

# Surveying Lac de Vassivière



Together with the Interdisciplinary Centre for the Development of Ocean Mapping (CIDCO) in Canada, French engineering school ENSTA Bretagne, the University of Ghent in Belgium and the HCU University in Germany conducted an intensive hydrographic and topographic survey training programme at the artificial Lac de Vassivière in France in October 2011.

The project lasted three weeks, during which the students were placed in real working conditions and had to face challenging situations, such as surveying in very shallow waters, poor GPS coverage, variable water column conditions depending on time of day and processing large volumes of data in a short period of time.

In order to assist the students with the processing and analysing of the data, CARIS, as part of its academic programme, provided each student with HIPS and SIPS and BASE Editor software.

The results were very impressive with submerged villages and old roads and bridges clearly visible, other infrastructures including the dam and outfalls could also be seen. A high-resolution map of the lake as well as a comprehensive report was provided to EDF and the lake authorities.

After the Second World War the valley around Vassivière, including several villages, was flooded to build a hydroelectric dam. Since then, regular hydrographic and topographic surveys are conducted of the lake in order to monitor the infrastructure of the dam.

As part of their studies to become Cat. A Hydrographers, the students were asked to plan and conduct both hydrographic and topographic surveys of the area, then process and analyse the data. Once complete, they reported their findings to the EDF (French electric power company) and the lake authorities, who are responsible for the management of the Vassivière Lake and dam.

Overall, the project was a great success, worth repeating in coming years.

*Image: Overview of the Vassivière Lake area with a bathymetric surface produced from the survey training project.*