



# EIB World Trade Headlines

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## Export Control Reform Teleconference June 3 - Commerce and State Destination Control Statement (DCS) proposed rules and Commerce Export Clearance advanced notice of proposed rulemaking

In a special ECR teleconference on June 3 at 2:30 p.m. Eastern Time, Timothy Mooney with BIS's Regulatory Policy Division will provide an overview of the Commerce proposed rule and the advanced notice of proposed rulemaking (ANPR). In addition, Robert Monjay with the U.S. Department of State's Office of Defense Trade Controls Policy will provide an overview of the State proposed rule.

The BIS and DDTC speakers will highlight key aspects of export clearance requirements related to the new "600 series" and 9x515 ECCNs, including export clearance issues related to grandfathered authorizations and the ITAR §120.5(b) process.

On May 22, the Department of Commerce published in the *Federal Register* a proposed rule to revise the destination control statement in § 758.6 of the EAR to harmonize the statement required for the export of items subject to the EAR with the destination control statement in § 123.9(b)(1) of the International Traffic in Arms Regulations (ITAR). This proposed rule is published in conjunction with the publication of a Department of State, Directorate of Defense Trade Controls proposed rule revising § 123.9(b)(1) of the ITAR.

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\*Car Fits in Tight Spaces

On May 22, the Department of State published in the *Federal Register* a proposed rule to amend the ITAR to: clarify regulations pertaining to the export of items subject to the EAR;

revise the licensing exemption for exports made to or on behalf of an agency of the U.S. government; revise the destination control statement in ITAR § 123.9 to harmonize the language with the EAR; and make several minor edits for clarity.

In addition, on May 22, the Department of Commerce published in the *Federal Register* an advanced notice of proposed rulemaking (ANPR) that

requests comments for how the export clearance requirements under the EAR can be improved, including how the EAR export clearance provisions can be better harmonized with the export clearance requirements under the ITAR.

If you have questions on the Commerce or State proposed rules or the Commerce ANPR

or any other questions related to export clearance under the EAR and ITAR, you may send them to [ecrweekly@bis.doc.gov](mailto:ecrweekly@bis.doc.gov) and the BIS speakers will address your questions to assist you as you review the proposed rules and ANPR and draft your comments on the proposed rules.

To hear the teleconference, please call [1-888-455-8218](tel:1-888-455-8218) and use passcode 6514196. If you are calling in from overseas the number is [1-212-547-0330](tel:1-212-547-0330).

You may view the Federal Register notice at:

[www.federalregister.gov](http://www.federalregister.gov).

The Bureau of Industry and Security DCS proposed rule is also available at:

[http://www.bis.doc.gov/index.php/forms-documents/doc\\_download/1239-80-fr-29551](http://www.bis.doc.gov/index.php/forms-documents/doc_download/1239-80-fr-29551)

The Department of State proposed rule is also available at:

[https://www.pmdtc.state.gov/FR/2015/2015-12295\\_05\\_22\\_2015.pdf](https://www.pmdtc.state.gov/FR/2015/2015-12295_05_22_2015.pdf)

The Bureau of Industry and Security Export Clearance advanced notice of proposed rulemaking is also available at:

[http://www.bis.doc.gov/index.php/forms-documents/doc\\_download/1241-80-fr-29554](http://www.bis.doc.gov/index.php/forms-documents/doc_download/1241-80-fr-29554)

## PROPOSED CHANGES DEPARTMENT OF STATE

22 CFR Parts 120, 123, 124, 125, and 126 RIN 1400–AC88 [Public Notice 9139] Amendment to the International Traffic in Arms Regulations:

Exports and Temporary Imports Made to or on Behalf of a Department or Agency of the U.S. Government; Procedures for Obtaining State Department Authorization To Export Items Subject to the Export Administration Regulations; **Revision to the Destination Control Statement**; and Department of State.

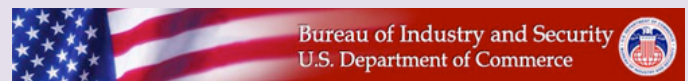
ACTION Proposed rule.

### SUMMARY

As part of the President's Export Control Reform (ECR) effort, the Department of State is proposing to amend the International Traffic in Arms Regulations (ITAR) to: clarify regulations pertaining to the export of items subject to the Export Administration Regulations (EAR); revise the licensing exemption for exports made to or on behalf of an agency of the U.S. government; revise the destination control statement in ITAR § 123.9 to harmonize the language with the EAR; and make several minor edits for clarity. The proposed revisions contained in this rule are part of the Department of State's retrospective plan under E.O. 13563.

