Description of Application, Services to Be Provided, Frequencies Requested, and Public Interest Showing – Items 24 and 43

Description of Application

By this Application, Comtech Mobile Datacom Corporation ("CMDC") requests the following modifications to its existing blanket license, E090027 (the "ROUS" license).

(1) Extend License Term

First, CMDC requests authority to extend the term of this license, which currently expires on April 1, 2013. CMDC asks that the license be extended for two (2) years.

Per Special Provision 90011 in the existing ROUS license, the ROUS license is limited to a two-year term ending April 1, 2013. If CMDC wishes to continue to operate beyond April 1, 2013, Special Provision 90011 requires that CMDC file a modification application, and in that application CMDC must (A) justify its need to continue to operate under a waiver of Footnotes US308 and US315 of the United States Table of Frequency Allocations, 47 CFR § 2.106, Footnotes US308, US315, and Section 25.136(d) of the FCC Rules, 47 CFR § 25.136(d), and (B) submit an analysis of its mobile earth terminal ("MET") operations in the U.S. showing the number of packets each month having a transmission duration of three (3) seconds or longer since April 2011 (*i.e.*, since the release of the Commission's authorization in File No. SES-MOD-20110131-00094, which last extended the license term).

CMDC's waiver request is provided in Exhibit D. As discussed in Exhibit D, today only one (1) of CMDC's MET models, the MTM202, requires a waiver, and only when this terminal is operated outside of the continental U.S. ("CONUS"). There are only about 900 MTM202 METs in existence today, and no additional MTM202s are being built. Worst case, the MTM202 requires only 3.6 seconds to shut down. All CMDC METs other than the MTM202 comply with NTIA's new requirements and thus do not require a waiver of the real-time preemption and priority access requirements. The MTM202 complies with NTIA's new requirements, and thus does not require a waiver, *when operated in CONUS*.

CMDC's analysis of its MET operations in the U.S. showing the average number of packets each month and day having a transmission duration in excess of three (3) seconds since April 2011 is also provided in Exhibit D.

(2) Add Site ID

Second, CMDC asks that the Commission add the following Site ID to the license:

(a) Site ID "R-OldM-AKHI." The METs included under this Site ID are CMDC's MT2010, MT2011, MT2012, MTM202, and MTM203, operating in Alaska and Hawaii on the MSAT-1 and MSAT-2 satellites.

These METs are currently licensed under another CMDC blanket MET license, E990143. Adding Site ID R-OldM-AKHI to the ROUS license will eliminate the need for CMDC to extend the term of the E990143 license when it expires in May 2013.

(3) Correct Minor Errors in License

Finally, CMDC asks that the Commission correct certain minor errors in the current version of the ROUS license document (see File No. SES-MOD-20110617-00723). The errors to be corrected are as follows:

(a) In Site ID R-Sky, the area of operation is shown on the license document as CONUS. As shown in item E10 for Site ID R-Sky in the application in File No. SES-MOD-20110617-00723, the area of operation is CONUS, Alaska, Hawaii, and all U.S. territories and possessions within the footprint of SkyTerra 1.

(b) In Site ID R-Inmar, the area of operation is shown on the license document as CONUS. As shown in item E10 for Site ID R-Inmar in the application in File No. SES-MOD-20110617-00723, the area of operation is CONUS, Alaska, Hawaii, and all U.S. territories and possessions within the footprint of the satellites on the ISAT list.

(c) In Site ID R-CMT-MSAT, the area of operation is shown on the license document as CONUS. As shown in item E10 for Site ID R-CMT-MSAT in the application in File No. SES-MOD-20110617-00723, the area of operation is Alaska, Hawaii, and all U.S. territories and possessions within the footprint of the MSAT-1 and MSAT-2 satellites.

(d) In Site ID R-CMT-MSAT, the orbital location for MSAT-2 is shown on the license document as 101.3° W.L. As shown in item E23 for Site ID R-CMT-MSAT in the application in File No. SES-MOD-20110617-00723, the orbital location for MSAT-2 is 103.3° W.L.

(e) In Site ID R-CMT-MSAT, the antenna size for antenna 11 is shown on the license document as 0.152. As shown in item E32 for Site ID R-CMT-MSAT in the application in File No. SES-MOD-20110617-00723, the antenna size is 0.1524.

(f) In Site ID R-Old MSAT, the area of operation is shown on the license document as CONUS. As shown in item E10 for Site ID R-Old MSAT in the application in File No. SES-MOD-20110617-00723, the area of operation is all U.S. territories and possessions within the footprint of the MSAT-1 and MSAT-2 satellites.

(g) In Site ID R-Old MSAT, the antenna gain for antenna 2 at 1.645 GHz is shown on the license document as 43.8 dBi. As shown in items E41/42 for Site ID R-Old MSAT in the application in File No. SES-MOD-20110617-00723, the antenna gain for antenna 2 at 1.645 GHz is 4.8 dBi.

Services to be Provided

CMDC will use E090027 as modified to provide the same types of services that CMDC is currently providing under E090027. At present, CMDC provides mobile packet data communications services to government and commercial customers throughout the United States and overseas.

CMDC terminals typically are placed on land vehicles or at remote, fixed site locations. The terminals transmit and receive data packets via dedicated channels in the L-band. The packets can be routed over any of several terrestrial data networks, or to other mobile transceivers in the CMDC network. Use of the satellite relay is as a "bent pipe," meaning that only bandwidth and power are purchased from the satellite relay operator. Network management is provided by CMDC's 24/7 Network Operations Center in Germantown, MD.

CMDC's system employs a version of CDMA that relies on code phase as opposed to multiple codes to differentiate between overlapping signals. The maximum number of simultaneous transmissions processed today is four (4). CMDC is developing state-of-the-art, next generation, earth station equipment that will be capable of processing 34 simultaneous transmissions in the near future.

At present, CMDC has over 100,000 activated terminals in service, of which only a small percentage operate in the U.S. during any given month. The vast majority of CMDC's terminals have been deployed in support of three (3) applications for the U.S. military and operate outside of the U.S.

Frequencies Requested

All MESs authorized under this license operate in portions of the L-band (1525-1544/1545-1559 MHz and 1626.5-1645.5/1646.5-1660.5 MHz). Per Special Provision 502 in CMDC's current ROUS license, CMDC's total number of MESs authorized under E090027 and its two (2) other blanket MET licenses, E090029 and E990143, will not exceed the 25,000 authorized under E990143 unless an increase in CMDC's total number of authorized MESs has been otherwise authorized by the Commission.

Public Interest Showing

Grant of this Application will serve the public interest, as it will enable CMDC's customers, including but not limited to the U.S. military, to continue to use the services that CMDC provides with the subject METs on SkyTerra 1, the ISAT satellites, MSAT-1, and MSAT-2. Additionally, grant of this Application will eliminate the need for CMDC to extend the term of the E990143 license when it expires in May 2013, thereby relieving some of the administrative burdens on FCC staff and CMDC.