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Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce, Room 2099B
14th Street and Pennsylvania Avenue NW
Washington, DC 20230

Subject: RIN 0694-AF36
Revisions to the Export Administration Regulations (EAR): Control of Aircraft and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML) dated November 7, 2011

The Boeing Company (Boeing) welcomes the opportunity to comment on the referenced proposed revision to the Export Administration Regulations (EAR). We fully support U.S. government efforts to rewrite the existing control lists. The initiative to move to a clearer and more positive United States Munitions List (USML) coupled with the movement of less-significant items to the more flexible Commerce Munitions List (CML), while difficult, is worthwhile.

Boeing remains committed to working with the regulatory agencies on export control reform in order to achieve a modern and effective export control system. We believe the changes to the draft regulation we are communicating in this letter are essential if the regulation is to achieve the intended purpose. Absent these changes, we would have reservations on the rule and would request the Department conduct further consultations with industry before publishing a final rule.

In this Proposed Rule (PR), we are pleased to see the movement of many items to the EAR that no longer warrant control under the ITAR. Updating controls in this manner should decrease the regulatory burden currently associated with these lower level items. The proposed approach to items that were previously the subject of Commodity Jurisdiction (CJ) requests is sensible. We welcome changes to STA adding the United States to the eligible country list and allowing development and production technology exports to non-governmental users when the end item will be used by an STA-36 country, or a person in the United States. We note that all current Boeing military aircraft platforms will remain on the USML under the November 7, 2011 DDTC Proposed Rule.

From the prospective of an Original Equipment Manufacturer ("OEM"), however, we believe that the PR in its current form creates an undesirably complex control environment. In particular, Supplement 4 creates additional distinctions and layers of control on parts and

components, thus blurring the hoped for "bright line" distinction between USML and CCL. In this submission, we comment on definitions, which we believe should be harmonized across the two lists. We discuss the ".y" category which in its current form creates unnecessary duplication of controls. We also provide suggested text changes to increase understandability. Below please find detailed comments for each of these topic areas. These recommended changes need to be made for the reform efforts to have their intended effect.

I. Supplement 4, Part 740 (p. 4 6)

Supplement 4 lists 9A610.x items for which the STA exception is not available for the export of software and technology other than for limited "build-to-print" situations. The creation of this Supplement appears as a step back from the utility of the STA exception as set forth in the July 15, 2011 Proposed Rule as it adds an additional layer of complexity to the treatment of parts and components that were previously acknowledged by the regulators as not inherently military.

Boeing believes that Supplement 4 should be deleted, or significantly scaled back as specified below, for the following reasons:

1) the item list is too broad - it includes nearly every part/component on an aircraft platform;
2) the item list contains many items that are common to commercial aircraft and for which technology and software can be exported without a license in a commercial setting;
3) the national security interest in requiring a license for item-related software and technology to allies and partners (STA-36 countries) remains unclear;
4) many STA-36 countries already actively participate in development and production of U.S. origin military aircraft parts/components, and
5) many STA-36 countries already have comparable indigenous software and technology.

In order to avoid an overly complex export control/licensing framework, items that move to the 600 series should, to the extent possible, transfer so that they are subject to a simple licensing scheme. *But Supplement 4 results in having two parts and components categories and three software/technology categories.* The table below illustrates the segmentation of parts and components that could occur in a single export transaction.

Non-STA country	**License Required/STA**
End item	License Required (LR)
Part/component	LR
Related software/technology	LR
STA country	
End item (9A610.a-w.)	Ask for STA
Supp 4 part/component (9A610.x.)	STA

Supp 4 part/component build to print software/technology (9D/E610.x.)	STA
Supp 4 part/component beyond-build to print software/technology (9D/E610.x.)	LR
Non Supp 4 part/component (9A610.x.)	STA
Non Supp 4 p/c software/technology (9D/E610.x.)	STA
.y. part/component	AT-only
Not "specially designed" part/component (9A991.d.)	AT-only
EAR 99 part/component	See EAR

Apart from the unnecessary complexity, we do not understand the criteria used to include items in Supplement 4. Subject matter experts at Boeing believe that commercial aircraft design technology for the development and production of a significant number of Supplement 4 items is as advanced or more advanced than that used for military aircraft. Because these commercially developed technologies are currently exported under 9E991 to countries beyond the STA-36, there is no reason to restrict use of STA for this subset of software/technology.

