

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Iridium Satellite LLC and Iridium Constellation LLC (collectively, “Iridium”), pursuant to Section 25.120 of the Commission’s Rules, hereby request an extension of special temporary authority (“STA”) to operate three (3) gateway earth stations¹: Call sign E960244 located in Chandler, Arizona; Call sign E960131 located in Tempe, Arizona; and Call sign E060300 (“Fairbanks 2”) located in Fairbanks, Alaska.²

Iridium seeks to extend STAs that were previously extended and granted so that it can operate its gateway earth stations in the manner proposed herein.³ These STAs enable Iridium to satisfy TT&C requirements for Iridium’s second-generation Iridium NEXT satellites. TT&C transmissions are essential to the implementation, health and safety of Iridium’s constellation.

¹ Iridium Satellite LLC is licensee of the Chandler, AZ earth station (call sign E960244), and Iridium Constellation LLC is licensee of the Tempe, AZ (call sign E960131) and Fairbanks, Alaska (call sign E060300) earth stations. This exhibit accompanies separate STA extension requests that Iridium is filing, one per call sign.

² A fourth earth station, Call sign E050282 (“Fairbanks 1”), also located in Fairbanks, Alaska, was originally operating pursuant to STA, but the underlying modification application for that earth station has been granted and so no STA extension is necessary for that station. *See Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02655, rel. Apr 3, 2024, granting SES-MOD-20231222-02543 for Call sign E050282.

³ *See Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02839, rel. Feb. 25, 2026 granting STAs for call signs E060300, ICFS File No. SES-STA-20260112-00800 (Fairbanks 2), E960131, ICFS File No. SES-STA-20260112-00799 (Tempe), and E960244, ICFS File No. SES-STA-20260112-00801 (Chandler). *See also Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02797, rel. Aug. 13, 2025 granting STAs for call signs E060300, ICFS File No. SES-STA-20241106-02344 (Fairbanks 2), E960131, ICFS File No. SES-STA-20241106-02343 (Tempe), and E960244, ICFS File No. SES-STA-20241106-02346 (Chandler); *and see Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02737, rel. Jan. 22, 2025 granting STAs for call signs E060300, ICFS File No. SES-STA-20241106-02344 (Fairbanks 2), E960131, ICFS File No. SES-STA-20241106-02343 (Tempe), and E960244, ICFS File No. SES-STA-20241106-02346 (Chandler) (as corrected by Public Notice Report No. SES-02740 rel. Jan. 29, 2025; *Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02582, rel. July 5, 2023 granting STAs effective July 3, 2023 for call sign E060300, ICFS File No. SES-STA-20221021-01156 (Fairbanks 2); *and see Public Notice*, Satellite Communications Services Information, Actions Taken, Report No. SES-02536, rel. Jan. 25, 2023, granting STAs effective Jan. 23, 2023 for call sign E960244, ICFS File No. SES-STA-20221021-01119 (Chandler) and call sign E960131, ICFS File No. SES-STA-20221021-01120 (Tempe). Extension requests were timely filed for these STAs under ICFS File No. SES-STA-20230714-01716 and ICFS File No. SES-STA-20230714-01817, respectively.

The Iridium NEXT satellites all have been activated. Based on experience gained, Iridium has determined that the revised parameters authorized by its STAs will be required over the long term. Iridium, therefore, has filed modification applications seeking to continue these operations on a licensed basis.⁴ Iridium hereby seeks an extension of its STAs in the interim, for an additional 180 days or, if sooner, until its modification applications are granted.

The operating parameters covered by this STA extension request are shown in the table below. All other parameters are as specified on the existing licenses.

	Frequencies (MHz)	Polarization	Emission Designator	EIRP (dBW) per carrier EIRP Density (dBW) / 4 kHz
Uplink (Tx)	29102.0 29298.0	Linear & Circular	1M00F9D	69.1 45.1
Downlink (Rx)	19400.2 19400.6 19401.0 19401.4 19401.8 19402.2 19402.6 19403.0 19403.4 19403.8 19404.2 19404.6 19405.0 29102.0 29298.0	Linear & Circular	200KF9D	

The Iridium NEXT telecommand signals are transmitted on two carriers, a 29.102 GHz carrier and a 29.298 GHz carrier, using a bandwidth of 1 MHz and a 1M00F9D emission designator. Iridium seeks an STA extension authorizing it to transmit these carriers at 69.1 dBW EIRP and a 45.1 dBW/4 kHz EIRP density with a transmitter power of 11.7 dBW.

