**Exhibit A**

**SkyWave Mobile Communications, Corp.**
**FCC Form 312 - Application for License of New Mobile Earth Terminals**
**Question 43 – Description**

By this application, SkyWave Mobile Communications, Corp. ("SkyWave") seeks a blanket license to operate a total of 100,000 L-band, mobile earth terminals ("METs"), to be used in the United States to access satellites on the ISAT List.[1] The requested validation period for this license is for 15 years. As discussed below, these METs comply with all applicable Commission technical requirements.

**A. Existing Authorization in the U.S.**

SkyWave has been providing in the U.S through Inmarsat D2 and D+ Mobile Satellite Service as a facilities-based and resale provider via Inmarsat satellites since 2003 under call-sign E030055 with several MET models, including the DMR-800D, DMR-800S, DMR-800L and the Surelinx 8000 Series. Its Inmarsat D2/D+ service is used by the Department of Defense, the Department of Homeland Security, the Drug Enforcement Agency, and other private sector customers, including customers in the transportation and oil/gas industry. The SkyWave network operation in the U.S. continues to be in standing order and in full conformance with FCC requirements.

**B. Public Interest**

The two new MET models in this application are CMS-TRP and CMS-TRH. These new models are manufactured by SkyWave and will offer end users the latest in hardware and new

[1] The Commission recently approved 100,000 half-duplex ISATPro phones for ISAT Us Inc. *See* Modification of License, Call Sign E090032, File No. SES-MOD-20100323-00347 (granted Aug. 2, 2010).

services which will provide orders of magnitude improvement in message payload capacity and reduced messaging latency. Authorizing these two new METs is in the public interest because it will allow end users of the new service to have access to the latest and most efficient hardware and technology for use in tracking and monitoring sensitive assets using the SkyWave's new network configured around the Inmarsat satellites. Additional technical information concerning the METs can be found in Schedule B.

The new METs will operate within a new satellite-based network which consists of hub equipment at the Message Processing Center operated by SkyWave and located at Primus Data Center in Ottawa, Canada, terrestrial links to Channel Units that are located at the satellite providers' Land Earth Station ("LES") facilities, two-way L-Band satellite channels, and small, low-cost METs mounted on vehicles or other mobile and fixed equipment. The network provides messaging services between the METs and customer facilities that have Internet access to the network hub.

**C. Technical Requirements**

The METs set forth in this application comply with the FCC's Rules for METs operating in the L-band.

*1. Radiation Hazard Study.* SkyWave has completed a radiation hazard analysis for the new METs in conformance with the Commission's Office of Engineering and Technology Bulletin No. 65. The new METs qualify for the OET 65 general public/uncontrolled environment. The analysis report is included in Exhibit D ("New METs Human Exposure to EMF").

*2. Compliance with Out-of-Band and Spurious Emissions Limits*. The new METs conform to the FCC limits for out-of-band and spurious emissions as set forth in Section 25.202(f) and 25.216 of the FCC's Rules.

3. *Compliance with Priority and Preemption Requirements for the Global Maritime Distress and Safety System ("GMDSS") and Aeronautical Mobile Satellite (R) Service ("AMS(R)").*[2]

SkyWave has confirmed that the METs are capable of having an average shut-down time of 2 seconds or less, and a maximum shut-down time of 3 seconds or less, in compliance with the direction provided by the National Telecommunications Information Administration ("NTIA") for half-duplex METs to comply with the priority and preemption requirements for the Global Maritime Distress and Safety Service ("GMDSS").[3] In particular, the METs covered by this application satisfy the following minimum set of capabilities and requirements established under Section 25.136(d) of the Commission's Rules, 47 C.F.R. § 25.136(d), to ensure the priority and preemption requirements to protect GMDSS:

*Requirement 1 - 47 C.F.R. § 25.136(d)(1): All MET transmissions shall have a priority assigned to them that preserves the priority and preemptive access given to maritime distress and safety-related communications sharing the band.*

Transmissions to authorized METs are classified as having no priority relative to GMDSS communications. This classification is controlled by the Network Operation Center ("NOC") portion of the Land Earth Station ("LES"). Inmarsat (like all other MSS operators) protects GMDSS transmissions in the band - which it also provides through other maritime services - by a frequency planning and management process.

