



Federal Communications Commission  
Washington, D.C. 20554

August 14, 2007

Keith H. Fagan  
Telenor Satellite, Inc.  
1101 Wootton Parkway  
10th Floor  
Rockville, MD 20852

Re: Call Sign E000284  
File No. SES-LIC-20070416-00479

Dear Mr. Fagan:

This letter responds to the above-captioned application of Telenor Satellite, Inc. (Telenor) to operate up to 1000 Inmarsat C half-duplex mobile earth terminals (METs) in the United States in the Mobile Satellite Service (MSS). Telenor seeks authority for these METS to communicate with the Inmarsat 4F2 AOR-E satellite at 52.75° W.L., the Inmarsat 3F2 AOR-W satellite at 15.5° W.L., and the Inmarsat 3F3 POR satellite at 178.1° E.L. using L-band frequencies.<sup>1</sup> We request that Telenor provide, by amendment, additional information concerning the application in order to allow further Commission review.<sup>2</sup>

First, in Attachment A, Technical Description, for the Inmarsat 3F2 and 3F3 spacecraft, Telenor indicates that, at end of life, these spacecraft will be maneuvered to a disposal orbit with a minimum perigee height of 194 km above the normal GSO operational orbit. In addition, Telenor states that, “[u]pon reaching the final disposal orbit, all fuel tanks will be close to empty. All remaining propellants will be vented where possible regarding the requirement for stability of the final orbit minimum perigee height.”

It appears from this disclosure that not all remaining propellants will be vented at end of life. Please provide any further information to justify this course of action, such as a more detailed explanation of the energy that would be imparted from full venting and its effects on the orbit of the satellite upon cessation of all disposal and decommissioning operations. In particular, we seek information on what the minimum perigee disposal altitude would be if all remaining propellants were vented at end of life. Additionally, we ask Telenor to explain why Inmarsat’s requirement for the stability of the final orbit minimum perigee height does not permit the venting of all remaining propellants at the end of life of the spacecraft, given the Commission’s finding that prevention of accidental explosions during and after mission operations may constitute the single most important debris mitigation measure.<sup>3</sup> In short, we

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<sup>1</sup> For purposes of this letter, the L-band consists of the 1525-1545 and 1626.5-1646.5 MHz bands.

<sup>2</sup> See 47 C.F.R. § 25.111(a).

<sup>3</sup> See Mitigation of Orbital Debris, *Second Report and Order*, IB Docket No. 02-54, 19 FCC Rcd 11567, 11580 (para. 29) (2004) (*Second Report and Order*). We also note that Section 25.283(c) of the Commission’s rules sets forth a requirement to vent fuel, relieve pressure vessels, and discharge batteries at the spacecraft’s end of life. Specifically, this section provides that “[u]pon completion of any relocation authorized by paragraph (b) of this section, or any relocation at end-of-life specified in an authorization, or upon a spacecraft otherwise completing its

seek clarification of why the public interest would be better served by the proposed plan, given the possible risk of an accidental explosion resulting from not fully venting residual fuel, and why a stable orbit cannot be maintained consistent with full venting.<sup>4</sup>

Second, Telenor states in Attachment A to its application that the Inmarsat 3F2 and 3F3 satellites are controlled and monitored remotely from locations outside the United States. We ask that Telenor provide the street address and telephone number of these TT&C control points in item S14 of Schedule S.

Finally, we observe that Telenor states, in the narrative of Attachment A to its application, that the Inmarsat satellites will provide MSS to small user terminals in North America using the 1525 - 1559 MHz band for space-to-Earth transmissions and the 1626.5-1660.5 MHz band for Earth-to-space transmissions. In response to item S2e of Schedule S, however, there appears to be a transcription error in that the “T” (for “transmit”) and “R” (for “receive”) are reversed for the two frequency bands. A similar transcription error occurs in response to item S9d of the attached Schedule S. We ask Telenor to correct these errors in any future filings.

Telenor must submit the requested information within thirty calendar days from the date of this letter. Failure to submit the requested information will result in dismissal of the application pursuant to Section 25.112(c) of the Commission’s rules.

Sincerely,



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authorized mission, a space station licensee shall ensure, unless prevented by technical failures beyond its control, that all stored energy sources on board the satellite are discharged, by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures.” 47 C.F.R. § 25.283(c).

<sup>4</sup> The Commission has noted that it may, in some instances, be preferable even to dispose of a spacecraft in the GEO region rather than risk an accidental explosion, since the consequences of an explosive fragmentation “considerably outweigh” the future collision risks. *See Second Report and Order*, 19 FCC Rcd at 11601 n.210.