EDUCE- flagging report for spectral data from Hradec Kralove, Czech Republic

Authors/evaluators: JE Williams, PN den Outer and H Slaper (RIVM)

FP26 : Flagging results for Hradec Kralove, Czech Republic:

Measurements details :

Location : Hradec Kralove, Czech Republic
Elevation (m) : 285
Instrument name : Brewer#098
Instrument type : Brewer MKIV
Wavelength range (nm) : 280-325
Lat, Long : 50.188, 15.833
Date on which data was extracted: 17.01.03 (*1994, 1995, 1996*,*1997*, *1998*, *1999*, *2000, 2001*)
Date on which slit function was extracted/received: 27.11.02
Years of submitted data : 8 complete
No spectra (per year) : 2196 (*1994*), 3281 (*1995*), 3321 (*1996*), 2606 (*1997*), 2215 (*1998*), 2138 (*1999*), 2315 (*2000*), 2195 (*2001*)
No spectra (total submitted) : 20267
Slit width (FWHM) (nm) : 0.64
SHIC version for analysis : 3_093

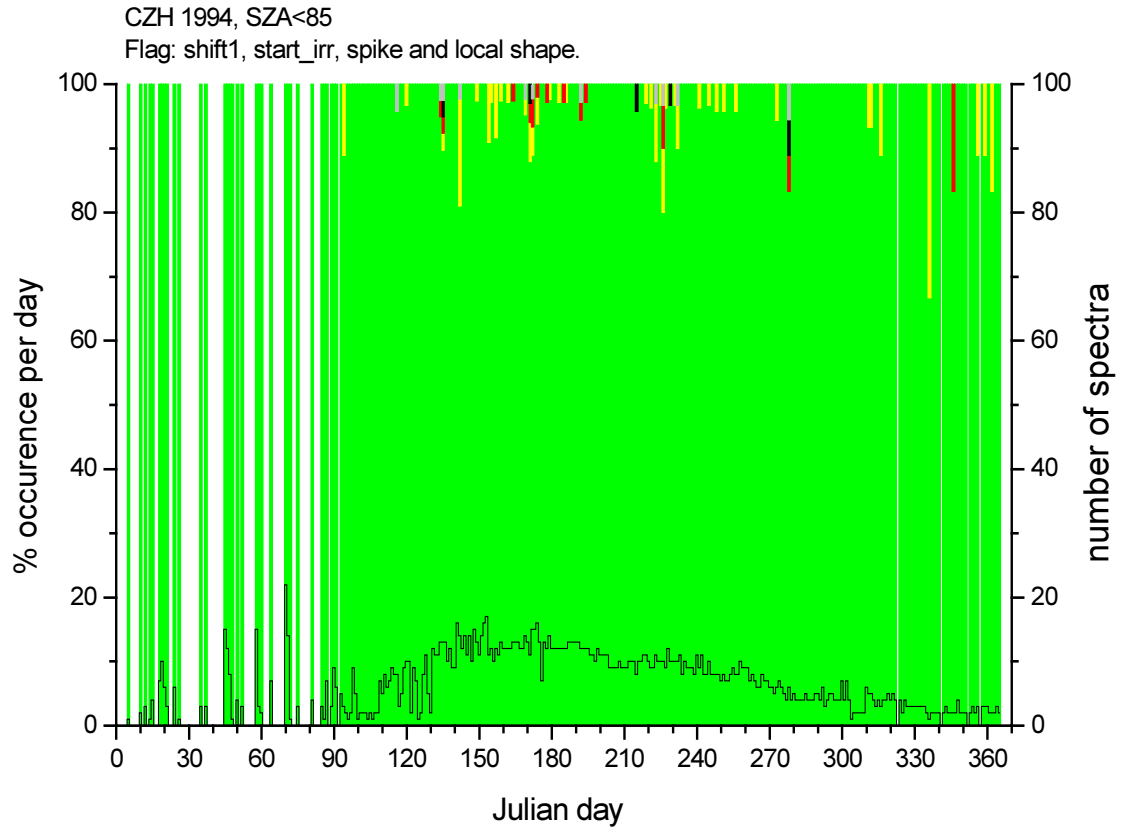
Special comments: Full annual coverage of high quality data for 8 complete years.

