

**THE PRESIDENT OF THE METEOROLOGICAL STATE AGENCY OF SPAIN
(AEMET)**

AND

**THE GENERAL DIRECTOR OF THE
NATIONAL INSTITUTE FOR AEROSPACE TECHNOLOGY
(INTA, SPAIN)**

ANNOUNCE (1st ANNOUNCEMENT)

**THE XII INTERCOMPARISON CAMPAIGN OF THE REGIONAL BREWER
CALIBRATION CENTER-EUROPE**

&

COST ACTION ES1207 EUBREWNET CAMPAIGN

ATMOZ (Traceability of Atmospheric Total Ozone) Field demonstration campaign

Will be held at “El Arenosillo” Atmospheric Sounding Station, INTA

(Huelva, Spain) May 29 – June 07, 2017

Dear Brewer spectrophotometer user community,

This is an invitation to Brewer experts and/or operators to participate in the COST ACTION ES1207 European Brewer Network (EUBREWNET) campaign/ XII 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 29 of May to 7 of June, 2017.

This campaign is part of the EUBREWNET ES1207 COST Action and is organized in collaboration with the “Area of Instrumentation and Atmospheric Research Area” of INTA, with the support of the Global Atmospheric Watch (GAW) program of the World Meteorological Organization (WMO). This campaign will be used as demonstration campaign of the calibration methodologies and error assessment developed by the EMRP ATMOZ project (Traceability of Atmospheric Total Ozone).

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 <http://rbcce.aemet.es>.

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. Until now the IZO Triad has been linked to the EC-MSC Word Reference Triad by yearly calibrations towards the International Ozone Services (IOS) travelling reference Brewer 017. Recently however as a result of doubts about the support of the world triad by (EC-MSC), the WMO SAG authorized (at the meeting of 2011) that the RBCC-E transfers its own calibration based on Langley at Izaña Station.

The traveling references B017 operated by IOS experts and the B158 operated by Kipp & Zonen will participate to this intercomparison. That will allow participants to order Kipp & Zonen or IOS or for technical servicing on their instruments during the campaign.

The action focuses on the calibration of Brewer spectrophotometers from Europe and North Africa. The RBCC-E will provide ozone and Aerosol Optical Depth (AOD) calibration against the RBCC-E reference, whereas the QASUME unit of the Physikalisch-Meteorologisches Observatorium Davos / World Radiation Center (PMOD /WRC) will provide a global UV reference spectrum for the ultraviolet measurements.

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

XII RBCC-E Calibration Campaign, May 29- June 07, 2017

Date		Actions	Notes
Monday	29	Installation	
Tuesday	30	O3 Measurements	BLIND DAYS First set of measurements to assess the current state of the instruments
Wednesday	31	O3 Measurements	
Thursday	1	O3 Measurements / O3 Services	SERVICING DAYS Servicing /Maintenance Works/ Characterization (Dispersion Test)
Friday	2	O3 Measurements / O3 Services	
Saturday	3	O3 Measurements / O3 Services	
Sunday	4	O3/UV Measurements O3 Services	ATMOZ field campaign
Monday	5	O3 Measurements/ UV	
Tuesday	6	O3 Measurements/ UV	FINAL OZONE DAYS UV Comparison with QASUME unit
Wednesday	7	O3 Measurements /UV	
Thursday	8	O3 Measurements /UV	
Friday	9	Packing	

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
- Aerosol Optical Depth Calibration for DS measurements.

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

Accommodation details “El Arenosillo” Atmospheric Sounding Station (INTA)) see Annex 1.

Participants Registration

The organizers can invite up to 20 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 tracker and tripods and preferably running 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. Financial support for participants may be available from WMO.

Extra financial support for developing countries or countries with economies in transition may be available from WMO-GAW. In case of major repairs of the instruments the participants must directly order the service and agree fees with the Kipp & Zonen or IOS Company.

Contact information:

Brewer Campaign coordinator:

Alberto Redondas

Meteorological State Agency -AEMET

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Local organizer:

Dr Jose Manuel Vilaplana

National Institute for Aerospace Technology

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"El Arenosillo" Atmospheric Sounding Station

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Members of the Organizing Committee

Dr. Emilio Cuevas (ecuevasa@aemet.es) Izaña Atmospheric Research Center, Director (AEMET)

Dra. Margarita Yela González (yelam@inta.es) Atmospheric Research and Instrumentation Area, Head (INTA)

Miguel Ángel López González

The Meteorological State Agency of Spain

President

Ignacio Azqueta Ortiz

National Institute for Aerospace Technology

General Director

Annex-1: Accommodation information:

The following hotels are in Mazagón (the nearest village to INTA / El Arenosillo) and they offer a special price for INTA.

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

E-mail: informacion@hotelalbaida.com

Double room for individual use: 65.97 €, breakfast + 1 meal included.

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

Double room for individual use: 65 € including breakfast + one meal.

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

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

Double room for individual use 65€, including breakfast.

Double room for individual use 81€, including breakfast + one meal.

There is a number of rooms booked for this campaign, so please, when booking, do not forget to mention in the subject of your e-mail “**INTA Campaign**”

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

Annex-2: Registration form:

Please, send the following registration form and Internet access request to sanzcp@inta.es and vilaplanagjm@inta.es before 15st April.

INFORMATION FROM CAMPAIGN ASSISTANT

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

<i>Datos identificativos:/identification data:</i>	
Nombre y apellidos:/Name and Surname:	
DNI/PASSPORT NUMBER:	
TELÉFONO:/PHONE NUMBER:	
E-MAIL:	
LOGIN:	
PASSWORD:	
ASISTIRÁ A:/WILL ATTEND: CAMPAIGN EI ARENOSILLO 2017	
<p>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.</p> <p>I authorize the Security Committee of INTA to take all control measures they need over the information contained or processed by technology information systems.</p>	
Firma solicitante:/User signature:	V° B° Jefe Dependencia
Firmado: /Signed:	Firmado: