing ''common channel signaling'' operating in either non-associated or quasi-associated mode of operation.

* * * * *

8. Supplement No. 1 to part 774, Category 6 (Sensors and Lasers), is amended by:

a. Revising the License Requirements section, and the Related Controls and Related Definitions paragraphs in the List of Items Controlled section of ECCN 6A002;

b. Revising ECCNs 6A008, 6A998, 6D001, 6D002, 6D991, 6E001, 6E002, and 6E991; and

c. Revising the Related Controls paragraph in the List of Items Controlled section of ECCNs 6A004 and 6D104, to read as follows:

6A002 Optical sensors.

License Requirements

Reason for Control: NS, MT, CC, RS, AT, UN.

Control(s)	Country chart
NS applies to entire entry ..	NS Column 2.
MT applies to optical detectors in 6A002.a.1, a.3, and .e that are specially designed or rated as electromagnetic (including ''lasers'') and ionized particle radiation resistant.	MT Column 1.
RS applies to 6A002.a.1, a.2, a.3, .c, and .e.	RS Column 1.
CC applies to police-model infrared viewers in 6A002.c.	CC Column 1.
AT applies to entire entry ..	AT Column 1.
UN applies to 6A002.a.1, a.2 a.3 and c..	Rwanda; Federal Republic of Yugoslavia (Serbia and Montenegro).
UN applies to 6A002	Federal Republic of Yugoslavia (Serbia and Montenegro).

License Requirement Notes: See § 743.1 of the EAR for reporting requirements for exports under License Exceptions.

List of Items Controlled

Unit: * * *

Related Controls: The following commodities are subject to the export licensing authority of U.S. Department of State, Office of Defense Trade Controls (22 CFR part 121): 1.) ''Image intensifiers'' defined in 6A002.a.2 and ''focal plane arrays'' defined in 6A002.a.3 specially designed, modified, or configured for military use and not part of civil equipment; 2.) ''Space qualified'' solid-state detectors defined in 6A002.a.1, ''space qualified'' imaging sensors (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and ''space qualified'' cryocoolers defined in 6A002.d.1, unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security. See also 6A102, 6A202, and 6A992

Note: Exporters may apply for a commodity jurisdiction request with the Department of State, Office of Defense Trade Controls for ''space qualified'' solid-state detectors defined in 6A002.a.1 and imaging sensors (*e.g.*, ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1 that may have predominant civil application(s).

Related Definitions: N/A

Items:

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6A004 Optics.

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List of Items Controlled

Unit: * * *

Related Controls: ''Space qualified'' components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1 are subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). See also 6A994

Related Definitions: * * *

Items: * * *

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6A008 Radar Systems, Equipment and Assemblies Having Any of the Characteristics (See List of Items Controlled), and Specially Designed Components Therefor.

License Requirements

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

Control(s)	Country chart
NS applies to entire entry ..	NS Column 2.
MT applies to items that are designed for airborne applications and that are usable in systems controlled for MT reasons.	MT Column 1.
RS applies to 6A008.j.1	RS Column 1.
AT applies to entire entry ..	AT Column 1.

License Requirement Notes: See § 743.1 of the EAR for reporting requirements for exports under License Exceptions.

License Exceptions

LVS: $5000; N/A for MT and for 6A008.j.1 and 6A008.1.3

GBS: Yes, for 6A008.b, .c, and l.1 only.

CIV: Yes, for 6A008.b, .c, and l.1 only.

List of Items Controlled

Unit: $ value.

Related Controls: This entry does not control: Secondary surveillance radar (SSR); Car radar designed for collision prevention; Displays or monitors used for Air Traffic Control (ATC) having no more than 12 resolvable elements per mm; Meteorological (weather) radar. See also 6A108 and 6A998. ECCN 6A998 controls, *inter alia*, the LIDAR equipment excluded by the note to paragraph j of this ECCN (6A008).

Related Definitions: N/A.

