GRANT

HawkEye 360, Inc.
ICFS File Nos. SAT-MOD-20251118-00324;
SAT-AMD-20260512-00195;
SAT-MOD-20240619-00139

GRANTED* Space Bureau
*with conditions

File # SAT-MOD-20251118-00324; SAT-AMD-20260512-00195; SAT-MOD-20240619-00139
Call Sign: S3042 (or other identifier) Grant Date: 07/29/2026
From: July 29, 2026 To: December 3, 2033
Approved: Carolyn A. Mahoney
Acting Division Chief
Satellite Programs and Policy Division

ICFS File No(s):	SAT-MOD-20251118-00324;[1] SAT-AMD-20260512-00195;[2] SAT-MOD-20240619-00139[3]
Licensee/Grantee:	HawkEye 360, Inc. (HE360)
Call Sign:	S3042
Satellite Name:	HE360 Constellation
Orbital Location: (required station-keeping tolerance)	Non-geostationary satellite orbit (NGSO) constellation of 60 simultaneously-operating satellites organized into 20 clusters of three satellites each. Nominal operating altitude of 575 km, with apogee and perigee altitudes from 250 to 610 km, and near zero eccentricity, and the following inclinations: 36 satellites with 97-98 degree inclination (near-polar); 21 satellites with 35-55 degree inclination (mid-inclination); 3 satellites with 0-28.5 degrees inclination (near equatorial)
Administration:	United States of America
Nature of Service:	Earth Exploration Satellite Service (EESS)
Scope of Grant:	Modification of license to: (1) increase the number of HE360 clusters in the polar, sun-synchronous orbit (SSO) from nine to twelve and decrease the number of HE360 clusters in the mid-inclination orbit from ten to seven; (2) authorize HE360 to deploy, as part of any of its twenty clusters in the HE360 Constellation, either the authorized "Hawk" satellite or "Kestrel" satellite;[4] (3) expand the inclination range of the authorized mid-

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Satellite Programs and Policy Division

[1] HawkEye 360, Inc., Application to Modify License, ICFS File No. SAT-MOD-20251118-000324 (filed Dec. 12, 2025) (Application). This application was placed on public notice as accepted for filing on February 13, 2026. *See Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing,* Public Notice, Report No. SAT-01974 (rel. Feb. 13, 2026). No comments were filed.

[2] HawkEye 360, Inc., Application to Amend Application, ICFS File No. SAT-AMD-20260512-00195 (filed May 26, 2026) (Amendment). This amendment was placed on public notice as accepted for filing on May 29, 2026. *See Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing,* Public Notice, Report No. SAT-02003 (May 29, 2026). No comments were filed.

[3] This application was previously granted-in-part and deferred-in-part, with respect to the request to modify the application regarding additional sensing frequencies. *See* ICFS File Nos. SAT-MOD-20220906-00099, SAT-AMD-20221014-00136, SAT-MOD-20230724-00181, SAT-MOD-20240619-00139 (granted-in-part, deferred-in-part Nov. 15, 2024) (*Nov. 2024 Grant Stamp*); *see* ICFS File Nos. SAT-MOD-20240619-00139, SAT-AMD-20250331-00085, SAT-MOD-20240812-00180, SAT-MOD-20220906-00099, SAT-AMD-20221014-00136, SAT-MOD-20230724-00181 (granted-in-part, deferred-in-part May 30, 2025, reissued June 18, 2025) (*June 2025 Grant Stamp*). *See also* ICFS File No. SAT-MOD-20240619-00139; Application, Narrative at 2, 6-7. The deferred requests are superseded by the Application addressed in this authorization and are therefore moot as originally requested. We therefore conclude that the application for modification, ICFS File No. SAT-MOD-20240619-00139, is now "granted in full" to reflect that the remaining requests in that application are no longer pending before the Commission.

[4] HE360 states that the previously-authorized Hawk fleet and Kestrel fleet will form the HE360 Constellation. HE360 explains that the choice of form factor will have no material impact on the radiofrequency interference environment because "[t]he Kestrel satellites will operate in the same frequencies bounded by the same technical performance envelopes already authorized by the Bureau (and coordinated with Federal Spectrum managers) for the Hawk satellites and communicate with the same Earth stations authorized for the system." Application, Narrative at 4-5. *See* Hawkeye 360, Inc., Grant, ICFS Nos. SAT-MOD-20240619, SAT-MOD-20240812-00180, SAT-MOD-20220906-00099, SAT-AMD-20221014-00136, SAT-MOD-20230724-00181, SAT-AMD-20250331-00085 (granted May 30, 2025, reissued June 18, 2025) (*June 2025 Grant*).

