

SWE-DISH Satellite Communications, Inc.
Request for Experimental Special Temporary Authority
Attachment

SWE-DISH Satellite Communications, Inc. ("SWE-DISH") is requesting Special Temporary Authority ("STA") for up to a five-month period in order to conduct demonstrations of its new "satcom on the move" earth station system. The system, developed in partnership with SAAB, uses a SWE-DISH IPT earth station and a SAAB turntable. Attached is a "fact sheet" describing the demonstrator in somewhat greater detail. This "satcom on the move" system can provide a rapidly deployable high-capacity communications capability that should prove particularly useful for military, homeland security and disaster recovery applications. To that end, SWE-DISH has been invited by several federal government units to demonstrate the capabilities of this new system, including JCSE/NAVAIR/DoE/SPAWAR/NAB/NSWC. In response to these requests, SWE-DISH has scheduled a series of demonstrations at various locations within the United States over a several month period beginning on April 23, 2007, and may add additional demonstrations in response to requests from potential customers.

In light of the short-term need for authority and the prototype nature of this new system, SWE-DISH is requesting an experimental STA. In addition, SWE-DISH is requesting expedited processing of this application so that it can meet the critical scheduling requirements of its U.S. military and homeland security clients. In light of the vital national security needs of these customers and the potential ability of SWE-DISH's new system to meet those needs, timely demonstrations, and thus timely deployments following such demonstrations, will well serve the public interest. SWE-DISH thus requests expeditious grant of this experimental STA.

Moreover, grant of this experimental STA will not result in any adverse impacts. SWE-DISH will conduct these demonstrations under the close supervision of trained engineers. SWE-DISH will be using the Intelsat Horizon 1 satellite, and Intelsat has coordinated these operations with the adjacent satellite system operators (see letter from Intelsat attached hereto). In addition, the SWE-DISH engineers will ensure that there is no risk of harmful radiation by establishing a zone around the transmitting antenna to keep people a safe distance away, consistent with the Commission's requirements for a similar SWE-DISH earth station already licensed by the Commission.¹

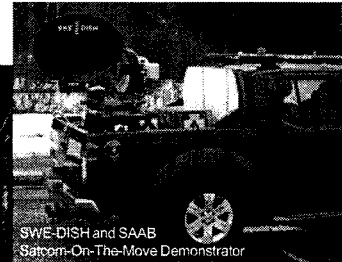
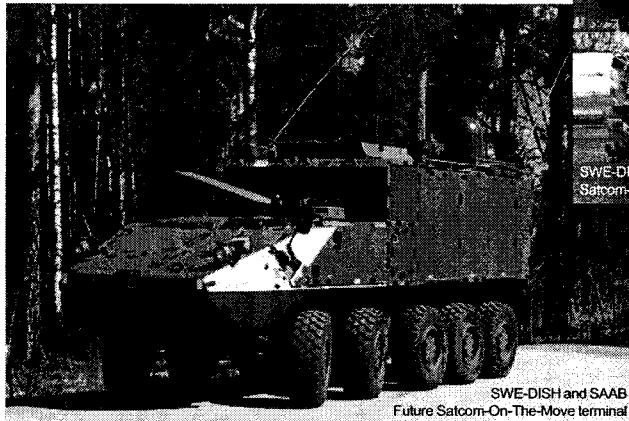
With respect to technical parameters requested in the application concerning the directional antenna and not provided in that filing, the earth station has a beamwidth at the half-power point with regard to the elevation of 1.24°, and with respect to the azimuth the beamwidth is 0.75°. The orientation of the antenna will change, in light of the transportable/mobile nature of the operations. The orientation will vary in the horizontal plane from 0° - 180°, and will vary in the vertical plane from 5° - 90°.

¹ *SWE-DISH Satellite Communications, Inc.*, 19 FCC Rcd 16314 (2004) at ¶ 7:

We will require that the operator of the earth station assure that no individuals will be exposed to radiation levels beyond the MPE limits. In order to facilitate this we require that a label or labels be permanently placed on the earth station, warning about the radiation hazard and including a diagram showing the regions around the earth station where the levels could exceed 1.0 mW/cm². It shall be the responsibility of the earth station operator to keep individuals from straying within this region by means of signs, caution tape, verbal warnings, placement of the earth station so as to minimize access to the hazardous region, or any other appropriate means.



