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First mission completed using drones in whale research

Frost Brown Todd, a leading law firm in the area of Unmanned Aircraft (commonly known as drones), has assisted Ocean Alliance through the regulatory compliance aspects of using “snotbots” in whale research. Ocean Alliance has now just completed the first mission using snotbot drones in U.S. waters to collect data from whales in a non-invasive way.

“The use of drones for research and conservation is much like the invention of the microscope for cellular biology – it has opened up a whole new world for us to discover,” says Dr. Iain Kerr, CEO of Ocean Alliance. “In our ten days on the Alaskan waters we had one single focus: collecting data, backing up data, eating, sleeping and doing it all over again. We have seen and documented hundreds of whales, including calves, with every type of feeding behavior and play. At least once a day during this mission we would look across the water and see whale blows all around us. On occasion we would shut our eyes and just listen to the cacophony of whale blows. It has been an extraordinarily successful expedition.”

Ocean Alliance, an organization dedicated to promoting ocean and human health, was founded by renowned scientist Roger Payne in 1970 and has been a pioneer in developing benign research techniques for more than four decades. The most recent iteration of this philosophy – the snot-bot – is a lightweight drone that flies over a whale and collects exhaled breath condensate, or snot. The snot is a treasure trove of biological data, including DNA, micro biomes and hormones. The use of drones is a game changer for marine mammal research with the real prize being the collection of physical, biological data from whales without them even knowing. With an affordable price point and changeable payloads from a high definition camera for Photogrammetry to a FLIR night vision system, the drones open doors for researchers around the world that they could only dream of a few years ago.

“One of the most rewarding aspects of working in this field of law is to help leverage the incredible power of drones for the public good,”

said James Mackler, attorney with Frost Brown Todd. “This technology plays an increasingly important role in many industries and here is a great example of how it’s advancing scientific research.”

Under FAA regulations, Ocean Alliance’s work is considered “commercial use.” The Federal Aviation Administration (FAA) only recently released its regulations governing the commercial use of drones, allowing more flexibility for commercial operators. Ocean Alliance is now one of a handful of organizations benefitting from using drones for non-profit conservation work.

“I was thrilled with James’ assistance with this project,” says Dr. Kerr. “We knew that we would need FAA approval to conduct our work in the United States, but the legal complexity was overwhelming. Working with Frost Brown Todd has allowed me and my team to focus on our research.”

About Ocean Alliance

Ocean Alliance collects a broad spectrum of data on whales relating particularly to toxicology, bioacoustics, and genetics, and from that data they and their team of scientific partners advises education and policy-makers on wise stewardship of the oceans, to reduce pollution, to prevent the collapse of marine mammals, fish populations, and other sea life. Learn more at www.whale.org.

About James Mackler

James Mackler, a former military helicopter pilot and attorney who is based in the firm’s Nashville office, focuses his practice on advising businesses on the use of unmanned aircraft systems (UAS), more commonly known as “drones.” He works with clients on various regulatory and compliance elements of drone usage across a spectrum of industries including agriculture, real estate, construction, video production, entertainment, surveying, and the military and government agencies.

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