EDUCE- flagging report for spectral data from Briancon, France

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FP27a : Flagging results for Braincon, France:

Measurements details :

Location : Briacon, France
Elevation (m) : 1300
Instrument name : Spectroradiometer UV02
Instrument type : Jobin Yvon H10D
Wavelength range (nm) : 280-450
Lat, Long : 44.9, 6.65
Date on which data was extracted : 28.11.02 (*1999, 2000*), 25.01.03 (*2001, 2002*)
Date on which slit function was extracted/received : 17.10.02
Years of submitted data : 4 incomplete
No spectra (per year): 1559 (*1999*), 4055 (*2000*), 1347 (*2001*), 4465 (*2002*)
No spectra (total submitted): 5514
Slit width (FWHM) (nm): 0.71
SHIC version for analysis: 3_093

Special comments: Some datasets have a high incidence of both critical and unidentified errors associated with the calibration of the instrument in both the UVA and UVB regions of the spectrum. No annual coverage available for any of the datasets available from this site.

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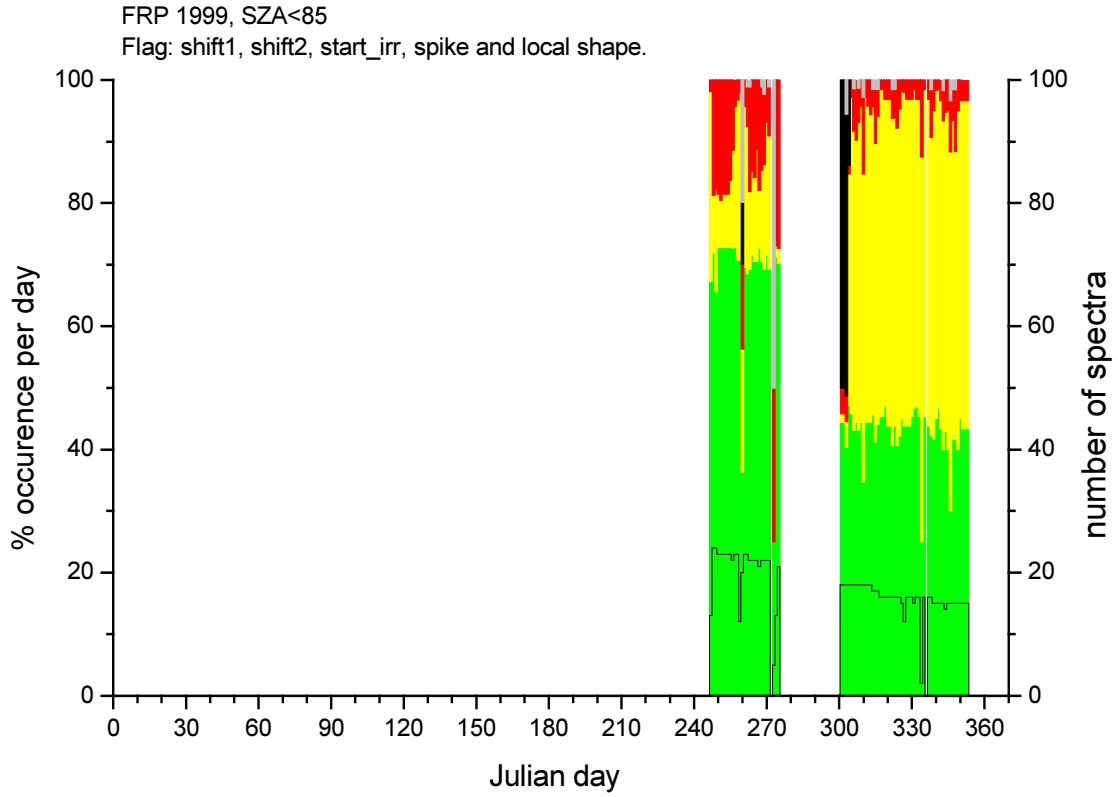
Operator comments: The data is to be corrected and resubmitted in the near future. The operator also states that the quality of the later datasets is better due to improvements which were made to the instrument.

Tables of flagging statistics:

1999:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	2.5	73.5	17.5	4	2.6	0	35	1033	246	56	36	0	1406
Shift2_flagging	37.5	54.9	2.5	4.2	0.9	0	527	772	35	59	13	0	1406
start_irradiance_flag	99.4	0	0.1	0.6	0	0	1397	0	1	8	0	0	1406
Spike+local_shape	76	9.8	12.9	0	0.1	1.1	1081	140	183	0	2	16	1422
Transmission_2	99.2	0.6	0.2	0	0	0	1395	8	3	0	0	0	1406

Comments :

Limited annual coverage (approximately 30%) : some potential for use in climatological studies.

