

An Introduction to EGS

From modest beginnings with just a handful of employees in Hong Kong and the United Kingdom twenty-eight years ago, the EGS Group has now grown into an international group of companies with well over two hundred permanent staff.

EGS provides global, specialist multidisciplinary services and products to the civil engineering, construction, telecommunications, power, maritime, hydrocarbon and mining industries. The group head office, EGS (Asia) Ltd, is based in Hong Kong. EGS International is located in the United Kingdom and services the western hemisphere, including Africa and the Middle East. Regional offices are located throughout South East Asia, including Singapore, Malaysia, Thailand and the Philippines. EGS Australia is the latest addition to an ever-expanding network.

Global Force with a Personal Touch

It has always been the aim of EGS to provide high-quality geophysical, geotechnical, hydrographic and oceanographic services, including surveying and consultation. Quality Control is confirmed through our ISO 9000 procedures, certified by DNV.

What really distinguishes EGS is the calibre of our people. The meeting of client requirements is based on an efficient and cost-effective multi-

disciplinary approach to problem solving. Solutions are formulated through the loyalty, creativity and enthusiasm of personnel. Being an employee-owned company allows us to create an environment within which innovation and professionalism flourish through teamwork. EGS is proactive in employing a diverse spectrum of people, not only from many professions but also from diverse cultures. Our large, multinational pool of professional staff enables us to offer a unique and diverse blend of experienced world-class services, tailor-made to finding global solutions.

Global Strategies

EGS has consolidated its position within the marine industry by offering both surveying services and an innovative range of survey products through C-Products, a wholly owned subsidiary.

In addition to an ever-increasing global network of offices and products, we also have strategic alliances with partner companies in various countries, enabling us to carry out surveys and studies virtually anywhere on the globe. We have excellent partners who have long-standing relationships with EGS and share the EGS dedication to quality and customer service.

By combining our global resources with the local expertise of our partners we are able to optimise communications with and responsiveness to our customers. Such partnerships enable us to combine the strengths of leading companies in their respective fields to improve efficiency and deliver cost-effective, tailor-made solutions. The various alliances are brokered so that each partner is able to focus on its own specialist expertise, developing technologies that benefit all our clients whilst working with other partners when the need arises.

Serving the Marine Industry

EGS offers a diverse array of specialist surveying and consultant services based on an innovative approach to problem solving.

Our state-of-the-art survey equipment complements the quality of our service. We keep an inventory of in-house developed systems, as well as geophysical, geotechnical, hydrographic and oceanographic equipment, at the company's regional centres. This means that engineers, together with all necessary equipment and spares, may be rapidly deployed to site to minimise loss of time. Much of our survey equipment and laboratories are containerised, providing us with the ability to effectively use vessels of opportunity. Our services are broadly divided into the following categories:

- Near-shore
- Offshore
- Oceanographic

These services include both a desktop study ability utilising our vast database resources, and field surveying. The deliverables are provided in a professional format and can be readily adapted to specific client requirements. Just as important is the ability to provide deliverables within the time constraints set by the client. Due to the EGS innovative approach to problem-solving, we are able to design solutions to our clients needs on a job-by-job basis.

Near-shore Surveys

EGS understands that the science of surveying in the near-shore environment goes beyond the mere utilisation of offshore survey equipment in shallow waters. Near-shore surveying requires a specialised set of skills comprehending the often-hazardous conditions of the coastal environment (such as tidal currents and surf zones). It is ensured that the survey project team has a good understanding of the coastal engineer's requirements. This, together with our equipment and survey methodology, helps us provide the client with a pertinent solution to needs.

Offshore Surveys

Marine route surveys and Burial Assessment Surveys (BAS) for submarine fibre optic telecommunications cables, power cables and sub-sea pipelines are characterised by the need to integrate a multitude of engineering and scientific disciplines (from the desktop study phase through survey and final reporting to installation and maintenance considerations).

EGS prides itself on providing accurate and pertinent survey reports which may encompass a relevant burial assessment producing large

savings for the client during installation.

EGS has recognised expertise in multibeam swath bathymetry and shallow seismic data acquisition and processing and continues to invest in the development of technology, including the C-Products range.