Responsible operator/PI: Michal Jonouch: Janouch@chmi.cz

Operator Comments: No comments received from the operator.

Tables of flagging statistics:

1994:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.5	0	0	0	0.5	0	2184	0	0	0	11	0	2195
start_irradiance_flag	99	0.8	0.1	0.1	0	0	2173	17	3	2	0	0	2195
Spike+local_shape	97.4	1.8	0.5	0.1	0	0.1	2141	39	12	3	0	3	2198

Comments :

High annual coverage (approximately 95%): high potential for use in climatological studies.

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

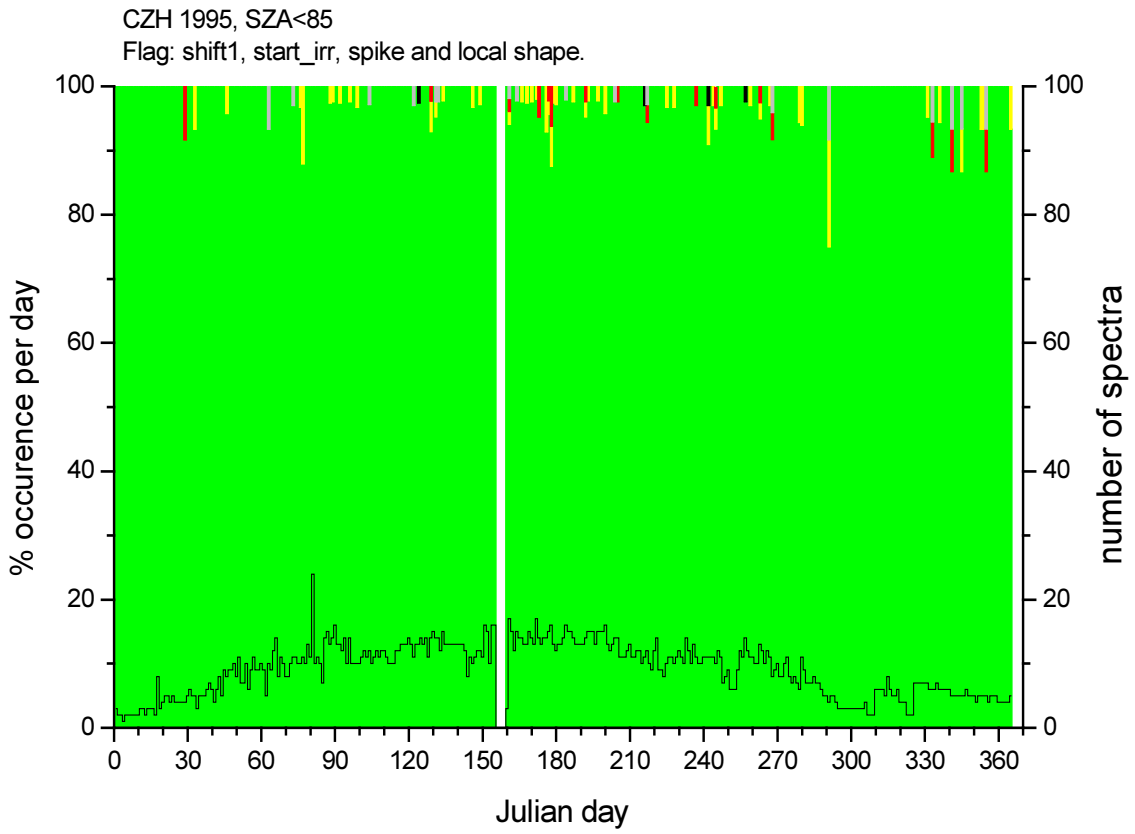
A few black flags exist in some of the chosen flagging categories (with red flags < 0.5%). The percentage grey flags exceeds 15% for the Shift1 flag.

