



University of
New Hampshire

Center for Coastal and
Ocean Mapping /
Joint Hydrographic Center

Chase Ocean Engineering Lab
24 Colovos Road
Durham, NH 03824-3515

V: 603.862.3438
F: 603.862.0839
TTY: 7.1.1 (Relay NH)

www.ccom.unh.edu

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

via Electronic Comment Filing System

**Re: ET Docket No. 19-240, *Hydroid Inc.'s Request for Waiver*
*Ex Parte Communication***

Dear Ms. Dortch:

I am writing in support of Hydroid's request for a waiver to facilitate maritime broadband communications.

The Center for Coastal and Ocean Mapping / Joint Hydrographic Center at the University of New Hampshire is the awardee of a 5-year, approx. \$35 M, National Oceanic and Atmospheric Administration (NOAA) grant, whose aim is to further the state of the art of seafloor mapping for the purposes of marine science and, in particular, safety of navigation at sea (nautical charting). Within the Center I lead the autonomous systems group, which focuses on the use of marine robotics for seafloor mapping. The Center owns and operates several robotic vessels including one 4-m, diesel powered, open-ocean vessel. This vehicle's primary data telemetry system to operators ashore is the Kongsberg Marine Broadband Radio (MBR).

Operations of our robotic vessel frequently exceeds 6 kilometers from operators (and sometimes exceeds 12 km or more), well beyond the operator's line of site. The vessel is equipped with cameras, marine radar, lidar and other sensors, but the state of the art of onboard algorithms is not yet able to fuse all this information to ensure safe navigation in all situations. Thus, to safely operate our robotic vessel we aspire to maintain a constant telemetry link to it. We are aware of no other telemetry system than the Kongsberg MBR capable of the data throughput, which is critical for operator view of these sensors, at the ranges we require.

This past May the Center conducted survey operations in collaboration with NOAA's Thunder Bay National Marine Sanctuary in Lake Huron. Our robotic vessel was operated from shore, conducting survey operations at ranges routinely exceeding 15 km. These operations were within the shipping transit lanes of Lake Huron and we maintained a constant watch to ensure safe operating distances from commercial shipping traffic. The

Kongsberg MBR ensured our ability to monitor systems and safely navigate our vessel during these operations.

Hydroid's proposal would simplify the current cumbersome, timely, confusing and expensive process of requiring advance FCC approval for operations with the radio. We believe there is little risk to our operations in constraining the range of operating frequencies and by constraining them far less risk to other users to the wider band the MBR can natively accommodate.

Thus, we request the FCC grant Hydroid's request for waiver.

Respectfully submitted,

Val E. Schmidt
Research Engineer IV
Center for Coastal and Ocean Mapping
University of New Hampshire