The EGS BAS methodology is but one example of EGS innovation. Geotechnical information for the BAS is obtained from a variety of sources, including Mini CPT and coring information. This equipment is usually operated from the main offshore survey vessel after the completion of a geophysical survey block, thereby vastly reducing the costs involved in running an additional standalone BAS vessel. The BAS adopts a holistic approach whereby geotechnical data is not only considered but also merged with continuous geophysical, bathymetric and oceanographic data. Just as importantly, other information is incorporated from the desktop study, from general survey observations (such as fishing activities, vessels anchoring etc.) and from the EGS database (cable faults etc.) Once we have been provided with the burial tool specifications for the job, an experienced cable installation consultant further refines the BAS so that potential areas of difficulty during installation are clearly highlighted.

The Mini CPT, together with vibracoring, also provides geotechnical information for dredging materials studies and construction site surveys.

Oceanographic Surveys

EGS undertakes oceanographic studies to support infrastructure developments. In the coastal zone, these may range from dispersion and dilution studies for a new out-fall, through to major integrated studies designed to characterise the metocean environment and resulting seabed response to underpin front-end engineering design of developments such as a marine export terminal for LNG. In deep water, EGS undertakes investigations for oil and gas exploration. EGS has a large spread of oceanographic equipment which includes high frequency single-point current meters, Acoustic Doppler Current Profilers (ADCPs), tide gauges, suspended sediment instruments, seabed grabs and water samplers.

C-Products

In line with our innovative approach to surveying, EGS has recently launched a wholly-owned subsidiary, C-Products. This company specialises in selling a range of marine surveying products including:

- C-View, a specially developed Seabed Data Management Package (SDMP) for acquisition, processing, interpretation and mapping of the seabed geology and morphology
- C-Boom, a new Low Voltage Boomer System for acquiring near-shore high resolution sub-bottom profiling data
- C-Nav, a new, globally corrected, decimetre accurate GPS system available world-wide and owned by our alliance partner C&C Technologies

The in-house development of C-View, a comprehensive digital geophysical acquisition, processing and charting system, has helped our onboard geoscientists provide detailed draft final charts to onboard client representatives, typically within 24 hours of data acquisition. The system is now being offered on the global survey market. C-View is an IBM-compatible, PC windows-based system that not only acquires side-scan sonar, sub-bottom profiling and bathymetry data but also has advanced processing and reporting ability including:

Swath bathymetry
Pipeline inspection
Side-scan sonar mosaicking
Autocad tool interfaces

We also recognise that marine surveying end-products, including both databases and charts, are best housed within a GIS environment and are actively developing this ideal within the C-View environment.

C-Boom is a unique Low Voltage Boomer that provides all the benefits of standard Boomer technology whilst providing the additional factor of safety (and cost-effectiveness) by cutting out the traditional power supply units or “bang boxes”™, typically large and heavy and capable of generating up to 5,000 volts. This enables C-Boom to be routinely used in the inshore operations of small vessels.

To the Future

Over the past twenty-eight years EGS has grown substantially and has now established itself as a global player in the marine surveying industry. Our position within the industry is being further consolidated through our C-Products range of surveying systems.

To date, EGS together with its alliance partners have undertaken over seventy per cent of Asian submarine cable route surveying, covering in the order of 150,000 route km. A proactive growth plan incorporating the establishment of a network of EGS regional offices and a sound alliance partnership with other companies has meant that we can now offer global solutions to the marine industry in general. Recent advances in our offshore survey products, such as the development of C-View, have helped us become a dominant force in the telecommunications market.

EGS is actively striving to enhance its presence in the oil and gas industry through offering innovative and cost-effective survey solutions, including new product developments such as a pipeline inspection kit for C-View. It is hoped that such activity will help establish the company in the fields of pipeline and well-site inspections.

However, what will really define EGS as it expands is the continued personal commitment and integrity that we have always been proud to offer alongside our service and products range.

It is through this unique blend of team-based values, constant research and development and integration of skills that EGS will continue to maintain its competitive advantage and expansion into new markets world-wide.