

Before the  
**Federal Communications Commission**  
Washington DC 20554

In the Matter of	)	
	)	
Hydroid, Inc.,	)	ET Docket No. 19-240
Request for Waiver of Section 15.407(a)(3)	)	
of the Commission's Rules for Maritime	)	
Broadband Communications	)	

**REPLY COMMENT OF HYDROID, INC.**

On July 2, 2019, Hydroid, Inc. requested a waiver of the antenna gain rules in Section 15.407(a)(3) to facilitate broadband communications between maritime vessels, and between vessels and fixed points on shore. The Commission put the request on public notice on August 27, 2019.<sup>1</sup>

Hydroid asked to use high-gain, narrow-beam 5.8 GHz antennas having directional properties similar to those allowed for fixed point-to-point land systems, in maritime applications. A pair of phased-array antennas will track one another, continuously steering the beams so as to keep the aim steady despite the motions of a vessel.

Operation under the waiver will increase the range for reliable maritime broadband communications approximately seven-fold. Applications include control of autonomous vessels; harbor and waterway inspections; scientific research in oceanography, fisheries, and marine biology; oil field exploration, operations, and oil spill management; and protection of life and property.

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<sup>1</sup> *Office of Engineering and Technology Seeks Comment on Hydroid Inc.'s Request for Waiver of Section 15.407(a)(3) of the Rules for Unlicensed National Information Infrastructure Devices that Emit Steerable Directional Beams*, ET Docket No. 19-240, Public Notice, DA 19-826 (released Aug. 27, 2019).

Several factors combine to limit the risk of interference: operation over open water; unlikely operation over land-based facilities; minimum areas exposed to interference; low probabilities of alignment with an interference victim's receiver beam; and low transmit duty cycles.

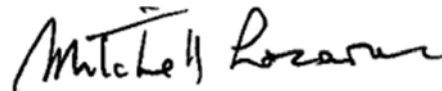
No timely oppositions were filed.

The Center for Coastal and Ocean Mapping / Joint Hydrographic Center at the University of New Hampshire filed a letter in support of the request, explaining the benefits of the system in the safe operation of robotic vessels used for mapping the seafloor.<sup>2</sup>

### CONCLUSION

The lack of timely opposition reinforces our view that the waiver will offer substantial public interest benefits with no significant downside. We ask the Commission to consider and grant the waiver expeditiously.

Respectfully submitted,



Michelle A. McClure  
Mitchell Lazarus  
FLETCHER, HEALD & HILDRETH, P.L.C.  
1300 North 17th Street, 11th Floor  
Arlington, VA 22209  
703-812-0400  
Counsel for Hydroid, Inc.

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<sup>2</sup> Letter from Val E. Schmidt, University of New Hampshire, to Ms. Marlene H. Dortch, Secretary, FCC, in ET Docket No. 19-240 (posted Sept. 19, 2019). The letter refers to "Kongsberg Marine Broadband Radio," Kongsberg Maritime being Hydroid's parent company.