

IMCA is the international trade association representing offshore, marine and underwater engineering companies

It seeks to:

- strive for the highest possible standards with a balance of risk and cost in: health and safety; technology; quality and efficiency; environmental awareness and protection;
- achieve and sustain self-regulation in the industry;
- ease the free movement of equipment and personnel globally;
- achieve equitable contracting regimes;
- provide the framework for training, certification, competence and recruitment to support and sustain the industry globally;
- resolve industry issues; and
- promote co-operation across the industry.

Members include pipelay, heavy lift, diving, remotely operated vehicle, survey and offshore construction contractors, plus various contractors operating specialist marine equipment.

IMCA has two core activities in which all members participate:

- Competence & Training includes a comprehensive framework devoted to promoting safety by defining and encouraging training and competence in key safety-related positions.
- Safety, Environment & Legislation (SEL) includes monitoring national and international regulatory bodies, circulation of relevant information to members and advancement of industry positions where necessary

Members join in one or more technical divisions relevant to their own activities:

- Diving
- Marine
- Offshore Survey
- Remote Systems & ROV

IMCA works with a global focus, but also has regional sections covering the key offshore areas: Asia-Pacific, Central & North America, Europe & Africa, Middle East & India and South America.

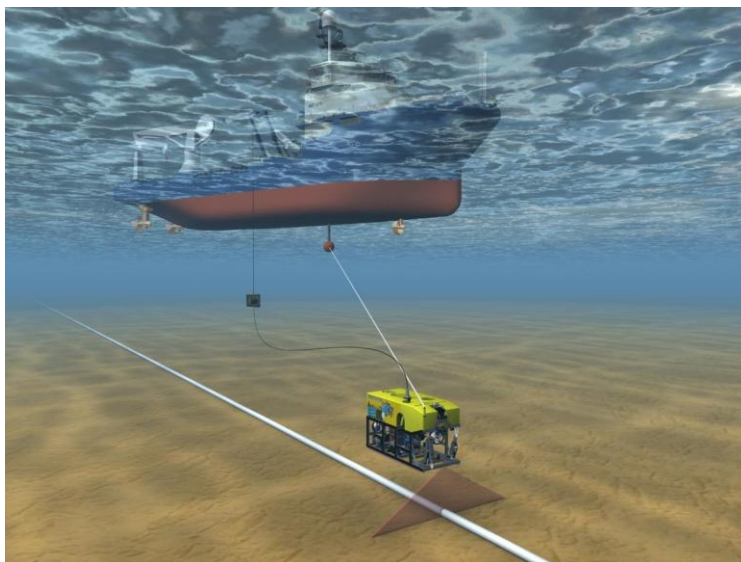
IMCA has published substantial and comprehensive good practice guidance on marine operations based on its members' experience in a range of related areas. More details on specific activities are set out on these factsheets.

Hydrography/har'drografi/ n. science of surveying and charting seas, lakes, rivers, etc.

Hydrographic surveyors have been active in the marine environment for many years. Their primary role is to chart the world's seas and oceans, including measuring currents, tides and waves, mapping the ocean floor and exploring for the minerals that lie beneath. Several well known historical figures, such as Edmund Halley (of Halley's Comet fame and British Astronomer Royal in 1720) and Captain Cook, were involved in hydrographic surveying. In more recent times, hydrographic surveyors have been operational in theatres of war, conducting clandestine surveys of beaches by night in advance of invasion forces and honing ever improving methods of precise positioning and seabed surveys. Today, hydrographic surveyors are involved in every aspect of offshore exploration, construction, production, maintenance and decommissioning, and have become more widely known as 'Offshore Surveyors'. The equipment used today is designed to make full use of the modern digital era, with surface and subsea sensors providing high resolution digital information in the form of real-time precise positioning, seabed imagery, sub-seabed imagery and highly accurate spatial relationships between seabed structures.

IMCA Offshore Survey Division is concerned with the equipment, operations and personnel of contractor companies conducting positioning and hydrographic surveys in support of the offshore industry, renewables and other industries. Specific tasks can include: survey and inspection; high-resolution geophysical and hydrographic surveys, perhaps over the route of a proposed pipeline or prior to the installation of a wind turbine monopile; and, geotechnical surveys, for example core sampling of the seabed in preparation for installation of structures. A variety of complex equipment is used for this work, including remotely operated vehicles (ROVs) and autonomous underwater vehicles (AUVs), with advanced techniques including acoustics, seismic, magnetic and electrical survey, inertial navigation, and using a wide range of survey vessels of differing sizes. During installation of structures, survey companies provide high accuracy positioning, both above the water and below, to ensure that design tolerances are met. After installation, surveyors perform highly accurate metrology observations between structures to provide the design basis for connecting spools and jumpers.