Items:

a. Operating at frequencies from 40 GHz to 230 GHz and having an average output power exceeding 100 mW;

b. Having a tunable bandwidth exceeding ±6.25% of the center operating frequency;

Technical Note: The center operating frequency equals one half of the sum of the highest plus the lowest specified operating frequencies.

c. Capable of operating simultaneously on more than two carrier frequencies;

d. Capable of operating in synthetic aperture (SAR), inverse synthetic aperture (ISAR) radar mode, or sidelooking airborne (SLAR) radar mode;

e. Incorporating ''electronically steerable phased array antennae'';

f. Capable of heightfinding non-cooperative targets;

Note: 6A008.f does not control precision approach radar (PAR) equipment conforming to ICAO standards.

g. Specially designed for airborne (balloon or airframe mounted) operation and having Doppler ''signal processing'' for the detection of moving targets;

h. Employing processing of radar signals using any of the following:

h.1. ''Radar spread spectrum'' techniques; or

h.2. ''Radar frequency agility'' techniques;

i. Providing ground-based operation with a maximum ''instrumented range'' exceeding 185 km;

Note: 6A008.i does not control:

a. Fishing ground surveillance radar;

b. Ground radar equipment specially designed for en route air traffic control, provided that all the following conditions are met:

1. It has a maximum ''instrumented range'' of 500 km or less;

2. It is configured so that radar target data can be transmitted only one way from the radar site to one or more civil ATC centers;

3. It contains no provisions for remote control of the radar scan rate from the en route ATC center; and

4. It is to be permanently installed;

c. Weather balloon tracking radars.

j. Being ''laser'' radar or Light Detection and Ranging (LIDAR) equipment, having any of the following:

j.1. ''Space-qualified''; or

j.2. Employing coherent heterodyne or homodyne detection techniques and having an angular resolution of less (better) than 20 μr (microradians);

Note: 6A008.j does not control LIDAR equipment specially designed for surveying or for meteorological observation.

k. Having ''signal processing'' sub-systems using ''pulse compression'', with any of the following:

k.1. A ''pulse compression'' ratio exceeding 150; or

k.2. A pulse width of less than 200 ns; or

l. Having data processing sub-systems with any of the following:

l.1. ''Automatic target tracking'' providing, at any antenna rotation, the predicted target position beyond the time of the next antenna beam passage;

Note: 6A008.l.1 does not control conflict alert capability in ATC systems, or marine or harbor radar.

l.2. Calculation of target velocity from primary radar having non-periodic (variable) scanning rates;

l.3. Processing for automatic pattern recognition (feature extraction) and comparison with target characteristic data bases (waveforms or imagery) to identify or classify targets; or

l.4. Superposition and correlation, or fusion, of target data from two or more ''geographically dispersed'' and ''interconnected radar sensors'' to enhance and discriminate targets.

Note: 6A008.l.4 does not control systems, equipment and assemblies designed for marine traffic control.

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6A998 Radar Systems, Equipment and Assemblies, n.e.s., (See List of Items Controlled), and Specially Designed Components Therefor.

License Requirements

Reason for Control: RS, AT

Control(s)	Country chart
RS applies to paragraph .b	RS Column 1.
AT applies to entire entry ..	AT Column 1.

License Exceptions

LVS: N/A

GBS: N/A

CIV: N/A

List of Items Controlled

Unit: $ value.

Related Controls: N/A.

Related Definitions: N/A.

Items:

a. Airborne radar equipment, n.e.s., and specially designed components therefor.

b. ''Space-qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment specially designed for surveying or for meteorological observation.

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6D001 ''Software'' Specially Designed for the ''Development'' or ''Production'' of Equipment Controlled by 6A004, 6A005, 6A008, or 6B008.

License Requirements

Reason for Control: NS, MT, NP, RS, AT.

Control(s)	Country chart
NS applies to ''software'' for equipment controlled by 6A004, 6A005, 6A008 or 6B008.	NS Column 1.
MT applies to ''software'' for equipment controlled by 6A008 or 6B008 for MT reasons.	MT Column 1.
NP applies to ''software'' for equipment controlled by 6A005 for NP reasons.	NP Column 1.
RS applies to ''software'' for equipment controlled by 6A008.j.1.	RS Column 1.
AT applies to entire entry ..	AT Column 1.

License Requirement Notes: See § 743.1 of the EAR for reporting requirements for exports under License Exceptions.

License Exceptions

CIV: N/A

TSR: Yes, except for the following:

(1) Items controlled for MT reasons;

(2) ''Software'' specially designed for the ''development'' or ''production'' of ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or

(3) Exports or reexports to destinations outside of Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, Portugal, Spain, Sweden, or the United Kingdom of ''software'' specially designed for the ''development'' or ''production'' of equipment controlled by 6A008.1.3 or 6B008.

List of Items Controlled

Unit: $ value.