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[2] *See* 47 C.F.R. § 25.136; 47 C.F.R. § 2.106 notes US308, US315.

[3] *See* Letter from Karl B. Nebbia, Associate Administrator, Office of Spectrum Management, NTIA, to Julius Knapp, Chief, Office of Engineering and Technology, FCC (May 13, 2009).

*Requirement 2 - 47 C.F.R. § 25.136(d)(2): Each MET with a requirement to handle maritime distress and safety data communications shall be capable of either: (i) recognizing messages and call priority identification when transmitted from its associated LES; or (ii) accepting message and call priority identification embedded in the message or call when transmitted from its associated LES and passing the identification to shipboard data message processing equipment.*

This requirement does not apply to the METs that are the subject of this application.

*Requirement 3 - 47 C.F.R. § 25.136(d)(3): Each MET shall be assigned a unique terminal identification number that will be transmitted upon any attempt to gain access to the system.*

Each MET will have a unique Electronic Serial Number assigned at the factory. This number, along with other provided and assigned identification, will be used to identify both the terminal and user/subscriber when it is accessing the signaling channels or communications channels. The LES will maintain an authorization database for all the METs subscribing to the service, and will grant or deny access accordingly.

*Requirement 4 - 47 C.F.R. § 25.136(d)(4): After an MET has gained access to a system, the mobile terminal shall be under control of an LES and shall obtain all channel assignments from it.*

Any MET that has gained access to the service will be under control of an LES. The MET must receive and act upon commands issued to it by the LES. LES commands will be received either through the signaling channels or through the communications channels, depending on the METs mode of operation. The LES assigns all channel frequencies, including those to be used for signaling only purposes.

*Requirement 5 - 47 C.F.R. § 25.136(d)(5): All METs that do not continuously monitor a separate signaling channel or signaling within the communications channel shall monitor the signaling channel at the end of each transmission.*

The communication channels between the LES and the MET have provision for signaling to be exchanged at anytime once a connection is established. This signaling capability is used by the LES to preempt the channel at any time.

*Requirement 6 - 47 C.F.R. § 25.136(d)(6): Each MET shall automatically inhibit its transmissions if it is not correctly receiving a separate signaling channel or signaling channel within the communications channel from its associated LES.*

MET transmissions will be inhibited unless the MET is correctly receiving either a signaling channel or the correct communications channel according to specified criteria. Among these criteria are specific receive performance parameters and time intervals (short time-out limits).

*Requirement 7 - 47 C.F.R. § 25.136(d)(7): Each MET shall automatically inhibit its transmissions on any or all channels upon receiving a channel shut-off command on a signaling or communications channel it is receiving from its associated LES.*

METs will automatically cease transmission on any channel when commanded to do so by its associated LES. The shut-off command will be accepted from either the signaling channel or communications channel operated by its associated LES. Additionally, requirements exist that provide for a fail-safe mode in inhibiting transmission, should a LES shut-off command not be received over the communications channel, since the LES will cease transmission after issuing a shut-off command.

*Requirement 8 - 47 C.F.R. § 25.136(d)(8): Each MET with a requirement to handle distress and safety-related communications shall have the capability within the station to automatically preempt lower precedence traffic.*

This requirement does not apply to the METs that are the subject of this application.

The METs covered by this application satisfy the following minimum set of capabilities and requirements established by the Commission to ensure the priority and real-time preemption requirements necessary to protect AMS(R)S:[4]

[4] *See* 47 C.F.R. § 2.106 note US 308; *AMSC Subsidiary Corp.*, 10 FCC Rcd. 9507, 9511 (1995)

*Requirement 1: All MET transmissions shall have a priority assigned to them that preserves the priority and preemptive access given to distress and safety-related communications sharing the band.*

Transmissions to authorized METs are classified as having no priority relative to AMS(R)S communications. This classification is controlled by the NOC. Inmarsat (like all other MSS operators) protects AMS(R)S transmissions in the band by a frequency planning and management process.

