Proposed Regulations Would Focus on "High Risk" Commercial Remote Sensing Satellites

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The National Oceanic and Atmospheric Administration (NOAA) has published proposed regulations (the ?Proposed Regulations?) in connection with its efforts to streamline the process for obtaining a license to operate a commercial remote sensing satellite. Commercial remote sensing satellites, particularly small satellites operated in low earth orbit (LEO), increasingly are being seen as a viable method to collect large amounts of data from a variety of sensors. Businesses and governments alike are hoping to apply complex algorithms against this data for a number of commercial and governmental applications, including defense and intelligence, maritime security, agriculture, climate change, transportation, food security and disaster response. Comments are due by July 15, 2019.

The Proposed Regulations attempt to clarify several issues that have arisen under the current regulations. For example, the Proposed Regulations clarify that the collection of data from an instrument that is physically attached to the primary object being sensed is not considered ?remote? and, therefore, does not require a license. This would exclude from the license requirement cameras attached to launch vehicles where the primary image is of the launch vehicle itself. Uncertainty as to the licensing requirements for cameras mounted on launch vehicles has resulted in confusion in the past.

Another point of clarification involved which parties are responsible for obtaining a license from NOAA. As the proposed definition of remote sensing space system is ?all space- and ground-based components that support remote sensing and data management,? a number of commercial entities may be involved in operations. The proposed regulations clarify that only the entity with the greatest amount of control over operations would be legally responsible for compliance.

However, the most significant changes involve the proposal to create two categories of remote sensing space systems. Those systems that are considered ?low risk? would no longer be subject to interagency review, would be subject to fewer data protection requirements and

would not be subject to ?shutter control? (i.e. required to limit collection or dissemination of images upon direction of the Secretary of Commerce?). The requirements to qualify as a low risk system are set forth in §960.6 and include:

- Operating in designated electro-optical spectral ranges;
- Being incapable of imaging the same center point on Earth more than once in 24 hours from oneor more satellites in a constellation;
- Being incapable of capturing video;
- Containing no more than three (3) operational spacecraft;
- Not disseminating data to the public within twelve (12) hours of collection; and
- No foreign involvement.

Even if a system did not meet all of the requirements set forth in § 960.6 of the Proposed Regulations, the Secretary of Commerce, after consultation with the Secretaries of Defense and State, could decide that a system was low risk. The approval process for low risk systems would be 60 days (unless the Secretary of Commerce had specific evidence that the applicant would not comply with the license terms), and the license would only include the standard licensing conditions set forth in § 960.13 of the Proposed Regulations. Also, the Secretary of Commerce could not make technical modifications to a license for a low risk system for national security purposes.

All commercial remote sensing systems that did not qualify as low risk would be designated ?high risk? systems. Examples of potential high-risk systems include satellites that collect high resolution electro-optical data, radar data or infrared data, or systems that are capable of nighttime imaging or imaging other satellites. There are several significant differences in the licensing process for high-risk systems, primarily due to the perceived national security concerns associated with the data collected. These differences include:

- The process to approve or deny an application would occur in 90 days (and the Secretary of Commerce could extend an additional 60 days after notifying an applicant of unresolved issues with special actions on how to resolve them);
- The Secretaries of Defense and State would be consulted in the review process, and, if at any point there was an objection by a party, the issue would be brought before an interagency group, pursuant to the Memorandum of Understanding Among the Departments of Commerce, State, Defense, and Interior, and the Office of the Director of National Intelligence, Concerning the Licensing and Operations of Private Remote Sensing Satellite Systems, dated April 25, 2017; and
- Greater data protection, including a requirement for 256-bit encryption for tracking, telemetry, and control as well as data transmissions.

In addition to being subject to the same licensing conditions as low risk systems, operators of high-risk systems could be subject to additional licensing conditions. For example, if the system:

- Has nighttime imaging capacity, the operator could not disseminate images at a resolution finer than thirty (30) meters;
- Collects infrared data, the operator could not disseminate data finer than 3.7 meters Ground Sampling Distance (?GSD?); and
- Collects synthetic aperture radar data, it could not transmit data to a ground station outside of the U.S., and no phase history data could be disseminated.

Another potentially significant difference between high-risk and low-risk satellites is that the Secretary of Commerce has the authority to make technical modifications to a license for a high-risk system for national security purposes. However, the proposed regulations provide in such an instance that the applicant could be entitled to reimbursement for additional costs.

The Proposed Regulations would significantly streamline the licensing process for low risk commercial remote sensing satellite systems. Businesses wishing to operate systems that are considered high risk may still face challenges in the licensing process, particularly if issues become subject to interagency review. However, under the Proposed Regulations the process should be quicker and more transparent. In addition, streamlining the process for low risk systems should free up more resources for the Commercial Remote Sensory Regulatory Affairs office, the office within NOAA responsible for issuing commercial remote sensing licenses.

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