



### ANNOUNCE (1st ANNOUNCEMENT)

# THE SIXTH INTERCOMPARISON CAMPAIGN OF THE REGIONAL BREWER CALIBRATION CENTER-EUROPE (RBCC-E) IN A JOINT INTERCOMPARISON CAMPAIGN WITH THE REGIONAL DOBSON CALIBRATION CENTER-EUROPE (RDCC-E)

Will be held at "El Arenosillo" Atmospheric Sounding Station, INTA

(Huelva, Spain) 5-15 July 2011

Dear European and Northern Africa Brewer spectrophotometer user community,

This is an invitation to European Brewer experts and/or operators to participate in the sixth Regional Brewer Calibration Center for Europe (RBCC-E) intercomparison that will be held at El Arenosillo Atmospheric Sounding Station of the "Instituto Nacional de Técnica Aeroespacial" (INTA) during the period July 5-15, 2011.

This sixth campaign will be a joint exercise of the Regional Dobson Calibration Center for Europe (RDCC-E) and the Regional Brewer Calibration Center for Europe (RBCC-E) in collaboration with the "Area of Instrumentation and Atmospheric Research" of INTA, with the support of the Global Atmospheric Watch (GAW) program of the World Meteorological Organization (WMO) and a CEOS CALVAL project of the European Space Agency (ESA).

In November 2003, and within the GAW/WMO program, the Regional Brewer Calibration Centre for RA-VI Region (Europe) (RBCC-E) was established by Izaña Atmospheric Research Centre (I-ARC) at Izaña Observatory (IZO, Canary Islands), managed by the "Agencia Estatal de Meteorología" (AEMET, Spain). Technical and organization information of the RBCC-E can be obtained at <a href="https://www.rbcc-e.org">www.rbcc-e.org</a>.

At present the RBCC-E maintains a triad of reference instruments. The Regional Primary Reference Spectrophotometer (B157) and the Regional Travelling Reference Spectrophotometer (B185) are part of the triad. Each spectrophotometer is calibrated independently with the standard Langley method at IZO. These instruments are also regularly compared against the World Brewer Reference Triad (WRT) maintained by the Meteorological Service of Canada (MSC, Toronto) via the calibration service provided by the International Ozone Services (IOS). The IZO travelling reference (B185) is being transported to field calibration missions at different sites in Europe. The traveling reference (B017) operated by IOS experts will participate to this intercomparison. That will allow participants to order IOS for technical servicing on their instruments during the campaign. The action focuses on the calibration of Brewer spectrophotometers from southern and central Europe and North Africa.









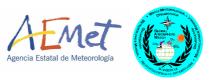
The Dobson campaign is organized by Regional Dobson Calibration Centre-Europe (WMO-RDCC-RA-VI) managed by the Meteorological Observatory Hohenpeissenberg (Germany) in cooperation with INTA. Four or five Dobson instruments, including the European Regional Standard D064, will take part in this campaign. During the first days, both calibration campaigns will be performed independently in parallel, while during the last days are reserved for the Dobson-Brewer comparison.

Additionally, the QASUME unit of the Physikalisch-Meteorologisches Observatorium Davos / World Radiation Center (PMOD /WRC) will participate and provide a global UV reference spectrum for the ultraviolet measurements.

# 6<sup>th</sup> RBCC-E Calibration Campaign, July 7-17, 2011

Date		Actions	Notes
Monday	4		It is possible to leave the instruments at the station on Monday 4
Tuesday	5	Installation	First set of measurements to assess the current state of the instruments
Wednesday	6	O3 Measurements	
Thursday	7	O3 Measurements	
Friday	8	O3Measurements / O3 Cal	
Saturday	9	O3 Measurements / O3 Cal	Servicing /Maintenance Works/ Characterization Test (Dispersion Test, Laser, etc.)
Sunday	10	O3/UV Measurements O3 Calibrations	
Monday	11	Measurements (UV)	Comparison with QASUME unit
Tuesday	12	Measurements (UV)	
Wednesday	13	Measurements (UV)	
Thursday	14	Brewer/Dobson	Brewer /Dobson measurements
Friday	15	Brewer/Dobson	







#### Schedule of the Intercomparison

The campaign is scheduled in three main phases:

- 1. Initial calibration to assess the current calibration of the instruments.
- 2. Servicing, adjustments and maintenance works characterization test of the instruments.
- 3. Final calibration. In this phase the 'UV' calibrations against the QASUME
- 4. Specific measurements for Brewer/Dobson comparison

The following operations are offered by the RBCC-E during the intercomparison:

- Ozone calibration against the RBCC-E traveling reference (B185)
- Compilation of the calibration histories of the instruments

The QASUME (Quality Assurance of Spectral Ultraviolet Measurements in Europe) unit from the PMOD-WRC will provide a UV calibration..

#### Participants Registration & Accommodation

The intercomparison take place at El Arenosillo Atmospheric Sounding Station (INTA) for accommodation details see Annex 1

The organizers can invite up to 7 instruments with up to two operators per instrument. All participants are requested to contact the campaign coordinators and fill the registration forms (Annex 2).

#### **Technical Requirements**

- The instruments should be operative, equipped with tripods and run by their usual operator.
- History of the instrument (AVG Files), last calibration and recent observations (B files)
  must be available at the intercomparison. Updated technical aspects can be checked
  through www.rbcc-e.org.

