



Fusion 1 LBL & 6G® continues to be the world's most popular Long Baseline (LBL) acoustic positioning system by providing the most accurate method for installing subsea structures, tracking ROVs and conducting acoustic metrology. The system operates by measuring acoustic ranges to a seabed array of transponders. These ranges are then passed through a least squares computation to precisely trilaterate a position. As the system utilises a fixed seabed array, the system precision remains the same regardless of water depth.

COURSE OBJECTIVES

This online course provides the basic theoretical knowledge together with a thorough practical understanding of the operation of Sonardyne's Fusion LBL software utilising our 6th Generation subsea acoustic positioning hardware. The course covers all aspects of LBL survey through trainer-guided practical hands-on scenarios using Fusion 1 LBL software and simulators via remote access online.

WHO SHOULD ATTEND?

- Hydrographic Surveyors
- Survey Engineers

COURSE DURATION

Course will comprise five 2.5hr live online sessions with our trainer, each preceded by some Pre-Learning Material that we send out in advance to be reviewed and completed in the candidate's own time.

Session 1 - 'Group Session' for up to 6 people (Overview of Fusion 1 software and live demonstration of LBL workflows)

Sessions 2-4 - One-to-One/two-to-one Practical Sessions (Guided practical scenarios, candidate using Fusion 1 LBL in remote access mode via video conferencing tools)

Session 5 - One-to-One Competency Assessment

BOOKING AND CONFIRMATION

Details of course dates and current availability of places can be found at the Training Course section of Sonardyne's website:
www.sonardyne.com/products/training

To reserve a place on a course, please email:

training@sonardyne.com

Other info

Upon successful completion of the assessment candidates will be sent a "Fusion 1 LBL competency certificate".

COURSE SYLLABUS

Theory

- Introduction to Sonardyne & Acoustic positioning systems.
- Long Baseline Positioning Principles
- Calibrations and Processing
- 6G Command Language
- Error theory
- Adjustment theory
- Sonar Equation
- Signal Diagnostics
- Absolute calibrations

Practical / Examination

- Long Baseline Calibration and QC of Calibration Data (Relative and Absolute)
- Box-in Calibration and QC of Data
- Transceiver Tracking and QC of Data
- Tracking Diagnostic Tools (travel times)
- Mobile Compatt and Structure Tracking (acoustic heading)
- Compatt Measurement only Sensor Tracking
- Application of Geodesy, Convergence and Scale Factor
- Problem Solving scenarios
- Application of Sound Speed Profiles, Tidal Variation and Environmental Factors
- Troubleshooting