November 10, 2014
Via E-Mail (publiccomments@bis.doc.gov)
Regulatory Policy Division,
Bureau of Industry and Security
U.S. Department of Commerce, Room 2099B
14th Street and Pennsylvania Avenue, NW
Washington, DC 20230

Re: Revisions to the Export Administration Regulations (EAR): Control of Spacecraft Systems and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML)

RIN: 0694-AF87

The Commercial Spaceflight Federation (CSF) is the industry association of leading businesses and organizations working to make commercial spaceflight a reality. CSF commends the Departments of State and Commerce for the great strides taken in the reform efforts to date. The interim Category XV rule of the United States Munitions List (USML) will help the U.S. satellite industry regain its competitiveness in the overseas market. In addition, CSF is pleased that both the State and Commerce Department interim final rules make clear that activities and information related to the spaceflight passenger/participant experience are not subject to either the International Traffic in Arms Regulations (ITAR) or the Export Administration Regulations (EAR). This is critical to CSF member companies, some of which will begin commercial human spaceflight operations in the near future.

Although the interim final rules published in the Federal Register by the Departments of State and Commerce on May 13, 2014 are a positive move forward, the State Department rule as written will actively harm another burgeoning sector: the commercial spaceflight industry. As written, Category XV (a)(12) will capture all commercial spacecraft with integrated propulsion with the ability to carry humans and control their exports as if they were military items, which they most definitely are not.

Currently, the U.S. is a leader in commercial spaceflight, and in order to maintain this position, we must create a regulatory environment that promotes the industry. Without the ability to efficiently operate overseas, the U.S. commercial spaceflight industry could lose its advantage to international competitors. A strong American commercial spaceflight sector will grow our space industrial base and create high-tech jobs at home. In addition to benefitting U.S. national security, it is in the best business interest for commercial spaceflight companies to protect their technologies from possible international competitors while operating outside of the United States. It matters very much to the U.S. commercial spaceflight industry whether the export of its products and technology are controlled under the EAR or the ITAR. Apart from the generally acknowledged problems of applying ITAR controls to entirely commercial activities (which problems are not unique to the commercial spaceflight industry), we wish to point out one very serious problem particular to commercial spaceflight that could have solemn implications for this industry.

U.S. commercial spaceflight companies planning to operate from foreign locations will have to obtain approval from the foreign equivalents of the US Federal Aviation Administration (FAA). If these spacecraft are classified as "defense articles," obtaining the approval of these foreign civilian agencies will require sharing of ITAR-controlled "technical data." Discussions with foreign FAA equivalents may require Technical Assistance Agreements (TAAs), which will have to be signed by foreign civilian space agencies that have no familiarity with U.S. export controls. Foreign equivalents of FAA will almost certainly not even have the authority to provide the binding commitments required by the ITAR in a TAA. If a foreign government were to ask the U.S. FAA to sign the equivalent of a TAA, the FAA would not have the authority to sign it. If a TAA is required, and the foreign FAA equivalent cannot or will not sign it, then the TAA will not be executed, the US company will not be able to provide the necessary information, the foreign government's approval will not be granted, and U.S. companies will not be able to operate from those foreign locations.

While there is still more work to do to determine the appropriate controls for these spacecraft, CSF proposes the following near-term additions to Category XV that will promote the growing commercial market while still keeping U.S. national security a priority.

Drawing the "Bright Line" between EAR and ITAR

Problem: Spacecraft subject to Category XV(a)(12) are very different, and industry does not know the specifics of U.S. Government concerns, which may appropriately be considered sensitive and classified.

Proposed Solution: A revised Category XV could open the door to Commodity Jurisdictions (CJs) on individual spacecraft for USG agencies to determine, on a case-by-case basis, whether a specific spacecraft presents national security concerns that require ITAR control.

Text Change: This could be done by modifying XV(a)(12) to add the following sentence: "This paragraph does not control spacecraft that are determined to be subject to the EAR via a commodity jurisdiction determination (*see* Sec. 120.4 of this subchapter)." Essentially identical language appears in Note 1 to Category XV(e)(18), which relates to secondary or hosted payloads.

"See-Through Rule"

Problem: All spacecraft capable of reaching space contain components/subsystems that are on the USML in their own right, and at a minimum the rocket engines are controlled under USML Category IV. Such components/subsystems are also likely to be controlled on the Missile Technology Control Regime (MTCR) Annex, even as MTCR Category I items.