	inclination orbit from 35-50 degrees to 35-55 degrees; (4) add two X-band transmitter antennas to the Hawk satellites beginning with Cluster 15; and (5) expand the maximum altitude range from 250-600 km to 250-610 km.
Previous Grant(s):	Authority to construct, deploy, and operate up to 80 HE360 satellites, limited to 15 operational at any one time, with apogee and perigee altitudes from 500 to 650 km (nominal 575 km) and with inclinations of 97-98 degrees.[5] Modification of license to specify: (1) an additional antenna, beginning with the second cluster, capable of receiving signals transmitted from terrestrial sources (Earth-to-space) in bands used by the Global Positioning System (GPS),[6] for the purpose of detecting terrestrial transmitters that are interfering with GPS signals; and (2) an additional antenna, beginning with the fourth cluster, capable of receiving signals in the 600 MHz to 10 GHz (Earth-to-space) frequency range.[7] Modification of license to specify an additional antenna, capable of receiving signals in the 840-960 MHz and 1280-1410 MHz bands, and to reflect HE360's specification of the "Enpulsion IFM06-002"; both changes beginning with the third cluster or later.[8] Authorization for up to 174 HE360 satellites total,[9] limited to 60 operational at any one time, with apogee and perigee altitudes from 500 to 615 km (nominal 575 km) and with inclinations of 0-28.5, 40-50 and 97-98 degrees.[10] Modification of license to specify, for three satellites identified as Cluster 7: (1) additional antennas capable of receiving signals in certain UHF frequencies (250-350 MHz); (2) a

[5] HE360's Constellation was preceded by an experimental earth exploration three-satellite cluster called Pathfinder, which was separately coordinated with Federal operators. *See* ELS File No. 0024-EX-CN-2017, as modified 0055-EX-CM-2019. The Pathfinder satellites successfully launched on December 3, 2018, and were operational in the 2240 MHz, 2246 MHz, 2256 MHz (space-to-Earth), 432-438 MHz (Earth-to-space), 2410 MHz (space-to-space), and 8050 MHz, 8175 MHz, and 8300 MHz (space-to-Earth) bands. Authorization for continued operations of this first cluster of three Pathfinder satellites under Part 25 of the Commission's rules was included in the grant dated December 10, 2019. *See* ICFS File No. SAT-LOA-20190102-00001 (granted-in-part, deferred-in-part Dec. 10, 2019) (*Dec. 2019 Grant Stamp*).

[6] The antenna is capable of receiving signals in the bands used by the GPS L1, L2, and L5 signals (space-to-Earth), with center frequencies of 1575.42 MHz, 1227.60 MHz, and 1176.45 MHz, but which are being transmitted by non-GPS sources in the Earth-to-space direction. *See* ICFS File No. SAT-AMD-20200728-00090, Letter from Tony Lin, Counsel for Hawkeye360, Inc. to Marlene H. Dortch, Secretary, FCC (Oct. 14, 2020).

[7] *See* ICFS File No. SAT-LOA-20190102-00001 (granted-in-part, deferred-in-part Dec. 14, 2020; reissued Dec. 17, 2020).

[8] *See* ICFS File No. SAT-MOD-20210114-00010 (granted May 25, 2021).

[9] *See* SAT-LOA-2019,0102-00001, SAT-AMD-20200728-00090, Attachment to Grant, n.2 (granted Oct. 20, 2022) (*Oct. 2022 Grant*) (authorizing a total of 174, rather than the initially-requested 220 satellites, over the term of the license, with plans to operate up to 60 satellites simultaneously). HE360 submitted a letter stating that it had completed pre-coordination for its full constellation with relevant government agencies. *See* ICFS File Nos. SAT-LOA-20190102-00001; SAT-MOD-20210114-00010, Letter from Dr. Michael Mineiro, V.P. Legal, Regulatory, and Government Affairs, HawkEye 360, to Merissa Velez, Chief, Satellite Policy Branch, Satellite Division, FCC (dated Jan. 18, 2022). The Division previously deferred action on the application, as requested by HE360, insofar as the application requested authorization of up to 220 satellites, i.e., in excess of 80 satellites. *See Dec. 2019 Grant Stamp* at n.2.

[10] This application, as amended, was previously granted-in-part and deferred-in-part, and then subsequently modified. *See Dec. 2019 Grant Stamp*; ICFS File No. SAT-MOD-20210114-00010 (granted May 25, 2021). The license for HE360's full constellation was granted on October 20, 2022. *See Oct. 2022 Grant Stamp.*

