EDUCE- flagging report for spectral data from Lampedusa, Italy

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FP16 : Flagging results for Lampedusa, Italy:

Measurements details :

Location : Lampedusa, Italy
Elevation (m) : 50
Instrument name : Brewer #123
Instrument type : Brewer MKIII
Wavelength range (nm) : 286.5-363
Lat, Long : 35.5, 12.6
Date on which data was extracted : 21.10.02 (*1998, 1999*, *2000, 2001)*, 03.12.02 (*2002*)
Date on which slit function was extracted/received : 17.10.02
Years of submitted data : 5 incomplete
No spectra (per year) : 597 (*1998*), 1226 (*1999*), 1134 (*2000*), 269 (*2001*), 544 (*2002*)
No spectra (total submitted) : 3770
Slit width (FWHM) (nm) : 0.528
SHIC version for analysis : 3_093

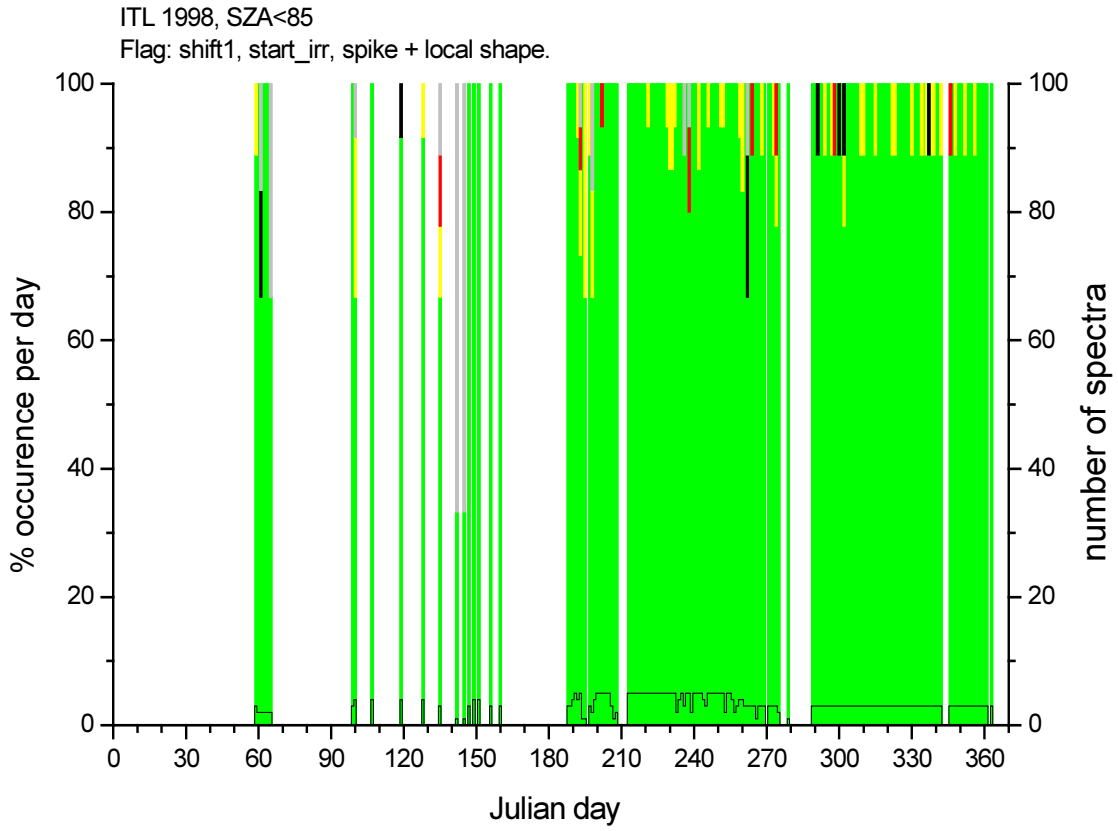
Special comments: In general, between 3-5 measurements are made over the entire day, mostly between sunrise and the zenith, meaning that, although annual coverage is high for some datasets the total number of spectra is still rather small compared to other locations.

