

EDUCE- flagging report for spectral data from Thessaloniki, Greece

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FP9 : Flagging results for Thessaloniki, Greece:

Measurements details :

Location : Thessaloniki, Greece

Elevation (m) : 60

Instrument name : Brewer #005

Instrument type : Brewer MKII

Wavelength range (nm) : 280-325

Lat, Long : 40.517, 22.967

Years of submitted data : 10 complete, 1 sparse

No spectra (per year) : 34 (1989), 521 (1990), 1123 (1991), 1920 (1992), 5758 (1993), 6248 (1994), 6089 (1995), 6728 (1996), 6029 (1997), 5565 (1998), 6580 (1999), 5773 (2000)

No spectra (total submitted) : 52368

Slit width (FWHM) (nm) : 0.55

SHIC version for analysis : 3_093

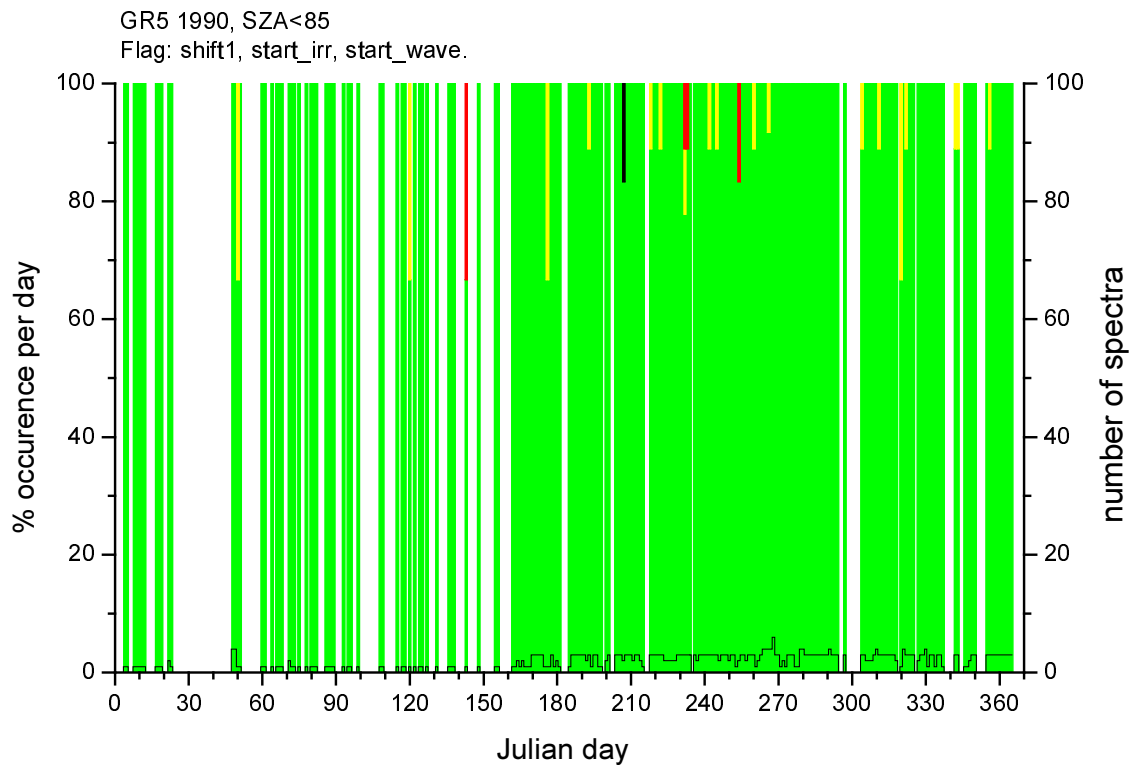
Special comments: A decade of data is available for this site. The 1989 dataset not analysed due to the total no. spectra < 50.