If there must be a list of items whose software and technology beyond "build-to-print" cannot be shared with our closest allies unless licensed, the criteria for placement on the list should be clear, the list should include only the few "specially designed" items which have unique military functionality and no commercial equivalent and the list should be justified by foreign availability studies. In addition, it will be important to revise the proposed "build-to-print" definition to cover the types of technology that are typically required in sourcing situations. As proposed, limited technology is STA-eligible but additional technology, that is commonly needed to assure quality consistent parts production, will require a license. For example, to source a wing spar (static structural member) from the U.K., design definition drawings and specifications can be exported under STA, but engineering requirements or discussions to resolve a quality issue require a license. In such a case, exporters will forego STA and seek a license because exporting under both authorizations would require implementing two different compliance programs for the same activity. Such licensing undercuts the usefulness of STA as a mechanism to streamline exports of low level items.

II. Definitions

Boeing believes that definitions should be harmonized across the different regulations. We also advocate for regulatory definitions that are, to the extent possible, aligned with common understandings. The front lines of compliance are often manufacturing and support staff.

"military aircraft"

We note that the definition of "aircraft" in proposed USML category VIII contains several control elements and differs from "military aircraft" which is the term used in proposed

category 9A610. We propose a definition below for use in both regulations. The definition should be placed in Part 772 of the EAR rather than in the ECCN 9A610 control text.

"Military aircraft" are aircraft that are "specially designed" for an exclusively military use. Note: "Military aircraft" controlled under the Arms Export Control Act are found in USML Category VIII. "Military aircraft" controlled under the Export Administration Act are found in CCL Category 9A610.

"build-to-print technology"

As discussed above, we feel that controlling commodities and their related software/technology differently should be carefully considered from a complexity standpoint and justified by commercial and foreign availability studies. If such an approach is maintained, the definition of "build-to-print" should be modified as shown below in order to make the exception to the restriction useful.

"Build-to-Print technology" is "production" "technology" that is sufficient for an inherently capable end user to produce or repair a commodity from engineering drawings without (i) revealing "development" "technology," such as design methodology, engineering analysis, detailed manufacturing or process know-how~~;~~ (ii) revealing the production engineering or process improvement aspect of the "technology;" or (iii) requiring assistance from the provider of the technology to produce or repair the commodity. Engineering requirements, process specifications, quality assurance acceptance, test, and inspection criteria pertaining to the commodity at issue and assisting a proficient supplier to refine its existing production process to address the peculiarities of a specific part to meet quality standards is included within the scope of "build-to-print technology" only if it is the minimum necessary to verify that the commodity is acceptable.

The reasons for these additions are as follows:

Added language	Coverage/Rationale
Engineering requirements	Engineering requirements are the design definition package including geometric drawings or models, material specifications, parts lists, listing of required process specifications, drawing notes etc. This technology conveys to the supplier the requirements of the completed end item.
Process specifications	Process specifications contain the production technology that the supplier is required to follow in order to ensure a certified part is produced. The process specifications are part of the engineering controls package that must be shared with the supplier. They provide process parameters as well as equipment requirements.
Quality assurance	Quality assurance criteria and requirements need to be conveyed to the supplier to ensure the components are inspected in an effective and consistent manner. Control documents are commonly created

	for inspection processes and equipment performance and verification requirements.
Assistance to address part peculiarities	In many cases, production practices of a supplier may need to be adjusted to achieve optimal production techniques within the bounds of the process specification. This is necessary because the process specifications contain process limits that will work for a wide range of part applications. The production practices are typically techniques peculiar to the part in question that aid in meeting stringent requirements. It is necessary to share this type of information to avoid unnecessary duplication of effort and scrap.