Related Controls: ''Software'' specially designed for the ''development'' or ''production'' of ''space qualified'' components for optical systems defined in 6A004.c and ''space qualified'' optical control equipment defined in 6A004.d.1 is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121). See also 6D991, and ECCNs 6E001 (''development'') and 6E102 (''use'') for ''technology'' for items controlled under this entry.

Related Definitions: N/A.

Items:

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

* * * * *

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

License Requirements

Reason for Control: NS, MT, RS, AT

Control(s)	Country chart
NS applies to entire entry ..	NS Column 1.
MT applies to ''software'' for equipment controlled by 6A008 or 6B008 for MT reasons.	MT Column 1.
RS applies to ''software'' for equipment controlled by 6A008.j.1.	RS Column 1.
AT applies to entire entry ..	AT Column 1.

License Exceptions

CIV: N/A

TSR: Yes, except N/A for the following

(1) Items controlled for MT reasons; or

(2) ''Software'' specially designed for the ''use'' of ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1.

List of Items Controlled

Unit: $ value.

Related Controls: ''Software'' specially designed for the ''use'' of ''space qualified'' imaging sensors (*e.g.*, ''monospectral imaging sensors'' and''multispectral imaging sensors'') defined in 6A002.b.2.b.1 is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121), unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security. ''Software'' specially designed for the ''use'' of ''space qualified'' LIDAR equipment specially designed for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in 6D991. See also 6D102, 6D991, and 6D992

Related Definitions: N/A.

Items:

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

* * * * *

6D104 ''Software'' Specially Designed for the ''use'' of Equipment Controlled by 6A002, 6A003, 6A007, 6A102, and 6B108, for MT Reasons.

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: ''Software'' specially designed for the ''use'' of ''space qualified'' solid-state (optical) detectors defined in 6A002.a.1 is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121), unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security.

Related Definitions: * * *

Items: * * *

* * * * *

6D991 ''Software'' Specially Designed for the ''Development'', ''Production'', or ''Use'' of Equipment Controlled by 6A002.e, 6A991, 6A996, 6A997, or 6A998.

License Requirements

Reason for Control: RS, AT

Control(s)	Country chart
RS applies to ''software'' for equipment controlled by 6A002.e or 6A998.b.	RS Column 1.
AT applies to entire entry, except ''software'' for equipment controlled by 6A991.	AT Column 1.
AT applies to ''software'' for equipment controlled by 6A991.	AT Column 2.

License Exceptions

CIV: N/A

TSR: N/A

List of Items Controlled

Unit: $ value.

Related Controls: N/A.

Related Definitions: N/A.

Items:

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

6E001 ''Technology'' According to the General Technology Note for the ''Development'' of Equipment, Materials or ''Software'' Controlled by 6A (Except 6A018, 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, or 6A998), 6B (Except 6B995), 6C (Except 6C992 or 6C994), or 6D (Except 6D991, 6D992, or 6D993).

License Requirements

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

Control(s)	Country chart
NS applies to ''technology'' for items controlled by 6A001 to 6A008, 6B004 to 6B008, 6C002 to 6C005, or 6D001 to 6D003.	NS Column 1.

Control(s)	Country chart
MT applies to ''technology'' for items controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, 6B108, 6D001, 6D002, 6D102 or 6D103 for MT reasons.	MT Column 1.
NP applies to ''technology'' for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225, 6A226 or 6D001 for NP reasons.	NP Column 1.
RS applies to ''technology'' for equipment controlled by 6A002.a.1, .a.2, .a.3, .c, or .e, 6A003.b.3 or .b.4, or 6A008.j.1.	RS Column 1.
CC applies to ''technology'' for equipment controlled by 6A002 for CC reasons.	CC Column 1.
AT applies to entire entry ..	AT Column 1.
UN applies to ''technology'' for equipment controlled by 6A002 or 6A003 for UN reasons.	Rwanda; Federal Republic of Yugoslavia (Serbia and Montenegro).

License Requirement Notes: See § 743.1 of the EAR for reporting requirements for exports under License Exceptions.

