

Application for Authority to Operate up to 1,000 Inmarsat-C Half-Duplex Mobile Earth
Terminals

File Nos.

SES-LIC-20070416-00479
SES-AMD-20070920-01300
SES-AMD-20071231-01758

Clarification

At the request of the International Bureau, Vizada, Inc. (“Vizada”) hereby submits this clarification to the above-referenced application.

The International Bureau has requested clarification on how Vizada would share the Inmarsat-C land-based half-duplex mobile earth terminals (“Inmarsat-C METs”) that are the subject of this application with the Global Maritime Distress and Safety Service (GMDSS).

Vizada filed the referenced application seeking authorization to operate up to 1,000 Inmarsat-C METs. Vizada also sought a waiver of the Commission’s Rules and NTIA’s interpretation requiring that the Inmarsat-C METs be capable of, among other things, ceasing transmissions and inhibiting further transmissions within one second to ensure real-time priority and preemptive access for distress and safety services (“the one-second standard”).

Although the Inmarsat-C METs do not strictly meet the one-second standard, as we discuss below, there is good cause for granting a waiver of the one-second standard shutdown requirement.

The first point of clarification Vizada makes herein is to note that the proposed Inmarsat-C METs are for land Mobile Satellite Service (MSS) use only and are not for maritime use. The International Bureau has already dismissed the part of the pending applications that sought authority for maritime terminals.¹

Description of the Inmarsat-C System

The Inmarsat Land Earth Station (LES) network uses frequency management techniques to ensure priority communications from Inmarsat-C maritime user terminals in the GMDSS. Interference from land-based Inmarsat-C and other Inmarsat-C non-emergency activated user terminals (“non-emergency terminals”) is avoided by operating all Inmarsat-C terminals using frequency management controlled by the LES.

¹ See Letter from Scott A. Kotler, Chief, Systems Analysis Branch, Satellite Division, International Bureau to Keith H. Fagan, Senior Counsel, Vizada Satellite, Inc. (November 15, 2007) (DA 07-4623).

Thus, the Vizada LES manages the frequencies used by each Inmarsat-C terminal in order to only permit communications from Inmarsat-C/Mini-C maritime safety (GMDSS) activated terminals. In the majority of cases, non-emergency activated Inmarsat-C terminals will cease transmissions upon receiving information from the LES that service is not supported on the GMDSS frequencies. This signal to non-emergency activated Inmarsat-C METs requires them to cease transmission in less than 1 second under normal circumstances and no longer than 8.64 seconds in the worst case scenario requiring longer protocols. However, as we note below, Vizada’s own tests of the shutdown capability of the Inmarsat-C METs have shown that transmissions cease in approximately one second on average and in no event has the duration been longer than three seconds.

The Inmarsat-C METs and the GMDSS

The Inmarsat-C METs that are the subject of the referenced application do not operate with the GMDSS, and although the land-based Inmarsat-C METs operate with an optional Land Mobile Distress (LMD) alerting, the LMD alerting uses entirely separate signaling channels from the maritime distress channels used for the GMDSS. While LMD alerts may theoretically use the same frequencies as Maritime Distress Alerts, LMD alerts are only sent on signaling channels whose corresponding signaling channel descriptors (SCDs) have their “Land Mobile Alerting” bit set. In addition, the packet format for LMD alerts is different from the Maritime Distress Alert packet format.

Compliance with the one-second standard

As Vizada has previously noted, L-band MSS operations are subject to certain requirements concerning real-time priority and preemptive access for distress and safety services provided in the band. *See* Footnotes US308 and US315 of the Table of Allocations² and Section 25.136(d) of the Commission’s Rules³. The National Telecommunications and Information Administration (NTIA) has recommended interpreting this policy to require mobile earth terminals (METs) to be capable of, among other things, ceasing transmissions and inhibiting further transmissions within one second, and the Commission has adopted NTIA’s recommendation. Because the Inmarsat-C METs that are the subject of the referenced application are half-duplex, they cannot strictly meet the one-second standard. Accordingly, Vizada has requested a waiver for those Inmarsat-C METs that do not meet the one-second standard.

Although the Inmarsat-C METs do not strictly meet the one-second standard, as we discuss below, there is good cause for granting a waiver of footnotes US308 and US315, as well as Section 25.136 (d) (and any other Rules that the Commission may view apply here).

² 47 C.F.R. § 2.106, Footnotes US 308, US315.

³ 47 C.F.R. § 25.136 (d).

Vizada has conducted its own tests of the Inmarsat-C METs and all messages were pre-empted within approximately one second in testing, but in no case did the duration before shut-down take longer than three seconds.

The vast majority of the Inmarsat-C METs transmissions are less than one second in duration. The relevant call data for the last 24 months for the Inmarsat-C METs currently operating pursuant to STA indicates that an average of 17 transmissions per month exceed a one second duration, with the average duration of all transmissions being .44 seconds. Of those transmissions that exceed one second, the average duration is 1.46 seconds and our data does not show any of the transmissions exceeding, on average, 2.4 seconds.

Finally, the number of Inmarsat-C maritime distress calls that have passed through Vizada's LES since January 2008 averages approximately 50 per month. In the period since Vizada first filed the pending application in April 2007, it has received no reports of interference to either the GMDSS, or any safety service, including aviation safety services.

Conclusion

In light of the above facts, we believe that the Commission has good cause to grant Vizada's waiver request. Granting Vizada a waiver of Footnotes US308 and US315 to the Table of Allocations and Section 25.136(d) of the Commission's Rules would serve the public interest by ensuring continuity of service for Vizada's customers currently operating Inmarsat-C METs pursuant to STA, which include the U.S. Government.