	change in the authorized satellite operational altitude range from 500-615 km to 475-615 km; and (3) use of a water-based propulsion system.[11] Modification of license for six additional satellites, identified as Clusters 8 and 9, to include technical parameters and rule waivers previously granted for Cluster 7, and expansion of the mid-inclination orbit range to 35-50 degrees. For Cluster 9, the license is also modified to specify: (1) additional antennas capable of receiving signals in the 30-88 MHz and 120-800 MHz band; (2) revised parameters for X-band (8025-8400 MHz) data downlink operations; (3) the addition of L-band inter-satellite links in the 1626.5-1645.5 MHz, 1646.5-1660.5 MHz, 1525-1544 MHz, and 1545-1559 MHz (space-to-space) bands for relay communications with the Inmarsat Broadband Global Access Network (BGAN); and (4) starting with Cluster 9, removal of 2200-2290 MHz operations for emergency telemetry, tracking, and command.[12] Modification of license for three additional satellites, identified as Cluster 10, to include technical parameters and rule waivers previously granted for Clusters 7, 8, and 9; and expansion of the mid-inclination orbit range to 35-50 degrees. Authorization to operate the HE360 constellation in orbits with altitudes as low as 400 km.[13] Modification of license for three additional satellites, identified as Cluster 11, to include technical parameters and rule waivers previously granted for Clusters 7, 8, 9; and 10 and expansion of the mid-inclination orbit range to 35-50 degrees. Authorization to operate the HE360 constellation in orbits with altitudes as low as 400 km and modify the concept of operations (CONOPS) and deorbit plan to allow a combination of beginning-of-life propulsive maneuvers, as necessary, and passive decay, as well as lowering the upper orbital altitude to 600 km for satellites beyond Cluster 11.[14] Modification of license to: (1) change the lowest operational altitude for the HE360 Constellation from 400 km to 250 km; and (2) add a Ka-band downlink/S-band uplink transceiver operating in the 25.5-27.0 GHz (space-to-Earth) and 2025-2110 MHz (Earth-to-

[11] *See* ICFS File Nos. SAT-MOD-20220906-00099, SAT-AMD-20221014-00136 (granted in part, deferred in part March 3, 2023, reissued March 13, 2023) (*March 2023 Grant Stamp*) (modification of license to specify, for three satellites identified as Cluster 7: (1) additional antennas capable of receiving signals in certain UHF frequencies (250-350 MHz); (2) a change in the authorized satellite operational altitude range from 500-615 km to 475-615 km; and (3) changes in operations due to modification of the satellite propulsion system).

[12] *See HawkEye 360, Inc., Application for Modification of License*, Order, 39 FCC Rcd 2393, DA 24-262, ICFS File Nos. SAT-MOD-20220906-00099, SAT-AMD-20221014-00136 (rel. Mar. 13, 2024) (*HE360 March 2024 Order*).

[13] *See* ICFS File Nos. SAT-MOD-20220906-00099; SAT-AMD-20221014-00136; and SAT-MOD-20230724-00181 (granted Jun. 10, 2024).

[14] *See Nov. 2024 Grant Stamp*. The Division deferred action at that time on the modification requests with regard to the Kestral-0A and additional sensing frequencies in ICFS File No. SAT-MOD-20240619-00139. The application for modification was then further granted-in-part and deferred-in-part, limited to authorization of the single demonstration satellite, Kestrel-0A. *See June 2025 Grant Stamp* at n.1; *see also* ICFS File No. SAT-MOD-20240812-00180. These applications, as amended, were previously granted-in-part, and deferred-in-part. *See March 2023 Grant Stamp;* ICFS File Nos. SAT-MOD-20220906-00099; SAT-AMD-20221014-00136; and SAT-MOD-20230724-00181 (granted Jun. 10, 2024) (granted-in-part, deferred-in part-for Cluster 10 satellites). This modification authorization did not alter the conditions adopted in connection with the *HE360 March 2024 Order*, other than applying such conditions to HE360's deployment of satellites deployed beyond Cluster 11.

	space) bands for communications in the Earth-exploration satellite service, starting with Cluster 12.[15] Modification of license to launch and operate an additional, single demonstration satellite, Kestrel-0A, with an inter-satellite link terminal using 1618.725-1626.5 MHz (transmit & receive) (space-to-space) with an orbital altitude of 510 km +/- 20 km.[16] Modification of license to increase the number of HE360 clusters in the polar, sun-synchronous orbit (SSO) by one, i.e., from eight to nine, and to decrease the number of HE360 clusters in the near-equatorial orbit by one, i.e., from two to one.[17]
Service Area(s):	Global.[18]
Frequencies:[19]	**8025-8400 MHz (space-to-Earth)**:[20] center frequencies 8075.0 MHz, 8165.0 MHz, 8255.0 MHz, bandwidth 8.0 to 80.0 MHz (data downlink #1 for satellites 1-60;[21] plus replacements for satellites 1-60); center frequencies 8090.0 MHz (LHCP only), 8210.0 MHz (LHCP), 8210.0 MHz (RHCP), bandwidth 105.0 MHz (data downlink #2 for satellites 22-60; plus replacements for satellites 1-21 and satellites 22-60) **25500-27000 MHz (space-to-Earth)**: center frequencies 25750.0 MHz, 26250.0 MHz, 26750.0 MHz, bandwidths 500 MHz, 250 MHz, 125 MHz (data downlink #3 for satellites 31-60; plus replacements for satellites 1-30 and satellites 31-60) **2025-2110 MHz (Earth-to-space)**: center frequencies 2068.2 MHz, 2062.7 MHz, 2077.4 MHz; emission bandwidths 170 kHz, 1.33 MHz, and 2.66 MHz (data uplink for satellites 1-9)[22] center frequencies 2046.5 MHz, 2049.3 MHz, 2075.0 MHz; emission bandwidths 170 kHz, 1.33 MHz, and 2.66 MHz (data uplink for satellites 10-60, plus replacements for satellites 1-9 and satellites 10-60)

