

## **Deliverable 6.3 Report on each workshop/event**

**Project title:** WaterS

**Funding Scheme:** IAPP

**Event name:** Second event in series “Joint seminars for inter-calibrations at multiple sites AERONET-OC - field campaign in Palgrundén, lake Vänern (1-10 August 2012), carried out SU,

**Event No (WP2, 3, 4; Milestone 3.1 Deliverable 4.1, 6.3):** 5

**Due Date according to Annex 1:** 31.05.2012

**Actual Delivery Date:** 05.05.2012

**Responsible partner and person:** SU (Annlies Hommersom (ER2), Susanne Kratzer)

**Participants and names:** Stockholm University Susanne Kratzer, Annelies Hommersom (ER2), Jose Beltran (ESR10), Tartu Observatory: Ilmar Ansko, Martin Ligi (ESR9), Brockmann Geomatics: Petra Philipson (ER1), National Research Council of Italy (CNR): Claudia Giardino, Monica Pepe, Mariano Bresciani, Bio-Optica, UK: Gerald Moore, Strömbeck Consult SE: Nicklas Strömbeck

### **Event description**

In the first week of August, SU, with seconded WI researchers organised a field campaign to the Aeronet-Ocean Colour station Pålgrundén in Lake Vänern, Sweden, on inter calibrations of radiometers. TO and BG (VPC) researchers and guest researchers from the Italy and UK and Sweden joined the campaign. These results were used for several outputs of the project, including report about lessons learned, manuscript of the scientific manuscript as well as for joint database.

**Programme of the fieldwork** (1-10 August 2012, including days for the travel):

**Field plans:**

Tuesday August 2: set up the lab/arrival of joining groups

Wednesday August 3: transect for MERIS validation

Thursday August 4: transects north and south for measuring in waters with higher concentrations

Friday August 5: measurements with small group in Vättern, a shallow and very turbid part of the lake

Saturday August 6: transect for MERIS validation

Sunday August 7: if we have had nice weather, no more field data will be collected, if it has been cloudy: stay and have a day off

Monday August 8: extra day for MERIS validation in case we have had bad weather.

Tuesday August 9: special day for the analyses and inter comparisons

a) Research programme contribution (WP2, T2.1; WP3, T3.1 )

Task 2.1 Exchange of know-how in the interpretation of optical signals from remote sensing platforms as well as in situ devices for the optically complex waters of lakes and Baltic Sea.

In the joint exercises team have got experience both on the sea and on the lakes. This campaign has been especially valuable as European remote sensing community in general lacks in situ and validation data over lakes. As data were immediately used for research publication, these results will have larger international impact.

Task 3.1 Characterization of aerosol properties and climatology over Baltic region, for further use in improved atmospheric correction (includes sites where we have AERONET-OC stations)

Collection of data of water quality parameters (Chl, TSM, CDOM) and well as above and in water radiometry, ancillary data for climatology, transect measurements around AERONET-OC data. Simultaneously with water sampling AERONET-OC measurements for water radiometry and aerosol parameters- these are saved in AERONET database.

b) Knowledge transfer programme contribution (link to WP2 T.2.2; WP3, M3.1, WP4, D4.1; D.6.3)

T2.2 Training of researchers of the two sectors in instrument development, in performing state-of art optical measurements and in data processing.

Researchers (4) and PhD students (2) from WaterS consortium worked together with 5 guest researchers from collaborating research and SME institutions. Program included both field and laboratory work and later data analyse.

D4.1 Lessons learned from optical system of new hand-held instruments

Joint work included traditional instruments for above and in-water radiometry used by the partners earlier – TriOS Ramses set and TACCS. The challenge was to use new water quality instrument (WISP-3) developed by WI, it has been inter-compared with well known radiometers. From the assessment, it can be stated that for the tested conditions, the WISP-3 can be used to obtain reflection spectra with accuracies in the same range as well known instruments, while it is easier to handle. Lessons by this and earlier field work in AAOT (July 2010) were collected and on the bases of analyse scientific paper submitted to the Journal of Applied Remote Sensing on 3 May 2012. Includes the acknowledgement ‘This project has been funded by EU FP7 PEOPLE project WaterS’ (see the details in D. 4.1 and D. 2.1).

M.3.1, Second event in series “Joint seminars for inter-calibrations at multiple sites AERONET-OC - field campaign in Palgrunden, lake Vänern