AEROSPACE AND DEFENSE

Innovating Aerospace and Defense: Road Map to U.S. Export Compliance from Design to Realization

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Factors such as the talents of highly skilled engineering personnel, sourcing of high-quality raw materials, and a streamlined manufacturing process must seamlessly join together to achieve these objectives. However, one important element necessary for success in the global A&D marketplace, which is too often given a low-priority status, is compliance with the U.S. export laws and regulations.

To safeguard the national security, foreign policy, antiterrorism, and nonproliferation objectives of the U.S. government, U.S. companies are required to understand and comply with the export laws and regulations when employing foreign nationals, conducting joint research and development (R&D) projects in multiple countries, shipping goods abroad, and engaging in business activities on a global basis. Export compliance alone plays a key role in almost every aspect of the life of an A&D article—literally from the cradle to the grave. Successful A&D companies make a practice of considering U.S. export compliance from the moment that a new article first emerges as an intangible design concept, through the production and development stage, to the sale and delivery of the article to the end customer. Downplaying the importance of this key factor can often be disastrous for a company’s well-being, in terms of both severe financial consequences and injury to its corporate reputation. The following examples of the fictional companies ACME Aerospace, ACME Defense and ACME Components illustrate the vital role that export compliance plays in all facets of A&D activities. Any resemblance to actual companies or events is coincidental.

A leader in the production of turbofan engines, ACME Aerospace intends to make significant changes to its current engine design to produce even greater thrust performance and reduce fuel consumption further. ACME Aerospace would like engineering teams in the United States, its facility in India (ACME India), and an unrelated subcontractor in China to collaborate on this new initiative.

At first glance, it may seem odd to look for an export transaction in the above-referenced example. However, export transactions take many different forms. An export is defined as the transfer of goods, software, or technology from the United States. The term transfer covers not only physical shipments of articles but also the sharing of technology with foreign nationals both within the United States and abroad. In the above example, ACME’s U.S. engineering team will effectively be exporting technology to its counterparts in China and India when it (1) provides technical support via telephone, fax, or e-mail; (2) sends or hand-
carries technical drawings, prototypes or other product specifications abroad; (3) hosts joint meetings of the teams in the United States; and (4) works with ACME’s foreign national employees in the United States (“deemed export”).

These proposed activities may trigger a licensing requirement that ACME Aerospace must satisfy before proceeding with its research and development (R&D) activities. To determine whether a license is required, ACME Aerospace must first determine which government agency exercises jurisdiction over its proposed activities. There are three primary U.S. government agencies that regulate the export and transfer of goods, software and technology from the United States:

- The Commerce Department’s Bureau of Industry and Security (BIS) controls the export and reexport of dual use articles—those that have both a civil and military application.
- The State Department’s Directorate of Defense Trade Controls (DDTC) regulates the export, re-export and temporary import of items specially designed or modified for military end-use (regardless of whether they are intended for a military or commercial end-user).
- The Treasury Department’s Office of Foreign Assets Control (OFAC) administers the U.S. embargoes and sanctions programs imposed against designated individuals, entities, and countries hostile to the United States.

Each of these government agencies administers its own body of laws and regulations, which impose distinct responsibilities and harsh consequences for noncompliance.

In this case, since the underlying turbofan engine is a dual-use article (i.e., it can be used in both civil and military aircraft), it is subject to the BIS’s Export Administration Regulations (EAR). The EAR contains the Commerce Control List (CCL) that categorizes dual-use articles either under specific Export Control Classification Numbers (ECCNs), which typically carry licensing restrictions, or under EAR99 (the catch-all category of dual-use articles that may be transferred without a license). By determining the correct export classification, ACME Aerospace can pinpoint whether there are any restrictions on the release of the turbofan technology to China, India, or the home country of its foreign national employees in the United States. Even where a license requirement is found, the EAR provides several license exceptions that, if applicable, may permit ACME Aerospace to proceed without seeking any prior authorization.