[15] We also corrected the frequencies section of HE360's license to include a 170 kHz carrier for the S-band data uplink frequencies, which was coordinated with federal spectrum managers, but inadvertently omitted in the previous grant. *See* ICFS File Nos. SAT-MOD-20220906-00099, SAT-AMD-20221014-00136, SAT-MOD-20230724-00181 (granted-in-part June 10, 2024).

[16] *See June 2025 Grant Stamp* at n.5.

[17] *See* ICFS File No. SAT-MOD-20250910-00267 (granted Feb. 2, 2026).

[18] *See* ICFS File No. SAT-LOA-20190102-00001, Schedule S Tech Report at Item S6.

[19] HE360 satellites have antennas capable of receiving signals from 2 MHz to 40 GHz. *See* Application, Narrative at 2, 6-7.

[20] Starting with HE360 satellites deployed in Cluster 9, the specifications for this X-band downlink, and the associated center frequencies, were modified as described in ICFS File Nos. SAT-MOD-20220906-00099 and SAT-AMD-20221014-00136. *See March 2023 Grant Stamp.*

[21] HE360 satellites operate in clusters of 3 satellites. The first 20 clusters will be deployed with inclinations as follows: 12 near polar, 7 mid-inclination, and 1 near-equatorial.

[22] HE360 clusters 1-9 using these frequencies will be deployed in the near polar inclination.

	Telemetry, Tracking and Command: **8025-8400 MHz (space-to-Earth)**: center frequencies 8291.0 MHz, 8297.0 MHz, 8303.0 MHz; emission bandwidths 10 kHz to 4.0 MHz (telemetry/tracking for satellites 1-60; plus replacements for satellites 1-60) **2200-2290 MHz (space-to-Earth)**:[23] center frequencies 2242.0 MHz, 2254.0 MHz, 2260.0 MHz; emission bandwidths 256 kHz to 4.0 MHz (emergency backup telemetry/tracking for satellites 1-21) **2025-2110 MHz (Earth-to-space)**: center frequencies 2063.965 MHz, 2064.965 MHz, 2065.965 MHz; emission bandwidths 120 kHz and 180 kHz (command for satellites 1-15)[24] center frequencies 2052.1 MHz, 2053.0 MHz, 2053.7 MHz; emission bandwidths 10 kHz to 180 kHz (command for satellites 16-60, plus replacements for satellites 1-15 and 16-60) **432-438 MHz (Earth-to-space**) (backup command; first cluster launched on December 3, 2018, only) **Inter-satellite links**:[25] **First cluster launched on December 3, 2018, only**: 2410 MHz (space-to-space) **Cluster 9 and satellites 22-60; plus replacements:** 1626.5-1645.5 MHz (transmit) (space-to-space) (inter-satellite link), 200 kHz bandwidth 1646.5-1660.5 MHz (transmit) (space-to-space) (inter-satellite link), 200 kHz bandwidth 1525-1544 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth 1545-1559 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth **Receive:** 156.7625-156.7875 MHz Automatic Identification System (AIS 3) 156.8125-156.8375 MHz (AIS 4) 161.9625-161.9875 MHz (AIS 1) 162.0125-162.0375 MHz (AIS 2)

[23] HE360 clusters 1-21 using these frequencies will be deployed with inclinations as follows: 5 near polar, 2 mid-inclination, and 0 near-equatorial.

[24] HE360 clusters 1-15 using these frequencies will be deployed with inclinations as follows: 4 near polar, 1 mid-inclination, and 0 near-equatorial.

[25] HE360 confirms that its terminals operating on the Inmarsat L-band frequencies have an out-of-band EIRP density that complies with the limits listed in Table 8 of ETSI EN 301 473 V2.1.2 and has the additional constraint that the EIRP density will not exceed -45 dBW/30 kHz in the bands lower than 1626.5 MHz. Further, HE360 commits to operating those terminals subject to such limitations. *See June 2025 Grant Stamp* at n.18; *see also* Letter from Tony Lin, Counsel for Hawkeye360, Inc. to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20220906-00099, SAT-AMD-20200728-00090 (filed Jan. 13, 2023).