### DATES

The Department of State will accept comments on this proposed rule until July 6, 2015.



## Updated Statements of Legal Authority for the Export Administration Regulations.

This rule updates the authority paragraphs in 15 CFR parts 730, 736 and 746 of the Export Administration Regulations to cite the Notice of May 6, 2015 (80 FR 26815, May 8, 2015), which continues that emergency declared in Executive Order 13338. This rule is purely procedural and makes no changes other than to revise CFR authority citations to make them current. It does not change the text of any section of the EAR, nor does it alter any law.

## BIS ADDS AL NASER AIRLINES TO MAHAN AIR TEMPORARY DENIAL ORDER

WASHINGTON— The U.S. Department of Commerce's Bureau of Industry and Security (BIS) today issued an order denying the export privileges of Al Naser Airlines, Bahar Safwa General Trading, and Ali Abdullah Alhay for ongoing efforts to illegally export civilian aircraft to Iran in violation of the Export Administration Regulations (EAR).

Also today, the U.S. Department of the Treasury designated Iraq-based Al-Naser Airlines, Syrian businessman Issam Shammout, and his UAE-based Sky Blue Bird Aviation pursuant to Executive Order 13224, a counter-terrorism authority. These entities and this individual were sanctioned for providing support to Iran's Mahan Air, which was designated in October 2011 pursuant to E.O. 13224 for providing financial, material and technological support to Iran's Islamic Revolutionary Guard Corps-Qods Force (IRGC-QF).

The BIS order adds the parties to an existing Temporary Denial Order (TDO) against Mahan Air of Iran. TDOs are issued by the Assistant Secretary for Export Enforcement denying the export privileges of a company or individual to prevent an imminent or on-going export control violation. These orders are issued for a renewable 180-day period and cut off not only the right to export from the United States, but also the right to receive or participate in exports and reexports from the United States or in other transactions that are subject to the EAR..

According to the TDO, Al Naser Airlines, based in Iraq, sought to acquire, for Mahan Air, at least two Airbus aircraft that were located in the United States. Ali Abdullah Alhay, a twenty-five percent owner of Al Naser Airlines who was acting on its behalf, signed a Letter of Intent for the aircraft as well as subsequent Sales Agreements. Payments were wired from the account of Bahar Safwa General Trading of Dubai, United Arab Emirates, an entity suspected of acting as a front company for Mahan.

Agents from the BIS Office of Export Enforcement detained the two aircraft prior to their export from the United States. Recent press reports indicate that Al Naser Airlines continues its efforts to procure commercial aircraft for Mahan Air.

Mahan Air has been subject to a Temporary Denial Order since 2008 that has been successively renewed, most recently in January 2015 for its on-going procurement efforts and attempts to evade U.S. export law. Additionally, in October 2011, the U.S. Department of the Treasury named Mahan Air as a Specially Designated Global Terrorist for providing financial, material and technological support to Iran's Islamic Revolutionary Guard Corps-Qods Force.

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BIS controls exports and re-exports of commodities, technology, and software to support national security and foreign policy, including nuclear, chemical and biological weapons, and missile non-proliferation, human rights, regional stability, and curbing terrorism. Criminal penalties and administrative sanctions can be imposed for violations of the Export Administration Regulations. For more information, please visit [www.bis.doc.gov](http://www.bis.doc.gov).

## Elbit Systems of America to Integrate JHMCS II on AC-130W

The JHMCS II Improves Situational Awareness While Reducing Fatigue for Pilots

Elbit Systems of America, through its RCEVS joint venture with Rockwell Collins, recently entered into a NAVSEA Crane contract funded by USSOCOM to integrate the Joint Helmet Mounted Cueing System (JHMCS) II onboard the AC-130W. This is the first JHMCS II integration effort in the US for military cargo aircraft. Current versions of JHMCS are flying on most US fighter aircraft.

This integration will occur over the course of the next two years. While the value of the contract is immaterial to Elbit Systems of America, the integration of the JHMCS II is pivotal to the warfighter, since adding JHMCS II technology is part of a much larger effort to add capabilities to the AC-130 platform.

