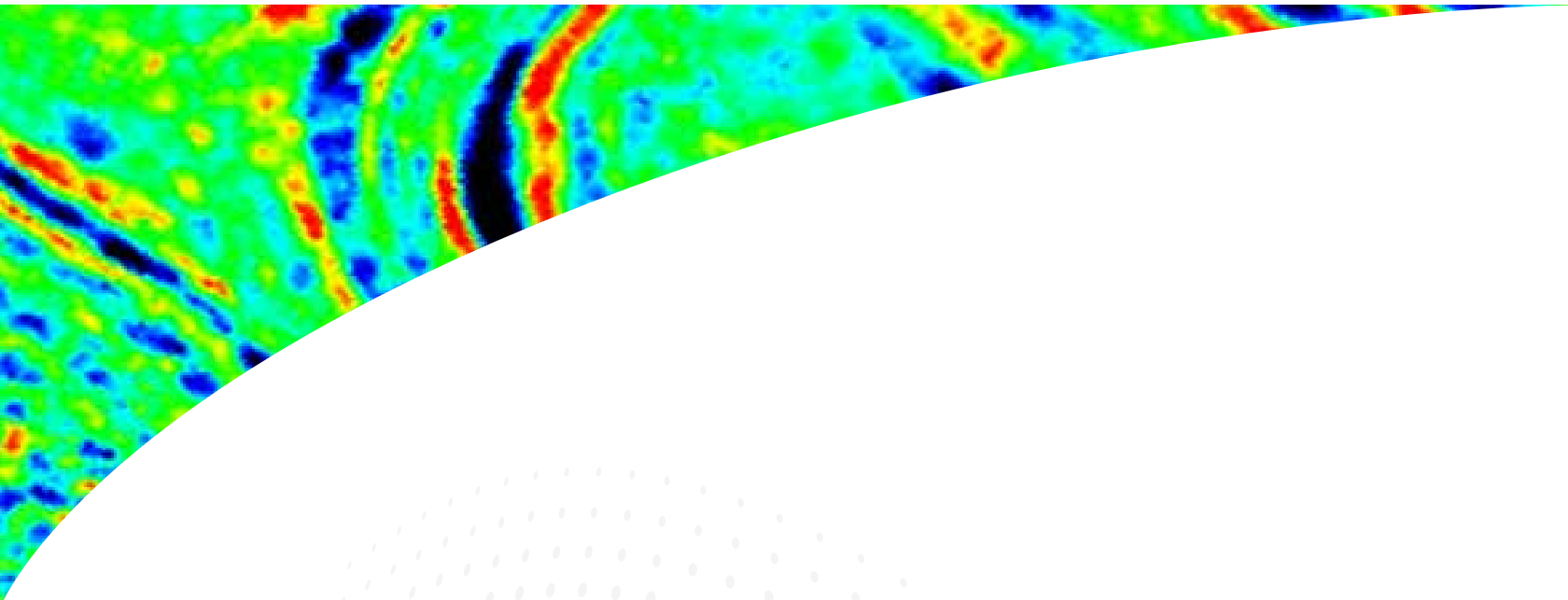




→ Charged to innovate. Driven to solve.™

Marine Imaging Systems



The challenges the E&P industry faces today are far more complex than a generation ago, when conventional resources were more readily available. The hydrocarbons sought after today lie in deeper and more complicated geological structures that are often located in ecologically sensitive or harsh environments.

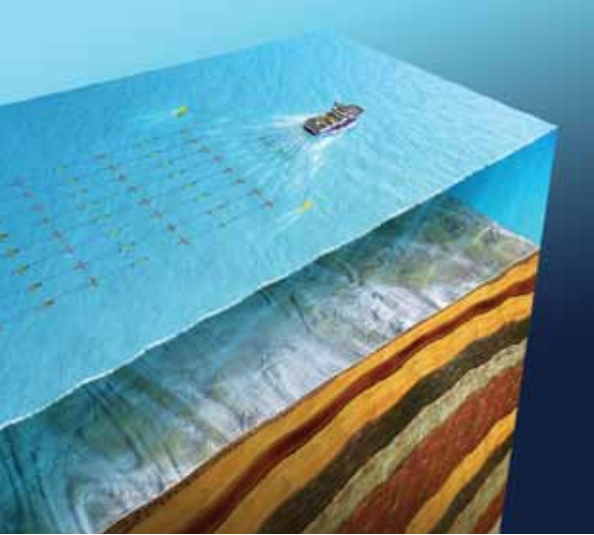
Solving the toughest marine imaging and operational challenges.