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

3 (0.1%) spectra with spikes are reported.

The distribution of errors is uniform throughout the year, with the incidence of grey, red and black flags being very low.

1995:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.5	0	0	0	0.5	0	3263	0	0	0	18	0	3281
start_irradiance_flag	99.5	0.3	0.1	0	0	0	3266	11	3	1	0	0	3281
Spike+local_shape	97.9	1.5	0.5	0.1	0	0.1	3214	48	16	3	0	3	3284

Comments :

Full annual coverage (approximately 99%): excellent potential for use in climatological studies.

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

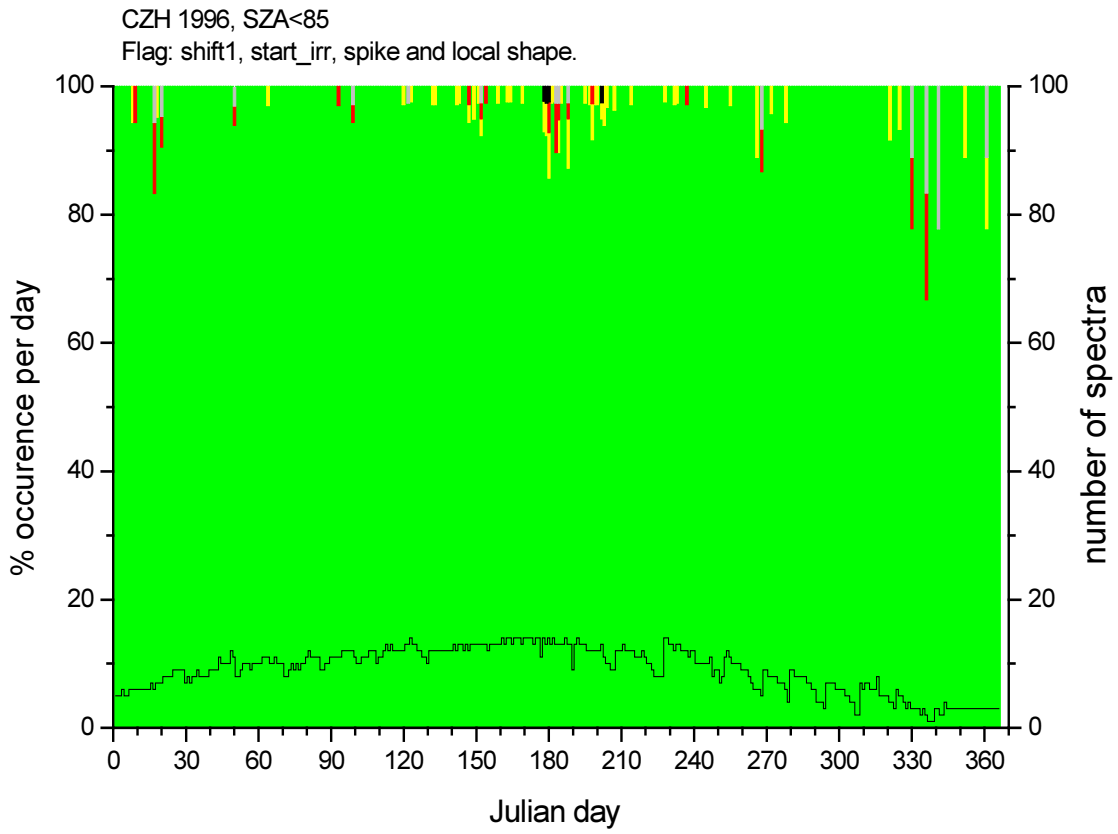
A few black flags exist in some of the chosen flagging categories (with red flags < 0.5%). The percentage grey flags is less than 1% for the Shift1 flag.

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

3 (0.1%) spectra with spikes are reported.

The distribution of errors is uniform throughout the year, with the incidence of grey, red and black flags being very low.