Designed to improve situational awareness, the JHMCS II Helmet Mounted Display System is based on operationally-proven technology that incorporates color symbology in both day and night modes. The JHMCS II provides visor projected video in a well-balanced lightweight helmet and integrated system. Improving the center of gravity reduces pilot fatigue, especially on the long-duration missions common to the AC-130.

"The JHMCS II system features the most innovative head-tracking technologies available, giving pilots increased situational awareness no matter what direction he or she is looking," stated Raanan Horowitz, President and Chief Executive Officer of Elbit Systems of America. "The intelligent vision in the cockpit, gives pilots immediate and accurate recognition of friendly, threat, and unknown targets. With this awareness, AC-130 pilots flying with the JHMCS II will have a decided advantage."

## Seminar in the West Coast Still Seats Open

There is still space available in our upcoming export control program in Seattle, WA. This will be a “Complying with US Export Controls” seminar. This program will cover the key information in the Export Administration Regulations that you need to know. The program will be held on [June 11-12, 2015](#), at the Crown Plaza-Seattle Airport Hotel. Registration cut-off dates are coming up soon, so don't delay. Please visit our website for additional information: <http://www.bis.doc.gov/>. The Bureau of Industry and Security has also modified this year's Eastern Region schedule, and invites you to register to learn about export control requirements under the Export Administration Regulations. ■ Complying with U.S. Export Controls – 2 Days

[June 16-17](#) Minneapolis, MN – \$515. This two-day program is led by BIS's professional counseling staff and provides an in-depth examination of the Export Administration Regulations (EAR). The program will cover the information exporters need to know to comply with U.S. export control requirements on commercial goods. We will focus on what items and activities are subject to the EAR; how to determine your export control classification number (ECCN); steps to take to determine the export licensing requirements for your item; when you can export or reexport without applying for a license; export clearance procedures; and record keeping requirements. View Complying with U.S. Export Controls [event details](#).

## MOTORCYCLE MADE BY 3D PRINTING

Why would the biggest connector company in the world design and build what it says is the first fully functional 3D-printed motorcycle? That's what I asked [TE Connectivity's](#) Charles Fry at last week's RAPID 2015 show.

Fry, principal electrical engineer for the company's advanced manufacturing technology group, said an internal team decided to build the bike as a demonstrator. The intent was to show TE Connectivity's engineers what the technology can really do in making working load-bearing production parts, and free up their thinking when approaching design problems.

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TE Connectivity built this all-electric motorcycle using 3D printing as a demonstrator to show its engineers what the technology can do in making working load-bearing production parts.

(Source: TE Connectivity)

The bike was on display at the conference, and described by Fry in a talk he gave on May 20. Almost all of its parts are 3D printed, even the wheel bearings, and the frame is printed from standard ABS using [Stratasys'](#) FDM (fused deposition modeling) process. Other plastic materials that went into the motorcycle's parts include Ultem 9085, commonly used in aerospace applications. Most metal parts on the motorcycle were built using [EOS'](#) direct metal laser sintering (DMLS) process.



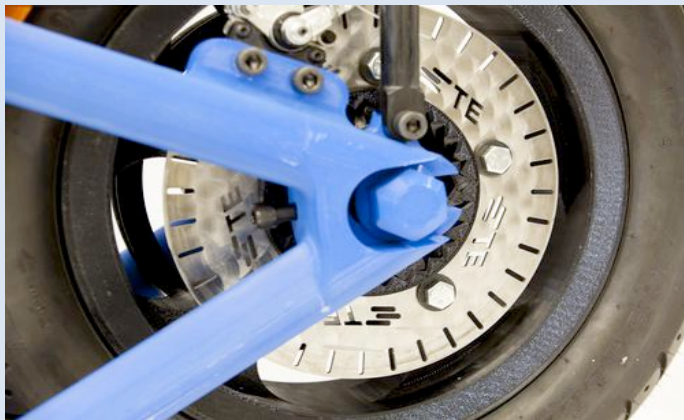
The 3D-printed motorcycle's frame is made from standard ABS using the FDM (fused deposition modeling) process. Other plastic materials that went into the motorcycle's parts include Ultem 9085. 3D-printed metal parts on the motorcycle were built using direct metal laser sintering (DMLS).

(Source: TE Connectivity)

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Very few parts are not 3D printed. These include the motor, drive belt, side mirrors, electronics, some bolts, as well as the battery and electronics. Also not 3D printed were the brake system and the kickstand, for safety reasons. The 8-ft-long, 250-lb all-electric motorcycle can seat two adults totaling up to 400 lb, and is capable of speeds between 10-15 mph.