"specially designed"

The definition of "specially designed" has significant implications for this PR and for our review comments. Although the definition of "specially designed" was not a topic raised in this PR, we have used the Boeing-recommended version of that definition from our July 15 submittal for evaluation purposes. Our comments herein are based on that definition which is set forth below. We understand a new proposed definition is to be published for industry comment in the January 2012 time frame. To the extent our current comments are negated or require change as a result of a future definition, Boeing will update these comments in our future response as appropriate. We reiterate our strong belief that the ultimate definition must include a nexus to the controlled functionality of the item (including parts, components, accessories, and attachments) and should avoid capturing changes to mere form or fit.

The Boeing proposed definition from our response to the July 15 Proposed Rule:

(a) A "specially designed" item, other than a "part" or "component," is an item that is enumerated on the CCL and USML and, as a result of "development," has properties peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions of the referenced item identified in the CCL.

(b) A "specially designed" "part" or "component" is one that is specific to an end item enumerated on the CCL or USML, and, as a result of "development," has properties peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions of the specified end item identified in the CCL.

(c) An item is not considered "specially designed" if it is used in an end-item in "serial production" that is not enumerated on the USML or CCL (i.e., the item is EAR99 or AT-only controlled), and the item's form, fit, and function have not been altered for use in another end item enumerated on the USML or CCL after "serial production" of the non-enumerated item has begun.

III. The ".y" Category

Boeing supports the concept of minimal controls on items with no national security implication. There are hundreds such items on military aircraft that do not relate to a military mission. Rather, they relate to basic aircraft provisioning or safety of flight.

BIS has described the items listed in the .y subcategory as having "little or no military significance" and thus warranting less strict controls. Boeing sees no obvious national-security benefit to asserting independent control of such items within the 600 series. Items controlled at this proposed level (AT control) can be found throughout the CCL in xx991 and xx994 ECCNs. All aircraft items controlled for AT reasons should be located at these ECCN levels, rather than creating an entire new category, at an identical level of control, in a Category 9 600 series.

In order to avoid a situation where exporters, for example, must control 737 lavatories under one compliance program and marking scheme, and P-8 lavatories whose fit has been slightly modified under a different compliance program and marking scheme, Boeing urges BIS to consider creating a separate list in 9A991 (e.g. 9A991.z) for these items. In addition, given the potentially long list of insignificant parts and components, consideration should be given to developing categories rather than listings of individual parts.

For example, the following items currently listed in ".y": crew rest equipment, filters and filter assemblies, galleys, lavatories, life rafts, medical litter provisions, potable water storage systems, urine collection bags/pads/cups/pumps, and windshield washer and wiper systems whose form and fit were modified for use on a 600 series item but whose function remains equivalent to its commercial unmodified equivalent, should move to 9A991 or to EAR99.

A sample list of additional aircraft items that should form part of a ".y" or a "9A991.z" category includes:

- Fasteners
- Light bulbs, fixtures, and lenses
- Safety items used when the aircraft is on the ground (known as "red gear"), e.g. safety pins with remove-before-flight streamers, engine outlet and inlet covers, grounding wires, etc.
- Flightline ground-handling/support equipment, e.g. tow vehicles and tow bars; lifts, jacks, ladders and stands; power, hydraulic, heating, and cooling carts; ground crew-to-pilot communication gear; etc.
- Intermediate and depot-level support equipment for structural and hydraulic test and maintenance
- Non-Radar Cross Section (RCS) paints, coatings, primers, and application equipment
- Access doors and hatches
- Cargo systems and furnishings
- Fittings

- Light Plates
- Insulation blankets
- Intercostals and gussets
- Floor panels and floor structure
- Seat Tracks
- Shims
- Wire Bundles
- Labels/Placards/Name Plates/Signs, etc.

Finally, a transparent process is needed for exporters to nominate items to be added to the ".y" or "9A991.z" category. This could take the form of a CCATS-type process that would include subsequent publication of added items on a periodic basis so that all exporters could operate consistently as was proposed for ".x" parts and components.

