

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

HNS License Sub, LLC

Applications for Earth Station Authorizations

File Nos.

SES-LIC-20160330-00355

SES-LIC-20160330-00356

SES-LIC-20160330-00357

SES-LIC-20160330-00358

SES-LIC-20160330-00359

COMMENTS AND PARTIAL OPPOSITION OF IRIDIUM CONSTELLATION LLC

HNS License Sub, LLC (“HNS”) recently applied for authority to operate five gateway earth stations located in Albuquerque, NM, Monee, IL, North Platte, NE, Riverside, CA, and Spokane, WA that will communicate with the UK-licensed TELSTAR 19V satellite to deliver fixed satellite services (“FSS”).¹ HNS proposes to use the 29.25-29.5 GHz band, among other frequencies, for feeder uplink transmissions. Iridium Constellation LLC (“Iridium”) currently uses the 29.1-29.3 GHz band for feeder uplink and telemetry, track and control (“TT&C”) communications between its ground infrastructure and constellation of non-geostationary orbit (“NGSO”) satellites. Iridium’s ground infrastructure includes an earth station located in Tempe, AZ whose unimpeded operation is essential to the delivery of Iridium’s services.

Iridium and HNS recently concluded that detailed coordination will be necessary to ensure that the proposed Riverside, CA gateway does not interfere with Iridium’s earth station operations in Tempe, AZ. In light of the parties’ still pending efforts to coordinate, the Commission should not grant the application for the Riverside, CA earth station² until a

¹ HNS License Sub, LLC, IBFS File Nos. SES-LIC-20160330-00355, SES-LIC-20160330-00356, SES-LIC-20160330-00357, SES-LIC-20160330-00358, SES-LIC-20160330-00359.

² IBFS File No. SES-LIC-20160330-00358.

coordination agreement is in place or HNS otherwise establishes that its proposed operations will not cause unacceptable interference with the Iridium system. *Iridium does not object to the prompt grant of authority for the Albuquerque, Monee, North Platte, and Spokane earth stations.*

I. BACKGROUND

Iridium provides global, reliable, and low-latency mobile satellite services (“MSS”) to commercial, military, and government users through a constellation of 66 NGSO satellites. Because of the unique capabilities of Iridium’s network, many of its users rely on Iridium to deliver mission-critical voice and data communications. In addition to supporting the missions of the Department of Defense and U.S. intelligence agencies, these communications sustain the core commercial operations of large and economically significant industrial sectors—in ways that often impact more than the bottom line. Commercial clients use the Iridium network to connect people, assets, and infrastructure all over the world—and also rescue trapped personnel,³ track oil spills,⁴ and keep the hospital doors open during power outages and disasters. Iridium also supports a diverse set of civilian public safety functions, including the efforts of our first responders, aviation tracking, and deep-ocean tsunami detection. Critically, after the launch of Iridium NEXT, the company’s second-generation satellite constellation, Iridium’s network will be capable of supporting a giant leap forward in maritime and aviation safety through the

³ See, e.g., Iridium 9555 Used to Coordinate Rescue of Chilean Miners, <https://www.youtube.com/watch?v=VWpfnxHLx0>; Test Your Satellite Phone: Iridium Helps Arctic Worker Survive Life-Threatening Situation, <http://blog.iridium.com/2015/06/03/test-your-satellite-phone-iridium-helps-arctic-worker-survive-life-threatening-situation/>; Extending a Line to the Lone Worker, <http://blog.iridium.com/2015/12/10/extending-a-line-to-the-lone-worker/>; Part 3: Pushing the Limits of Aviation – Iridium Simplifies the “Search” in “Search and Rescue,” <http://blog.iridium.com/2015/10/08/4418/>.

⁴ See Paul McDougall, BP Uses Asset Tracking Tech to Aid Oil Spill Cleanup, INFORMATIONWEEK (Sept. 7, 2011), <http://www.informationweek.com/it-leadership/bp-usesasset-tracking-tech-to-aid-oil-spill-cleanup/d/d-id/1100016?>.

introduction of advanced Global Maritime Distress and Safety System (GMDSS) and real-time ADS-B flight monitoring services.

II. THE RIVERSIDE APPLICATION CANNOT YET BE GRANTED

Iridium routes Department of Defense-specific communications through a secure gateway located in Hawaii. All other traffic—including the mission-critical commercial and public safety communications described above—is routed through an Iridium earth station located in Tempe, AZ. HNS seeks authorization to operate its earth stations in the 29.25-29.5 GHz band, which overlaps with Iridium’s feeder link and TT&C operations in 29.1-29.3 GHz. Some of HNS’s proposed earth stations are located within several hundred miles of Tempe, AZ.

Under 47 C.F.R. § 25.203(k), an application to operate an FSS earth station in the 29.25-29.5 GHz band cannot be granted unless the applicant “demonstrate[s] . . . that its proposed earth station will not cause unacceptable interference to any other satellite network that is authorized to operate in the same frequency band, or certif[ies] that the operations of its earth station shall conform to established coordination agreements between the operator(s) of the space station(s) with which the earth station is to communicate and the operator(s) of any other space station licensed to use the band.” On their face, HNS’s applications do not satisfy these requirements. Notwithstanding the close proximity of several of the proposed earth stations to Iridium’s Tempe, AZ facility, HNS makes no technical demonstration of how it will avoid harmful interference to the Iridium system. HNS merely mentions that it has previously coordinated Ka-band operations with Iridium. Though true, those agreements concerned HNS earth stations that operate from other locations, and communicate with different space stations. Nor has the United States and United Kingdom entered into an agreement governing coordination between the Iridium and TELSTAR 19V satellite networks.

Notwithstanding these deficiencies, Iridium does not object to the approval of four of the five proposed gateway locations. After commencing discussions about HNS's plans earlier this month, Iridium and HNS have concluded that the Albuquerque, NM, Monee, IL, North Platte, NE, and Spokane, WA earth stations are sufficiently separated from Iridium's gateways so as not to require further coordination, assuming that these earth stations operate with the technical characteristics provided in HNS's applications. Both sides agree, however, that additional coordination efforts are required with respect to the proposed earth station in Riverside, CA. Iridium is cooperating fully with HNS to identify suitable protections.

Thus, consistent with its rules governing the 29.25-29.5 GHz band, the Commission should not grant the application for the proposed Riverside, CA earth station until the parties enter a coordination agreement or HNS otherwise demonstrates that its system will not cause harmful interference with Iridium's network.

Respectfully submitted,

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July 1, 2016

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Comments and Partial Opposition of Iridium Constellation LLC was sent by mail on this 1st day of July, 2016, to the following:

HNS License Sub, LLC
11717 Exploration Lane
Germantown, MD 20876
Attn: Jennifer A. Manner, Vice President of Regulatory Affairs

/s/ Elizabeth Marley
Elizabeth Marley