Responsible operator/PI : Alcide di Sarra : disarra@casaccia.enea.it

Operator comments: There are potentially relatively large errors concerned with the irradience scale of the 1998 and early 1999 data. The operator is currently re-evaluating the history of the irradience calibration and will resubmit the data in the near future.

Tables of flagging statistics:

1998 :



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	98.2	0	0	0	1.8	0	586	0	0	0	11	0	597
start_irradiance_flag	96.8	1.7	0.7	0.8	0	0	578	10	4	5	0	0	597
Spike+local_shape	87.8	5.9	0.8	0.5	0.5	4.5	549	37	5	3	3	28	625

Comments :

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

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

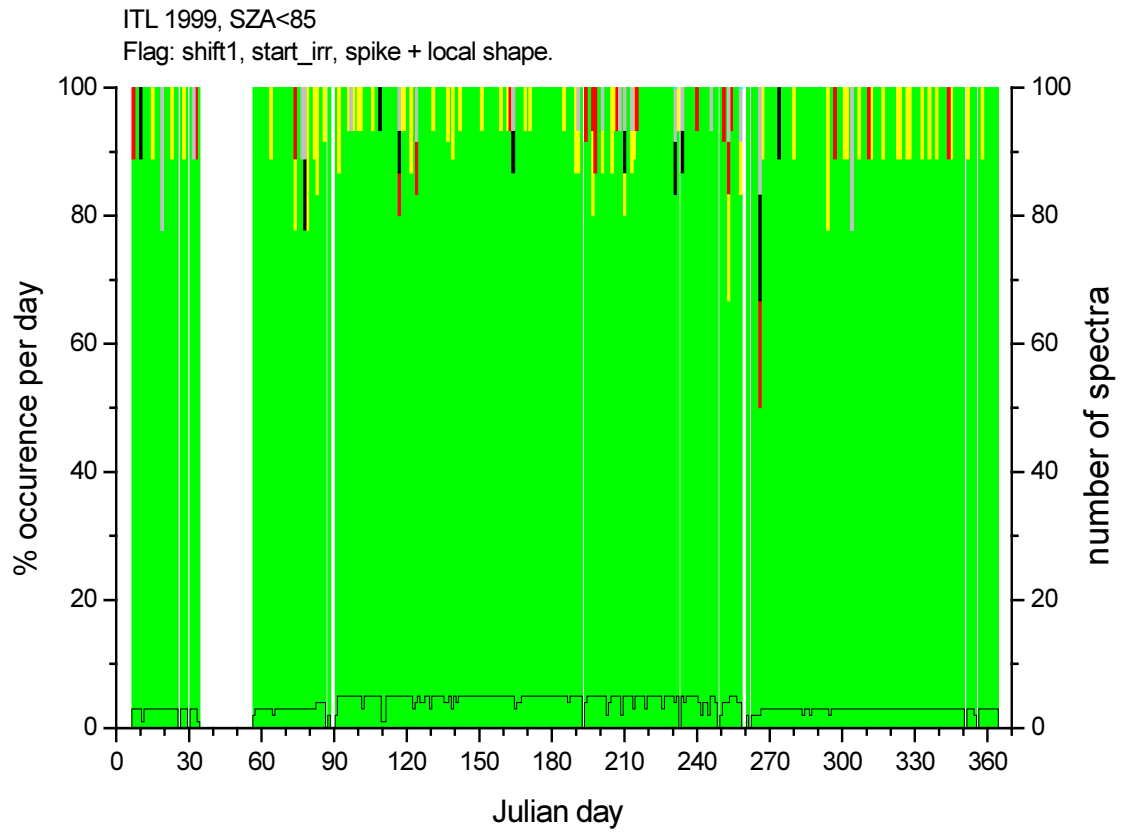
Black flags occur in most of the chosen flagging categories (with red flags < 1%). The percentage grey flags is 1.8% for the Shift1 category.

The shift1 flag indicates that the instrument is well calibrated in the UVB region of the spectrum compared to an extra-terrestial solar spectrum.