1996:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.6	0	0	0	0.4	0	3307	0	0	0	14	0	3321
start_irradiance_flag	99.3	0.6	0.1	0	0	0	3299	20	2	0	0	0	3321
Spike+local_shape	98.1	1.1	0.6	0.1	0	0	3258	38	20	4	1	0	3321

Comments :

Full annual coverage (approximately 100%): excellent potential for use in climatological studies.

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

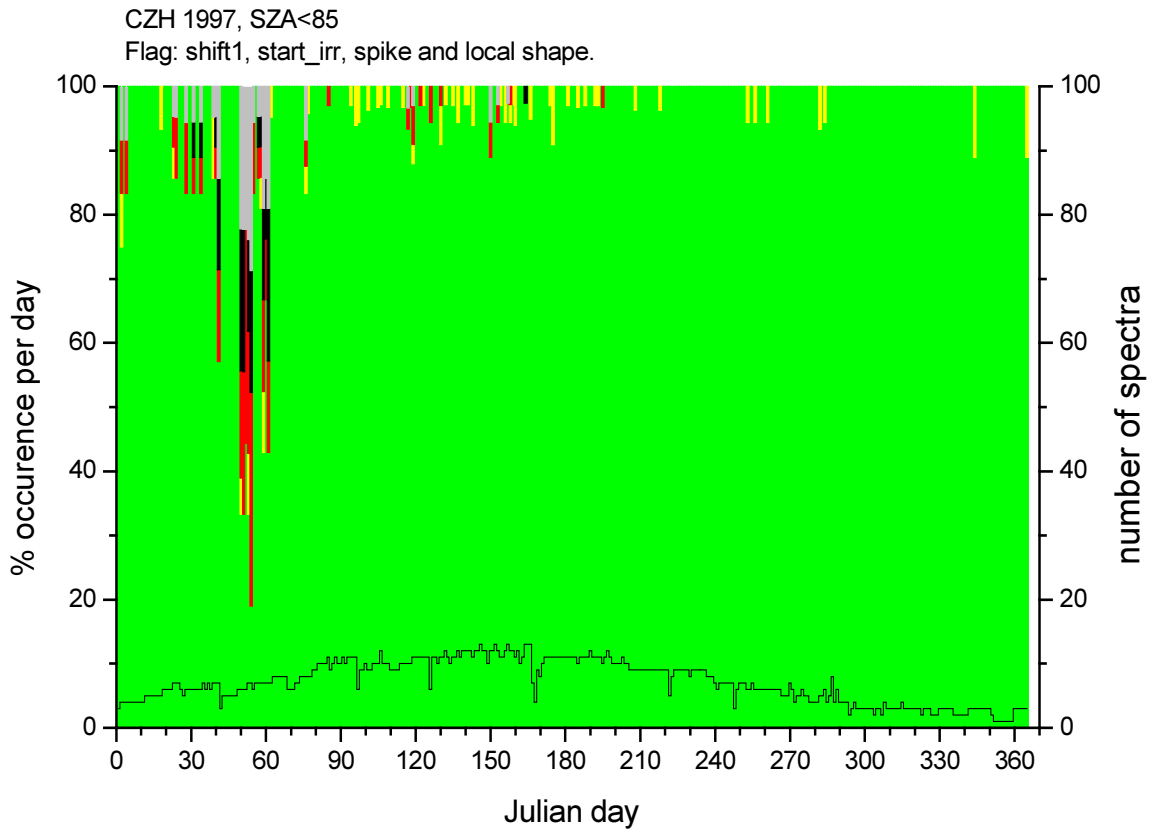
A few balck flags exist in the spike and local shape flagging category (with red flags < 1%). The percentage grey flags is less than 1% for the Shift1 flag. No real difference in the instrument performance from the previous year

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

No spectra with spikes are reported.

The distribution of errors is uniform throughout the year, with the incidence of grey, red and black flags being very low.