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1 An export of technology or source code is “deemed” to take place when it is released to a foreign national within the United States. See §734.2(b)(2)(ii) of the Export Administration Regulations (EAR).
The export compliance process does not stop here, though. Regardless of how the turbofan engine technology is classified under the EAR, ACME Aerospace must still carefully consider the recipients of the technology during the proposed R&D activities. ACME Aerospace should screen the unrelated Chinese subcontractor and its engineering team, as well as the engineering team of its related Indian entity, against the various restricted parties lists that are published by the BIS, DDTC, and OFAC. In addition, ACME Aerospace should make a practice of screening all new foreign national hires, as well as foreign national visitors to ACME Aerospace’s facilities in the United States, against these lists. Transfers of articles, software and technology to individuals and entities designated on one these lists by U.S. companies and their related overseas branches is strictly prohibited under the U.S. export laws and regulations. These individuals and entities are categorized as terrorists, narcotics traffickers, organizations involved in proliferation activities, and those who have been convicted of export violations.

Should ACME Aerospace fail to live up to its obligations under these rules, severe civil and possibly criminal penalties may ensue, as well as negative publicity for the company and the possible termination of its exporting privileges. As the above example illustrates, U.S. export compliance plays a crucial role even in situations in which there is no physical movement of articles from one country to another. Compliance is, in a nutshell, the key to survival and success in the global marketplace.

At the cutting edge of military navigation systems, ACME Defense is in the development stage of a software application designed to increase the accuracy of the most advanced integrated global positioning system (GPS) and inertial navigation system (INS) by 50 percent. The software will be used with the integrated navigation systems in combat helicopters and strike fighters. ACME Defense has conducted the research and design with a small team of senior engineers with heightened security clearance in the United States. At this stage, ACME Defense will organize a team of software engineers, avionics experts and combat pilots from the United States, Canada and Belgium for the software’s development. Testing of the software will be performed at ACME Defense’s customer facilities in the United States and Belgium.

By nature, companies dealing primarily with defense articles are aware of export compliance risks and responsibilities relating to their products. ACME Defense screens new and existing employees against the restricted party lists and grants security clearances based on member grade level and function. In this case, it has become evident to ACME Defense during the design stage that the software application is listed on the United States Munitions List (USML) and is subject to the jurisdiction of the DDTC. An initial product jurisdiction assessment is integral to the success of any defense article launch and defense-related company generally, since it is the basis of registration with the DDTC. All manufacturers, exporters, and brokers of defense articles, defense services, or related technical data are required to register with the DDTC.

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The principal regulatory document relating to the control of the export and temporary import of defense articles, including the furnishing of defense services, is the International Traffic in Arms Regulations (ITAR), which implements the legislative authority and provisions of the Arms Export Control Act. ITAR contains the USML, which is a list of all designated defense articles and defense services, organized into categories.

By determining the correct USML category of the software application, ACME Defense can subsequently identify each of the members of the development team that are subject to a DDTC license or whether a license exception may be afforded for the release of the technology. Successful planning of this phase of the development process can mean significant gains related to product launch time and costs, since obtaining DDTC licenses may reach or even exceed 60 days. It is also important that licenses are maintained and monitored for the duration of the development period. It would be advisable for ACME Defense to have the company’s global export compliance administrator participate at all levels of the product launch process.

Outsourcing segments of the product development phase is increasingly a reality. Software drivers or encoding applications may be outsourced to various companies based on their specialized knowledge. The result could be a superior product with a shorter product launch period. Should outsourcing lead to the sharing of classified technical data or source code, a license assessment should be conducted and any applicable licenses should be obtained for each of the third-party developers.

To market the advances of the software application, ACME Defense will provide a prototype presentation to its customer in Belgium. ACME Defense’s development team will travel to the customer site to present the software capabilities; the prototype will be hand-carried to the Belgium customer. Subsequently, the software application will remain at the customer site for testing. As mentioned earlier, hand-carried transfers of controlled products or technology are regarded as an export. ACME Defense would need to assess whether a license or license exception applies before the presentation occurs. This would also hold true for those to whom the technology may be released for the purposes of testing.

With National Security becoming among the highest of priorities in recent years, companies need to ensure that their exports are in compliance with the ITAR. Failure to understand these complex export regulations can result in significant penalties, including delays in shipping, customs’ detentions and seizures, loss of business, and even fines and suspensions from doing international business.