License Exceptions

CIV: N/A

TSR: Yes, except for the following:

(1) Items controlled for MT reasons;

(2) ''Technology'' for commodities controlled by 6A002.e, 6A004.e, or 6A008.j.1;

(3) ''Technology'' for ''software'' specially designed for ''space qualified'' ''laser'' radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1 and controlled by 6D001 or 6D002; *or*

(4) Exports or reexports to destinations outside of Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, Portugal, Spain, Sweden, or the United Kingdom of ''technology'' for the ''development'' of the following: (a) Items controlled by 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.5, 6A001.a.2.b, 6A001.a.2.e., 6A002.a.1.c, 6A008.l.3, 6B008, 6D003.a; (b) Equipment controlled by 6A001.a.2.c or 6A001.a.2.f when specially designed for real time applications; or (c) ''Software'' controlled by 6D001 and specially designed for the ''development'' or ''production'' of equipment controlled by 6A008.l.3 or 6B008.

List of Items Controlled

Unit: N/A

Related Controls: ''Technology'' according to the General Technology Note for the ''development'' of the following commodities is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121): ''Space qualified'' (1.) Components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1.; (2.) Solid-state detectors defined in 6A002.a.1, ''imaging sensors'' (e.g., ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security. See also 6E101, 6E201, and 6E991.

Related Definitions: N/A

Items:

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

6E002 ''Technology'' According to the General Technology Note for the ''Production'' of Equipment or Materials Controlled by 6A (Except 6A018, 6A991, 6A992, 6A994, 6A995, 6A996, 6A997 or 6A998), 6B (Except 6B995) or 6C (Except 6C992 or 6C994).

License Requirements

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

Control(s)	Country chart
NS applies to ''technology'' for equipment controlled by 6A001 to 6A008, 6B004 to 6B008, or 6C002 to 6C005.	NS Column 1.
MT applies to ''technology'' for equipment controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, or 6B108 for MT reasons.	MT Column 1.
NP applies to ''technology'' for equipment controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225 or 6A226 for NP reasons.	NP Column 1.
RS applies to ''technology'' for equipment controlled by 6A002.a.1, .a.2, .a.3, .c or .e, 6A003.b.3 or .b.4, or 6A008.j.1.	RS Column 1.
CC applies to ''technology'' for equipment controlled by 6A002 for CC reasons.	CC Column 1.
AT applies to entire entry ..	AT Column 1.
UN applies to ''technology'' for equipment controlled by 6A002 or 6A003 for UN reasons.	Rwanda; Federal Republic of Yugoslavia (Serbia and Montenegro)

License Requirement Notes: See § 743.1 of the EAR for reporting requirements for exports under License Exceptions.

License Exceptions

CIV: N/A

TSR: Yes, except for the following:

(1) Items controlled for MT reasons;

(2) ''Technology'' for commodities controlled by 6A002.e, 6A004.e, 6A008.j.1; or

(3) Exports or reexports to destinations outside of Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, Portugal, Spain, Sweden, or the United Kingdom of ''technology'' for the ''development'' of the following: (a) Items controlled by 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.5, 6A001.a.2.b, and 6A001.a.2.c; and (b) Equipment controlled by 6A001.a.2.e and 6A001.a.2.f when specially designed for real time applications; or (c) ''Software'' controlled by 6D001 and specially designed for the ''development'' or ''production'' of equipment controlled by 6A002.a.1.c, 6A008.l.3 or 6B008.

List of Items Controlled

Unit: N/A

Related Controls: ''Technology'' according to the General Technology Note for the ''production'' of the following commodities is subject to the export licensing authority of the Department of State, Office of Defense Trade Controls (22 CFR part 121) when intended for use on a satellite: ''Space qualified'' (1.) Components for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1.; (2.) Solid-state detectors defined in 6A002.a.1, ''imaging sensors'' (e.g., ''monospectral imaging sensors'' and ''multispectral imaging sensors'') defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination assigning the export licensing authority to the Department of Commerce, Bureau of Industry and Security. See also 6E992.

Related Definitions: N/A

Items:

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

* * * * *

6E991 ''Technology'' for the ''Development'', ''Production'' or ''Use'' Equipment Controlled by 6A991, 6A996, 6A997, or 6A998.

License Requirements

Reason for Control: RS, AT

Control(s)	Country chart
RS applies to ''technology'' for equipment controlled by 6A998.b.	RS Column 1.
AT applies to entire entry except ''technology'' for equipment controlled by 6A991.	AT Column 1.
AT applies to ''technology'' for equipment controlled by 6A991.	AT Column 2.

License Exceptions

CIV: N/A.
TSR: N/A.

List of Items Controlled

Unit: N/A.
Related Controls: N/A.
Related Definitions: N/A.
Items:
The list of items controlled is contained in the ECCN heading.

Dated: September 12, 2002.

