



September 16, 2021

Dr. Jon Eisenberg, Dr. Ryan Murphy
The National Academies
500 5th Street NW
Washington, DC 20001

Dear Dr. Eisenberg and Dr. Murphy:

Iridium Communications Inc. (“Iridium”) submits this letter in response to the provisional committee members announced for the “Review of FCC Order 20-48 Authorizing Operation of a Terrestrial Radio Network Near the GPS Frequency Bands” study (“FCC 20-48 Study”). Iridium appreciates the opportunity to add information regarding the harmful interference posed to Mobile Satellite Services (“MSS”) communications operations by Ligado Networks LLC’s (“Ligado’s”) operations to the FCC 20-48 record. Iridium recommends the addition of members that are experienced in the study of MSS communications systems to ensure that the FCC 20-48 Study adequately considers “the potential for harmful interference from the proposed Ligado network to *mobile satellite services* including GPS *and other commercial* or DOD services.”¹

While the provisional committee members are clearly accomplished in their fields, a review of their biographies shows an expertise in either GPS or terrestrial interference issues and no specific expertise in MSS operations or interference issues. Iridium’s concerns of interference from Ligado’s terrestrial operations differ markedly from the concerns raised by GPS users. Ligado’s proposed operation of user terminals in the 1627.5- 1637.5 MHz band, which is immediately adjacent to Iridium’s MSS operations in the 1617.775-1626.5 MHz band, will cause harmful interference to Iridium’s MSS due to out-of-band emissions (“OOBE”) from potentially millions of Ligado mobile devices. Ligado OOBE within Iridium’s band produce interference severe enough to significantly impact Iridium services without having to overload the Iridium receiver RF front end when a Ligado terminal is in close proximity. Given these differences in interference concerns, it is important that committee include members with MSS experience so they may fully contribute to the analysis of Ligado’s interference to Iridium and to fulfill the study’s full mandate. Iridium believes that this level of consideration cannot be achieved by committee members who do not possess the requisite experience with MSS systems.

As the NAS reviews the prospective members of for the FCC 20-48 Study, Iridium strongly encourages the addition of scientists or engineers with experience in analyzing mobile satellite services interference issues, to ensure that MSS interference concerns are appropriately addressed.

¹ Review of FCC Order 20-48 Authorizing Operation of a Terrestrial Radio Network Near the GPS Frequency Bands, Description, <https://www.nationalacademies.org/our-work/review-of-fcc-order-20-48-authorizing-operation-of-a-terrestrial-radio-network-near-the-gps-frequency-bands#sectionProjectScope> (*emphasis added*).

If you have any questions concerning this matter, please do not hesitate to contact me.

Respectfully Submitted,

/s/ Maureen C. McLaughlin

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