



July 24, 2018

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Ex parte* presentation in IB Docket No. 11-109; IBFS File Nos. SAT-AMD-20180531-00044, SAT-AMD-20180531-00045

Dear Ms. Dortch,

Marine Advanced Research Inc. writes in support of Ligado's amended license modification applications. By approving the license modification applications, the Commission would significantly increase network support for new technologies, such as the Wave Adaptive Modular Vessel (WAM-V[®]) technology that our company has developed.

For the last decade, we have been designing, manufacturing, and testing a range of marine autonomous vessels. Our WAM-Vs perform data-intensive applications, including shoreline feature recording and mapping, port security and surveillance, marine mammal tracking, hydrographic survey, and marine protected area and fishing ground surveillance. Given the wide range of industries to which these capabilities appeal, our partners range from both civilian and military government agencies to major technology companies, e.g. Office of Naval Research, Google, and Fugro.

The rise in use of our vessels and all unmanned marine, aerial, and land devices will necessitate new communications strategies to control these devices. We have seen first-hand how Ligado's satellite service could support autonomous devices. Last summer, we participated in a marine trial with Ligado that yielded exciting results: Ligado's satellite network was used to remotely operate a fleet of our WAM-Vs, and to intercept and redirect a rogue vessel that was approaching a restricted harbor area. This is the type of powerful, pervasive network that we need to manage autonomous device technology.

We urge the Commission to approve Ligado's amendment license modification applications. By doing so, the Commission will be supporting the development of our technology and the many critical industries it serves.

Respectfully submitted,

Mark Gundersen
President & CEO
Marine Advanced Research, Inc.