1997:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	97.8	0	0	0	2.2	0	2549	0	0	0	57	0	2606
start_irradiance_flag	97.4	0.8	0.5	1.2	0	0	2539	22	14	31	0	0	2606
Spike+local_shape	96.5	1.5	1.9	0.1	0	0	2514	40	49	3	0	0	2606

Comments :

Full annual coverage (approximately 100%): excellent potential for use in climatological studies.

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

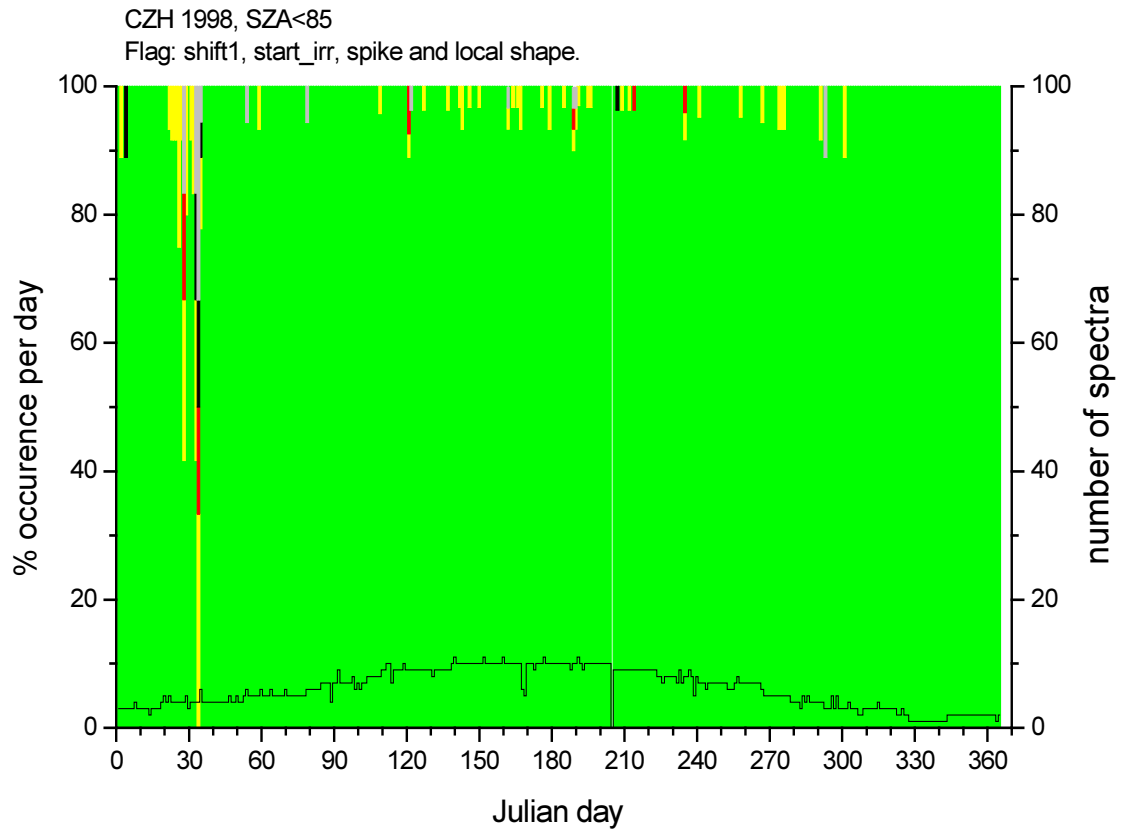
Some black flags exist in some of the chosen flagging categories (with red flags < 2%). The percentage grey flags exceeds 2% for the Shift1 flag. The instrument performance is slightly worse than the previous year.

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.

8 (0.1%) spectra with spikes are reported.

The distribution of errors is non uniform throughout the year. The majority of red, black and grey flags occur before Julian Day 70, with the period between JD 50-70 being particularly bad. This suggest some re-calibration of the instrument occurred after JD 70.

