

Bureau of Industry and Security Issues First “Emerging Technology” Control on Artificial Intelligence-Based Geospatial Imagery Software

February 2020

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On January 6, 2020, the US Department of Commerce’s Bureau of Industry and Security (BIS) issued the first “emerging technology” rule to control artificial intelligence-based software specially designed to automate the analysis of geospatial imagery and point clouds.¹ Effective January 6, 2020, this software requires a license for export or reexport to all destinations except Canada.

This interim final rule follows the publication of an Advance Notice of Proposed Rulemaking (ANPRM) by BIS in November 2018 asking for public comments on criteria for identifying emerging technologies that are essential to US national security. The ANPRM listed 14 categories including artificial intelligence (AI) and position, navigation, and timing (PNT) technology, such as the software addressed by the January 6, 2020 rule.² BIS published the ANPRM pursuant to the Export Control Reform Act of 2018 (ECRA), which mandates an interagency process to identify and establish appropriate controls on the export, re-export, or transfer (in country) of (1) emerging and (2) foundational technologies.

As described further below, items controlled as emerging and foundational technologies under ECRA also qualify as “critical technologies” under the Foreign Investment Risk Review Modernization Act (FIRRMA). Under FIRRMA, the Committee on Foreign Investment in the United States (CFIUS) has expanded jurisdiction to review a broader range of foreign investment transactions involving critical technologies, and requires mandatory filings under some circumstances.³

¹ Dep’t of Commerce, Interim Final Rule (January 6, 2020), *available* [here](#).

² For more details, see White & Case’s client alert, *available* [here](#).

³ For more details, see White & Case’s client alert, *available* [here](#). New FIRRMA regulations take effect on February 13, 2020.

The interim final rule classifies geospatial imagery software specially designed for training a Deep Convolutional Neural Network, an AI-based technology, to automate the analysis of geospatial imagery and point clouds⁴ under the Export Control Classification Number (ECCN) for regional stability (RS) reasons.

Interim Final Rule

BIS added certain software specially designed to automate the analysis of geospatial imagery to ECCN 0D521. A license is required for the export and reexport of these items to all destinations, except Canada. Items under the “OY521” series, including 05D21, remain in that ECCN for up to a year while the US Government determines whether classification under a revised or new ECCN, or an EAR99 designation, is appropriate.

Classification under ECCN 0D521

This interim final rule controls geospatial imagery software specially designed for training a Deep Convolutional Neural Network to automate the analysis of geospatial imagery and point clouds, and satisfying all of the following criteria:

- Provides a graphical user interface that enables the user to identify objects, such as vehicles and houses, from within geospatial imagery and point clouds in order to extract positive and negative samples of an object of interest;
- Reduces pixel variation by performing scale, color, and rotational normalization on the positive samples;
- Trains a Deep Convolutional Neural Network to detect the object of interest from the positive and negative samples; and
- Identifies objects in geospatial imagery using the trained Deep Convolutional Neural Network by matching the rotational pattern from the positive samples with the rotational pattern of objects in the geospatial imagery.

Licensing Policy

BIS will review license applications for these items on a case-by-case basis to determine whether the export or reexport could contribute directly or indirectly to any country’s military capabilities to alter or destabilize a region’s military balance contrary to the US foreign policy interests.

The only ECCN-specific license exception available for these items provided for in the interim final rule is for exports, reexports, and transfers (in-country) made by or consigned to a department or agency of the US Government (License Exception GOV).

Public Comments

The interested public will have until March 6, 2020 to submit comments to BIS on the interim final rule.

CFIUS Impact

Items, software, and technologies controlled as emerging or foundational technologies by BIS are included in FIRRMA’s definition of “critical technologies.” Under FIRRMA, CFIUS has expanded jurisdiction to review, among others, certain controlling and certain non-passive, non-controlling foreign investments in US companies that produce, design, test, manufacture, fabricate, or develop critical technologies (even if such technologies are not exported); and mandatory filings with CFIUS are required in certain circumstances. Accordingly, as a result of the issuance of this interim final rule, CFIUS has jurisdiction to review, and mandatory CFIUS filings may be required

⁴ The interim final rule defines “point cloud” as follows: “A point cloud is a collection of data points defined by a given coordinate system. A point cloud is also known as a digital surface model.”

for, certain controlling and certain non-passive, non-controlling foreign investments in US companies that produce, design, test, manufacture, fabricate, or develop the software covered by the new controls.

Conclusion

Companies engaging in exporting or reexporting items designed to automate the analysis of geospatial imagery and point clouds should monitor the implementation and any determinations under this rule very closely. Interested companies may provide comments on the rule as BIS encourages before the final rule is released. Additionally, companies contemplating transactions involving foreign investment in US businesses involved with these technologies should carefully consider the CFIUS issues early in the transaction process.

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