

# Measuring Sediment Fluxes with H-ADCP



During floods that occurred in September 2013 in Germany, Dutch company Aqua Vision carried out stream flow and sediment flux measurements on the River Elbe. The campaign was carried out in close cooperation with the Hamburg Port Authority (HPA) and represents one part of a larger research project. The primary goal was to develop a permanent sediment flux monitoring station using horizontal ADCPs (H-ADCP).

Several further campaigns are planned in the coming months to monitor different flow conditions. Sediment fluxes have already been measured in close proximity to the H-ADCP currently in operation in The Port of Hamburg. This was realised with a combination of vessel mounted ADCP measurements and OBS turbidity data.

The resulting sediment flux data was validated with water samples taken with the Aqua Vision [Water Sampler](#) and the HPA developed Cux Sampler. The data was subsequently analysed and compared to data from the H-ADCP fixed monitoring station. The goal of this research project is the further development of a software package (ViSea-H PDT) to enable sediment flux measurements using an H-ADCP.