

Beam Me Down, Scotty: Navigating U.S. Authorization for Space Station Transmissions

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The commercial satellite industry continues to grow, driving innovation in the supply of high-resolution optical imagery, Internet of Things connectivity, and communications services to users across the globe. Multiple constellations of satellites have emerged seeking to downlink data and images into the United States. This has prompted the development of a new and innovative market of managed ground networks, such as AWS Ground Station. These ground networks enable operators of commercial space stations to downlink on demand without having to construct and operate costly, underutilized terrestrial infrastructure. Importantly, however, the satellite operators remain responsible for understanding and obtaining U.S. governmental authorizations necessary to land traffic at one of these earth stations.

Three agencies have responsibility for licensing U.S. commercial satellite activities, and operators may be subject to one or more of these regulatory regimes:

1. Federal Communications Commission (FCC or Commission) – oversees commercial spectrum use and telecommunications payloads, including issuing U.S. space station licenses and granting market access for non-U.S.-licensed satellites to transmit into the United States;
2. National Oceanic and Atmospheric Administration (NOAA) – oversees commercial remote sensing systems subject to U.S. jurisdiction; and
3. National Telecommunications and Information Administration (NTIA) – oversees Federal government (non-commercial) spectrum use, including by satellites.

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Practice Areas

Space and Satellite
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Commercial satellite operators seeking to downlink data to a U.S. earth station must obtain authorization from the Commission, either through a license for U.S. space stations or grant of market access for non-U.S. space stations. FCC rules provide two ways to file market access applications:

1. A space station petition for market access; or
2. An earth station application for market access, which includes the same substantive and technical information as a space station petition for market access.

Applicants for a Commission space station authorization must complete a Form 312 and a Schedule S, while an application for market access through an earth station application will also require a Schedule B. All forms are filed electronically through IBFS. Small satellite (SmallSat) operators may be eligible for streamlined application procedures once the Commission's rules enter into effect.

As part of these applications, satellite operators seeking to use spectrum bands allocated to both Federal and non-Federal services—such as the 2-4 GHz (S-band) and 7.9-8.4 GHz (X-band)—will be subject to interagency coordination prior to receiving FCC approval. The Commission initiates this interagency review, known as Interdepartment Radio Advisory Committee (IRAC), and seeks to identify and resolve any interference concerns. The IRAC process will coordinate the shared spectrum bands among the interested government agencies and the satellite operator applicant.

Separately, U.S. commercial remote sensing space stations, or any other domestic systems that image the Earth's surface as part of its operations, require a license from NOAA. This regulatory regime aims to balance maintaining U.S. leadership in this important global industry with national security concerns.

Finally, any U.S. or non-U.S. satellite operators using frequencies allocated to Federal use or seeking to communicate with Federal ground stations must be authorized by NTIA prior to commencing service.

Should you have any questions regarding authorization for commercial remote sensing space stations or earth stations, please do not hesitate to contact one of the members of Wiley Rein's satellite practice.