*Requirement 2: Each MET with a requirement to handle distress and safety-related communications shall be capable of recognizing messages and call priority identification when transmitted from its associated LES.*

This requirement does not apply to the METs that are the subject of this application.

*Requirement 3: Each MET shall be assigned a unique terminal identification number that will be transmitted upon any attempt to gain access to the system.*

Each MET will have a unique Electronic Serial Number assigned at the factory. This number, along with other provided and assigned identification, will be used to identify both the terminal and user/subscriber when it is accessing the signaling channels or communications channels. The LES will maintain an authorization database for all the METs subscribing to the service, and will grant or deny access accordingly.

*Requirement 4: After an MET has gained access to a system, the mobile terminal shall be under control of an LES and shall obtain all channel assignments from it.*

Any MET that has gained access to the service will be under control of an LES. The MET must receive and act upon commands issued to it by the LES. LES commands will be received either through the signaling channels or through the communications channels, depending on the MET's mode of operation. The LES assigns all channel frequencies, including those to be used for signaling only purposes.

*Requirement 5: All METs that do not continuously monitor a separate signaling channel shall have provision for signaling within the communications channel.*

The communication channels between the LES and the MET have provision for signaling to be exchanged at anytime once a connection is established. This signaling capability is used by the LES to preempt the channel at any time.

*Requirement 6: Each MET shall automatically inhibit its transmissions if it is not correctly receiving a separate signaling channel or signaling channel within the communications channel from its associated LES.*

MET transmissions will be inhibited unless the MET is correctly receiving either a signaling channel or the correct communications channel according to specified criteria. Among these criteria are specific receive performance parameters and time intervals (short time-out limits).

*Requirement 7: Each MET shall automatically inhibit its transmissions on any or all channels upon receiving a channel shut-off command on a signaling or communications channel it is receiving from its associated LES.*

The METs will automatically cease transmission on any channel when commanded to do so by its associated LES. The shut-off command will be accepted from either the signaling channel or communications channel operated by the associated LES. Additionally, requirements exist that provide for a fail-safe mode in inhibiting transmission, should a LES shut-off command not be received over the communications channel, since the LES will cease transmission after issuing a shut-off command.

*Requirement 8: Each MET with a requirement to handle distress and safety-related communications shall have the capability within the station to automatically preempt lower precedence traffic.*

This requirement does not apply to the METs that are the subject of this application.

*4. Type Certification.*

The Commission has adopted rules and policies pertaining to portable Global Mobile Personal Communications by Satellite ("GMPCS") transceivers - i.e., satellite telephones and

other portable transceivers operated by end users for communication via direct radio lines with satellites.[5] The Commission requires "portable" GMPCS transceivers imported, sold, leased, shipped or distributed after November 19, 2004 to be certified under the Commission's equipment certification procedure. Non-portable devices (in addition to ship and aircraft transceivers) are exempt from the Commission's GMPCS certification requirements. Under the Commission's Rules, a transceiver is "portable" for purposes of this certification requirement if "its radiating antenna would ordinarily be within 20 centimeters of the operator's body when the device is in use."[6] Based upon this definition of "portable," the METs set forth in this application are not subject to the FCC's certification procedure for GMPCS terminals because they will not be typically operated "within 20 centimeters of the operator's body."

**D. Conclusion**

For the foregoing reasons, SkyWave respectfully requests that this application for the license of new METs be granted.

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[5] *See Amendment of Parts 2 and 25 to Implement the Global Mobile Personal* Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements, FCC 03-283 (rel. Nov. 18, 2003) ("*GMPCS Order*").

[6] 47 C.F.R. § 2.1093.