Overall data quality impression : a significant part of the spectra is of questionable quality, with 21.5% of poor quality and 2.6% having undefined errors for the Shift1 category.

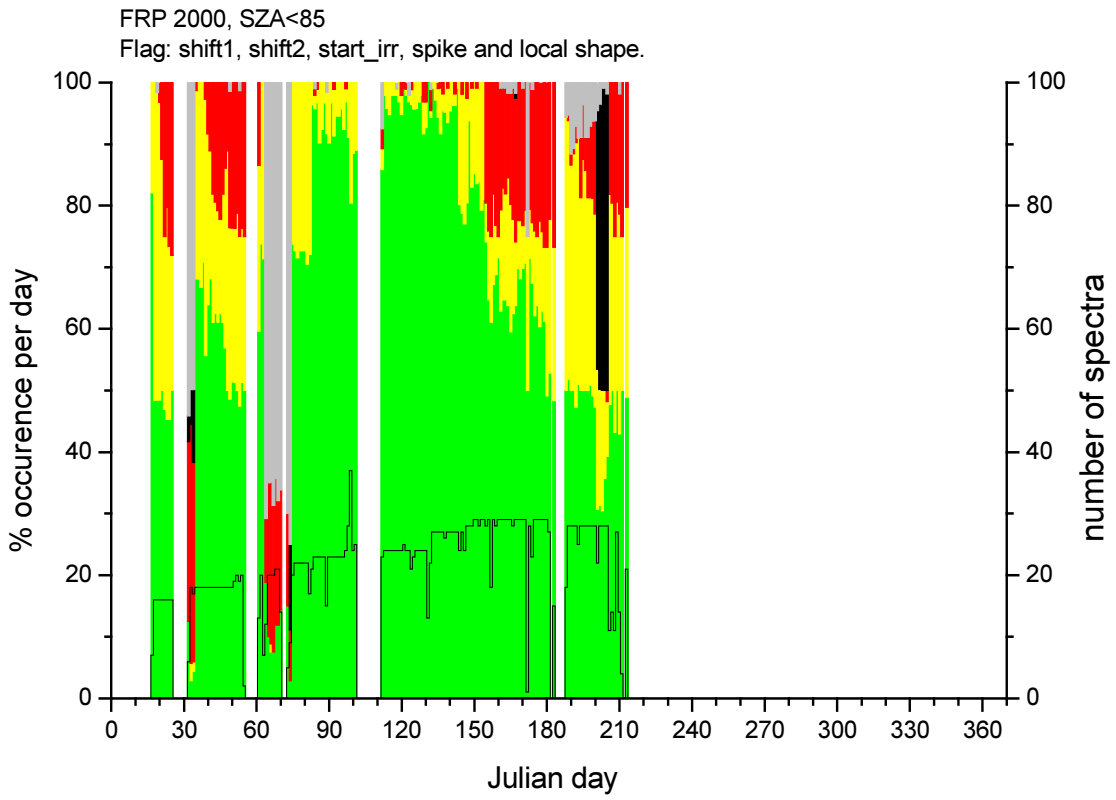
Black flags occur in the some of the flagging categories (with red flags < 18%). The precentage yellow flags is 73.5% and 54.9% for the shift1 and shift2 flags, respectively.

The shift1 and shift2 flags indicate that the instrument some crtitical and undefined calibration errors in the both the UVA and UVB regions of the spectrum for a large fraction of the measurements in this dataset compared to an extra-terrestial solar spectrum.

16 (1.1%) spectrum with spikes are reported.

The distribution of errors is non uniform throughout the dataset, with the incidence of green flags decreasing significantly for the second part of the dataset (between Julian days 300 – 355).

2000:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	53.3	24.1	10.5	3.2	8.7	0	2008	909	397	122	329	0	3765
Shift2_flagging	54.9	18.8	17.9	3.5	4.9	0	2067	706	675	131	186	0	3765
start_irradiance_flag	96.4	0.5	1	0.5	1.7	0	3629	17	38	18	63	0	3765
Spike+local_shape	69.7	19.1	5.6	0	0.9	4.7	2752	754	221	1	37	185	3950
Transmission_2	98.4	1.1	0.4	0	0.2	0	3705	40	14	0	6	0	3765

Comments :

Moderate annual coverage (approximately 50%): medium potential for use in climatological studies.

Overall data quality impression : a significant part of the spectra is of questionable quality, with 21.4% of poor quality and 4.9% having undefined errors for the Shift1 category.

