

Project Management â€“ Donâ€™t Leave Home Without It

Project management skills are critical to the work of the hydrographic surveyor and other marine professions. The responsibilities of a hydrographic surveyor in charge of a major project are much more than technical survey related, but must also cover project management activities in order to conduct the work on schedule, to meet the customer requirements and prevent cost overruns.

For a successful project, the hydrographic surveyor in charge should be responsible for all aspects of the work, including detailed planning, execution of the survey and processing of the data to the agreed specifications and delivery of the product on time to the customer in the agreed format. They must intimately understand the technical requirements; the capability of their equipment, how to operate it optimally and the impact of the marine environment on its performance. A thorough understanding of the environment is essential for successful surveys, including the impact of seasonal weather, spring and neap tides, tidal streams and currents, and biological factors such as marine animals and nature of the seabed, including existence of kelp and seagrass. Additionally, the hydrographic surveyor in charge must have a mariner's understanding of the operation and limitations of their vessels and also of aircraft, in the case of ALB (Airborne Lidar Bathymetry) surveys.

Technical survey management is only one dimension of their responsibilities. As project manager, the hydrographic surveyor may also need to develop plans to manage multiple resources, including vessels, aircraft, equipment and rotation of staff. This also requires project risks to be identified and plans to be developed to mitigate them, including health, safety and the environment. Plans may also need to accommodate the impacts of other commercial activities in the area such as fishing, dredging or commercial transport, legislation applying to marine protected areas and other limits, including law of the sea implications regarding international boundaries. There may also be many logistics and administrative requirements, particularly for work involving multiple sub-contractors.

During the progress of the survey the work must be continually monitored and plans adapted to accommodate change. Importantly, the work must be completed to a schedule to meet the customer's needs, and costs managed to complete the work within the assigned budget. Failure to adequately manage risks may lead to higher costs and schedule slippage. Ideally, the hydrographic surveyor must be fully responsible for all financial aspects of the project, including the authority to commit the resources required to mitigate risks as they occur to complete the work.

Organisations must aim to develop individuals with the required combination of technical and project management skills through training and experience. As equipment and procedures continue to evolve with new technology, ongoing education is essential to stay abreast of change. When I received my training, some 30 years ago, the term project management was not so widely used, however, I remember the training we received involved high levels of field work in teams to develop broader project management skills.

We continue to ask a lot of our senior surveyors in project management roles. These employees must also have excellent communication skills and be able to thoroughly plan, manage and report the progress of the project to both the organisation and the customer. The hydrographer's motto: 'no day too long, no task too arduous' remains as relevant today as ever - some things never change.