SWE-DISH® SOTM SATCOM-ON-THE-MOVE DEMONSTRATOR



SATCOM-ON-THE-MOVE

Defense and government organizations put high requirements on mobility and light communication solutions for voice, data and image. Geographically spread units with increased coverage areas that regroup and travel fast needs real time, agile communication solution that masters various terrains and allows manoeuvring at any speed.

The SWE-DISH and SAAB Systems Satcom-On-The-Move, SOTM, demonstrator is designed to provide an unsurpassed broadband on-the-move satellite communications capability, based on available COTS products. The demonstrator has a 90x66 cm antenna system (IPT Suitcase), mounted on a stabilized platform.

The Satcom-On-The-Move demonstrator is the result of a successful integration of the SWE-DISH leading satellite terminal technology and SAAB's leading stabilized platform technology.

OPERATION

Gyros, GPS and the high qualitative position calculation are used in the antenna control system to ensure the accurate position and to guarantee the stability and reliability of the system.

The SOTM terminal is based on well proven components and is well suited for use with existing infrastructure, e.g.

TDMA, SCPC as transmission modes and applications on a global area.

The SOTM demonstrator provides automatic satellite acquisition and tracking, and re-established communication after loss of line of sight. This is ensured by means of a high performance inertial navigation system integrated with the terminal to continuously measure the angle of the antenna.

KEY FEATURES

- SOTM Demonstrator is based on available COTS products - SWE-DISH satellite terminal and SAAB stabilized platform
- Ku-band operation - up and down link >2 Mbps
- Instant automatic recovery of satellite data after loss of line-of-sight
- A stabilized platform with a pointing accuracy better than 0.1 degree RMS
- Low weight and easy integrated onto different vehicles
- Suitable for both land and marine applications
- Fast automatic satellite acquisition
- Dual-optic antenna with high efficiency
- Light-weight system with carbon-fiber antenna

April 9, 2007



Federal Communications Commission
International Bureau
445 12th Street, SW
Washington, D.C. 20554

To Whom It May Concern:

This letter certifies that Intelsat is aware that SWE-DISH Satellite Systems (SWE-DISH) is seeking an experimental license from the FCC to operate its existing IPT terminal (In a Satcom on the Move Configuration) on Horizon 1 (for a period of three months) at 127° WL as a point of communication using Ku-band transmit/receive antenna that is not strictly compliant with the FCC 2-degree spacing requirements for off-axis sidelobe gain¹.

The Ku-band antenna, as a part of the SWE-DISH IPT Suitcase, is a 90 x 66 cm elliptical aperture terminal. This terminal will be operated by SWE-DISH as a transportable earth station. Intelsat understands that this antenna generally exhibits non-compliance in the region from 1.25° to 1.51° off axis from maximum gain. The antenna complies at 1.51° and beyond with the requirement of Section 25.209 of the FCC rules.

In order to prevent potential unacceptable interference from antenna misalignment, SWE-DISH will operate the terminal by experienced staff and align the 90 x 66 cm elliptical aperture antenna to less than or equal to 0.49° offset in the azimuth direction of the intended satellite. In addition, the uplink power density into the antenna flange will not exceed -14 dBW/4kHz. Thus the probability of causing interference to neighboring satellites will be reduced.

Intelsat acknowledges that the use of the 90 x 66 cm elliptical antenna and following the above operating conditions by SWE-DISH has the potential to cause unacceptable interference into adjacent satellites operating in accordance with FCC's 2-degree spacing policy and that SWE-DISH will accept interference from adjacent satellites to the degree to which harmful interference would not be expected to be caused to an earth station employing an antenna conforming to the reference patterns defined in Section 25.209 of FCC rules. If the use of this antenna should cause unacceptable interference into other systems, SWE-DISH has agreed that

¹ 47 C.F.R. § 25.209

it will terminate transmission immediately upon notice from the affected parties.

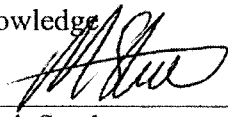
Respectfully,



Jose Albuquerque
Senior Director, Spectrum Engineering
Intelsat

Acceptance by SWE-DISH:

SWE-DISH testifies that the information provided to Intelsat and reflected in this affidavit letter is true and accurate to the best of SWE-DISH's knowledge.



Mark Steel
Senior Satellite Engineer (DIRECTOR OF US OPERATIONS)
SWE-DISH Satellite Systems