Proposed Solution: The State Department's interim final rule already opens the door to exceptions to the "see-through rule." Note 1 to Category XV(a) says that "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 the paragraph." Note 1 does not by its terms exclude MTCR items, even Category I, which has been confirmed by U.S. Government representatives in meetings with industry.

Thus, with certain commercial spacecraft being controlled by Commerce, there is already a precedent for dealing with on-board defense articles, including MTCR Category I items. CSF member companies recognize that U.S. companies would still need to obtain an ITAR license to export the ITAR-controlled components when exported separately from the spacecraft, e.g., as spares.

Text Change: It may not be necessary to modify Category XV(a) to apply Note 1 to manned spacecraft that are moved to Commerce jurisdiction. However, for purposes of clarity, it would be useful if the Federal Register notice implementing the change related to Category XV(a)(12) were explicitly to acknowledge Note 1's applicability to the spacecraft that would move to Commerce jurisdiction, e.g., a sentence along the lines of "Note 1 to Category XV(a) applies to spacecraft that would otherwise be subject to Category XV(a)(12) that are determined to be subject to the EAR via a commodity jurisdiction determination, so that such spacecraft remain subject to the EAR even if defense articles described on the USML are incorporated therein. Such defense articles, when exported separately from the spacecraft, require approval under the ITAR."

As discussed above, it matters very much to the U.S. commercial spaceflight industry whether the U.S. Government controls the exports of manned spacecraft and related technology under the EAR versus the ITAR. The issue of ITAR controls over all "technical data" related to such spacecraft may by itself preclude our member companies from obtaining the approval of foreign civilian space agencies to operate from their territories, which would effectively confine the U.S. companies' operations to U.S. territory. This would severely restrain the growth of the U.S. commercial spaceflight industry.

We believe that U.S. Government agencies recognize that not all manned spacecraft with integrated propulsion systems raise significant national security concerns that require ITAR controls. Our member organizations acknowledge the difficulty in drawing a clear "bright line" between spacecraft that can safely be transferred to Commerce control now and those that might need to remain under State Department licensing jurisdiction for the time being. We therefore propose that U.S. Government agencies agree that individual spacecraft that would otherwise be captured under Category XV(a)(12) be reviewed through the Commodity Jurisdiction process, so that at least some spacecraft could be moved to Commerce control now. Experience gained through the regulation of such spacecraft under the EAR may help inform future decisions on the export control jurisdiction of other manned spacecraft.

Finally, CSF emphasizes that transferring at least some commercial manned spacecraft and related technologies to the export jurisdiction of the Commerce Department will still provide all relevant U.S. Government agencies the same level of visibility into and control over the export of these spacecraft and technology as if they were under ITAR control, but without the very important negative consequences of applying export controls appropriate for military systems to these civilian commercial products.

As commercial companies continue to test and develop their vehicles, it is integral to have an export control regime that will not inhibit the potential of this growing industry. Steps should be taken to further modernize the USML to appropriately move these vehicles to the CCL. CSF commends the Commerce and State Department on the export reform efforts to date and hopes to continue to work together to further determine the appropriate controls for commercial spacecraft.

Sincerely,

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President

Commercial Spaceflight Federation

Definitions from ITAR Part 125.4(c)(4-6)

(4) *Design Methodology,* such as: The underlying engineering methods and design philosophy utilized (*i.e.,* the "why" or information that explains the rationale for particular design decision, engineering feature, or performance requirement); engineering experience (*e.g.,* lessons learned); and the rationale and associated databases (*e.g,.* design allowables, factors of safety, component life predictions, failure analysis criteria) that establish the operational requirements (*e.g.,* performance, mechanical, electrical, electronic, reliability and maintainability) of a defense article. (Final analytical results and the initial conditions and parameters may be provided.)

(5) *Engineering Analysis,* such as: Analytical methods and tools used to design or evaluate a defense article's performance against the operational requirements. Analytical methods and tools include the development and/or use of mock-ups, computer models and simulations, and test facilities. (Final analytical results and the initial conditions and parameters may be provided.)

(6) *Manufacturing Know-how*, such as: information that provides detailed manufacturing processes and techniques needed to translate a detailed design into a qualified, finished defense article. (Information may be provided in a build-to-print package that is necessary in order to produce an acceptable defense article.)