1998:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	98.5	0.8	0	0	0.7	0	2180	18	0	0	16	0	2214
start_irradiance_flag	99.2	0.3	0.3	0.2	0	0	2197	7	6	4	0	0	2214
Spike+local_shape	98.1	1.7	0.1	0.1	0	0	2171	37	3	3	0	0	2214

Comments :

Full annual coverage (approximately 100%): excellent potential for use in climatological studies.

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

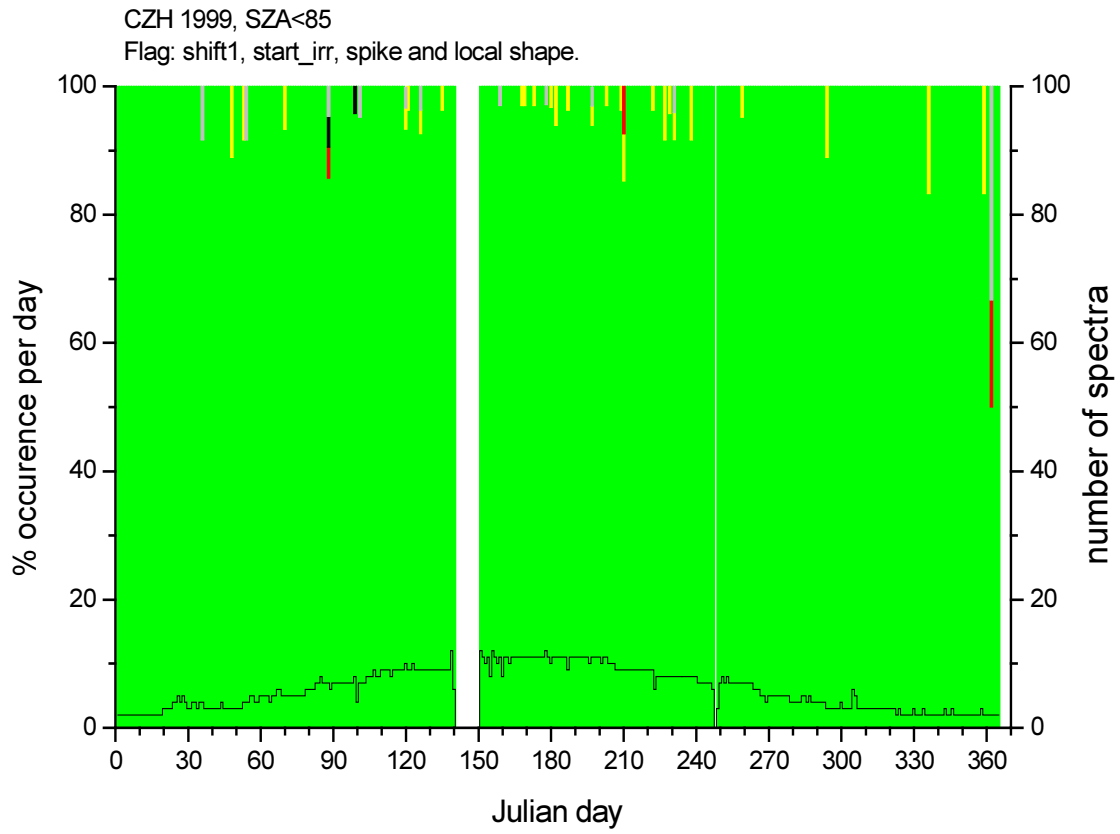
A few black flags exist in some of the chosen flagging categories (with red flags < 0.5%). The percentage grey flags is less than 1% for the Shift1 flag. The instrument performance is slightly worse than the previous year.

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

No spectra with spikes are reported.

The distribution of errors is non uniform throughout the year, with half of the total flags occurring between Julain days 20-35. For the rest of the dataset the incidence both red and black flags is very low.

1999:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.4	0	0	0	0.6	0	2126	0	0	0	12	0	2138
start_irradiance_flag	99.8	0.1	0	0	0	0	2134	2	1	1	0	0	2138
Spike+local_shape	98.5	1.3	0.1	0	0	0	2106	28	3	1	0	0	2138

Comments :

Full annual coverage (approximately 98%): excellent potential for use in climatological studies.