Responsible operator/PI: Alkiviadis Baus ; bais@ccf.auth.gr

Operator comments: No comments received by the operator regarding this instrument

Tables of flagging statistics:

1990:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	100	0	0	0	0	0	520	0	0	0	0	0	520
start_irradiance_flag	99	0.8	0.2	0	0	0	515	4	1	0	0	0	520
Spike+ local_shape	96.5	2.7	0.6	0.2	0	0	502	14	3	1	0	0	520

Comments:

High annual coverage (approximately 85%); high potential value for climatological studies.

Overall data-quality impression : Very high fraction of potential high quality spectra

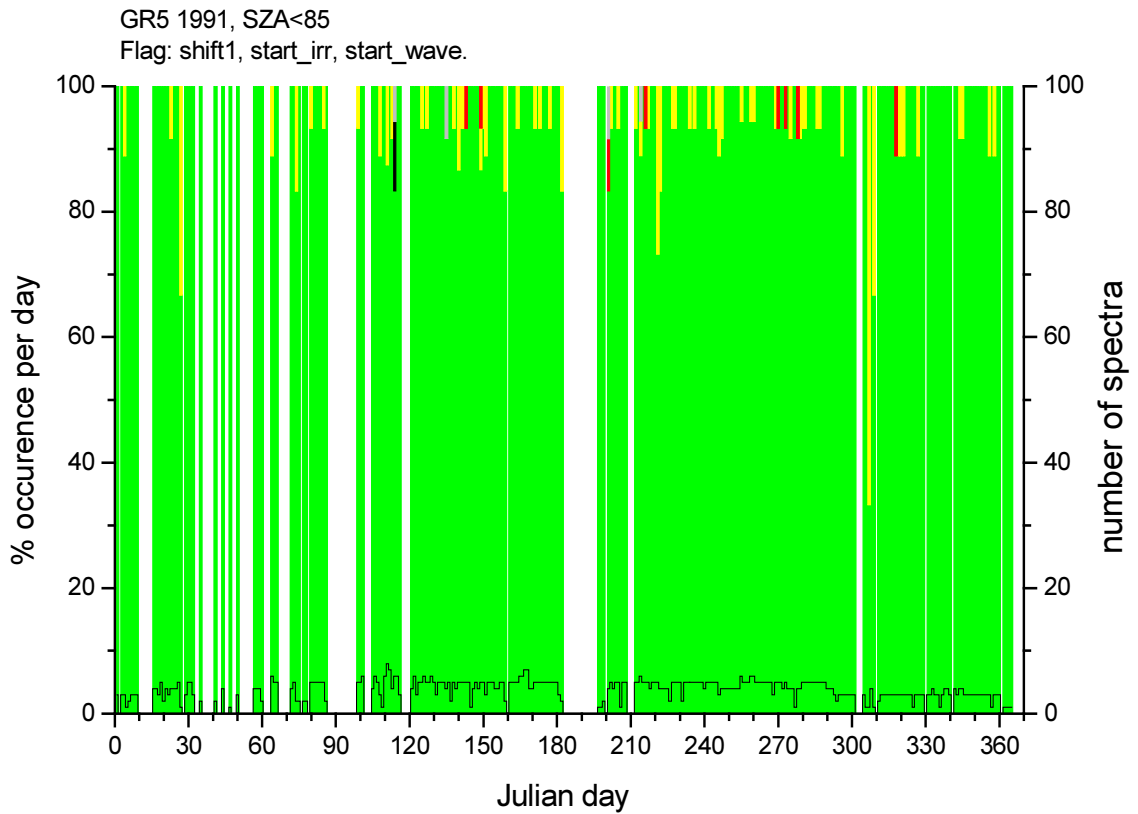
One black flag occurs in the spike + local_shape category (with red flags < 1%).

The shift1 flag indicates that the instrument is well calibrated compared with a extra-terrestrial solar spectrum.

No spectra with spikes are reported.

The distribution of errors is uniform across the dataset with the majority of flags being green.

