

LXE Inc.
FCC Form 312 – Notification of Minor Modification
Description of Modification – Attachment to Question 43

Pursuant to Section 25.118(a)(2) of the Commission's rules, LXE Inc. ("LXE") hereby provides notice to the FCC of a minor modification to its Title III authorization to provide certain Inmarsat services to customers in the United States. *See* Call Sign E020074.

LXE is currently authorized to provide the Inmarsat D service over a total of 25,000 mobile earth terminals ("METs"), model numbers JUE-610 DT, DMR-200, SAT 101, SAT-201, SAT-200/202, and SAT-232. By this filing, LXE provides notice to the FCC of a variant of its SAT-202 MET, the SAT-242. The SAT-242 is manufactured by EMS Global Tracking and is electrically equivalent in its radio frequency characteristics to the SAT-202 model with the exception of the antenna. In lieu of the EMS patch antenna used by the SAT-202, the SAT-242 uses a lower gain, smaller profile, commercially available patch antenna. LXE anticipates shipping the first SAT-242 METs to the United States in January 2012, subject to customer requirements.

Under Section 25.118(a)(2) of the Commission's rules, the new model SAT-242 can be added to LXE's authorization by filing a Notification of Minor Modification within 30 days of the modification. Specifically, 47 C.F.R. § 25.118(a)(2) provides:

Except for replacement of equipment where the new equipment is electrically identical to the existing equipment, an authorized earth station licensee may add, change or replace transmitters or antenna facilities without prior authorization, provided:

- (i) The added, changed, or replaced facilities conform to § 25.209;
- (ii) The particulars of operations remain unchanged;
- (iii) Frequency coordination is not required; and
- (iv) The maximum power and power density delivered into any antenna at the earth station site shall not exceed the values calculated by subtracting the maximum antenna gain specified in the license from the maximum authorized e.i.r.p. and e.i.r.p. density values.

As set forth in the accompanying materials and engineering certificate, with the exception of the antenna, the SAT-242 is electrically equivalent in terms of its underlying radio frequency characteristics to the SAT-202 MET and therefore meets the Section 25.118(a)(2) criteria. Section 25.209 of the rules is not applicable to mobile satellite services. The particulars of operation of the terminal remain unchanged from the SAT-202, and frequency coordination is not required for the use of the SAT-242. Because the gain of the SAT-242 antenna is lower than the gain of the SAT-202 antenna, effective

isotropic radiated power (“EIRP”) of the SAT-242 is lower than that of the SAT-202, and the maximum power and power density as calculated under Section 25.118(a)(2)(iv) will be less than that of the SAT-202, not higher.

LXE is **not** seeking to increase the overall number of terminals that it is authorized for; rather, it will use the SAT-242 terminal as part of the 25,000 terminals for which it is already authorized. In addition, the new MET model number SAT-242 complies with all the terms and conditions of LXE’s authorization, including the requirement of having an average shut-down time of 1.35 seconds and maximum shut-down time of 2.6 seconds (condition 3920) in order to protect the Global Maritime Distress and Safety Service (“GMDSS”). Because the SAT-242 is not intended for Ship Security Alert Systems (“SSAS”) services or long range identification and tracking (“LRIT”) uses, it does not need to meet IMO SSAS and LRIT requirements.

LXE’s affiliate company, EMS Global Tracking Ltd, formerly known as Satamatics Ltd., offers Inmarsat-D services, which include both the D+ and IsatM2M modes of operation.¹ LXE and EMS Global Tracking are both subsidiaries of EMS Technologies, Inc., which was recently acquired by Honeywell International Inc. in a transaction approved by the Bureau in August.² Inmarsat D is a low data-rate, two-way store and forward short messaging and tracking system. Inmarsat-D provides low cost satellite communications for such applications as asset tracking and SCADA. EMS Global Tracking provides essential services to government customers, such as the U.S. Coast Guard and the U.S. Navy in connection with their homeland security efforts (e.g., surveillance and warnings for terrorist hijackings of marine vessels), and to private sector customers to track their assets and to monitor sensitive energy facilities, including natural gas well heads, pipelines, shipping containers and service vehicles. The new model SAT-242 adds to the choices and flexibility EMS Global Tracking is able to offer its customers.

¹ The difference in the two modes of operation is that the IsatM2M mode is capable of longer messages and reduced messaging latency. As a result, there is a difference in the receive modulation for those Inmarsat-D terminals that are capable of operating in the IsatM2M mode. *See* File No. SES-MOD-2007-1107-01542. As originally authorized, the license was limited to only the D+ mode of operation. However, after changes implemented by Inmarsat to its network of satellites and corresponding modulation changes requested to its authorization, LXE is now authorized to operate in either mode of the Inmarsat-D service.

² *See* Satellite Communications Services Information: Actions Taken, *Public Notice*, Report No. SES-01374 (rel. Aug. 17, 2011) (reporting an August 15, 2011 approval of the indirect transfer of control over LXE’s earth station authorization to Honeywell International Inc.).