# EIVA and UNH/CCOM Enter into Partnership

The University of New Hampshire (UNH) Center for Coastal and Ocean Mapping (CCOM, USA) and EIVA (Denmark) are pleased to announce that EIVA is now an official industrial partner of CCOM. With this partnership, EIVA is able to implement CCOM's tools in the new generations of the NaviSuite software products, and UNH students, researchers and staff get free use of NaviSuite.

CCOM is one of the cornerstones in the hydrographic community for its research and development activities. One of its objectives is to develop tools to advance ocean mapping and hydrography. Initially, two of these CHRT and ARES, are to be implemented in the EIVA NaviSuite software dedicated to offshore and shallow water survey and engineering operations.

## Bathymetry and Backscatter Data Processing

CUBE (Combined Uncertainty and Bathymetric Estimator) is CCOM's sonar bathymetric data processing algorithm. CUBE was originally verified for hydrographic use in 2003 and has since been adopted by several hydrographic organisations as the de facto processing approach. The second is GeoCoder, another well-known package from CCOM used for processing of backscatter data.

Dr Brian Calder at CCOM heads the development of the next generation of CUBE, known as CUBE V2 or CHRT. The focus is on quality, multi-resolution models as well as parallel processing of the algorithm for higher performance. While CHRT carries out the same basic tasks as CUBE, CHRT is implemented in a more memory- and CPU-efficient manner, designed to be activated from the GUI.

CHRT was designed based on the lessons learned with CUBE, keeping some of the same technology, but making the system data-adaptive, much more efficient, and easier for users to set up. Mr Calder emphases to make sure that the user gets the algorithm as intended. Working closely with vendors like EIVA is the only way to ensure that. He is also looking forward to a detailed engagement with them as the implementation advances.

CHRT will be implemented in NaviSuite alongside EIVA's other processing and cleaning approaches, such as S-CAN, which will of course be kept and maintained as well.

## New Generation for GeoCoder

Moreover, CCOM is currently developing a new generation of its GeoCoder solution, named ARES. It is ARES, which EIVA will implement in the NaviSuite products. ARES is still under development, as a parallel process to the development of the next NaviSuite versions. Consequently, as soon as ARES is released, it will be available via NaviSuite.

The implementation of CHRT and ARES has been added to the EIVA 2016 roadmap, which also includes the launch of the fourth generations of NaviModel and NaviPac. This will be covered in more detail at the EIVA Days Denmark 2016 and an EIVA workshop at HYDRO 2016 in Germany.