



Guidance Circular

GC No: 960.2-1
Subject: Instruments used primarily for mission assurance or other technical purposes
Date: April 1, 2022

Guidance Circulars (GC) are intended to provide guidance to entities subject to or potentially subject to the Land Remote Sensing Policy Act of 1992 (51 U.S.C. § 60101 *et seq.*) and the National Oceanic and Atmospheric Administration's (NOAA's) implementing regulations at 15 CFR Part 960. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. The document is only intended to provide clarity to the public regarding existing requirements under the law or agency policies.

Applicable Statute: 51 U.S.C. § 60121, 60122

Applicable Regulations: 15 C.F.R. 960.2(b)

If you have suggestions for improving this GC, we invite you to provide feedback to NOAA's Commercial Remote Sensing Regulatory Affairs office (CRSRA) at crsra@noaa.gov, noting the number of the GC you are discussing in your email.

Overview of Issue:

The Land Remote Sensing Policy Act of 1992 authorizes the Department of Commerce (delegated to NOAA) to license private entities to operate private remote sensing space systems, and prohibits the operation of remote sensing space systems without such a license. The implementing regulations define a remote sensing space system. Section 960.2(b) excludes from NOAA's regulatory jurisdiction:

Instruments used primarily for mission assurance or other technical purposes, including but not limited to navigation, attitude control, monitoring spacecraft health, separation events, or payload deployments, such as traditional star trackers, sun sensors, and horizon sensors, shall not be subject to this part.

Therefore, NOAA does not have jurisdiction over instruments that fall under this “mission assurance” exemption.

The preamble to the final rule, 85 FR 30790 (July 20, 2020) provides further explanation of section 960.2(b), noting:

Commerce created a list of technical capabilities that it has determined should be exempt from this regulation based on policy and other considerations. Instruments used primarily for mission assurance purposes or other technical purposes are not considered remote sensing instruments under this final rule; therefore, a system that contains only such instruments will not require a Commerce license.

[The mission assurance exception is] focused on the actual use of the instrument (e.g., mission assurance), rather than the instrument's objective description.

Finally, section 960.2(c) of the regulations addresses the scenario where a system includes some instruments that are, and some instruments that are not, covered by NOAA's jurisdiction:

In the case of a system that is used for remote sensing and other purposes, as determined by the Secretary, the scope of the license issued under this part will not extend to the operation of instruments that do not support remote sensing.

Therefore, if your system includes some mission assurance instruments, you may or may not require a license based on the following:

1. If a system *only* includes instruments that are excluded by the “mission assurance” exemption (section 960.2(b)), no CRSRA license is required.
2. If a system includes some instruments that fall within NOAA's jurisdiction, the system will require a CRSRA license. However, the license will not regulate any instruments on the system that do not support “remote sensing” (as defined in section 960.4) or that are excluded by the “mission assurance” exemption in section 960.2(b).

CRSRA Approach to these Determinations:

When CRSRA determines whether the “mission assurance” exemption applies to a given system, there are two important terms to understand: “primarily,” and “mission assurance or other technical purposes.”

1. “Primarily”

First, is the instrument used “primarily” for exempt purposes? The “mission assurance” exemption (section 960.2(b)) focuses CRSRA on the actual use of the instrument. The exemption applies to instruments used “primarily” for mission assurance or other technical purposes. As noted in the preamble to the final rule, “exceptions are focused on the actual use of the instrument” rather than the name of the instrument or the operator’s claims about what it will be used for. When evaluating the instrument’s actual use, the word “primarily” confirms that the instrument does not need to be used *solely* for the listed purposes; limited use of these instruments for other purposes is permitted.

If there are multiple uses of an instrument, CRSRA may consider, among other relevant facts:

- How much time the operator spends using the instrument for each purpose;
- What the operator would use the instrument for if it could only use it for one purpose;
- The typical reason in the space industry for using such an instrument.