With the wide variety of technologies and methods now in use offshore, the term 'hydrographic surveyor' has expanded to include a number of different specialists. These include surveyors, survey (electronics) engineers, data processors, geophysicists and inspection engineers. IMCA Offshore Survey Division covers all of these roles through its competence and technical guidance.



USBL positioning using an ROV (image: Sonsub)

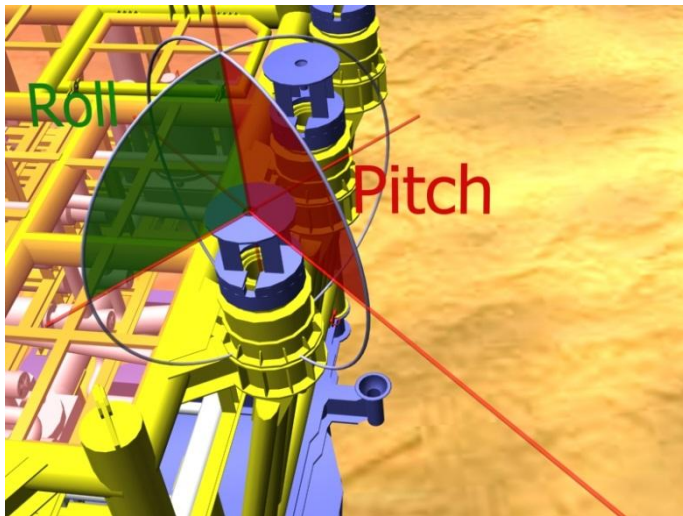
Offshore survey companies work closely with other marine contractors, frequently sharing equipment and space on a single vessel, requiring close liaison between all those at work offshore.

IMCA Offshore Survey Division members include survey contractors operating around the world, together with a range of specialist equipment suppliers, consultants, training organisations, personnel agencies and oil company clients.

With over 130 members active around the world, the Survey Division has produced a series of technical notes, guidelines and reviews aimed at assisting all members of IMCA in ensuring the safety and efficiency of their operations.

Technical Issues

IMCA's technical guidelines and reviews (examples listed to the right), developed through committees and workgroups based on members' cumulative operational experience around the world, are aimed at enhancing safety, providing technical knowledge and promoting good practice in the offshore industry as a whole. It should be noted, however, that the publications should not be considered as standards.



The science of metrology

- ◆ *Digital video offshore: a review of current and future technologies (IMCA S 008)*
- ◆ *Guidelines for the shared use of DGPS for DP and survey operations (IMCA S 009)*
- ◆ *Deep water acoustic positioning (IMCA S 013)*
- ◆ *Guidance on vessel USBL systems for use in offshore survey and positioning operations (IMCA S 017)*
- ◆ *Guidance on the selection of satellite positioning systems for offshore applications (IMCA S 018)*

Contracting

- ◆ *European survey work contracting principles (IMCA S 001)*
- ◆ *Terms and conditions for survey support services (IMCA S 007)*

IMCA's work on contracts is aimed at providing generic guidance documents that can be adopted by contractors and their clients for use around the world, enhancing efficiency through minimising unnecessary duplication of effort and avoiding costly extra legal work.

Personnel

- ◆ *Competence assurance and assessment: Guidance document and competence tables: Offshore Survey Division Rev 2 (IMCA C 004)*

This guidance provides a framework for members to demonstrate the competence of personnel working in safety-critical positions offshore.

- ◆ *Academic requirements for surveyors working in the offshore survey sector (IMCA S 005)*

The division is active in IMCA's efforts to encourage more personnel into the offshore industry. In addition to the above documents, the division has developed a range of careers promotional material and case studies on individual disciplines within the survey domain, together with an online directory linking to survey-related university courses available around the world.

This factsheet describes some of the work of IMCA's Offshore Survey Management Committee on behalf of members. For more details please visit our website at www.imca-int.com/survey.

Feedback is always welcome.
Please email imca@imca-int.com