	406.0-406.1 MHz Emergency Position-Indicating Radiobeacon (EPIRB) 156.5125-156.5375 MHz Digital Selective Calling (DSC) 1087.7-1092.3 MHz (Earth-to-space) Automatic Dependent Surveillance-Broadcast (ADS-B)) Signals with center frequencies of 1575.42 MHz, 1227.60 MHz, and 1176.45 MHz (Earth-to-space)

Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications and commitments set forth by the applicant or petitioner and with the Federal Communications Commission's rules not waived herein. This grant is also subject to the following conditions:[26]

1. The number of simultaneously operational satellites must not exceed 60 satellites at any one time.[27]

2. For S-band command uplink (Earth-to-space) operations in the 2025-2110 MHz band, HE360 earth stations must operate with a duty cycle of no more than 10% to ensure that the constellation complies with interference criteria contained in Recommendation ITU-R SA. 1155-2, except where otherwise authorized within this grant.[28]

3. HE360's space-to-Earth and Earth-to-space operations must be strictly limited to durations when the HE360 space stations referenced within this license request are visible to the corresponding earth station locations listed in the Appendix, noting the additional restrictions within this grant.

4. We previously granted, on our own motion, a waiver of the U.S. Table of Frequency Allocations (U.S. Table), 47 CFR § 2.106(a), to allow non-conforming use of the 2200-2290 MHz band for HE360 to conduct telemetry and tracking, subject to the condition that HE360 operates on a non-interference basis, accepts any interference from authorized services in these bands, and complies with the other conditions below regarding operations in these bands.[29] We found good cause to waive the U.S. Table to allow HE360 to operate command links only with its satellites based on HE360's coordination with Federal users in the band. Additionally, HE360 must be aware that non-Federal space-to-Earth transmissions in the 2200-2290 MHz band are not permitted to earth stations within the US.

5. We previously granted a waiver of the U.S. Table for HE360 to conduct non-Federal space-to-space EESS operations at 2410 MHz with the first HE360 satellite cluster launched on December 3, 2018, only, subject to the condition that operations in this band do not cause harmful interference and that HE360 may not claim protection from interference.[30]

6. We previously granted a waiver of the U.S. Table for HE360 to conduct non-Federal Earth-to-space operations in the 432-438 MHz band, with the first HE360 satellite cluster launched on December 3, 2018, only, subject to the condition that operations in this band do not cause harmful interference and that HE360 may not

[26] With respect to those bands shared with Federal spectrum users, Federal operators have indicated that Federal missions brought into use after issuance of this grant may prevent future modification or renewal.

[27] *See March 2023 Grant Stamp* at Condition 3, n.11. The total number of simultaneously operational satellites refers specifically to those satellites operating in frequencies other than TT&C frequencies and does not include non-operational satellites that continue to operate in TT&C frequencies as part of approved post-mission disposal plans.

[28] Starting with HE360 satellites in Cluster 9, HE360 removed the S-band transmitter used to provide emergency backup and telemetry in the 2200-2290 MHz band. *See March 2024 Grant Stamp*.

[29] *See March 2023 Grant Stamp* at Condition 8.

[30] *Id*. at Condition 9.

claim protection from interference.[31]

7. Transmissions in the 2025-2110 MHz, 8025-8400 MHz, and 2200-2290 MHz bands[32] may only be made to/from earth stations coordinated with federal agencies, including National Aeronautics and Space Administration (NASA), Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA), and the United States Air Force Spectrum Management Office (AFSMO). Any use of Federal government-sponsored ground stations must be coordinated by HE360's federal government customers with AFSMO (jimmy.nguyen@us.af.mil), NASA (HQ-SatCoord@mail.nasa.gov), and DOC/NOAA (spectrum.coordinator@noaa.gov). A list of coordinated non-Federal earth stations is attached as the Appendix. HE360 must provide the FCC with an updated list of coordinated non-Federal earth stations within ten business days following any changes to that list.[33]

8. The coordinated geographic earth station locations, identified in the Appendix, may include multiple earth station vendors operating from locations within close proximity to one another. This collective group of vendor earth stations at each such geographic location must be treated as a single earth station for the purposes of federal agency satellite coordination and compliance with the conditions of this license if the separation distance between individual vendor earth station locations is less than 5 km. HE360 must manage the scheduling of all vendors operating from a single coordinated geographic earth station location to ensure compliance with the operational conditions specified in this license grant.

9. Earth-to-space transmissions in the 2025-2110 MHz band to HE360 satellites must be coordinated with fixed and mobile stations in the band (e.g., via Society of Broadcast Engineers (SBE)).

10. Transmissions in the 2025-2110 MHz, 2200-2290 MHz, and 8025-8400 MHz bands are limited to the center frequencies and emission bandwidths coordinated with Federal users set forth in the Frequencies section of this grant.