28 (4.5%) spectra with spikes are reported.

The distribution of errors is fairly uniform throughout the dataset, where only a few red and black flags occur throughout the dataset.

1999 :



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	98.3	0	0	0	1.7	0	1202	0	0	0	21	0	1223
start_irradiance_flag	98.4	0.4	0.5	0.7	0	0	1204	5	6	8	0	0	1223
Spike+local_shape	91.2	4.9	1.1	0.2	0.1	2.5	1144	62	14	2	1	32	1255

Comments :

High annual coverage (approximately 90%) : high potential for use in climatological studies.

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

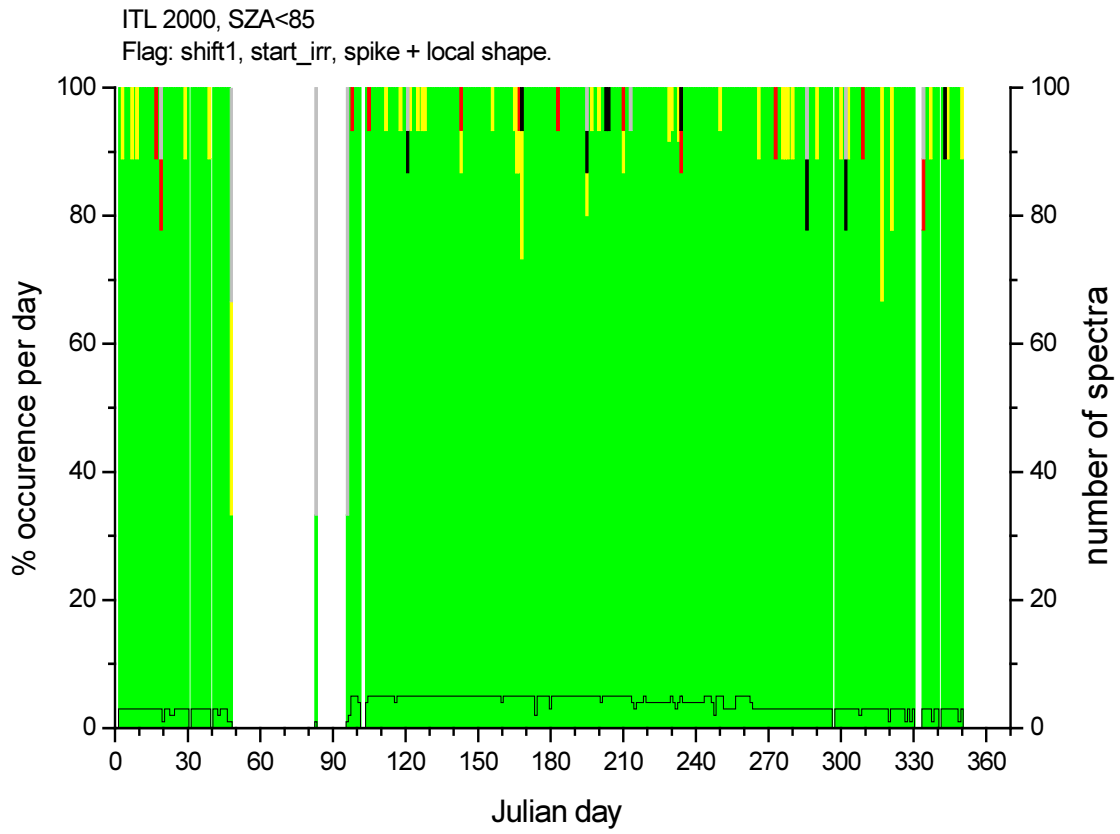
A few black flags occur for both the start_irradience and spike + local shape flagging categories (with red flags < 1.5%). The percentage grey flags is 1.7% for the Shift1 category.

The shift1 flag indicates that the instrument is well calibrated in the UVB region of the spectrum compared to an extra-terrestial solar spectrum.

32 (2.5%) spectra with spikes are reported.

