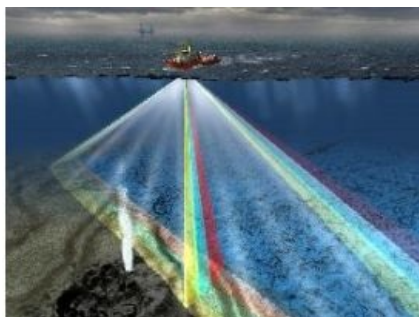


ATLAS HYDROGRAPHIC

Sound Solutions for Hydrographic Tasks of the Future



Whenever researchers over the last hundred years set out to explore new areas of the deep sea, they predominantly relied on equipment invented by ATLAS. It is also true that most of these inventions were not only the merit of ATLAS but the final outcome of a close partnership between ATLAS, universities and the customer. This combination of engineering expertise and co-operation

represents the ATLAS way of how to serve the customer with the right solution for their missions of today and tomorrow.

A Sound Decision

ATLAS HYDROGRAPHIC is a 100% subsidiary of ATLAS ELEKTRONIK. Both companies are part of the marine technology divisions of their shareholders ThyssenKrupp and EADS (European Aeronautic Defence and Space Company), making them part of a European network of marine technological leaders and innovators. From the early 1920s, ATLAS contributed sonar expertise to the service of marine science and the hydrographic mission supporting safety of navigation. A milestone in history was the German Atlantic Expedition with the German survey ship Meteor from 1925 to 1927. It was the first oceanographic

expedition to explore the South Atlantic Ocean with more than 67,000 depth measurements sampled over two years. One of the recently invented electronic echo sounders on board was manufactured by ATLAS.

Many other key inventions in underwater technology were directly made by ATLAS or based on patents held by ATLAS, like the first dual-channel single-beam echo sounder installed on board a seagoing vessel, the ATLAS DESO, or the utilisation of the parametric effect for sub-bottom profilers like the ATLAS PARASOUND.

The DESO, the synonym for single-beam echo sounding, stands for robustness and is considered the reference in reliability and accuracy of survey data. The thousands of DESO installed worldwide speak for itself. PARASOUND, having been the first parametric sub-bottom profiler, is the benchmark for clean and high-resolution sediment profiling for marine science. The University of Bremen has proven to be an excellent partner for ATLAS, not only as a demanding user, but also bringing the system to its limits and driving continuous improvements. Some of these have led directly to the third generation PARASOUND and the jointly developed PARASTORE software.

With the DESO single-beam echo sounders, ATLAS FANSWEEP and ATLAS HYDROSWEAP multi-beam sonars and the PARASOUND sub-bottom profilers, ATLAS HYDROGRAPHIC covers the core technologies for hydrographic and oceanographic instrumentation in all water depths. With a new third generation HYDROSWEAP multi-beam and PARASOUND sub-bottom profiler generation installed on multiple vessels in Japan, Germany, Spain, Vietnam, Taiwan, India and China, ATLAS HYDROGRAPHIC maintains leading technology status of its products.

From Sonar to Chart

ATLAS HYDROGRAPHIC is more than a sonar supplier. The third generation echo sounders are the core for the company's capability to provide Integrated Survey Sensor Systems (ATLAS IS³). The company does not only sell sonars, but instead configures system solutions according to customer needs. An IS³ considers the fundamental criteria of performance, reliability, simplicity and data security. Sensor control, sensor interfacing and data safety management are all covered by ATLAS HYDROGRAPHIC yielding to end-to-end solutions from sensor raw data to sea chart.

Experience

ATLAS HYDROGRAPHIC employs a staff of engineers and technicians with an average on the job experience of 19 years. The customer can rely on support throughout the entire program lifecycle, generally starting with consultancy service for ship design and installation recommendation of the acoustic underwater parts. The project manager, who co-ordinated commissioning of an IS³, continues to be responsible for this system. As a service manager, he manages the long-run support and maintenance. Throughout the entire system lifecycle, all tasks from IS³ configuration in concept phase through implementation in project phase to service and maintenance during work phase are focused on offering best service as a partner to the customers.

One Partner

The partnership between customers and ATLAS HYDROGRAPHIC typically lasts for decades. Just to name an example, the German icebreaker Polarstern of the Alfred-Wegener-Institute (AWI) was equipped with a HYDROSWEET DS deep-sea multi-beam echo sounder and PARASOUND sub-bottom profiler about twenty years ago. The company proved to be a competent partner for the research institute, supplying not only reliable sonars, but also offering comprehensive customer support within a co-operation agreement. As a result, ATLAS HYDROGRAPHIC has been invited by the AWI to upgrade the sonar system a second time, now to the third generation HYDROSWEET and PARASOUND sonars.

Hydrographic and Oceanographic Systems of the Future

With the core expertise in sonar technology and the modular concept of IS³, ATLAS HYDROGRAPHIC delivers hydrographic and oceanographic systems designed according to the specific requirements of its users. As the future tasks for hydrographic services and research establishments are characterised by a new level of greater complexity, this capability will become increasingly important.

Hydrographic organisations will combine traditional sounding information with geophysical data from on board sensors or external sources in order to finally generate sea charts. This data will not only provide navigation aids but also essential geo-information for development of the oceans.

ATLAS HYDROGRAPHIC has demonstrated that it is a strong partner in both worlds: Being experienced in delivering sonar-to-chart solutions for clients focused on end products like authorities as well as having proven engineering skills to assemble and integrate detailed sensor suites for multi-sensor research platforms.

With ATLAS IS³ system design, ATLAS HYDROGRAPHIC provides easy adaptable, off-the-shelf and standardised answers for almost any application in hydrography and oceanography today and tomorrow.

<https://www.hydro-international.com/content/article/sound-solutions-for-hydrographic-tasks-of-the-future>