IV. Suggested text changes

Comments track the order of changes as laid out in the Proposed Rule.

1. Part 740.2.a.13

Recommend that "person in the U.S." be "U.S. person located in the U.S." U.S. person is defined but a person in the U.S. could be a non-U.S. person who is in the United States.

2. Part. 740.11, GOV exception

The references here to STA restrictions only speak of technology. We understood that Supplement 4 restrictions cover software and technology.

3. Part 740.20, STA exception

The references here to STA restrictions only speak of technology. We understood that Supplement 4 restrictions cover software and technology.

The text in c.1 is slightly different than the text in 740.2.a.13. Coverage seems to be the same but differing text could lead to confusion.

4. Part 740, Supplement 4

Our general view of this Supplement is stated above. From a review of the text only, we note the following:

Use of the phrase "*types of* parts and components" implies that similar parts and components that are not listed are also captured. We recommend deleting "*types of*".

We understand that the 15 listed parts and components being in the ".x" subcategory are all "specially designed". However, some entries also contain the term "specially designed", which is confusing.

5. 9A610

- The 9A610.a. text and note should be combined and the definition moved to Part 772. Our suggestion:

a. "Military Aircraft" that are not enumerated in USML paragraph VIII(a) including the following.

a.1. trainer aircraft;
a.2. cargo aircraft;
a.3. utility fixed wing aircraft;
a.4. military helicopters;
a.5. observation aircraft;
a.6. military non-expansive balloons and other lighter than air aircraft; and
a.7. unarmed military aircraft, regardless of origin or designation, manufactured before 1956 and unmodified since manufacture. Aircraft with modifications made to incorporate safety of flight features or other FAA or NTSB modifications such as transponders and air data recorders are "unmodified" for the purposes of this subparagraph .a.7.

- For clarity 9A610.f. should be reworded as follows:

f. The following equipment "specially designed" for aircraft controlled by either USML paragraph VIII(a) or ECCN 9A610.a.:

f.1. Pressure refuelers, pressure refueling "equipment," or other "equipment" "specially designed" to facilitate operations in confined areas, and
f.2. ground equipment

- **9A610.g.** it is not clear whether "specially designed" applies to all items in this listing.

- **9A610.a.** does not list UAVs and drones; should the reference be to 9A610? We do not see where parts and components for UAVs are controlled.

- **9A610.y.** could be confusing; because the language mirrors .x, it can be difficult to distinguish what is .x. and what is .y. Suggestion:

y. Specific "parts," "components," "accessories and attachments" "specially designed" for a commodity in a. through w. above or in USML Category VIII, as follows: ...

6. 9B610

- In 9B610.a., environmental test facilities for civil aircraft and for 600 series military aircraft can be the same. To avoid extending controls to civil aircraft test facilities, the text should be rewritten to read:

"Environmental test facilities "specially designed" for the certification...". Boeing would consider modification of the test facility to be the result of a facility design change which "specially designed" would cover. Therefore, there is no need to include "modified" if "specially designed" is applied.

- 9B610.b. as proposed uses *designed* rather than "specially designed" as with the other subparagraphs.

7. 9C610

Because any material controlled by this ECCN would need to have properties, as a result of design, that were peculiar to the military aircraft application to be controlled, and the military aircraft are non-critical and are technologically similar to civil aircraft, 9C610 is likely to be an empty box.

In closing, we reiterate our view that a phased implementation of the ultimate final rules implementing these regulatory changes is needed. This will enable exporters to implement the required trainings, re- marking, and overall systems changes. As mentioned in previous response letters, we support an interim rule, a pilot program that engages industry and the regulatory authorities, and a transition period involving a phased implementation over the course of the calendar year.

We appreciate the substantial effort that this Proposed Rule and the Export Control Reform initiative represents. The Boeing Company believes this is important work that will enhance national security and rationalize the existing outdated export control system. Please do not hesitate to call me should you have any questions or desire additional information. You can reach me by phone at 703-465-3505, or via e-mail at stephanie.a.reuer@boeing.com.

Sincerely,

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