11. In the 2025-2110 MHz band, HE360 must comply with the following limitations:

    a. All uplink (Earth-to-space) transmissions must limit the effective isotropic radiated power (EIRP) to 40.8 dBW.

    b. Command uplink (Earth-to-space) transmissions centered at 2046.5 MHz, 2049.3 MHz, 2075.0 MHz, 2068.2 MHz, 2062.7 MHz, and 2077.4 MHz must be limited to emission bandwidths of 170 kHz, 1.33 MHz, and 2.66 MHz.

    c. Command uplink (Earth-to-space) transmissions centered at 2063.965 MHz, 2064.965 MHz, and 2065.965 MHz must be limited to emission bandwidths of 120 kHz and 180 kHz.

    d. Command uplink (Earth-to-space) transmissions centered at 2052.1 MHz, 2053.0 MHz, and 2053.7 MHz must be limited to emission bandwidths from 10 kHz to 180 kHz.

    e. In the 2025-2110 MHz band, (Earth-to-space), HE360 uplinks using a center frequency of 2046.5 MHz and emission bandwidth of 1.33 MHz must cease transmissions when any of the NASA PUNCH satellites (NORAD IDs: 63178-63181) are within 10 degrees of the respective earth station antenna boresight. This applies to the Tromsø, Norway; Punta Arenas, Chile; Mingenew, Australia (A and K); Maui, Hawaii; Fairbanks, Alaska; and Deadhorse, Alaska earth station locations.

    f. All uplink (Earth-to-space) transmissions, centered at 2046.5 MHz with emission bandwidths of

[31] *Id*. at Condition 10.

[32] *Id.*

[33] A list of earth stations already coordinated with federal agencies is attached as the Appendix to this grant.

1.33 MHz and 2.66 MHz, must be limited to a duty cycle of no more than 35% from Svalbard, Norway; Troll, Antarctica; and Punta Arenas, Chile when QuickSounder (NORAD ID: TBD, launching August 2026) is within line of sight.

g. All uplink (Earth-to-space) transmissions using a center frequency of 2062.7 MHz must limit the duty cycle of operations based on the emission bandwidth as follows:

   i. 170 kHz emission bandwidth: duty cycle less than 40% per earth station per satellite;

   ii. 1.33 MHz emission bandwidth: duty cycle less than 70% per earth station per satellite;

h. All uplink (Earth-to-space) transmissions using center frequencies of 2064.965 MHz and 2065.965 MHz must be limited to a duty cycle of less than 4% per earth station per satellite.

i. All uplink (Earth-to-space) transmissions using center frequencies of 2053.0 MHz, 2053.7 MHz, 2077.4 MHz, and 2075.0 MHz must cease transmissions during the Artemis-IV and later Artemis missions from launch to launch + 48 hours.

12. HE360's operation in the 2200-2290 MHz band must not exceed the interference protection criteria specified in Recommendation ITU-R SA.609-2 and the resulting power flux-density levels at the surface of the earth must not exceed the limits in Table 21-4 of the ITU Radio Regulations. Additionally, the resulting unwanted power flux-density levels at the surface of the earth from HE360's operation in the 2200-2290 MHz band must not exceed the interference protection criteria for deep-space earth stations in the 2290-2300 MHz band as specified in Table 5 of Recommendation ITU-R SA.1157-1. Power flux-density levels at the surface of the earth from HE360's operation in the 8025-8400 MHz band must not exceed the limits in Table 21-4 of the ITU Radio Regulations and the power flux-density levels at the geostationary-satellite orbit must not exceed the limits in No. 22.5 of the ITU Radio Regulations. Additionally, the resulting unwanted power flux-density levels at the surface of the earth from HE360's operation in the 8025-8400 MHz band must not exceed the interference protection criteria for deep-space earth stations in the 8400-8450 MHz band as specified in Table 5 of Recommendation ITU-R SA.1157-1.

13. All downlink (space-to-Earth) operations in the 2200-2290 MHz band must be restricted to communication with earth stations identified in the Appendix that are located outside the US.[34]

14. In the event a spacecraft emergency requires activation of the emergency backup downlink (space-to-Earth) capability using center frequencies of 2242.0 MHz, 2254.0 MHz, or 2260.0 MHz, HE360 must immediately notify the NASA JSC Spectrum Management (jsc-dl-spectrum-management@mail.nasa.gov) and NASA HQ Satellite Coordination Office (HQ-SatCoord@mail.nasa.gov). Emergency backup downlink operations in the 2200-2290 MHz band must be limited to spacecraft emergency situations only, and all other usage is not authorized.

15. All reception must comport with the requirements on unauthorized publication or use of communications in section 705 of the Communications Act of 1934, as amended (47 U.S.C. § 605). This license grant does not constitute an "authorization" with respect to the activities specified in section 705 of the Communications Act or in related provisions of chapter 119, Title 18, United States Code.