1991:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	99.6	0.1	0	0	0.4	0	1118	1	0	0	4	0	1123
start_irradiance_flag	98.8	1.1	0.1	0.1	0	0	1109	12	1	1	0	0	1123
Spike+ local_shape	94.1	5.2	0.6	0.1	0	0	1057	58	7	1	0	0	1123

Comments:

High annual coverage (approximately 85%); high potential value for climatological studies.

Overall data-quality impression : Very high fraction of potential high quality spectra

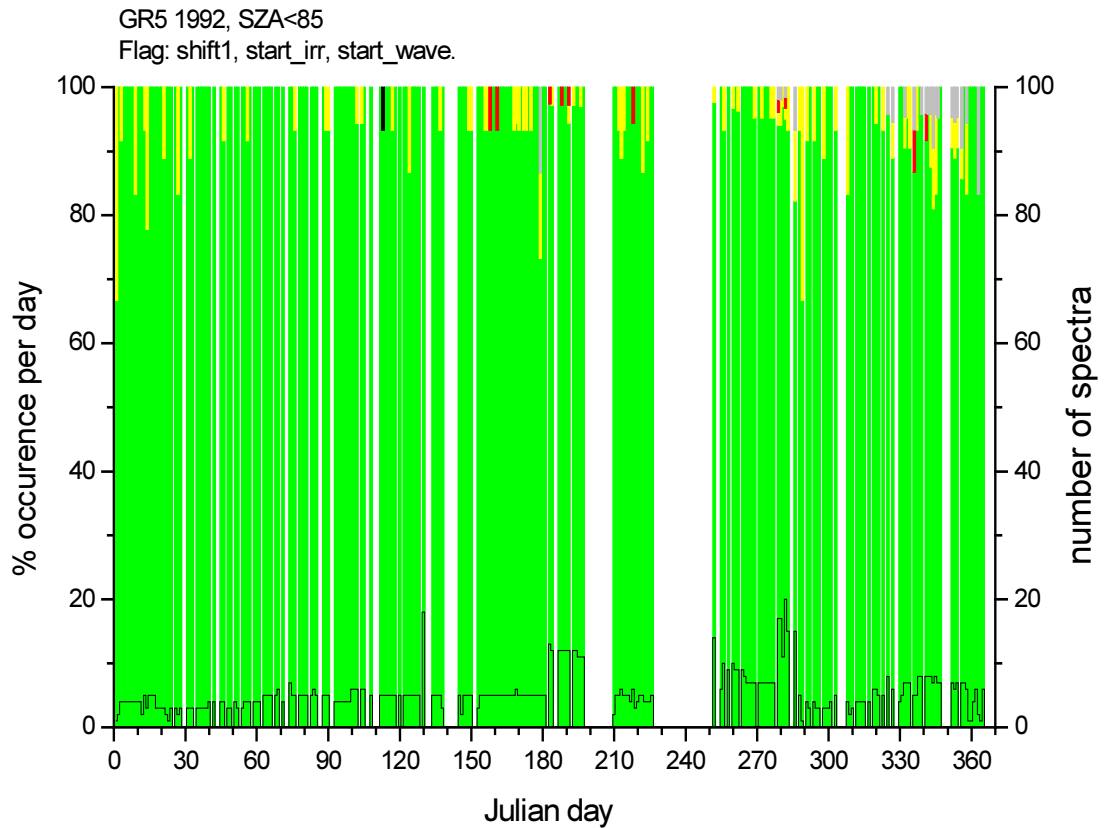
One black flag occurs in both the start_irradiance and spike + local_shape categories (with red flags < 1%). The performance is slightly worse than the previous year.

The shift1 flag indicates that the instrument is well calibrated compared with a extra-terrestrial solar spectrum.

No spectra with spikes are reported.

The distribution of errors is uniform across the dataset with the majority of flags being green.

1992:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	98	0.1	0	0	2	0	1346	1	0	0	27	0	1374
start_irradiance_flag	99.1	0.9	0	0	0	0	1361	13	0	0	0	0	1374
Spike+ local_shape	93.3	5.9	0.7	0.1	0	0	1282	81	10	1	0	0	1374

Comments:

High annual coverage (approximately 80%); high potential value for climatological studies.

