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### **In Pursuit of Internal Waves<sup>1</sup>**

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Orders of magnitude larger than surface waves, and so powerful that their generation impacts the lunar orbit, internal waves, propagating disturbances of a density-stratified fluid, are ubiquitous throughout the ocean and atmosphere. Following the discovery of the phenomenon of “dead water” by early Arctic explorers and the classic laboratory visualizations of the curious St. Andrew’s Cross internal wave pattern, there has been a resurgence of interest in internal waves, inspired by their pivotal roles in local environmental and global climate processes, and their profound impact on ocean and aerospace engineering. We detail our widespread pursuit of internal waves through theoretical modeling, laboratory experiments and field studies, from the Pacific Ocean one thousand miles north and south of Hawaii, to the South China Sea, and on to the Arctic Ocean. We also describe our recent expedition to surf the most striking internal wave phenomenon of them all: the Morning Glory cloud in remote Northwest Australia.

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