Developing technologies to locate these reservoirs safely and efficiently is critical not only to the future of the E&P industry, but also to meet increasing energy demand. As a result, complex wide azimuth surveys have grown in popularity to resolve smaller, more subtle characteristics in deep subsalt environments. In addition, 4D surveys have become more mainstream, as oil companies seek to optimize recovery from existing reservoirs.

To find and develop tomorrow's resources, ION specializes in creating innovative technologies and services that help solve our customers' greatest imaging and operational challenges. Seismic contractors rely on our industry-leading marine imaging systems and services to acquire the highest quality data – safely and efficiently – in both towed streamer and seabed operations. Our integrated technology platforms combined with advanced prediction tools enable seismic data to be acquired intelligently, significantly reducing the risk and cost of offshore exploration.

For the most challenging seismic programs, the industry turns to ION Concept Systems' Acquisition Specialists to optimize the entire planning and acquisition process. To date, ION experts have been instrumental in designing and managing more than 100 4D and wide azimuth surveys around the world.

Marine Imaging Systems



Successful exploration and production begins with the right technology and expertise. ION Marine Imaging Systems' complete portfolio of advanced, integrated technologies and services reduces the risk and cost of offshore exploration and production.



DigiSTREAMER excels in the harshest conditions, delivering less than 1% technical downtime in over 5,000 hours of Arctic operations.

TOWED STREAMER

ION provides state-of-the-art imaging technology and services to outfit modern towed streamer vessels. Our integrated platforms enable real-time survey optimization, saving millions in acquisition costs and months in cycle time while mitigating HSE risks.

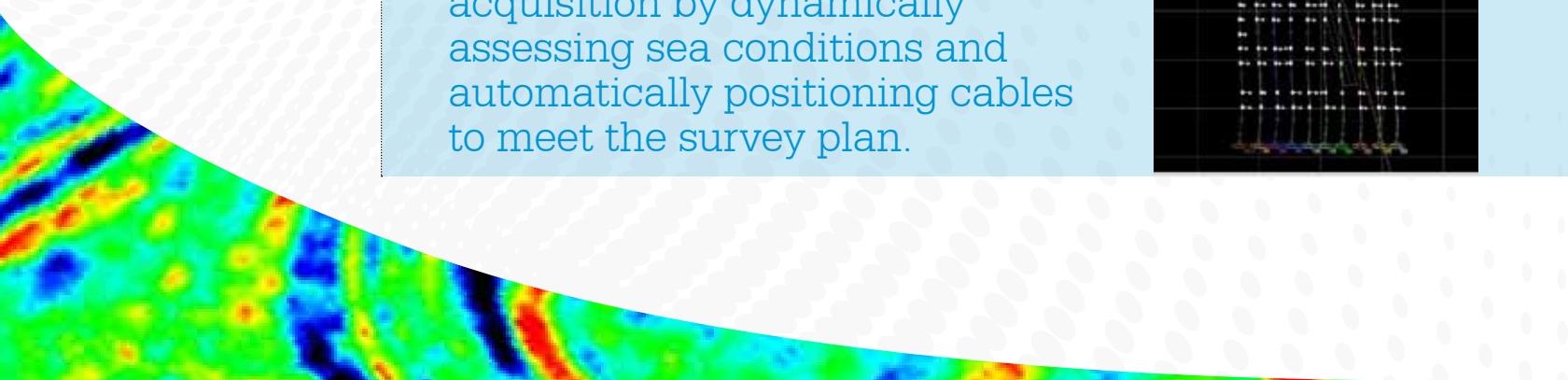
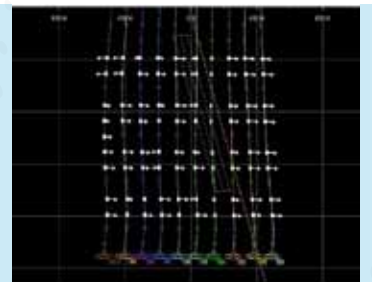
Command and Control System

Orca[®] command and control integrates all systems and vessels survey wide, consolidating data management and control into one seamless platform. It delivers unprecedented automation and intelligence to safely execute challenging geometries and multi-vessel operations, while providing simple, efficient processes for 2D and 3D acquisition.