#### Funding for instruments maintenance

Traveling, instrument transportation and accommodation costs should be covered by the participants. Extra financial support for developing countries or countries with economies in transition may be available from WMO-GAW. In case of major repairs the participants must directly order the service and agree fees with the IOS Company.









#### **Contact information:**

Brewer Campaign coordinator: Local organizer:

Alberto Redondas Dr Jose Manuel Vilaplana

Meteorological State Agency - AEMET National Institute for Aerospace Technology

Izaña Atmospheric Research Center I-ARC

Atmospheric Research and Instrumentation Branch

Atmospheric Sounding Station "El Armospheric"

Atmospheric Sounding Station "El Arenosillo"

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Email: <u>aredondasm@aemet.es</u> Email: <u>vilaplanagjm@inta.es</u>

Dobson Campaign coordinator

Ulf Köhler Julian Gröebner

Deutscher Wetterdienst Meteorologisches
Observatorium Hohenpeissenberg
Physikalisch-Meteorologisches Observatorium
Davos, World Radiation Center (PMOD/WRC)

UV Campaign coordinator

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e-mail <u>ulf.koehler@dwd.de</u> e-mail: julian.groebner@pmodwrc.ch

#### Annex-1: Accommodation information:

The following hotels are in Mazagón (the nearest village to the "El Arenosillo" Atmospheric Sounding Station). Due to the high season and limited number of rooms in Hotel Albaida, we suggest to book your accommodation as soon as possible.

Our first recommendation is Hotel Albaida:

Albaida (\*\*\*) Telephone: +34.959376029/FAX: +34.959376108

E-mail: informacion@hotelalbaida.com

Double room for individual use: 62 €, breakfast + 1 meal included. From July 8<sup>th</sup> :72€ due to high season. There is a number of rooms booked for this campaign, so please, *do not forget to mention in subject of your booking mail "INTA Campaign"*Other available accommodations:

Parador de Mazagón (\*\*\*\*) Telephone: +34.959536300/FAX: +34.959536228

E-mail: mazagon@parador.es

Double room for individual use 144 €, double use 180 €

**Carabela Santa María** (\*\*\*) Telephone: +34.959536018/FAX: +34.959377258

Double room for individual use: 70 €, includes breakfast + one meal.

Hotel Mazagonia (\*\*\*\*) Telephone: +34.959377870. Info@mazagonia.es

Double room for individual use 115€, double use 175€, includes breakfast + one meal.

Hotel Solvasa (\*\*\*) Telephone: +34.959377879 mazagon@solvasa.com

Double room for individual use: 76 €, includes breakfast + one meal.

Hotel Martín Alonso Pizón (\*\*\*) Telephone: +34.959377825/35

Double room for individual use: 60 € (only bed), 84€ including breakfast + one meal.

http://www.hotelmartinalonsopinzon.com/index.php?option=com\_content&task=view&id=12&Itemid=27&lang=english

El Remo (apartments) Telephone: +34.959376020

Double room for individual use 66€ , includes breakfast + one meal. <u>http://www.complejoelremo.com/</u>

Hostal Hilaria. (Telephone: +34.959.37.62.06) Double: 55€, Individual: 36€.

Hostal Acuario: (Telephone: +34.959.377.286, Fax: +34.959377258 hostalacuario@turinet.net)

Studio apartments with kitchen: 2 people 55 €, 3 people 65 € and 4 people 75 €

Rooms with bathroom: single 35 €, 2 people 45 € and 3 people 55 €

Camping Doñana: (Telephone:. +34.959.53.62.81, Fax: +34.959.536313)

Brand wooden cabins with different housing capacity, with or without kitchen, prices from 65 €. For more information: <a href="http://www.campingdonana.com">http://www.campingdonana.com</a>

Please, contact Pilar Sanz (<u>sanzcp@inta.es</u>) for updated and accurate hotel information.

## Annex-2: Registration form:

Please, send the following registration form and Internet access request to <a href="mailto:sanzcp@inta.es">sanzcp@inta.es</a> and <a href="mailto:vilaplanagim@inta.es">vilaplanagim@inta.es</a> before 1st June.

## INFORMATION FROM CAMPAING ASSITANT

Identification Data	
Name and Surname:	
DNI / Passport Number:	
Institution:	
Department:	
Phone number:	
Fax number:	
e-mail:	
Assistance period	
arrival date:	
departure date:	
Instrument Information	
Number of instruments:	
Manufacturer:	
Type:	
Model:	
Serial Number:	
Power needs:	
Additional information	
Number of laptop or PC:	
Wireless available?	
Especial power supply needs:	
Other needs:	

## **INTERNET ACCESS**

Datos identificativos:/identification data:				
Nombre y apellidos:/Name and Surname:				
DNI/PASSPORT NUMBER:				
TELÉFONO:/PHONE NUMBER:				
E-MAIL:				
LOGIN:				
PASSWORD:				
ASISTIRÁ A:/WILL ATTEND: CAMPAING ARENOSILLO 2011				
Doy mi autorización para que se lleven a cabo las medidas de control que considere oportunas el comité de Seguridad Informática del INTA sobre toda la información que utilice soporte o tratamiento informático.				
I authorize the Security Committee of INTA to take all control measures they need over the information contained or processed by technology information systems.				
Firma solicitante:/User signature:	V° B° Jefe Dependencia			
Firmado: /Signed:	Firmado:			