## SCIENCE & RESEARCH

Coastal Survey



## High Tide Exploration

**High Tide Exploration** is an Alaska-based company that helps communities and businesses responsibly develop their marine infrastructure in an environmentally-friendly way. Among the company's varied projects, High Tide conducts coastal surveys in response to resource agency concerns before, during, and after construction. Since 2011, High Tide has utilized a VideoRay Pro 4 ROV to gather high-definition underwater video of their ecological surveys.

High Tide Exploration plays a big role in maintaining the safety and ecological health of the Alaskan coast. Their surveys are conducted at every stage of construction, whether as a final inspection of completed marine infrastructure or for routine inspections to monitor the condition of pilings, chains, anodes, and outfalls. For several years prior to obtaining their VideoRay Pro 4, High Tide used a variety of other drop-camera setups for their surveys. After realizing the ROV's capabilities beyond its

use as an underwater camera, High Tide transitioned to the VideoRay Pro 4 to take advantage of its ability to fly to underwater targets, remain on station, and work with small objects.



Because High Tide is based in Alaska, many of their jobs are located in remote communities and harsh conditions. The extreme portability and one-man deployability of the VideoRay ROV makes it a major asset when servicing hard-to-reach places. Equipment can be easily loaded onto a helicopter or commercial plane, in the trunk of a vehicle, or on a small boat, making even the most remote places accessible to coastal surveys. The VideoRay's ruggedness also allows it to deploy in blizzard-like conditions, and from atypical platforms like snowbanks. Additionally, the strength of VideoRay tether and manipulator attachment is well suited to aid law enforcement in locating and recovering drowning victims and marine debris.

VideoRay's cost-efficiency also made it appealing to High Tide. In the past, ROVs were only used for critical tasks in large budget projects, due to the technology's major logistical and financial requirements. The VideoRay Pro 4 offers a capable and affordable solution for coastal surveys with smaller budgets and fewer resources.