Data Acquisition System

DigiSTREAMER[™] combines incompressible solid streamer technology with proven instrumentation for cost-effective, environmentally friendly acquisition. This reliable low-noise system increases the operating weather window and excels in the harshest conditions, delivering less than 1% technical downtime in over 5,000 hours of Arctic operations.

Orca and DigiFIN optimize acquisition by dynamically assessing sea conditions and automatically positioning cables to meet the survey plan.



Positioning Systems

ION's universally compatible positioning systems actively and automatically control the spread, positioning cables in the optimal location for each shot, without compromising data integrity.

- DigiFIN® lateral streamer control enables denser spatial sampling by maintaining tighter, more uniform cable separation and increases productivity with faster operations and minimal infill.
- DigiBIRD® II maintains streamers at predefined target depths more safely and efficiently than ever before.
- DigiRANGE™ II reduces positional uncertainty through acoustic source-to-receiver ranging.

Source and Source Control Systems

ION's DigiSHOT® digital source controller and Sleeve Gun source systems achieve highly repeatable source signatures that consistently and cost-effectively maximize energy delivery to the subsurface.



ION seabed technology combines the highest resolution imaging with safe, efficient operations.

SEABED

ION is redefining seabed imaging with experts who challenge convention, bringing together innovative ideas and technologies to help our clients meet their toughest geophysical objectives. Whether deployed temporarily or permanently, ION seabed technology is designed to deliver the highest resolution imaging through safe and efficient operations.

Redeployable OBC System

VectorSeis® Ocean II (VSO II), ION's revolutionary system for acquiring full-wave data from the seabed, delivers step-change improvements in image quality, risk mitigation, and productivity. VSO II leverages proprietary innovations including VectorSeis digital sensors and buoy-based recording. VSO has delivered the highest resolution imaging in major basins around the world.

Command and Control System

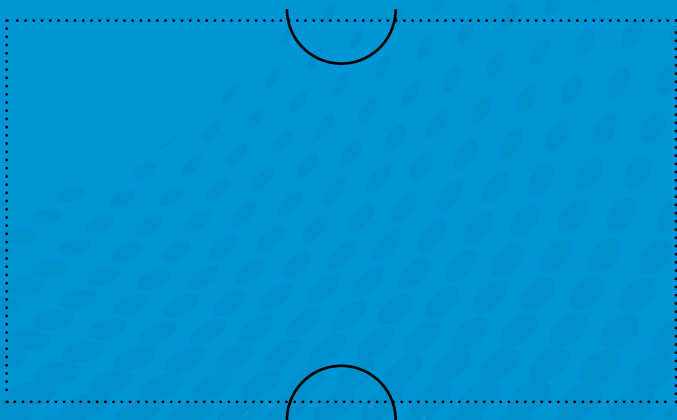
Designed to optimize multi-vessel operations for seabed, transition zone, or electromagnetic acquisition, Gator® II is an extremely flexible and scalable system. It features a survey-wide infrastructure that improves and automates processes across the seismic workflow.

Permanent OBC System

ION partners with OCTIO to provide a comprehensive permanent oilfield monitoring system. Based on the award-winning VectorSeis Ocean design, OCTIO's ReM system is engineered for maximum reliability, image quality, and value.

ACQUISITION OPTIMIZATION SERVICES

Software and services from ION's Concept Systems optimize the entire planning and acquisition workflow for 3D, 4D, wide azimuth, and seabed surveys. Our survey design experts model multiple acquisition scenarios, taking into account factors that influence and inform decision making, to develop survey plans that will safely, efficiently, and accurately image the target. In addition, we work side by side with clients offshore, managing software and operations to dynamically optimize acquisition at every step to meet objectives.



→ Charged to innovate. Driven to solve.

ION Geophysical Corporation is a leading provider of geophysical technology, services, and solutions for the global oil & gas industry. ION's offerings are designed to allow E&P operators to obtain higher resolution images of the subsurface to reduce the risk of exploration and reservoir development, and to enable seismic contractors to acquire geophysical data safely and efficiently.



To learn more about how ION helps
oil & gas companies and seismic
contractors solve their toughest
imaging and operational challenges,
visit us at iongeo.com

Marine Imaging Systems

11104 West Airport Blvd
Stafford, TX 77477 USA

Phone +1 281 933 3339

5200 Toler Street

Harahan, LA 70123 USA

Phone +1 504 733 6061

Concept Systems

1 Logie Mill

Edinburgh EH7 4HG

Scotland, UK

Phone +44 131 557 5595