Brewer Ozone Spectrophotometer/Metrology Open Workshop

COST ACTION ES1207 EUROPEAN BREWER NETWORK (EUBREWNET)
EMRP TRACEABILITY FOR ATMOSPHERIC TOTAL COLUMN OZONE (ATMOZ)
15th BIENNIAL WMO-GAW BREWER USERS GROUP MEETING
IPMA, Ponta Delgada, Sao Miguel, Azores, Portugal 17th to 20th May 2016

Agenda

Tuesday 17th May – ATMOZ

09.00 Welcome to the Azores, *Diamantino Henriques*

09.10 Introduction to the program, *John Rimmer*

09.20 Introduction to EMRP-ENV59: ATMOZ *Julian Gröbner*

Characterization:

09.30 Bandpass and wavelength characterization of Dobsons reference instruments, *Saulius Nevas*

09.50 Out-of-range stray light and NiSO4 filter characterization of single-monochromator Brewers, *Tomi Pulli*

10.10 Measurements for improved ozone absorption cross-sections, *Victor Gorshelev (presented by Mark Weber)*

10.30 **Coffee**

11.00 Wavelength characterisation of Brewer determined in the laboratory, *Alberto Redondas*

11.20 Temperature characterisation of Brewer determined in the laboratory, *Alberto Berjon*

Devices:

11.40 UV-LED light source for tracking stability, *Meelis-Mait Sildoja*

12.00 The portable tuneable radiation source TuPS, *Marek Smid*

12.20 **Lunch**

Devices (cont.):

14.20 A new UV spectroradiometer for direct irradiance: UV-PSR, *Natalia Kouremeti*

14.40 Total ozone measurements with Phaethon and comparison to Brewer data, *Alkis Bais*

15.00 Ozone retrieval and the corresponding uncertainties with the Pandora instrument, *Alberto Redondas*

15.20 **Coffee**

<u>Uncertainty budget:</u>

15.50 Uncertainty analysis of current ozone absorption cross sections and their impact on total ozone retrieval, *Mark Weber*

16.10 A simulation-tool to model ozone retrieval uncertainties of Brewer and Dobsons instruments, *Luca Egli*

16.30 Model for simulating uncertainties of TOC from multispectral measurements, *Petri Kärhä*

16.50 Final discussions and close.

Wednesday 18th May - EUBREWNET

09.00 Brewer direct irradiance measurements: polarization effects and model simulation, *V Carreño*

09.15 Dead time effect on the Brewer measurements, *Illias Fountoulakis*

09.30 Ozone calibration during the 10th intercomparison RBCC-E, *A Redondas*

0945 RBCC-E triad, *S Leon*

10.00 **Coffee**

10.30 Temperature dependence of the Brewer global and direct spectral UV measurements, *Illias Fountoulakis*

10.45 NDACC Brewer-Dobson Working group representative for Brewers, *Volodya Savastiouk*

11.00 An update from IOS on our understanding of the Brewers and software developments, *Volodya Savastiouk*

11.15 Ozone, UV and aerosol optical depth derived from Brewer spectrophotometer observations at Princess Elisabeth Station, East Antarctica, *A. Mangold*

11.30 Cosine correction of Brewer UV measurements, *Antti Arola*

11.45 Evaluation of Umkehr measurements from a single Brewer operating in Thessaloniki, *K. Fragkos*

12.00 **Lunch**

14.00 27 years of Brewer total ozone column measurements in Sodankylä, *Tomi Karppinen*

14.15 zs measurement according to ds measurement using regression model, *Mithat Ekici*

14.30 An updated zenith sky retrieval algorithm, *Henri Diemoz*

14.45   OMI O3 Validation update, *S Lopez*

15.00   IASI Validation, *Niobe Peinando*

15.15   Eubrewnet product comparison, *A Redondas*

15.30   **Coffee**

16.00   Eubrewnet Web, *B Hernandez*

16.15   AOD, *S Lopez*

16.30   Aerosol optical depth in ultraviolet spectral range and total column ozone determined from the Brewer spectrophotometer measurements in relation to UV-index variability in Poprad-Gánovce, Slovakia, *Anna Pribullová, Oliver Mišaga*

16.45   Calibrating Brewers for AOD using the UV-PFR as reference, *Tomas Carlund*

17.00   Detecting volcanic sulfur plumes in the Northern Hemisphere using the Brewer network together with ground based and satellite observations, *K. Eleftheratos*

17.15   **Close**

Poster   TOTAL OZONE COLUMN AND UVI SERIES AT ITALIAN BREWER STATIONS (ROME AND AOSTA), *Anna Maria Siani*

Thursday 19th May – Database

9:00   **T**he ideas behind Integrated Data Evaluation and Analysis System, *Volodya Savastiouk*

09.20   Ozone product, *Alberto Redondas*

09.40   Configuration Interface**, *Bentorey Hernández***

10.00   Python Processing library update**, *Alberto Berjon***

10.20   QA/QC**, *Bentorey Hernández***

10:35   **Coffee**

11.00   UV processing**, *Kaisa Lakala* (presented by *Sergio Leon)***

11.20   UV configuration**, *Sergio Leon***

11.40   AOD configuration**, *Javier Lopez***

12.00   **Lunch**

14.00   Hands on Satellite validation using matlab/octave, *Javier Lopez*

15:00   Hands on QA/QC, *Bentorey Hernández*

16.00   Coffee

16:30   Hands on Brewer temperature dependence : Eubrewnet Using R / Python
Alberto Berjon

17:30   Hands on UV processing**, *Sergio Leon***

18.30   Close

Friday 20th May – MC meeting

10.00:

- Update from Chair, *John Rimmer*
- Review minutes Tenerife DB meeting March, *Alberto Redondas*
- Review of WBP for GP4, *John Rimmer*
- Quadrennial Ozone Symposium, *Discussion All*
- Publication of Booklet for QOS, *Alkis Bais*
- Extension of Action for RBCC-E 2017, *John Rimmer*
- Eubrewnet Reference publication, *Discussion All*
- Positive plan to produce SOP, *Discussion All*
- Measurement Matrix enquiry (doc to be circulated)
- AOB.