**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, DC 20554**

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| In the Matter of | ) | |
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| Application of Speedcast Communications Inc. for 60-day Special Temporary Authorization to Operate a Ku-band VSAT Network | ) | Call Sign: E010082 |
| | ) | |
| | ) | File No. SES-STA-_____ |
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**APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION**

Pursuant to Section 25.120 of the Federal Communications Commission's (the "FCC" or "Commission") rules, Speedcast Communications Inc. ("Speedcast") respectfully seeks 60-day special temporary authorization ("STA"), commencing on Wednesday, November 9, 2022, or as soon as practicable thereafter, to operate a very small aperture terminal ("VSAT") network comprising one 2.4 meter hub earth station and one 1.8 meter remote earth station operating in conventional Ku-band frequencies with the EUTELSAT 117 West A satellite. Operation of the earth stations will enable Speedcast's customer, Quantum Leap Research, to further its development and implementation of end-to-end cybersecurity and related solutions being optimized for satellite communications links. Grant of this STA will serve the public interest by immediately supporting the continued development and expeditious delivery of cybersecurity and related solutions for rural and underserved areas that rely on satellite connectivity given unavailability or excessive cost of alternative communications options.

## I. DISCUSSION

### A. Background and Public Interest

Quantum Leap Research is developing cybersecurity and related communications solutions that integrate satellite modems, IP optimizers, networking equipment, and proprietary technical approaches to support satellite connectivity to rural and remote areas. These

solutions are being deployed in rural areas where communications alternatives are either very costly or simply unavailable.

The solutions being developed by Quantum Leap Research are designed for high-availability communications links and must be thoroughly tested under real-world conditions. The VSAT network proposed herein will provide an effective satellite testbed that will allow Quantum Leap Research to conduct research, evaluation, and optimization activities in an environment similar to the earth station networks used by U.S. government and commercial customers. Additionally, it will allow their research engineers to test new concepts and designs in the context of actual operational conditions.

Speedcast will operate the CPI Model 1244 2.4 meter (the "2.4m") hub earth station at Quantum Leap Research's site in Leesburg, Virginia, and will operate the CPI Model 1184 1.8 meter (the "1.8m") remote earth station at a site in Fenton, Illinois. The earth stations will communicate with the EUTELSAT 117 West A satellite, which has been granted authority to serve the U.S. market, in conventional Ku-band frequencies (the 430 kHz uplink carrier will operate with a center frequency of 14030 MHz and the 430 kHz uplink carrier will operate with a center frequency of 11730 MHz). Speedcast provides the attached Technical Appendix for relevant information relating to the proposed earth station operations, including a draft FCC Form 312 Schedule B and radiation hazard analyses.

The 2.4m and the 1.8m earth stations have been previously authorized to operate in the United States by the Commission.[1] In addition, the off-axis EIRP spectral density of the proposed uplink transmissions re approximately 10 dB below the limits applicable to conventional Ku-band

[1] *See, e.g.,* File Nos. SES-MOD-20050621-00798, Call Sign E950149 (Remote 5, Model 1184) and SES-MOD-20190405-00446, Call Sign E940460 (TR 2.4m, Model 1244) (note the prior manufacturer of the earth stations, Prodelin, was bought by GD Satcom, which, in turn, was bought by CPI).

earth station operations in a two-degree spacing environment. Thus, there is a *de minimis* potential for interference from the proposed operations. Nonetheless, in the very unlikely event of any harmful interference issues arising during the term of the requested STA, Speedcast will immediately cease or modify its operations to remedy such interference.

**B. STA Considerations**

Section 25.120(a) provides that an STA request should be filed at least three business days prior to commencement of proposed operations. Here, Speedcast has timely filed this STA request so that the Commission may permit operations by Wednesday, November 9, 2022. Moreover, Section 25.120(b)(2) states that the Commission may grant a temporary authorization for up to 60 days if the STA request has not been placed on public notice and the applicant plans to file a request for regular authority for the service. Speedcast has filed a modification application to add the subject terminal types to its existing Ku-band VSAT authorization.[2]

Among other activities, Quantum Leap Research is developing its cybersecurity and related satellite communications solutions in connection with contracts with U.S. government agencies. The requested STA will allow Speedcast to support critical, near-term development efforts that will enhance the efficiency, reliability, and security of satellite links to rural and remote areas. The operations also will be fully consistent with the Commission's Ku-band earth station licensing rules and two-degree spacing policies, so they will not adversely affect the operations of other spectrum users.

Finally, in addition the Speedcast Support Center contact information provided in the draft Form 312, operational questions can be directed to Felix Cuevas, Solutions Engineer, E: felix.cuevas@speedcast.com, M: +52 554 365 1037.

[2] *See* Speedcast Communications Inc., Radio Station Authorization, File No. SES-MOD-INTR2022-03493, Call Sign E010082 (filed October 25, 2022).

## II. CONCLUSION

The temporary earth stations operations proposed herein will support the development of critical cybersecurity and related satellite communications solutions for U.S. government and commercial customers. Therefore, the public interest would be served by a grant of the requested STA to operate the 2.4m hub earth station and 1.8m remote earth station with the EUTELSAT 117 WA satellite in conventional Ku-band frequencies.