

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of	)	
	)	Call Sign(s): S3198 (SB), WA9XUS (OET)
Turion Space Corp.	)	
	)	
Application for Conventional	)	
Experimental Radio License	)	File No. 0841-EX-CN-2026
	)	

APPLICATION FOR CONVENTIONAL EXPERIMENTAL RADIO LICENSE

Pursuant to Sections 5.54(a)(1) and 5.61(c) of the Federal Communication Commission's (FCC or Commission) rules, Turion Space Corp. (Turion) hereby requests a conventional experimental radio license to enable the short-term testing and development of the already authorized DROID.002 spacecraft with new ground station service provided by Northwood Space, Inc. (Northwood) for two (2) years.

In this application and an accompanying application filed by Northwood, Turion and Northwood seek conventional authority for the same operations on the same conditions previously authorized in Special Temporary Authority (STA) File Nos. 0427-EX-ST-2026 (Turion) and 0363-EX-ST-2026, 0362-EX-ST-2026, 0361-EX-ST-2026, 0360-EX-ST-2026, 0358-EX-ST-2026 (Northwood).

A. Test Description

This experimental test will be a short duration test to confirm on-orbit compatibility of the DROID.002 spacecraft with new Northwood ground station located in the following locations:

<u>Location</u>	<u>State</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Altitude</u>
Ventura	California	34° 18' 52.3"N	119° 06' 14.3"W	58 m
Brewster	Washington	48° 08' 46.9"N	119° 41' 59.8"W	383 m
Loring	Maine	46° 56' 00.9"N	067° 54' 34.0"W	207 m
Bismark	North Dakota	46° 52' 56.1"N	100° 48' 17.4"W	509 m
Talkeetna	Alaska	62° 20' 00.7"N	150° 02' 15.8"W	146 m

The tests will enable Northwood to characterize antenna signal acquisition and tracking performance (e.g., carrier-to-noise ratios, signal-to-noise ratios, bit error rate performance, and antenna pointing accuracy) against operational Turion LEO satellites across realistic tracking geometries, from the 5° minimum earth-station elevation angle up to overhead passes.

The test will consist of the DROID.002 spacecraft attempting to establish connection with these new stations up to three times per day, each test lasting approximately 10 minutes.

This test will be on a strict non-interference basis and will be terminated in the event of an interference event reported to the following stop buzzer contact:

Bailey Cortright
Lead Mission Operations Engineer
5 Technology Drive
Irvine, CA 92618
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As this test will be conducted within the United States, only the 2025-2110 MHz uplink and 8025-8400 MHz downlink will be used, no operations in the 2200-2290 MHz band are requested:

<u>Operator</u>	<u>Frequency</u>	<u>Bandwidth</u>	<u>EIRP</u>	<u>Beam Name</u>
Turion	8210.0 MHz	70 MHz	11.7 dBW	XTX
Northwood	2057.0 MHz	128 kHz	46.0 dBW	SRX3

B. Space Segment

DROID.002 is a small satellite built by Turion and was granted authorization for operation of the station for a period of six years after DROID.002 was successfully placed into orbit. DROID.002 was launched on March 15, 2025, aboard the SpaceX Transport-13 rideshare mission and placed into operations shortly afterwards.¹ DROID.002 will operate in a manner consistent to current operations, with no changes to the spacecraft or any technical parameters needed to perform this test.

C. Ground Segment

Northwood has existing STAs (File Nos. 0363-EX-ST-2026, 0362-EX-ST-2026, 0361-EX-ST-2026, 0360-EX-ST-2026, 0358-EX-ST-2026) authorizing uplink transmissions from the demonstration Earth stations. In an accompanying application, Northwood seeks a conventional experimental license permitting uplink transmissions from the same stations and on the same terms. Operations under this experimental license will occur only to the extent authorized for both the Turion satellite and the relevant Northwood sites.

¹ See File Number SAT-LOA-20240516-00104, exhibit titled “Notification of Launch of Satellite.”

D. License Period

A license period of two years is requested in order to work around any delays in testing, if they do occur, as to not burden the Commission with extra paperwork. Turion will notify the Commission in the event of a permanent discontinuance of the station prior to the license expiration date.

E. NTIA Coordination

The requested operations were recently coordinated through NTIA through the processing of Turion STA File No. 0427-EX-ST-2026 (granted on April 21, 2026) and Northwood STA File Nos. 0363-EX-ST-2026, 0362-EX-ST-2026, 0361-EX-ST-2026, 0360-EX-ST-2026, and 0358-EX-ST-2026 (granted April 23, 2026). Given the recent coordination of these exact same operations, Turion has not requested pre-coordination in an effort to minimize duplicative coordination burdens on the agencies. Turion understands that this application will be subject to coordination through NTIA. Turion reiterates that it does not seek any changes to the previously coordinated STA operating parameters and conditions in this conventional license application.

E. ITU Documentation

With its granted STA request (File No. 0427-EX-ST-2026), Turion previously provided ITU documentation to reflect the additional sites in support of a modification to its ITU filing for spacecraft USASAT-30S-1. Because Turion merely seeks to continue the same operations, none of the data contained in the ITU filing materials previously submitted to the Commission has changed. As a result, no new or updated ITU documentation is appended to this experimental application.

F. Previous Authorization

As stated, Turion received an STA covering the same experimental operations sought in this conventional license application (File Number 0427-EX-ST-2026, granted on April 21, 2026). As grant of this application would serve to replace the existing STA on the same terms and conditions and with no increase in interference potential to authorized services, this application is also intended to serve as a continuance of the Turion STA pending action on this application pursuant to Section 5.61(c) of the Commission's rules. Turion understands that such continuance applies solely to the operations as authorized and conditioned under the STA.

Respectfully submitted,

Ravina Gogna

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