

NARRATIVE STATEMENT

Pursuant to Sections 5.3(d),(g), and (i) and 5.61 of the Commission's rules, 47 C.F.R. §§5.3(d),(g),(i), and 5.61 (2004), Amtech Systems LLC ("Amtech") hereby respectfully requests a special temporary authority ("STA") to test and demonstrate prototype equipment to upgrade its existing system. Amtech proposes to conduct the test commencing **September 1, 2006**.

In support of this request, the following is shown:

1) Applicant's Name, Address, FCC Registration Number ("FRN"):

Amtech Systems LLC
8158 Adams Drive
Liberty Center, Building 200
Hummelstown, PA 17036

FRN: 0009732876

2) Need for STA:

Amtech requires special temporary authority so that it may test and evaluate prototype equipment. It expects that it will be able to complete its test in less than 6 months, so that it does not require a regular two-year license.

3) Purpose of Operation:

Amtech, through its affiliate TransCore Link Logistics ("TransCore"), is engaged in the design and development of an upgrade to its currently licensed system that will be introduced once the company has received all necessary regulatory and business approvals. The experimental authority requested herein will allow the company to test compliance and performance of the system and to determine the system's acceptability. Such authority is required in particular so that the company may deploy and test a limited number of mobile earth terminals ("METs") prior to obtaining any necessary equipment authorization or other appropriate approvals.

4) System Description and Operation:

The system is designed to provide messaging capabilities between the METs and customer facilities. It is comprised of hub equipment, wireline terrestrial links from the hub to Channel Units located at a satellite system provider land earth station ("LES") facility, a channel on the satellite system that is leased from the satellite provider, and METs mounted on vehicles or other mobile equipment or at temporary fixed locations.

The METs are the only new RF components of this system, and all operations under the trial will be conducted with the permission and under the auspices of the satellite system provider, Mobile Satellite Ventures ("MSV").

The hub is located at TransCore's offices in Kanata, Ontario, during the trial. The Channel Units are located at an MSV LES in Ottawa, Ontario. These Channel Units will interface to MSV's existing and separately licensed LES equipment, which will transmit the signal to the satellite. Internet facilities will be used to connect the Channel Units to the hub. The trial will be conducted over MSV's MSAT-1 or MSAT-2 satellites at 106.5°W and 101°W.

The company will not collect fees or charges from users during the trial. Nor will it conduct market trials or provide unapproved units to consumers or the general public.

5) Class of Station:

Mobile. A limited number of mobiles will be located at temporarily fixed locations.

6) Location of Proposed Operation:

The company proposes to deploy a limited number of METs (not more than 25) that will operate on a mobile and temporarily fixed basis in the Eastern United States under the STA requested herein. Only the East Central Beam of the MSAT satellites will be used during the trial. The METs cannot transmit if they cannot receive a signal from the satellite. Thus, the operations are limited technically to states east of a line from North Dakota to Texas. Nevertheless, Amtech will further limit the trial so that the METs operate only in the following states: ME, VT, NH, MA, RI, CT, NY, NJ, PA, VA, NC, SC, GA and FL.

The company also is conducting tests in Canada, with approval by Industry Canada and in accordance with its rules and regulations.

7) Equipment To Be Used:

The trial will use prototype equipment under model number MT-3000-MC. A maximum of 25 of these MET units, which are manufactured by TransCore, will be used in the United States during the trial. The MT-3000-MC unit is based on the identical hardware that is currently licensed for operation under model number MT-3000. *See* File No. SES-MOD-20050819-01117 (modification application granted to add the MT-3000 unit to Call Sign E030120).

The MT-3000 hardware platforms will operate on the trial system using new software with a new air interface. METs with the new software, however, are designated with the "-MC" suffix in the model number.

8) Frequencies Desired:

The METs will operate in the L-band (1626.5-1660.5 MHz transmit and 1525-1559 MHz receive). Specific transmit and receive channels will be assigned by the satellite provider in the L-band. Modulation for transmit and receive is OQPSK.

9) Power Levels:

The peak transmit power (“TPO”) is 1.0 Watts. The peak effective radiated power (“ERP”) is 3 dBW or 2.0 Watts.

10) Type of Emissions:

MET transmit channel: 30K0G1D

MET receive channel: 5K00G1D (authorization for receive frequencies not required; provided in this narrative and in the application for informational purposes only)

11) Overall Height of Antenna(s) Above Ground:

The MET units are less than 4 inches tall and would be mounted directly on a vehicle or other equipment. The transmitters, with integral antennas will not, under any circumstances, extend more than 6 meters above the local road base level. Any antennas that are mounted on an existing structure other than a building will be installed in accordance with FAA and FCC rules and regulations.

12) Half-Duplex Operation:

The METs operate in half-duplex mode. Accordingly, and to the extent necessary, Amtech respectfully requests a waiver of Footnote US315 in Section 2.106 of the Commission’s rules, 47 C.F.R. § 2.106, which requires real-time preemption for maritime and aviation distress services.

The METs normally attempt to receive a 0.5 second subframe once in every 5-second subframe group. If this reception is not successful, then no subsequent transmission will be permitted from the MET unit until a later subframe is successfully received by it. The METs deployed during the trial will be programmed so that no transmission will occur later than 3 seconds after the last successful receive. If a shut-down is required, the forward link (to the METs) will be immediately shut-down, resulting in no further successful receives by any MET and thus within 3 seconds there will be no further MET transmissions.

As a result, the METs will meet a 3 second shut-down requirement consistent with FCC rulings regarding waivers for half-duplex METs granted recently by the FCC. *See, e.g.,* Skywave (Call Sign E030055, File No. SES-LIC-20030311-00353)(special provision number 5955: which allowed a shutdown time of 2.6 seconds); Skybitz (Call Sign

E000725, File No. SES-MOD-20030116-00057)(special provision number 5856: which allowed a 3 second shut-down time).

13) Restrictions on Operation:

Users participating in the trial will be advised that the MET units cannot be sold, must be returned and must not cause interference to other equipment. Specifically, the company will inform users that: (a) permission to operate the units has been granted under experimental authority issued by the Federal Communications Commission, is strictly temporary and may be cancelled at any time, (b) MET operation is subject to the condition that it not cause harmful interference, and (c) the user does not hold a property right in the device and may be required to return the device to the company. In addition, the company will conspicuously label all MET units as follows:

FCC STATEMENT This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.
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14) Contact Information:

Company Contact:

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