

Dear Eubrewnet user,

As you know, Eubrewnet's data server can now produce GEOMS HDF files (see [http://rbcce.aemet.es/dokuwiki/doku.php?id=codes:ozoneproduct#geoms\\_hdf\\_files](http://rbcce.aemet.es/dokuwiki/doku.php?id=codes:ozoneproduct#geoms_hdf_files)). These are quite simple files, in which the two main time-dependent variables are

- 1) O3.COLUMN\_ABSORPTION.SOLAR (depending on the user input, we store here the level 1.5 or 2.0 ozone product from the Direct Sun measurements)
- 2) O3.COLUMN\_ABSORPTION.SOLAR\_UNCERTAINTY.COMBINED.STANDARD (in this variable we store the standard deviation)

Although this data structure does not follow any of the GEOMS templates listed at <https://avdc.gsfc.nasa.gov/index.php?site=1925698559>, it is perfectly valid. In particular, any file generated in Eubrewnet should pass the AVDC GEOMS QA Checker available at <https://avdc.gsfc.nasa.gov/index.php?site=1473794367>.

However, this simple data structure will have to change soon, because we are working on the determination of systematic, random, and combined uncertainties of the ozone data, and furthermore in the near future we also expect to provide a Zenith Sky ozone product in Eubrewnet.

We have now the opportunity to follow one of the GEOMS templates, and there are two main options:

- 1) Follow the Dobson template: all the ozone data will be stored in a single time-dependent variable (O3.COLUMN\_ABSORPTION), and the type of measurement will be stored using a code provided by the WOUDC in another time-dependent variable (O3.COLUMN\_ABSORPTION\_OBSERVATION.CODE).
- 2) Follow the Pandora/DOAS template: the ozone data will be stored in separate variables depending on the type of measurement, so the file would have variables such as O3.COLUMN\_ABSORPTION.SOLAR for the Direct Sun measurements, and O3.COLUMN\_ABSORPTION.ZENITH for the Zenith Sky ones.

Regardless of the option, we would store 4 different uncertainties in so many variables: the standard deviation (as we're doing right now), and the aforementioned systematic, random, and combined uncertainties. We would also like to store other variables used in the determination of the ozone data, such as the effective ozone layer height and effective temperature.

At

[https://docs.google.com/spreadsheets/d/1YRMpqDm8NZoOIB6ZGR5V\\_WPZ44afI0TPwM5yR0\\_woDU/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1YRMpqDm8NZoOIB6ZGR5V_WPZ44afI0TPwM5yR0_woDU/edit?usp=sharing)

you can find a spreadsheet with the current Dobson ("GEOMS-TE-UVVIS-DOBSON-TOTALCOL-001" tab) and Pandora ("GEOMS-TE-PANDORA-DIRECTSUN-GAS-002" tab) templates, as well as two templates proposed by A. Redondas for the Brewer: one which is closer to the Dobson

("Brewer\_Dobson\_type" tab) and another which is closer to the Pandora ("Brewer\_Pandora\_type" tab).

Although the decision we take now can be changed in the future, we would really appreciate it if you could take a few minutes to look at the different options and give us your opinion.