As an example, System A includes a camera mounted to view a complex on-orbit deployment of spacecraft components. The images from the camera are used to provide a secondary means of confirming whether the deployment was successful, or in the case of an anomaly, to aid efforts to overcome any malfunction. These images are also used to promote the company by publishing color images or video of the spacecraft fully deployed in orbit. The camera is only used for collecting imagery during the in-orbit commissioning phase.

In CRSRA’s analysis, the primary use of this camera is for mission assurance, even though there is a secondary use aimed at promotional purposes. The same images are likely used for both purposes, and even if additional imagery is collected solely for the promotional purposes, this promotional use is unlikely to constitute a significant amount of the total time the instrument is in use. If the operator were forced to select only one use for the camera, presumably it would choose to prioritize its use for monitoring the complex deployment. Finally, the space industry commonly uses cameras for this purpose.

However, if CRSRA had evidence that the operator plans to use the camera to monitor a complex on-orbit deployment, but also that the operator intends to use the camera to image the spacecraft on orbit for several months for promotional purposes, CRSRA may determine that this camera’s use is not “primarily” for mission assurance purposes, so the exemption would not apply. In this example, the months-long use of the camera for promotional purposes takes up significantly more time than the brief use for mission assurance purposes, so the actual use of the camera is not “primarily” for mission assurance purposes.

As a final note, if an instrument is determined to fall under the “mission assurance” exemption initially, but an operator later changes their intended use of the instrument, the operator would need to consult with CRSRA about the potential need for a license. Similarly, if an instrument is already on orbit and has been deemed exempt due to being used primarily for mission assurance purposes, but the operator changes the actual use of the instrument, CRSRA may determine that the operator is now operating an unlicensed instrument. Compliance assistance or enforcement activities may follow.

2. “Mission assurance or other technical purposes”

Second, the “mission assurance” exemption (section 960.2(b)) states that the use must be for “mission assurance or other technical purposes.” By this, CRSRA means activities that support the operator’s spacecraft health and the safety of the operator’s space operations. The exemption includes a non-exhaustive list of such purposes and of instruments typically used for these purposes.

If a proposed use or instrument is not found on the list, CRSRA may consider whether the use serves an articulable mission-assurance or other technical function or promotes the likelihood of the safety of the operator’s spaceflight, such as monitoring the health of the operator’s spacecraft(s), aiding review of anomalies on the operator’s spacecraft(s), monitoring deployment of solar arrays or other spacecraft components, docking/undocking, or assisting with navigation. However, an instrument used to exclusively image the Earth, working in conjunction with another instrument, is unlikely to fall under this exemption. For example, an instrument that images the Earth to determine when another instrument should obtain remote-sensing data is not exempt for performing “mission assurance” activities, because it is directly involved in remote sensing. Likewise, an instrument that images another operator’s spacecraft(s) does not meet this exemption, because the imaging is done as a service for another operator rather than to assure the safety of the mission. CRSRA may also consider whether the instrument produces data or imagery that has commercial or scientific value on its own. The capabilities of the instrument, its field of view, and other factors may aid this analysis.

Examples

In the below examples, assume the system is capable of remotely sensing the Earth and meets all other requirements for NOAA jurisdiction. In other words, in the below examples, the only variable determining whether a license will be required is whether the mission assurance exemption applies.

Type of Instrument	Primary Use of Instrument	Exempt?
Star tracker	Navigation	Yes
Camera	Imaging deployment of solar arrays, antennas, robotic arms, sails, other drag increasing devices, etc. Images of the deployment are later posted on the internet.	Yes
Camera	Supports docking with or separating from other spacecraft. Images of the other spacecraft are later posted on the internet.	Yes, because the use supports spacecraft health and the safety of space operations.
Camera	Taking inspection images of another operators' spacecraft to assure another operator's mission	No, because the exemption applies only to imaging when the operator is assuring the operator's own mission.
Camera	Taking inspection images of your own spacecraft to assure your own mission	Yes

Opportunity for Feedback:

We welcome any feedback you may have about this GC. Please contact CRSRA at crsra@noaa.gov.