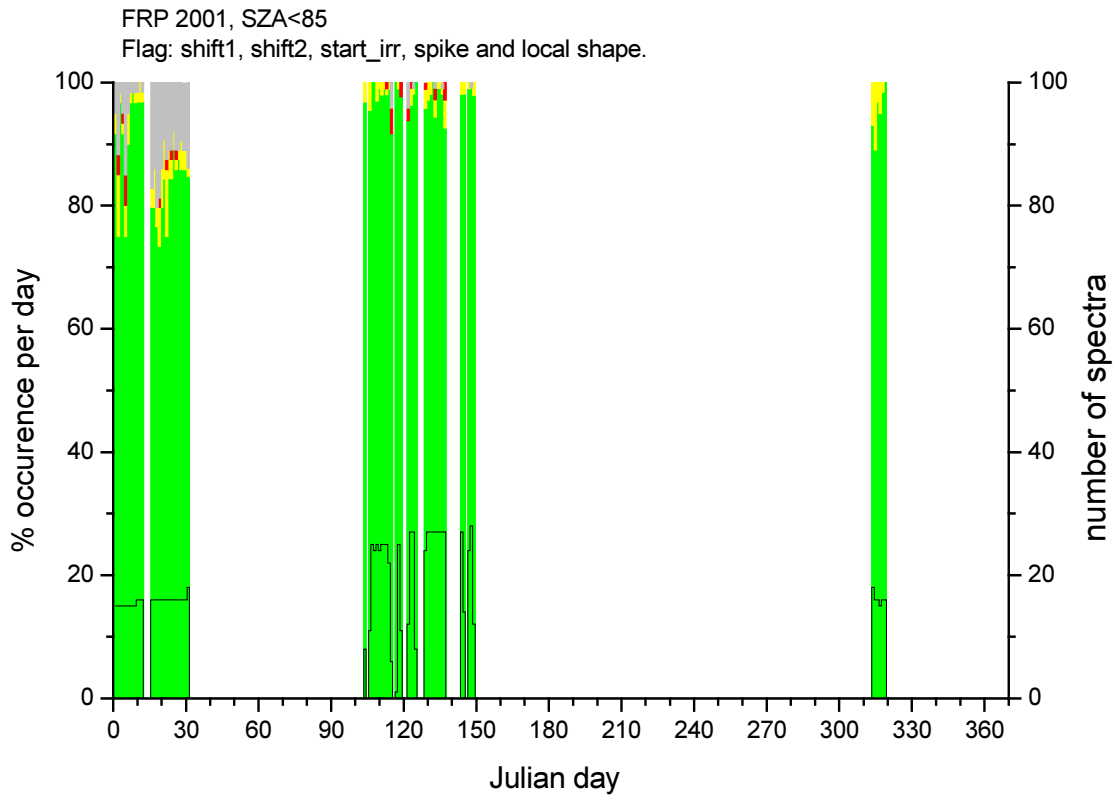
A few black flags occur in the some of the flagging categories (with red flags < 3%). The percentage grey flags is nearly 50% for the Shift1 category indicating calibration errors.

The shift1 and shift2 flags indicate that the instrument some crtitical and undefined calibration errors in the both the UVA and UVB regions of the spectrum for a large fraction of the measurements in this dataset compared to an extra-terrestial solar spectrum.

185 (4.7%) spectra with spikes are reported.

The distribution of errors is non uniform throughout the dataset, with the periods between Julian days 62 –72 and 185 – 213 having a low incidence of green flags suggesting that the performance of the instrument is variable throughout the dataset.

2001:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	86.1	0	0	0	13.9	0	1045	0	0	0	169	0	1214
Shift2_flagging	100	0	0	0	0	0	1214	0	0	0	0	0	1214
start_irradiance_flag	99.9	0.1	0	0	0	0	1213	1	0	0	0	0	1214
Spike+local_shape	87.9	10.2	1.7	0	0	0.2	1069	124	21	0	0	2	1216
Transmission_2	95	4.9	0.1	0	0	0	1153	60	1	0	0	0	1214

Comments :

Low annual coverage (approximately 20%): limited potential for use in climatological studies.

Overall data quality impression: a fraction of the spectra is of questionable quality, with 13.9% having undefined errors for the Shift1 category.

