

## SYSTEMS INTEGRATION SERVICES

### System Layout

iLinks will plan and document how the sub-systems will be physically situated and mounted to the vehicle or vessel in order to optimize Safety, Operations and System Performance. We will look at the key factors which effect system performance such as;

- *Location & Installation of the GNSS Dual Antenna Systems*
- *Location & Installation of the Multibeam System for safe handling and optimal performance*
- *Installation of the Gyro along the centerline of the vessel*
- *Installation of the Motion Sensor as close to the vessel COG as possible*
- *Installation of the Control & Interface Units, PC's, Monitors, Helmsman's Display etc.*
- *Planning the Layout and Measurement of all Power and Interfacing Cables*

### Installation

iLinks will manage and participate in the physical installation of all of the sub-systems and sensors onboard the vehicle or vessel, the key tasks of which will be;

- *Physical Mounting of all of the Sub-Systems and Sensors*
- *Routing of all Power Cables in order to minimize Voltage Drop and Physical Damage*
- *Routing of all Interface Cables in order to minimize Interference, Signal Noise and Physical Damage*
- *Terminating all Power and Interface Cables with the appropriate connectors*
- *Installation of the Control & Interface Units, PC's, Monitors, Helmsman's Display etc.*
- *Installation of all Software Systems required*
- *Production of the onboard Systems Schematic Diagram*
- *Measure all Sensor and Antenna Offsets and Calculate all Lever Arms*
- *Production of System Offset Diagram*

### Commissioning & Testing

iLinks will commission and test all of the sub-systems and sensors onboard the vehicle or vessel, namely;

- *Power Up all Systems*
- *Configure and Test all Systems Interfacing*
- *Check all Systems Firmware versions and Upgrade if Required / Permitted*
- *Build QINSy Template Database*
- *Set up QINSy Project Files*
- *Taylor online and offline survey setup to customers' operational requirements*
- *Test all systems ONLINE*

### Calibration

iLinks will calibrate all of the survey systems and sensors onboard the vehicle or vessel prior to departure to the project location, the calibrations will include;

- *Establish a local RTK Station and test the GNSS Receivers onboard the vessel for RTK Lock*
- *Calibrate the Gyro Compass*
- *Calibrate the GNSS Heading System*
- *Initialize and Calibrate the Motion Sensing System*
- *Profile the Speed of Sound through the Water Column and load the profile into QINSy*
- *Calibrate the Multibeam Echosounder*
- *Conduct a Test Survey*