The distribution of errors is fairly uniform throughout the year, with a low incidence of both red and black flags.

2000 :



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.1	0	0	0	0.9	0	1121	0	0	0	10	0	1131
start_irradiance_flag	98.5	0.3	0.5	0.7	0	0	1114	3	6	8	0	0	1131
Spike+local_shape	91.8	3.6	0.5	0.1	0.2	3.9	1080	42	6	1	2	46	1177

Comments :

High annual coverage (approximately 85%) : high potential for use in climatological studies.

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

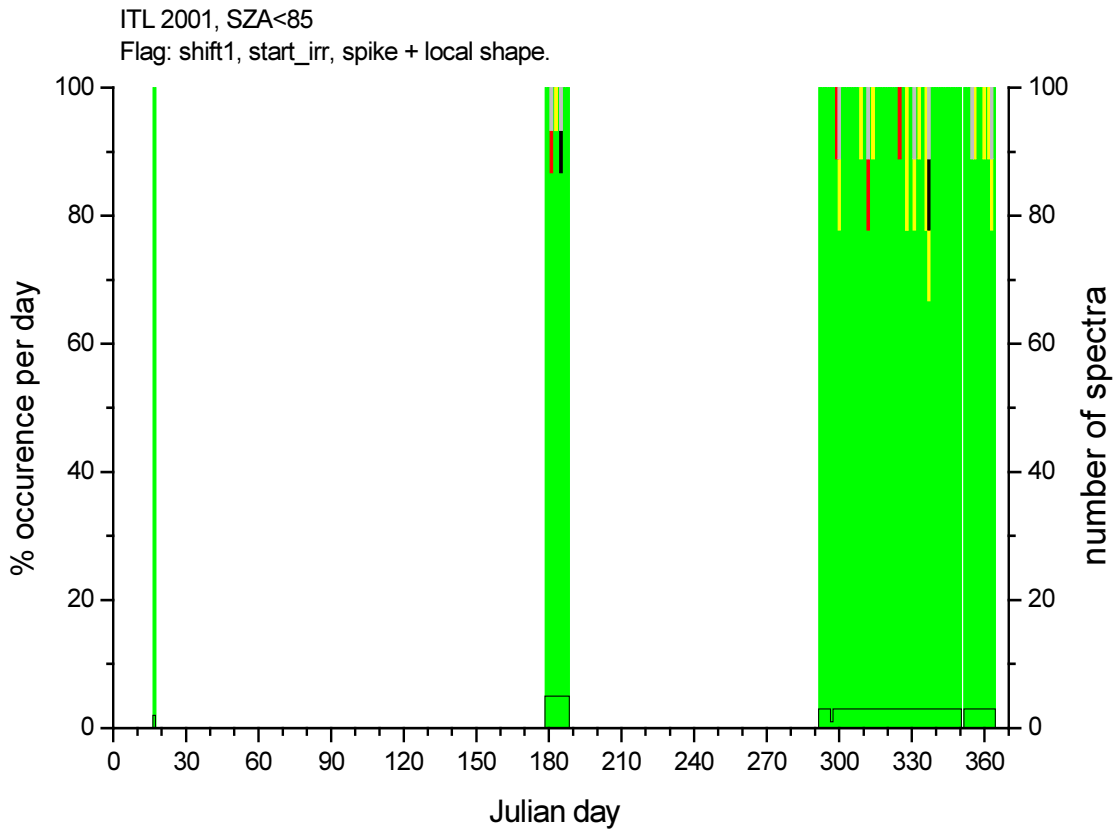
A few black flags occur for both the start_irradience and spike + local shape flagging categories (with red flags < 1.0-%). The percentage grey flags is 0.9% for the Shift1 category.

The shift1 flag indicates that the instrument is well calibrated in the UVB region of the spectrum compared to an extra-terrestial solar spectrum.

46 (3.9%) spectra with spikes are reported.

The distribution of errors is fairly uniform throughout the year, although slightly more black flags occur at in second mesurement period (after Julian Day 95).