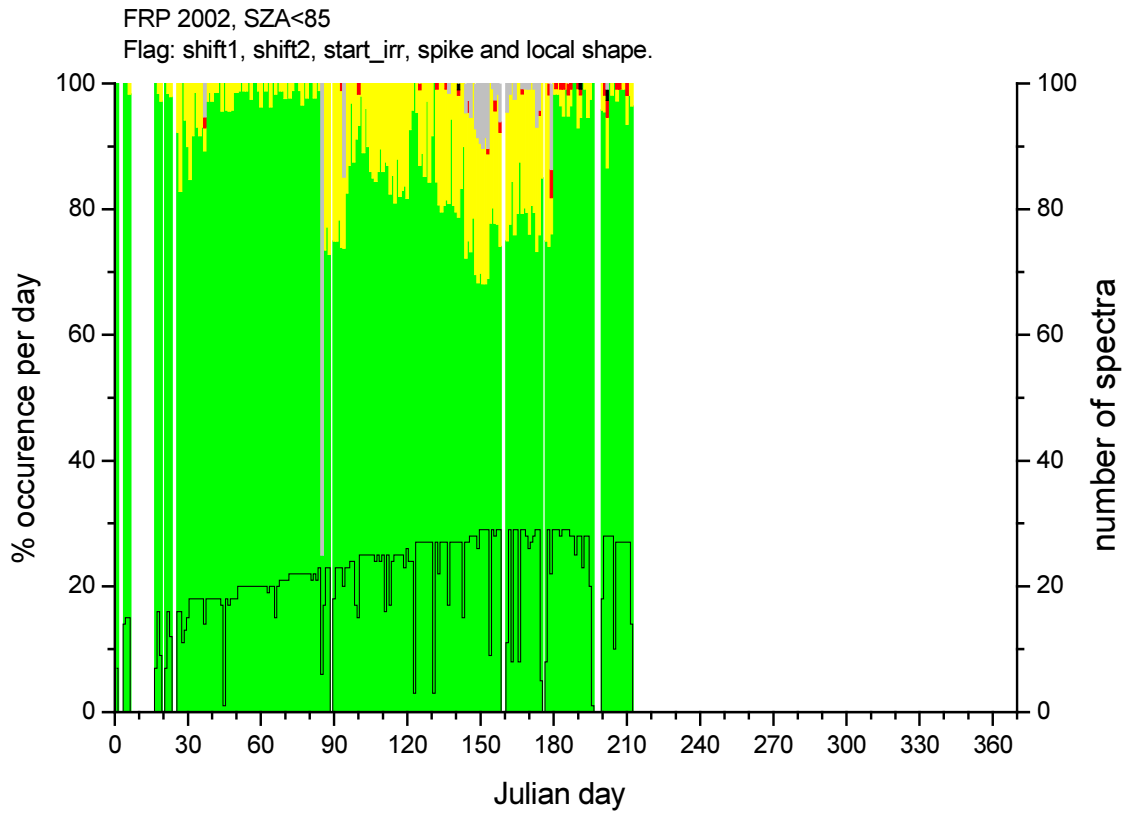
No black flags occur in any of the flagging categories (with red flags < 2%). The percentage green flag is 100% for the Shift2 flagging category.

The shift1 flags indicates that the instrument has some undefined calibration errors in the UVB region of the spectrum, whilst for the UVA it is well calibrated, compared to an extra-terrestial solar spectrum. The instrument performance is better than the previous years.

2 (0.2%) spectra with spikes are reported.

The distribution of errors is non uniform throughout the dataset, with most grey flags occuring between Julian days 1 –30. For the second measurement period (between Julian days 102 –150) fewer flags occur suggesting some that the instrument has been re-calibrated during the interstitial period.

2002:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.6	0	0	0	0.4	0	4096	0	0	0	16	0	4112
Shift2_flagging	96.8	0	0	0	3.2	0	3982	0	0	0	130	0	4112
start_irradiance_flag	99.5	0.3	0.1	0.1	0	0	4091	13	4	4	0	0	4112
Spike+local_shape	60.4	38.4	0.9	0	0.4	0	2483	1579	35	0	15	0	4112
Transmission_2	89.9	9.6	0.1	0	0.4	0	3697	394	6	0	15	0	4112

Comments :

Moderate annual coverage (approximately 60%): medium potential for use in climatological studies.

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

A few black flags occur in the start irradience flagging category (with red flags < 1%). The percentage yellow flag is approximately 40% for the spike and local shape flag.

The shift1 and shift2 flags indicate that the instrument is well calibrated in both the UVA and UVB regions of the spectrum compared to an extra-terrestial solar spectrum. A significant improvement compared to all the previous years datasets.

No spectra with spikes are reported.

The distribution of errors is non uniform throughout the dataset, with most yellow flags occuring between Julian days 90 –180, after which there is a much higher incidence of green flags.