



## **Shallow Survey 2008**

University of New Hampshire  
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New Hampshire

### **New MBES system for s/v Airisto: trial and error**

S/v Airisto was built in 1973 for Finnish Maritime Administration Hydrographic Office (FMA) as a multitransducer survey vessel to perform shipping lane and port surveys. This has been successful over the years. Due to enhancement on the MBES technology it was decided in 2005 to renew the hydrographic survey system to a MBES. However the bottom topography on the coast of Finland is challenging as hard bedrock and soft mud lenses coincide each other in shallow water. Earlier this has required adjustment on the multitransducer channels individually

The new technology on multifrequency MBES system was seen as a solution to tackle the challenging bottom. It was believed, that the different frequencies shall complete both coverage and acceptable data. Therefore Atlas FS 30 C was the choice of MBES, but it proved not to be ready system yet (on firmware). On the wait for improved firmware Atlas FS 20 was installed temporary to perform surveys with the vessel. For FMA needs the FS 20 lacked user adjustment on firmware operating parameters.

In this presentation we'll concentrate to the implementation of Reson SeaBat 7125. The technical dimensions of the vessel Airisto, installations of the MBES-, GPS- and IMU -units shall be introduced. Also data processing and some results of test surveying (SAT) shall be presented

The first surveys indicate a successful installation and operation. Some notices are still open, such as the outermost beams and number of outliers

Kind Regards

**Finnish Maritime Administration/Survey Production Division**



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