

Attachment B
Request for Modification of License Term of
Satellite Earth Station E900081

GeoLogic Solutions, Inc. (“GeoLogic”), a Delaware corporation, is the licensee of satellite earth station E900081 (“Earth Station”), pursuant to which GeoLogic is authorized to operate 50,100 half-duplex mobile earth terminals (“METs”) in the lower L-band via the AMSC-1 and MSAT-1 satellites until the earlier of July 2, 2010 or the end of the useful life of the aforementioned satellites (“Lower L-Band Authorization”).¹ The instant application (“Application”) seeks consent of the Federal Communications Commission (“FCC” or “Commission”) to modify the license term of the Lower L-Band Authorization to permit GeoLogic to operate its authorized METs through April 30, 2011. As set forth below, grant of the instant Application is in the public interest because it will enable GeoLogic to continue to provide service to its customers without disruption.

I. BACKGROUND

GeoLogic provides mobile communications and tracking systems for the transportation industry.² Hundreds of commercial trucking fleets have installed GeoLogic’s METs on nearly 30,000 commercial trucks and trailers. These METs, which operate on a multi-mode terrestrial and satellite network, enable GeoLogic’s transportation customers to manage fleets effectively.

¹ GeoLogic also is authorized to operate 30,000 half-duplex METS in the upper L-band via the AMSC-1, MSAT-1 and SKYTERRA 1 satellites (“Upper L-Band Authorization”). *See* SES-MFS-20090313-00302. The Upper L-Band Authorization expires on September 30, 2011. This Application does not seek to modify the license term or any other aspect of the Upper L-Band Authorization.

² GeoLogic’s customers include the Department of Defense, Superior Carriers, Central Transport, Service Transport, Wadams Trucking, AAFES, and HAZMAT Loads.

For example, the METs automatically record state-line crossings, monitor driver and vehicle performance, communicate engine fault codes, and alert companies of driver arrival at (or departure from) specific locations. In addition to providing its customers with the tools for effective fleet management, GeoLogic's METs serve important public safety needs. The METs permit law enforcement agencies, through cooperation with GeoLogic, to recover stolen loads. In addition, the METs are used increasingly in connection with homeland security efforts (*e.g.*, GeoLogic has participated in a project funded by the Transportation Security Administration to track hazardous material load movements in the transportation industry through a central network operations center.).

In early 2009, SkyTerra Communications, Inc. ("SkyTerra") proposed to require GeoLogic to migrate its operations from the lower L-band to the upper L-band in anticipation of the late 2009 launch of SkyTerra's second generation satellite, SKYTERRA-1. Although SKYTERRA-1 was not scheduled to be placed into commercial service until October 2010, pursuant to a timetable established by SkyTerra, GeoLogic was required to begin transitioning its customers to the upper L-band as early as November 1, 2009. Consequently, in March 2009, GeoLogic sought authority from the FCC to operate in the upper L-band for a two-year term beginning on October 1, 2009 and terminating on September 30, 2011. The FCC granted this application in August 2009.

Since the time GeoLogic filed its application to operate in the upper L-band, SkyTerra's plans and requirements for its second generation satellite system have changed. Specifically, the launch window for SKYTERRA-1 has been delayed twice and, as a result, SkyTerra is no longer requiring GeoLogic to migrate its METS to the upper L-band. SkyTerra has agreed to permit

GeoLogic to continue to operate its existing METs in the lower L-band via the AMSC-1 and MSAT-1 satellites through April 30, 2011. Accordingly, because the Lower L-Band Authorization will expire on July 2, 2010, GeoLogic is filing the instant request to extend the license term of the Lower L-Band Authorization for approximately ten months, through April 30, 2011.

II. GRANT OF THE INSTANT APPLICATION WILL NOT ADVERSELY AFFECT MARITIME COMMUNICATIONS

Modification of the Lower L-Band Authorization to enable Geologic to operate the METs through April 30, 2011 will not increase the likelihood of possible harmful interference with maritime safety systems operating in the lower L-band. GeoLogic is neither requesting any additional bandwidth nor any additional METs. Rather, GeoLogic merely requests authority to continue to operate its METs in the lower L-band pursuant to a waiver of footnote US315 of Section 2.106 of the FCC's rules ("Footnote 315"), which the Commission has granted GeoLogic as recently as May 2006.³ Since the Commission first granted a waiver of Footnote 315 in 1995, neither GeoLogic nor its predecessor, Aether Systems, Inc., has received any indication that its operations in the lower L-band have interfered with marine broadcasts.