During Fry's talk he gave details on the development and build processes and lessons learned. These included part design, removal of support material, assembly, part finishing, and part repair. Part repair issues arose after an accident during transportation that severely damaged the first motorcycle, Fry told *Design News*. That meant it had to be rebuilt, which gave an opportunity to make a few tweaks such as improving the mounting of the motor to the frame to improve performance. Assembly of the first motorcycle took about 16 hours using two to three people, but by the time the second one was built timing was down to about eight hours.



Almost all of the motorcycle's parts are 3D printed, even the wheel bearings. The only parts not 3D printed are the motor, drive belt, side mirrors, electronics, some bolts, battery, electronics, brake system, and kickstand. (Source: TE Connectivity)

TE Connectivity already uses 3DP for rapid prototyping and internal engineering samples during development of some of its own connectors, as well as for custom tooling, Fry told us. But it's important to see those connector designs in context, to help the company's engineers design better solutions for specific applications customers haven't yet finished. So engineers also use the technology to build models and prototypes of customer components for external customer demonstrations.

A few connectors are now made using 3DP for production since the cost of making them with CNC milling is about three to four times as high, Fry said. TE Connectivity has several 3DP technologies in-house, including SLA (stereolithography), FDM, DMLS, and Stratasys' ProJet and Objet machines.

## Car Fits in Tight Spaces

For city dwellers, finding a parking space can be a time-consuming and downright exasperating task. Now, however, engineers may have found a solution to that old urban problem. By designing a car that can move sideways into a parking space, engineers at the [DFKI GmbH Robotics Innovation Center](#) in Germany may have made it faster and easier to wiggle into even the tightest spots. "With this car you'll know if you'll fit," Timo Birnschein, project manager for the vehicle, told *Design News*. "You don't have to do a zig-zag move to fit into a parking space that you found after two hours of searching."



The EO Smart Connecting Car 2 measures about 2.5m long before tilting is cabin up and rolling the rear axle to the front. (Source: DFKI GmbH Robotics Innovation Center)

Known as the [EO Smart Connecting Car 2](#), the concept vehicle works by folding up and turning its wheels perpendicular to the curb that it's approaching. As a result, it reduces its normal 2.5m length by about 80 cm, while simultaneously driving sideways.

The key to being able to accomplish that lies in the car's use of a tubular frame. Employing a tubular frame, instead of pressed sheet metal, the car's rear axle can actually roll forward on the tube, causing the cabin to tilt upward.

"With this kind of shrinkage, we can navigate into parking spaces that are small enough for a bicycle," Birnschein told us.

The concept's other key enabler is its use of an electric powertrain. Electric motors in the wheel hubs simplify the vehicle's packaging and allow engineers to turn the wheels and tilt the cabin in ways that wouldn't ordinarily be possible.

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By tilting the cabin upward, the car loses 80 cm of its horizontal length. It can also turn its wheels perpendicular to the curb, so it can scoot sideways into a parking space. (Source: DFKI GmbH Robotics Innovation Center)

“With wheel hub motors, you can completely rethink the design of the car,” Birnschein said. “You don’t have a transmission, gearbox, exhaust, or differential -- all those massive parts. It’s simpler.”

The car’s electric powertrain, which uses an uncooled lithium iron phosphate battery, also allows it to be charged as part of a larger group. By plugging into one another, the EO cars can be connected like a train of shopping carts, while electrical charge is passed from the front to the back of the train. Ultimately, DFKI engineers foresee this as a key to enabling car-sharing schemes, as well as a way of saving space during recharging. The institute claims the EO Smart Connecting Car enables a typical parking lot to hold seven times more vehicles than a similarly sized parking lot full of conventional cars.

Although the design hasn’t yet been adopted by any automakers, DFKI engineers believe the wisdom behind the concept will become more evident as today’s big cities grow into future mega-cities. “Today, 30% of the gasoline in some cities is used just for finding parking spaces,” Birnschein said. “If you take away that problem, imagine how much cleaner the air would be.”

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Thanks to the use of an electric powertrain and a tubular frame, the EO Smart Connecting Car 2 can slide its rear axle forward and roll sideways.

(Source: DFKI GmbH Robotics Innovation Center)

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