2001 :



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	97	0	0	0	3	0	258	0	0	0	8	0	266
start_irradiance_flag	98.1	0	1.1	0.8	0	0	261	0	3	2	0	0	266
Spike+local_shape	90.9	5.5	0.4	0	0	3.3	250	15	1	0	0	9	275

Comments :

Limited annual coverage (approximately 25%) : some potential for use in climatological studies.

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

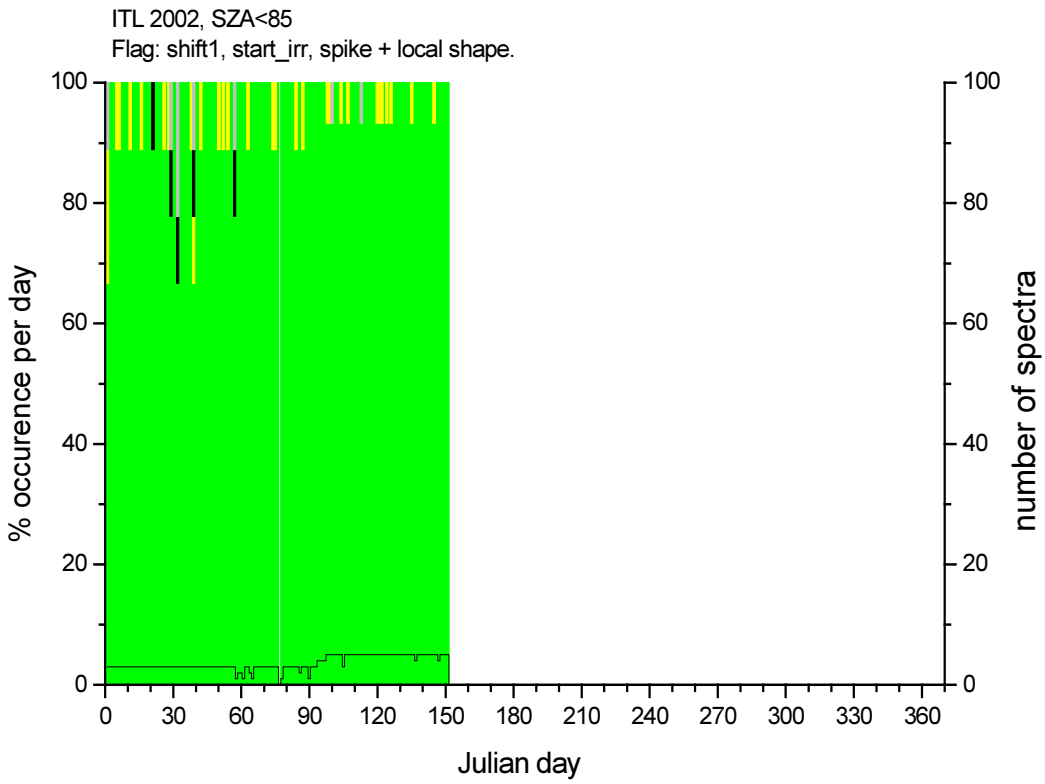
A few black flags occur in the start_irradience flagging category (with red flags < 1.5%). The percentage grey flags is 3.0% for the Shift1 category.

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.

9 (3.3%) spectra with spikes are reported.

The distribution of errors is fairly uniform throughout the dataset. No measurements are available for the spring and summer of this year.

2002 :



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	98.5	0	0	0	1.5	0	536	0	0	0	8	0	544
start_irradiance_flag	99.1	0.4	0	0.6	0	0	539	2	0	3	0	0	544
Spike+local_shape	92.8	5.1	0	0.4	0	1.8	514	28	0	2	0	10	554

Comments :

Moderate annual coverage (approximately 40%) : medium potential for use in climatological studies.

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

A few black flags occur in both the the start_irradience and spike and local shape flagging categories (with red flags < 1.5%). The percentage grey flags is 3.0% for the Shift1 category.

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.

9 (3.3%) spectra with spikes are reported.

The distribution of errors is fairly uniform throughout the dataset. No measurements are available for the spring and summer of this year.