ACME Components is a division that provides component parts for both ACME Aerospace and ACME Defense products. In an effort to reduce costs, ACME Components explores sourcing component parts from various low-costs regions.

For DDTC license processing times go to: http://www.pmdtc.org/processdte.htm
At last we are at the long-awaited stage of production and product realization. Finally, customers are lined-up and manufacturing has kicked into full gear! ACME Components begins by addressing the product component sourcing needs.

Product sourcing would appear to be a common challenge for purchasing and procurement departments. In reality, this situation poses many challenges that encompass both import and export compliance. Outsourcing even the smallest part of a component may impact the bottom line in many different ways. By changing the origin of the part, the origin of the entire component may shift and thus eliminate possibilities of using various import duty saving programs. This could be a deterrent to some customers who count on or require a product to be of a certain origin. Additionally, the selection of foreign suppliers requires companies to address issues such as technology transfers and deemed exports, as discussed earlier. Companies that participate in programs such as Customs Trade Partnership Against Terrorism (C-TPAT) may also need to arrange site visits and require their vendors to meet certain security requirements. ACME Components’s sourcing groups can work closely with their compliance professionals to implement strategic component sourcing strategies to ensure compliance and cost savings to both ACME Components and its customers.

ACME Customer Service receives an order for customized parts for the Turkish military. The customer’s order is for receiving equipment for an aircraft’s GPS that will allow the system to provide navigation information at speeds in excess of 600 m/s.

Although this will be a slight enhancement to the performance of ACME Component’s current system, this small change will result in licensing controls that may prohibit ACME Components from actually supplying this part to the customer. There are a number of steps that can be taken by consulting the company’s trade compliance professionals to assist in determining whether or not this order can be completed.

As with the other phases of a new product launch, the first responsibility of the company is to know what they are exporting. This includes working with trade compliance professionals to ensure that the product is appropriately classified in accordance with the Export Control Regulations.\(^8\) The second is to know the destination country of the product. Based on the indicated controls of the product classification, exports to certain countries may be prohibited.\(^9\) Next, regardless of the order, companies are responsible for ensuring that they know their customer. This includes performing customer screening against the restricted-party lists. Last, but certainly not least, it is critical to know the customer’s intended end-use of the product—and whether the customer has the intent to re-export the product once received. To assist companies with their export transactions, the U.S. government has issued a list of “red flags”\(^10\) that may indicate suspicious transactions with which the company should take extra caution. All company departments engaging in activities that touch on export

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\(^8\) See the Export Administration Regulations, 15 C.F.R. Part 732.3(b).
\(^9\) See the Export Administration Regulations, 15 C.F.R. Part 744.
\(^10\) A complete list of red flag indicators may be found at: http://www.bis.doc.gov/ComplianceAndEnforcement/RedFlagIndicators.htm.
transactions, especially sales and customer service departments, should be familiar with this list. In the event that an order will require a license, it is critical to ensure that end-use requirements and license restrictions are communicated to the customer prior to shipment processing.

_Acme Components is dedicated to ensuring compliance with all export regulations and regularly communicates this message to all employees._

To express their dedication to compliance, ACME’s senior management regularly includes compliance goals in their initiatives and stresses compliance through the company’s core values. They have a dedicated export compliance administrator who routinely reviews and enforces export control procedures and works in close partnership with all departments to ensure smooth transactions with all customers. ACME has issued documented export control procedures specific to product and specific-product enhancements that may result in greater export compliance responsibilities. ACME also offers regular training and continuing education for all employees regarding export compliance and their role in ensuring the success of ACME in the global market.

The A&D industry is constantly meeting new challenges in the form of innovation, cost savings strategies, condensed product launch timelines and compliance with a host of laws and regulations. Successfully navigating the U.S. export laws and regulations may provide at least part of the answer to these challenges. A road map to export controls can increase flexibility in production and minimize the risk of exposure to penalties that may effectively cripple a company’s operations. As demonstrated, U.S. export laws may even affect those companies that do not ship products outside of the United States. To succeed in the global marketplace, compliance with U.S. export laws is truly the key.