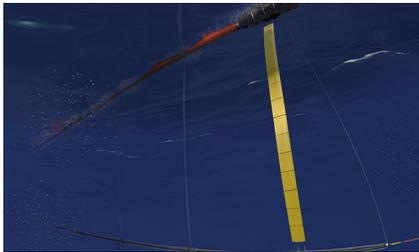


# SailWing™ 4D Source | Sea Trial Demo

## NEW AUTOMATED SOURCE AND VESSEL STEERING TECHNOLOGY LEVERAGES ARTIFICIAL INTELLIGENCE TO DELIVER STEP CHANGE IMPROVEMENT IN 4D REPEATABILITY



For optimal quantification of time lapse reservoir changes, it has long been established that both receiver and source repeatability should be maximized. Modern seabed deployment methods have improved receiver repeatability. SailWing offers new breakthroughs to improve source repeatability.

### Software Advancements Using Artificial Intelligence

ION advanced its Gator™ and SailWing software to automatically coordinate vessel and source movements to optimize source repeatability.

SailWing software now not only steers actuators on the source floats, but also integrates with the Company's industry-leading Gator seabed command and control software to control the vessel track, optimizing system performance and maximizing source repeatability.

Within Gator, ION added artificial intelligence technology and an interface to SailWing to automate and optimize vessel navigation, adding geophysical fidelity to the already proven operational benefits.

### Step Change Improvement in 4D Repeatability

In October 2020, ION and Seabed Geosolutions teamed up to demonstrate the latest improvements to SailWing functionality. The companies chose a dynamic baseline survey to replicate in challenging current conditions in the Gulf of Mexico using Seabed Geosolutions' *Hugin Explorer* as source vessel. The baseline track was replicated using standard technology deployed today and then again with fully automated source and vessel steering.

The results showed a 50% reduction in cross-line deviation from the 4D pre-plot using the fully automated source and vessel steering. The coordinated vessel and source steering automatically optimized operational parameters to maximize repeatability, reducing navigators' workload and freeing them up to focus on changes in plans and other unexpected events.

ION and Seabed Geosolutions would be happy to present detailed results to interested parties.

### THE CHALLENGE

- Maximizing source and receiver repeatability in 4D surveys to detect reservoir fluid changes

### THE SOLUTION

- Automated vessel and source steering using Gator and SailWing to replicate baseline source positions



### About ION

ION is a technology leader with a strong history of innovation. Leveraging innovative technologies, ION creates value through data capture, analysis and optimization to enhance companies' critical decision-making abilities and returns. Our offerings are focused on improving E&P decision-making, enhancing reservoir management and optimizing offshore operations.