16. We previously waived the U.S. Table with respect to reception of AIS signals in the 156.7625-156.7875 MHz (AIS 3), 156.8125-156.8375 MHz (AIS 4), 161.9625-161.9875 MHz (AIS 1) and 162.0125-162.0375 MHz (AIS 2).[35] As a condition of this waiver, HE360 must not claim protection for reception of messages in the

[34] *See also* Condition 4.

[35] *March 2023 Grant Stamp* at Condition 22. We previously found that the reception of AIS transmissions cannot cause harmful interference, and these transmissions will be present pursuant to existing authorizations using frequencies allocated to other services regardless of whether they are received by a HE360 satellite. We also concluded that the service HE360

156.0125-162.0375 MHz band that are not in accordance with the U.S. Table for the pertinent area and may only claim protection to the extent provided by the status of the reception under the U.S. Table.

17. HE360 may claim protection for reception in the 156.7625-162.0375 MHz band only to the extent permitted under the U.S. Table for domestic operations or the ITU Radio Regulations for international operations, as of the time of operation. Operations in the 156.7625-162.0375 MHz band must be in accordance with any Commission rulemakings subsequent to the release of this authorization that implement any new domestic allocations or service rules for these bands.[36]

18. We previously waived the U.S. Table with respect to reception of the DSC signal in the 156.5125-156.5375 MHz band on a non-conforming, non-harmful interference basis.[37] As a condition of this waiver, HE360 must not claim protection for reception of messages in the 156.5125-156.5375 MHz band that is not in accordance with the U.S. Table for the pertinent area and may only claim protection to the extent provided by the status of the reception under the U.S. Table.

19. We previously waived the U.S. Table with respect to reception of EPIRB signals in the 406-406.1 MHz band.[38] As a condition of this waiver, HE360 must not claim protection for reception of messages in the 406-406.1 MHz band that is not in accordance with the Table of Frequency Allocations for the pertinent area and may only claim protection to the extent provided by the status of the reception under the U.S. Table.

20. We previously waived, to the extent necessary, the U.S. Table with respect to reception of signals transmitted from terrestrial sources (Earth-to-space) in bands used by the Global Positioning System (GPS).[39]

21. We previously GRANTED HE360's request for a waiver of the U.S. Table[40] with respect to reception of inter-satellite signals from the Inmarsat satellite system in the 1525-1544 MHz and 1545-1559 MHz bands, on an unprotected, non-interference basis.[41]

22. We previously GRANTED HE360's request for a waiver of the U.S. Table to receive inter-satellite signals from the Inmarsat satellite system in the 1626.5-1645.5 and 1646.5-1660.5 MHz bands on an unprotected, non-interference basis.[42] Additionally, we previously granted on our own motion waiver of the U.S. Table to transmit inter-satellite signals to the Inmarsat satellite system in the 1626.5-1645.5 MHz and 1646.5-1660.5 MHz bands on an unprotected, non-interference basis.[43]

23. HE360 must maintain a U.S. point of contact available by telephone 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein. The telephone number for this

proposes will serve the public interest by providing critical near real-time maritime data of interest for both government and commercial users. We made the same findings with respect to Clusters 8 and 9. *See Dec. 2019 Grant Stamp* at Condition 14.

[36] See, e.g., *Iridium Constellation LLC, Application for Modification of License to Authorize a Second-Generation NGSO MSS Constellation*, Order and Authorization, 31 FCC Rcd 8675 at 8689, para. 50, ICFS File Nos. SAT-MOD-20131227-00148, SAT-AMD-20151022-00074 (Aug. 1, 2016).

[37] *March 2023 Grant Stamp* at Condition 24.

[38] *Id*. at Condition 25.

[39] *Id*. at Condition 26.

[40] We noted that waiver of 47 CFR § 25.112(a)(3) was unnecessary as this provision was removed from the Commission's rules, effective Jan. 5, 2024. *See Space Innovation; Expediting Initial Processing of Satellite and Earth Station Applications*, Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 8838 at 8849, para. 27 (2023).

[41] *March 2023 Grant Stamp* at Condition 27.

[42] *Id*. at Condition 28.

[43] *Id*.

U.S. point of contact must also be provided to the National Telecommunications and Information Administration (NTIA) (ravery@ntia.gov), DOC/NOAA (spectrum.coordinator@noaa.gov), and NASA (HQ-SatCoord@mail.nasa.gov).

24. Given the opportunity for additional entrants to operate in HE360's requested bands, this grant includes the previously-granted waiver to HE360 of the modified processing round requirements of 47 CFR §§ 25.156 and 25.157.[44]

25. Because HE360 must comply with the technical requirements in Part 25 of the Commission's rules and the above-referenced power flux-density limits, which should prevent harmful interference to other operators in the band, this grant includes the previously-granted waiver of the default service rules in 47 CFR § 25.217(b).[45]

26. This license will become null and void if, at any time during the license term, there are no HE360 satellites operating.

