

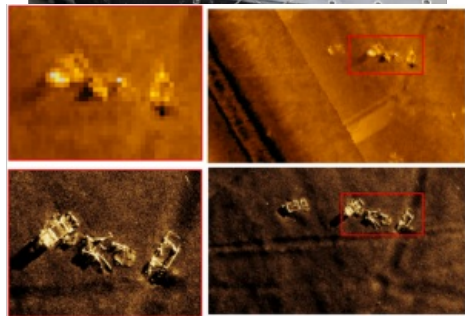
# Kraken Completes Robotics as a Service (RaaS) Contract from Government of Canada



Kraken Robotics has successfully completed a Robotics as a Service (RaaS) contract with the Royal Canadian Navy (RCN) for testing of Kraken's ultra-high-resolution survey equipment. This CAD0.5 million contract was funded under the Government of Canada's Innovative Solutions Canada programme, and the testing department for this service offering was the RCN's Fleet Diving Unit Atlantic

(FDU-A) based in Halifax, Nova Scotia. The RCN has a mandate to develop and maintain an advanced sonar imaging and data storage capability for all three coasts, and to deploy this capability to national and international areas of interest.

This contract provided the RCN FDU-A with access to cutting-edge technology and high-resolution seabed data. With Kraken deploying its KATFISH towed SAS sonar system and integrating a Kraken Light Weight SAS (LW-SAS) onboard a RCN-owned Huntington Ingalls [REMUS 100](#) Unmanned Underwater Vehicle (UUV), Kraken's RaaS service demonstrated that FDU-A's existing capabilities can be augmented by using service-based offerings of cutting-edge technology with significantly better data, at a much lower cost, and leveraging continuously improving capabilities.



## Augmenting RCN Route Survey Capabilities with SAS-based Technology

Throughout the course of the contract, Kraken's team successfully demonstrated that the range, area coverage rates and resolution of Kraken's [KATFISH](#) and LW-SAS systems met or exceeded target specifications. Furthermore, the Kraken and FDU-A teams worked closely on integration of the payload, demonstrating that the LW-SAS can be installed and removed from vehicles in the field. Finally, the FDU-A team was trained to use Kraken's cloud-based post mission analysis tools for interrogating data following mission completion, and for conducting change detection.

Commenting on the successful completion of this contract, Karl Kenny, Kraken president and CEO noted: "Kraken is excited to be once again working closely with our own RCN as an 'Early Adopter' to augment existing RCN Route Survey capabilities with a service offering based on the latest SAS technology available. The experience of working side by side with our FDU operators provided invaluable feedback to our engineers and technicians, and the RCN's evaluation will serve as an excellent reference for a global offering, in particular to other NATO allies. Furthermore, the RCN's objective comparison of the data from our RaaS offering against legacy sonar data provided demonstrative evidence of the superior image resolution and accuracy of Kraken survey data."



Kraken's™ LW-SAS Installed onto an RCN UUV.

## Improving Object Identification and Change Detection

Lieutenant Commander Neville Lockyer, Commanding Officer of Fleet Diving Unit (Atlantic), stated: "Our members are fully trained in Naval Mine Countermeasures and seabed searches, and are always excited to be able to test and evaluate innovative Canadian technology. We want our teams to have their hands on the best equipment available in order to safely and effectively complete the mission. Based on the performance of Kraken's equipment during this evaluation, what we tested was the best equipment available."

Commander Roland Leyte, director of Diving Safety (D DIV S), said: "By embracing the ISC TS programme, the RCN is able to test and trial high-tech, advanced, state-of-the-art equipment to determine its viability and future employability in various areas of warfare. Partnering with Kraken Robotics to utilize Robotics as a Service allowed the RCN's Seabed Intervention Systems department, as the end users, to employ a superior SAS system on an already in-service UUV, the REMUS 100, to achieve a much higher definition resolution image. The trial and the partnership were very successful in integrating the SAS with the REMUS 100, and in demonstrating that increased resolution tremendously improved object identification and change detection."



Car wrecks surveyed with legacy side-scan (top) vs Kraken™s LW-SAS (bottom).