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

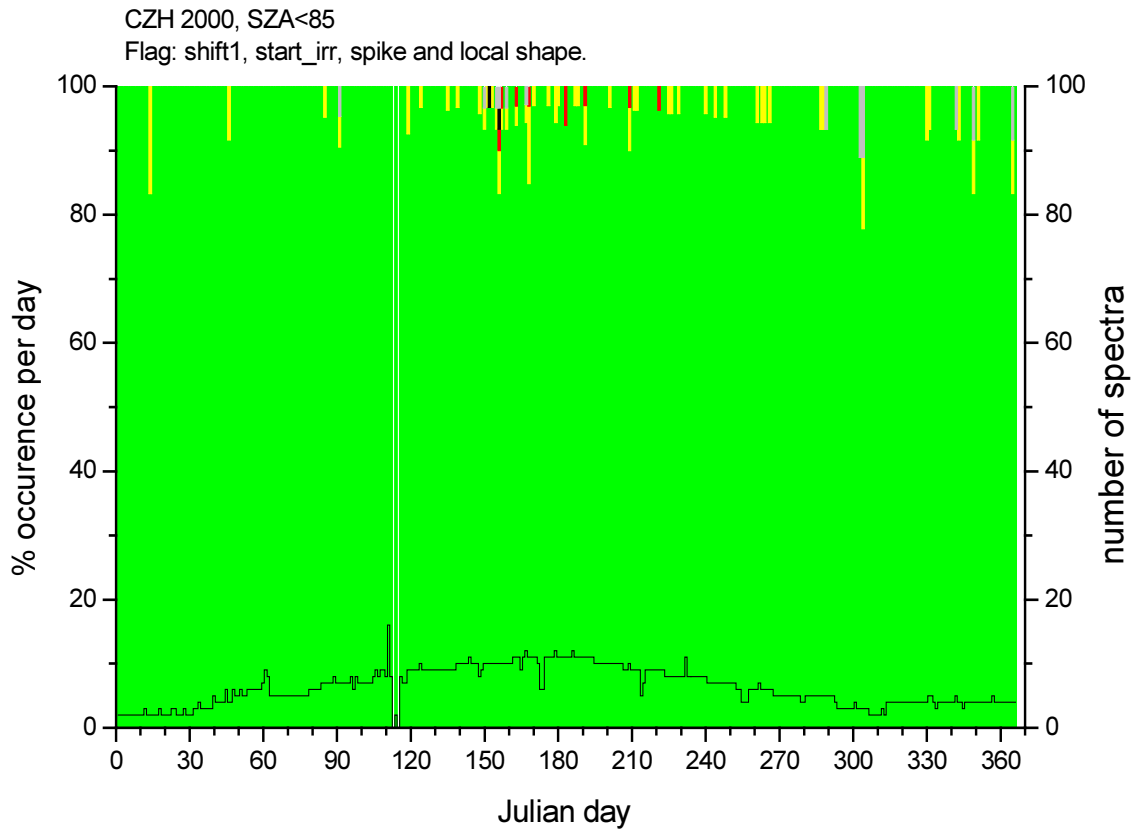
A few black flags occur in some of the chosen flagging categories (with red flags < 0.1%). A slight improvement in instrument performance compared to the previous year.

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.

No spectra with spikes are reported.

The distribution of errors is uniform throughout the year, with the incidence of grey, red and black flags being very low.

2000:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.4	0	0.1	0	0.5	0	2296	0	3	0	12	0	2311
start_irradiance_flag	99.5	0.3	0.1	0	0	0	2300	8	2	1	0	0	2311
Spike+local_shape	97.7	2.1	0.2	0	0	0	2257	49	4	1	0	0	2311

Comments :

Full annual coverage (approximately 100%): excellent potential for use in climatological studies.