27. HE360 must provide a semi-annual report, by January 1 and July 1 each year, covering the preceding six-month period, respectively, from June 1 to November 30 and December 1 to May 31. The report should include the following:[46]

a. Number of conjunction events identified for any HE360 system satellites during the reporting period, and the number of events that resulted in an action (maneuver or coordination with another operator), as well as any difficulties encountered in connection with the collision avoidance process and any measures taken to address those difficulties.

b. HE360 must report any loss of control of HE360 satellites at altitudes above 350 km not less than 10 days following the loss of control.

28. The license term is 15 years, expiring December 3, 2033.[47]

29. Within 30 days after deployment, HE360 must provide the FCC and other federal agencies the initial orbital parameters (e.g., operating altitudes, apogee and perigee, inclination angle) for each cluster within 30 days following launch. Notification must be provided to AFSMO (jimmy.nguyen@us.af.mil), NASA (HQ-SatCoord@mail.nasa.gov), and DOC/NOAA (spectrum.coordinator@noaa.gov), and also filed in the International Communications Filing System (ICFS).

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

[44] *See Dec. 2019 Grant Stamp* at Condition 19, citing *DigitalGlobe, Inc.*, Order and Authorization, 20 FCC Rcd 15696 at 15699, para. 8 (Sat. Div., Int'l Bur. 2005).

[45] *See id.*; *Digital Globe, Inc.* at para. 20.

[46] We note that the Commission recently adopted revised reporting requirements for satellite systems. *See Space Modernization for the 21st Century*, Report and Order, FCC 26-47, SB Docket No. 25-306 (rel. Jul. 23, 2026) (*Space Modernization Report and Order*). When the rules adopted in the *Space Modernization Report and Order* come into effect, the applicable rules will supersede this condition. *Id*. at para. 270, Appendix A at § 100.102.

[47] The license term is calculated from the deployment of the three Pathfinder satellites on December 3, 2018. *See Dec. 2019 Grant Stamp* at Condition 24. 47 CFR § 25.121.

GRANT

HawkEye 360, Inc.
ICFS File Nos. SAT-MOD-20251118-00324;
SAT-AMD-20260512-00195;
SAT-MOD-20240619-00139

Action Date:	July 29, 2026	
Term Dates	**From:** July 29, 2026	**To:** December 3, 2033
Approved: Carolyn A. Mahoney Acting Division Chief, Satellite Programs and Policy Division		

GRANT
HawkEye 360, Inc.
ICFS File Nos. SAT-MOD-20251118-00324;
SAT-AMD-20260512-00195;
SAT-MOD-20240619-00139

Appendix[48]:
**HawkEye 360 Earth Stations[49]*
Coordinated With Federal Agencies[50]**

Svalbard, Norway
Tromsø, Norway
Troll, Antarctica
Awarua, New Zealand (A)
Awarua, New Zealand (K)
Punta Arenas, Chile
Hartbeesthoek, South Africa
Cordoba, Argentina
Maui, HI, USA [51]
Portland, OR, USA
Columbus, OH, USA
Athens, Greece
Fairbanks, AK, USA[52]
Deadhorse, AK, USA
Barrow, AK, USA
Jeju, South Korea
Seoul, South Korea
Mauritius
Mingenew, Australia (A)
Mingenew, Australia (K)
Dubbo, Australia
Puertollano, Spain
Dubai, UAE

[48] This Appendix was previously designated as "Appendix B." *See Dec. 2019 Grant Stamp.*

[49] *See* ICFS File Nos. SAT-LOA-20190102-00001, Letter from Dr. Michael Mineiro, V.P. Legal, Regulatory, and Government Affairs, HawkEye 360, to Stephen Duall, Chief, Satellite Policy Branch, Satellite Division, FCC (dated Dec. 4, 2019); ICFS File Nos. SAT-LOA-20190102-00001; SAT-MOD-20210114-00010, Letter from Dr. Michael Mineiro, V.P. Legal, Regulatory, and Government Affairs, HawkEye 360, to Merissa Velez, Chief, Satellite Policy Branch, Satellite Division, FCC (dated Jan. 18, 2022); ICFS File Nos. SAT-LOA-20190102-00001 and SAT-AMD-20200728-00090, Letter from Tony Lin, Counsel for Hawkeye360, Inc. to Marlene H. Dortch, Secretary, FCC (Nov. 15, 2022); and ICFS File No. SAT-AMD-20221014-00136, Attachment 3.

[50] This revised list of Earth stations removes geographic coordinates for the stations. That information, along with other radiofrequency information, is provided separately to the federal spectrum managers as part of the informal coordination process. *See* Application, Narrative at 2, n.8.

[51] The HI, USA earth station will operate with X-band downlinks and S-band uplinks.

[52] The Fairbanks, AK, USA earth station will operate with X-band downlinks and S-band uplinks.

Zallaq, Bahrain
Harmon, Guam
Singapore
Longovilo, Chile