Over the past several years, the METs manufactured and distributed by GeoLogic have relied increasingly upon the use of terrestrial networks to transmit messages, thus eliminating reliance on the satellite network and significantly reducing the need to provide preemptive access for maritime communications. All of GeoLogic's METs now operate on a multi-mode terrestrial

³ See, e.g., GeoLogic Solutions, Inc., Application for Modification to Extend Term of Earth Station Authorization, File No. SES-MOD-20060124-00090, DA 06-1179 (May 31, 2006).

and satellite network. Messages are first attempted over the GPRS terrestrial network operated by AT&T Corporation. Messages are routed over SkyTerra's first generation lower L-band satellite system only where terrestrial coverage is unavailable, and none of the METs operated by GeoLogic communicate exclusively with SkyTerra's lower L-band satellite system. Indeed, presently approximately 87% all message traffic is transmitted terrestrially. The remaining 13% of message traffic is routed over SkyTerra's first generation satellite system only where terrestrial coverage is unavailable.

Importantly, the satellite transmissions by GeoLogic's METS do not have a significant impact on marine broadcasts. As an initial matter, only a minute amount of data is transmitted via satellite.⁴ Moreover, at any particular moment in time, it may be necessary to provide preemptive access for no more than 1.69% of the less than 30,000 METs that are currently used by GeoLogic's customers. Approximately 87% of satellite messages are short messages (*i.e.*, less than 240 characters/two data packets) sent over signaling channels ("Short Messages"). Any satellite resources used by GeoLogic's METs to transmit Short Messages can be shifted to maritime safety systems within 3.56 seconds, which is only 0.56 longer than the 3 second preemption standard recommended by the NTIA.⁵ The remaining 13% of satellite messages ("Other Messages") are transmitted on channels other than signaling channels. Based on GeoLogic's operating experience, actual worse-case analysis during peak usage shows that (a) 62% of the Other Messages (*i.e.*, 8.06% of all satellite messages) are less than four data packets

⁴ Each day, an average of only 0.5 kB of data per MET is delivered over satellite.

⁵ See Letter to Julius Knapp, Chief, Office of Engineering and Technology, FCC from Karl Nebbia, Associate Administrator, Office of Spectrum, NTIA (May 13, 2009) ("NTIA Letter").

and thus can be preempted in 8.57 seconds and (b) 38% of Other Messages (*i.e.*, 4.94% of all satellite messages) consist of four or more data packets and can be preempted in 10.34 seconds. Presently, at any point in time, GeoLogic's METs utilize, at the most, only 140 kHz of mobile satellite spectrum. In short, continued operation of GeoLogic's METs in the lower L-Band through April 30, 2011 will not have an adverse effect on maritime communications.

III. CONCLUSION

Grant of the instant Application is in the public interest because it will enable GeoLogic to continue to provide service to its customers without disruption, as well as prevent GeoLogic's customers from incurring the significant costs that would be required to secure alternative services.⁶ In February 2010, GeoLogic discussed with the NTIA the proposed modification of the license term of the Lower L-Band Authorization. The NTIA informally indicated it would likely support such a request.⁷ Accordingly, for the reasons set forth herein, GeoLogic requests

⁶ If the Commission were to deny the instant request, GeoLogic's customers would be forced to purchase new terminals to meet their mobile data needs, even though GeoLogic's METS have not fully depreciated or become technically obsolete. The high-costs of securing alternative communications devices would have a devastating effect on GeoLogic's customers in the transportation industry, an industry with average profit margins of 10% or lower. GeoLogic estimates that the costs to the industry to replace its METs could be in excess of \$50,000,000. In addition to the costs to replace individual METs, GeoLogic's customers will incur significant expenses, monetary and otherwise, to integrate new terminals into back-office systems and install such terminals in trucks.

⁷ The Commission considers requests to operate half-duplex METs pursuant to a waiver of Footnote 315 on a case-by-case basis, in consultation with the NTIA. In May 2009, the NTIA that the FCC establish a 3 second preemption standard for METs to cease operations in the lower L-band for maritime communications. *See* NTIA Letter.

that the Commission grant the instant Application to modify the license term of the Lower L-Band Authorization through April 30, 2011.⁸

⁸ If this Application to continue to operate 50,100 METs in the lower L-band through April 30, 2011 is granted, GeoLogic would continue to operate (through April 30, 2011) the less than 30,000 METs it currently has deployed subject to the same conditions currently imposed on such METs. Note that, if this Application is granted, GeoLogic's authority to operate in the lower L-band would expire approximately five months earlier than the expiration of its Upper L-Band Authorization, which is scheduled to expire in September 2011.