

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Amendment to License Modification)	SAT-AMD-20180531-00044
Applications of Ligado Networks Subsidiary)	SAT-AMD-20180531-00045
LLC)	
)	IB Docket No. 11-109
)	IB Docket No. 12-340

To: Satellite Policy Branch

**REPLY COMMENTS OF
THE BOEING COMPANY**

The Boeing Company (“Boeing”) briefly responds to the reply comments of Ligado Networks LLC (“Ligado”) regarding its proposed modifications to its pending application to further modify the ancillary terrestrial component (“ATC”) of its L-band mobile satellite service (“MSS”) network.¹ As Boeing observed previously, Boeing supports Ligado’s continuing efforts to augment its satellite communications network with broadband terrestrial services. The Commission, however, must ensure that Ligado’s proposed terrestrial use does not result in harmful interference to important spectrum uses in adjacent frequency bands.

In its recent comments, Boeing addressed three issues: the need to ensure that GPS/GNSS receivers used in small aircraft will not experience harmful interference; potential out-of-band interference into Iridium transceivers, particularly those used in aviation; and the modifications that will be needed to Inmarsat transceivers used aboard commercial and governmental aircraft to enable the transceivers to withstand interference from Ligado’s broadband transmissions.

¹ See Amendment to License Modification Applications of Ligado Networks Subsidiary LLC, IBFS File Nos. SAT-AMD-20180531-00044 and SAT-AMD-20180531-00045.

Ligado provided a response on the first two of these issues in its July 19th reply comments and Boeing anticipates that those parties that are the most directly affected by those issues – *i.e.*, small aircraft operators and Iridium – will address any following up concerns in separate filings.² Ligado, however, did not address in its reply comments Boeing’s concern about the significant cost and effort that will be necessary to modify Inmarsat transceivers that are embedded in commercial and governmental aircraft.

Ligado’s failure to respond on this issue highlights Boeing’s apprehension that resolution of the Inmarsat transceiver issue may continue to be delayed, potentially making it a sole impediment to the operation of Ligado’s terrestrial system. In raising this point, Boeing acknowledges that Ligado’s decision to reduce its base station power levels may address interference into Inmarsat transceivers in certain operating conditions, such as on aircraft flying at altitude, but an analysis of this issue has yet to be undertaken by the aviation industry through RTCA committee SC-222 or by the FAA. Further, the interference issue with respect to Inmarsat transceivers operating on aircraft at or near airports still needs to be addressed.

As Boeing noted in its previous comments, the required modifications to Inmarsat transceivers on commercial and governmental aircraft will necessitate the FAA’s prior approval and will have to be implemented on a rolling basis as aircraft become available for periodic

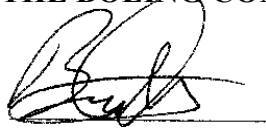
² In addition, Boeing expects that RTCA committee SC-222 and the FAA will need to evaluate the impact on Iridium transceivers.

maintenance. Therefore, the implementation of this issue will likely require many years to complete.

Respectfully submitted,

THE BOEING COMPANY

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