Iridium also seeks an extension of authority to operate both Iridium NEXT uplink carriers from its gateway earth stations. Iridium's license for Chandler includes

⁴ See modification applications filed for each call sign: E960244, ICFS File No. SES-MOD-20231222-02546; E960131, ICFS File No. SES-MOD-20231222-02544; and E060300, ICFS File No. SES-MOD-20231222-02545. The modification applications, in addition to seeking licensed authority for the TT&C parameters covered by Iridium's STA requests, seek to harmonize Iridium's Chandler gateway license with its Tempe and Fairbanks gateway licenses by expanding the 14 MHz feeder link carrier for Chandler from the 29.1-29.25 GHz band to the 29.1-29.3 GHz band.

the 29.1-29.25 GHz portion of Iridium's feeder link band that encompasses the 29.102 GHz Iridium NEXT TT&C frequency, but does not include the 29.25-29.3 GHz portion of Iridium's feeder link band that encompasses the 29.298 GHz Iridium NEXT TT&C frequency.

In addition, Iridium seeks an extension of authority to use its gateway earth stations to receive 13 Iridium NEXT telemetry carriers spaced at 400 kHz with center frequencies from 19400.2 to 19405 MHz. The emission designator for these telemetry carriers is 200KF9D.

Operating in the manner requested in this filing, moreover, presents no concerns of interference to the LMDS stations, Fixed Service stations, and Fixed-Satellite Service stations that share Iridium's TT&C/feeder link band.

LMDS stations. Iridium shares the 29.1-29.25 GHz portion of its uplink TT&C/feeder link band with LMDS. Iridium has coordinated its proposed uplink operations with LMDS licensees; coordination reports prepared by Comsearch were attached to the initial STA requests.

Fixed Service stations. Iridium shares its 19.4-19.6 GHz downlink TT&C/feeder link band with the Fixed Service. Iridium has coordinated its proposed downlink operations with Fixed Service licensees. Coordination reports prepared by Comsearch concerning those operations were attached to the initial STA requests.⁵

Geostationary Satellite Orbit ("GSO") Fixed-Satellite Service ("FSS") stations. The 29.25-29.3 GHz band Iridium uses to uplink its feeder link and TT&C transmissions is shared on a co-primary basis with GSO FSS stations. Iridium's Tempe and Fairbanks gateway earth stations have been operating on these frequencies for years.⁶

In order to avoid interference to Iridium's satellites, GSO FSS earth stations operate in the 29.25-29.3 GHz band only in areas that are widely separated from Iridium's gateway earth stations. There are fixed separations in the case of individually-licensed GSO FSS earth stations and exclusion zones around Iridium gateway earth stations in the case of blanket-licensed GSO FSS earth stations.

The separation distances required to avoid interference from GSO FSS earth stations to Iridium's satellites are far greater than the separation distances that are

⁵ Please note that the coordinates shown for Iridium's gateway earth stations in the Comsearch reports all are based on NAD83. The coordinates shown in the FCC license for Iridium's Chandler gateway earth stations are based on NAD27, and Comsearch converted the coordinates to NAD83.

⁶ Although Iridium's Chandler earth station has not been operating in the 29.25-29.3 GHz band, it is located only 8.5 km (*i.e.*, 5.3 miles) from Iridium's Tempe earth station, which has been operating in the 29.25-29.3 GHz band.

required to avoid interference from Iridium gateway earth stations to GSO FSS satellites. The locations at which GSO FSS stations transmit in the 29.25-29.3 GHz band, therefore, of necessity are locations that protect GSO FSS satellites against interference from Iridium gateway earth stations. In any event, the Iridium NEXT operations pursuant to the requested STA extensions will be on a secondary, unprotected, non-interference basis.

By granting Iridium's initial STA requests and its previous STA extension requests, the Commission already determined the operations proposed in the current STA extension requests are in the public interest.

Accordingly, and for good cause shown, Iridium respectfully asks that its requests for STA extension be granted.

The 24/7 point of contact in the United States, with authority and ability to cease all emissions, for this operation is:

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