EDUCE- flagging report for spectral data from Potsdam, Germany

Authors/evaluators: JE Williams, PN den Outer and H Slaper (RIVM) <u>FP14a : Flagging results for Potsdam, Germany:</u>

Measurements details :

Location : Potsdam, Germany Elevation (m) : 107 Instrument name : Brewer#030 Instrument type : SCI-TECH MKII Wavelength range (nm) : 290-325 Lat, Long : 52.3633, 13.0767 Date on which data was extracted : 21.10.02 (*1995*), 28.11.02(*1997*) Date on which slit function was extracted/received : 20.11.02 Years of submitted data : 1 complete, 1 sparse No spectra (per year) : 6661 (*1995*), 726 (*1997*) No spectra (total submitted) : 7387 Slit width (FWHM) (nm) : 0.53 SHIC version for analysis : 3 093

Special comments : Essentially there is only one year of continuous measurements with this instrument. However, more data from this instrument is available but has yet to appear online (with the last check being on 03.01.03).

Responsible operator/PI: Uwe Feister : uwe.feister@dwd.de

Operator comments : The operator has noted that the datasets for between June 1997 and October 1998, as well as for 1999 and 2001, which should be readily available, have yet to be uploaded at the website.



	Green	Yellow	Red	Black	Grey	Cor.	Green	Yellow	Red	Black	Grey	Cor.	Num
flag	%	%	%	%	%	%					-		
Shift1_flagging	94.6	0	0	0	5.4	0	5309	2	0	0	304	0	5615
start_irradiance_flag	98.2	1.8	0	0	0	0	5512	100	2	1	0	0	5615
Spike+local_shape	93.4	5.9	0.5	0.1	0	0.1	5248	334	29	3	1	5	5620

Comments :

Full annual coverage (approximately 97%): excellent potential for use in climatological studies.

Overall data-quality impression : a useful fraction of potential high quality spectra.

A small number of black flags exist in some of the chosen flagging categories (with red flags < 0.5%).

The shift1 flag indicates that the instrument is relatively well calibrated in the UVB region of the spectrum compared to an extra-terrestial solar spectrum, with 5.4% of spectra having grey flags.

5(0.1%) spectra with spikes are reported.

The distribution of errors is relatively uniform throughout the year, although more red and black flags occur during the summer.



	Green	Yellow	Red	Black	Grey	Cor.	Green	Yellow	Red	Black	Grey	Cor.	Num
flag	%	%	%	%	%	%							
Shift1_flagging	72.4	0.2	0	0	27.4	0	431	1	0	0	163	0	595
start_irradiance_flag	96.8	3.2	0	0	0	0	576	19	0	0	0	0	595
Spike+local_shape	89.9	7.7	1.8	0.2	0.2	0.2	536	46	11	1	1	1	596

Comments :

Low annual coverage (approximately 15%): limited potential for use in climatological studies.

Overall data-quality impression : a significant part of the database is of questionable quality, with 27.4% having undefined errors for the shift1 flag..

One black flag occurs in the spike + local shape flagging categories (with red flags < 2.0%).

The shift1 flag indicates that the instrument has some undefined calibration errors in the UVB region of the spectrum compared to an extra-terrestial solar spectrum.

1 (0.2%) spectrum with a spike is reported.

The distribution of errors is fairly uniform throughout the dataset, with yellow and grey flags occurring on all days for which measurements were performed.