Pipeline Transportation & Installation Support

HGIS holds an extensive track record in supporting the offshore construction and installation sector. We have been supporting main construction companies for the Pan Malaysia Transportation & Installation of Offshore Facilities since 2010.

HGIS is a service provider that truly understands the nature and processes of offshore construction and installation offering the best solutions for the installation of:

- Rigid Pipelines
- Flexible Flowline and Umbilical
- Spoolpiece / Jumper and Tie-In Operations
- Subsea Structure such as PLEMS or PLETS
- Subsea Power or Fiber Optic Cables
- Subsea Rock Installation
- Trenching and Dredging Operations

FEATURES

√ Expertise in Inertial Navigation System (INS) results in potential time and equipment savings leading to a reduction in overall costs.
√ Integration of high accuracy tools to provide real-time positioning and navigation and overcoming any drop-outs.
√ HGIS BMS & TMS X-BOX proven design and survey grade instrumentation with high accuracy, reliability and update rate.
√ Latest Sonardyne 6G Technology with improved accuracy in precise acoustic range and high-speed data telemetry.
√ Acquire accurate reports on the final absolute position to monitor and detect any lateral displacement. (horizontal alignment).
√ Identify and assess the status of freespans, uplifts, trenching works and self-burial along the product route (vertical alignment).
√ Report accurate positions of any external damage, debris/seabed features in close proximity to the product.
√ Receive your data and reporting with OGP Seabed Survey Data Model (SSDM) compliance formatting.
ROUTE CLEARANCE SURVEY FOR PRE-FEED OR FEED STAGE

**BENEFITS**

- **Plan it Early**  
  Early stage requirements for pre-engineering survey.
- **Identify the Features**  
  Perform Geophysical and Geotechnical samplings.
- **Know Your Route**  
  Determine the suitability of the selected routes.
- **Identify Hazards**  
  Acquire accurate data and identify potential hazards to determine the best pipeline route.

PRE-LAY OR POST-LAY SURVEY (OFFSHORE/ NEARSHORE)

**BENEFITS**

- **Bathymetry Map Acquisition**  
  Acquire accurate water depth bathymetry map showing the topography of the seabed within the survey corridor.
- **Mapping Of Anchoring Corridors**  
  Ensure that the anchoring corridors are clearly mapped for seabed obstructions that may impede the installation process.
- **Lateral Variations Identification**  
  Check and identify lateral variations of the shallow and intermediate lithostratigraphy based on acoustic characteristics.
- **Crossing Points Identification**  
  Identify crossing points of existing pipelines, submarine cables and any other item close proximity to the design route.
- **Final Confirmation**  
  Post-lay survey of the flowline, umbilical, pipeline and record of position and condition of the structure laid.
- **Mean Seabed Topography Acquisition**  
  Pre and Post Trench/Dredge Survey acquiring seabed topography and mean seabed level around the proposed dredging/trenching location.

PIPE LAY POSITIONING & NAVIGATION SUPPORT

**BENEFITS**

- **Control During Lay**  
  Provide position and heading control during lay to maintain the predicted Touchdown Point (TDP).
- **Horizontal Offset**  
  Monitor the horizontal offset on any associated fixed point on the vessel to the line’s TDP (layback).
- **Final As-Installed**  
  Acquire final as-installed position fixes relative to the design data at pertinent locations.
- **Monitor Cross-Course**  
  Monitoring of the cross-course distance from the ROV pipeline/flexible TDP to the design route centerline.
- **Mattress/Sleeper Positioning**  
  Provide underwater acoustic positioning of mattress/sleeper support where an existing pipeline or cable is crossed.
- **Measure with Acoustic**  
  Provide Underwater Acoustic Positioning and LBL subsea metrology for any subsea structure installation such as PLEM, PLET or Spool Piece.

OTHER RELATED SERVICES

- Provision of Onshore Engineering and Topographical Survey.
- Provision Survey Support for Trenching and Dredging Operations.
- Provision of Post Pipeline/Cable Burial Survey.
- Provision of Survey Support for Rock Installation Operations.
- Provision of Positioning Support for ROV Inspections / Installations.
- Decommissioning and Abandonment Survey Support.