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

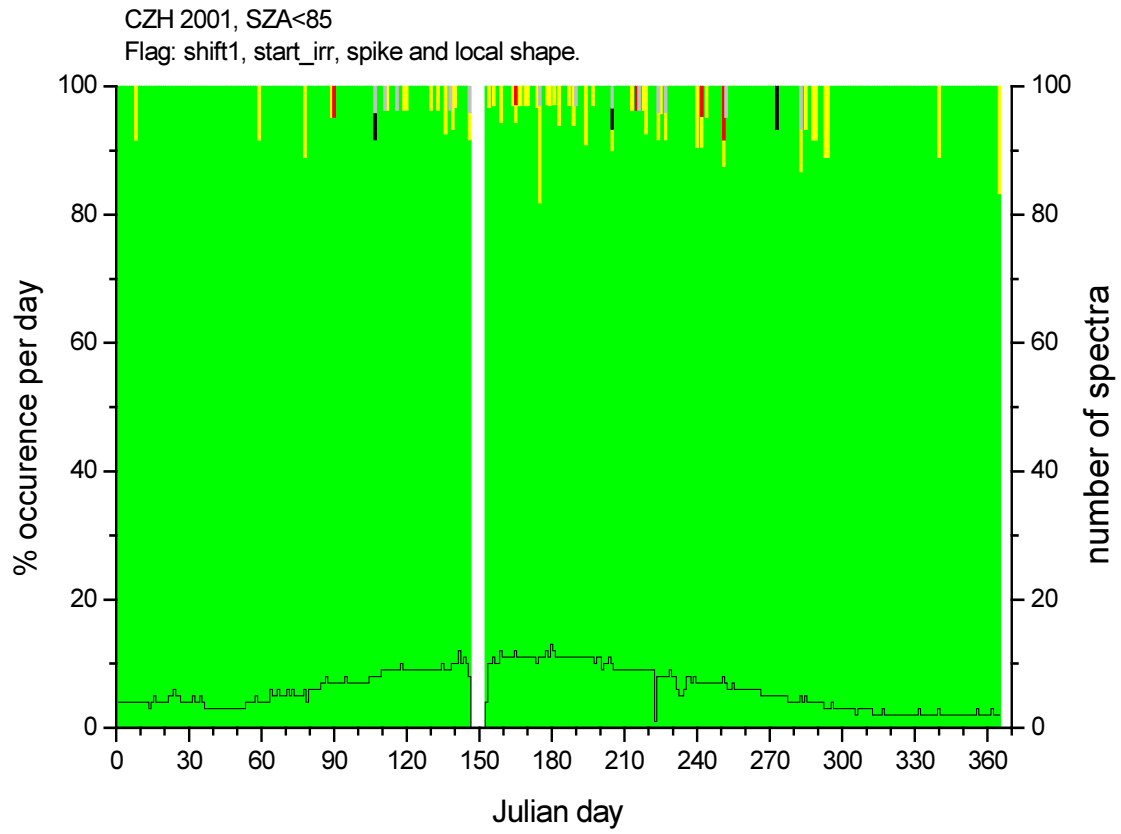
A few black flags exist in some of the chosen flagging categories (with red flags < 0.5%). The percentage grey flags is less than 1% for the Shift1 flag. The instrument performance is slightly worse than the previous year.

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

No spectra with spikes are reported.

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

2001:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.4	0	0.1	0	0.5	0	2296	0	3	0	12	0	2311
start_irradiance_flag	99.5	0.3	0.1	0	0	0	2300	8	2	1	0	0	2311
Spike+local_shape	97.7	2.1	0.2	0	0	0	2257	49	4	1	0	0	2311

Comments :

Full annual coverage (approximately 98%): excellent potential for use in climatological studies.

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

A few black flags exist in some of the chosen flagging categories (with red flags < 0.5%). The percentage grey flags is less than 1% for the Shift1 flag. The instrument performance is slightly worse than the previous year.

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

No spectra with spikes are reported.

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