Matthew S. Borman,

Deputy Assistant Secretary for Export Administration.

[FR Doc. 02–23713 Filed 9–20–02; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF STATE

22 CFR Part 121

[Public Notice (4126)]

Amendments of the United States Munitions List

AGENCY: Department of State.

ACTION: Final rule.

SUMMARY: The Department of State is revising Category XV—Spacecraft Systems and Associated Equipment—of the U.S. Munitions List (USML). This regulation clarifies that certain ''space qualified'' items are covered by the USML within the International Traffic in Arms Regulations (ITAR).

EFFECTIVE DATE: September 23, 2002.

FOR FURTHER INFORMATION CONTACT: Ms. Ann Ganzer, Office of Defense Trade Controls, Department of State, Telephone 202–663–27009 or FAX 202–261–8199. ATTN: Regulatory Change, USML Part 121, Category XV.

SUPPLEMENTARY INFORMATION: The Departments of Commerce, Defense, State and the National Security staff recently completed a review of licensing jurisdiction for ''space qualified'' items. This amendment specifies the relevant details and technical parameters associated with those ''space qualified'' items covered by Category XV–Spacecraft Systems and Associated Equipment of the USML, which are under the jurisdiction of the Department of State. The Department of Commerce will also be publishing a final rule addressing which ''space qualified'' items are covered by the Commerce Control List (CCL). Consequently, this will permit State to resume responding to requests for commodity jurisdiction determinations related to space technology, which have been deferred pending inter-agency agreement on the broader question of which agency has jurisdiction over which ''space qualified'' items.

This amendment involves a foreign affairs function of the United States and, therefore, is not subject to the procedures required by 5 U.S.C. 553 and 554. It is exempt from review under Executive Order 12866; but has been reviewed internally by the Department of State to ensure consistency with the purposes thereof. This rule does not require analysis under the Regulatory Flexibility Act or the Unfunded Mandates Reform Act. It has been found not to be a major rule within the meaning of the Small Business Regulatory Enforcement Act of 1966. It will not have substantial direct effects on the States, 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 section 6 of Executive Order 13132, it is determined that this rule does not have sufficient federalism implications to warrant application of Executive Orders Nos. 12372 and 13123. However, affected U.S. persons are invited to submit written comments to the Department of State, Office of Defense Trade Controls, ATTN: Ann Ganzer, Regulatory Change, USML Part 121, Category XV, 12th Floor, SA–1, Washington, DC 20522–0112.

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 amended as follows:

PART 121—THE UNITED STATES MUNITIONS LIST

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

Authority: Sec. 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2278, 2797); E.O. 11958, 42 FR 4311; 3 CFR, 1977 Comp. p. 79; 22 U.S.C. 2658; Pub. L. 105–261, 112 Stat. 1920.

2. In § 121.1, Category XV—Spacecraft Systems and Associated Equipment is amended by revising paragraph (e) to read as follows:

§ 121.1 General. The United States Munitions List.

* * * * *

Category XV—Spacecraft Systems and Associated Equipment

* * * * *

(e) All specifically designed or modified systems or subsystems, components, parts, accessories, attachments, and associated equipment for the articles in this category, including the articles identified in section 1516 of Public Law 105–261: satellite fuel, ground support equipment, test equipment, payload adapter or interface hardware, replacement parts, and non-embedded solid propellant orbit transfer engines (see also Categories IV and V in this section).

Note: This coverage by the U.S. Munitions List does not include the following unless specifically designed or modified for military application (see § 120.3 of this subchapter): (For controls on these items see the Export Administration Regulations, Commerce Control List (15 CFR Parts 730 through 799).)

(1) Space qualified travelling wave tubes (also known as helix tubes or

TWTs), microwave solid state amplifiers, microwave assemblies, and travelling wave tube amplifiers operating at frequencies equal to or less than 31GHz.

(2) Space qualified photovoltaic arrays having silicon cells or having single, dual, triple junction solar cells that have gallium arsenide as one of the junctions.

(3) Space qualified tape recorders.

(4) Atomic frequency standards that are not space qualified.

(5) Space qualified data recorders.

(6) Space qualified telecommunications systems, equipment and components not designed or modified for satellite uses.

(7) Technology required for the development or production of telecommunications equipment specifically designed for non-satellite uses.

(8) Space qualified focal plane arrays having more than 2048 elements per array and having a peak response in the wavelength range exceeding 300nm but not exceeding 900nm.