Overall data-quality impression : Very high fraction of potential high quality spectra

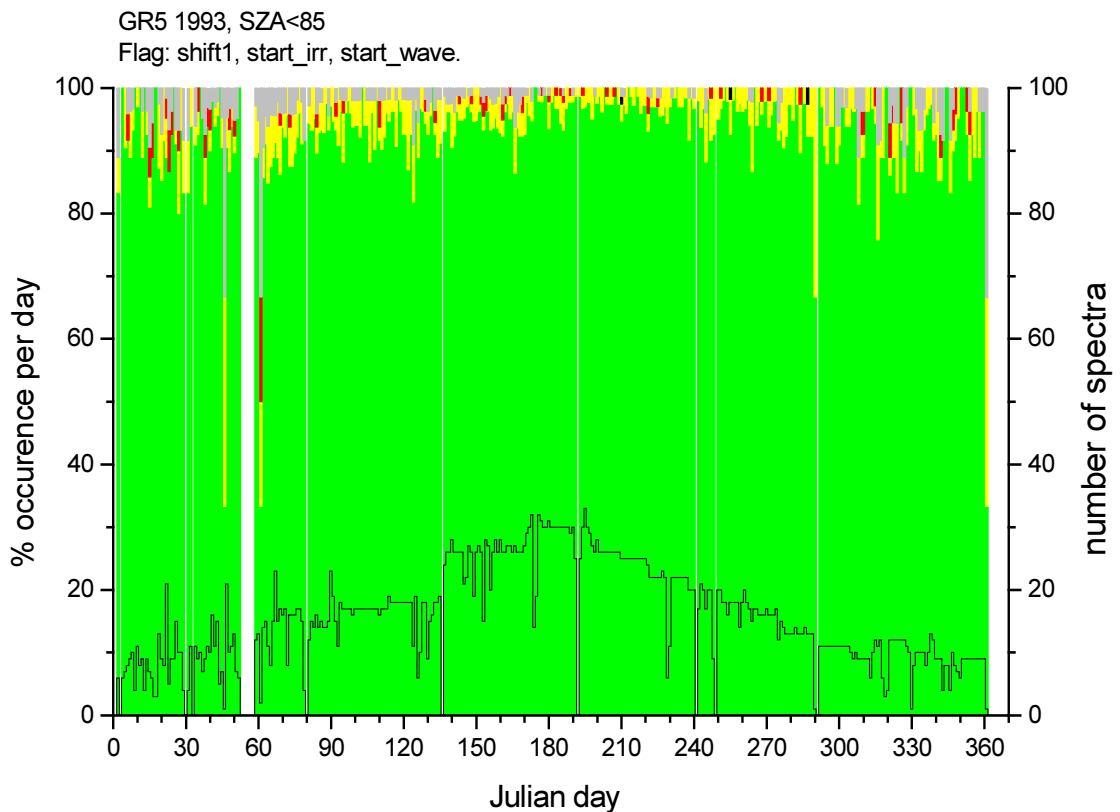
One black flag occurs in the spike + local shape category (with red flags < 1%). The performance is slightly better than the previous year.

The shift1 flag indicates that the instrument is well calibrated compared with a extra-terrestrial solar spectrum, although 2% grey flags occur.

No spectra with spikes are reported.

The distribution of errors is fairly uniform across the dataset with the majority of flags being green, although most of the undefined errors occur during the winter.

1993:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	95.8	0	0	0	4.2	0	5391	0	0	0	236	0	5627
start_irradiance_flag	97.1	2.8	0.1	0	0	0	5464	159	4	0	0	0	5627
Spike+ local_shape	91.2	7.6	1.1	0.1	0	0	5134	427	62	3	1	0	5627

Comments:

High annual coverage (approximately 95%); high potential value for climatological studies.

Overall data-quality impression : A high fraction of potential high quality spectra

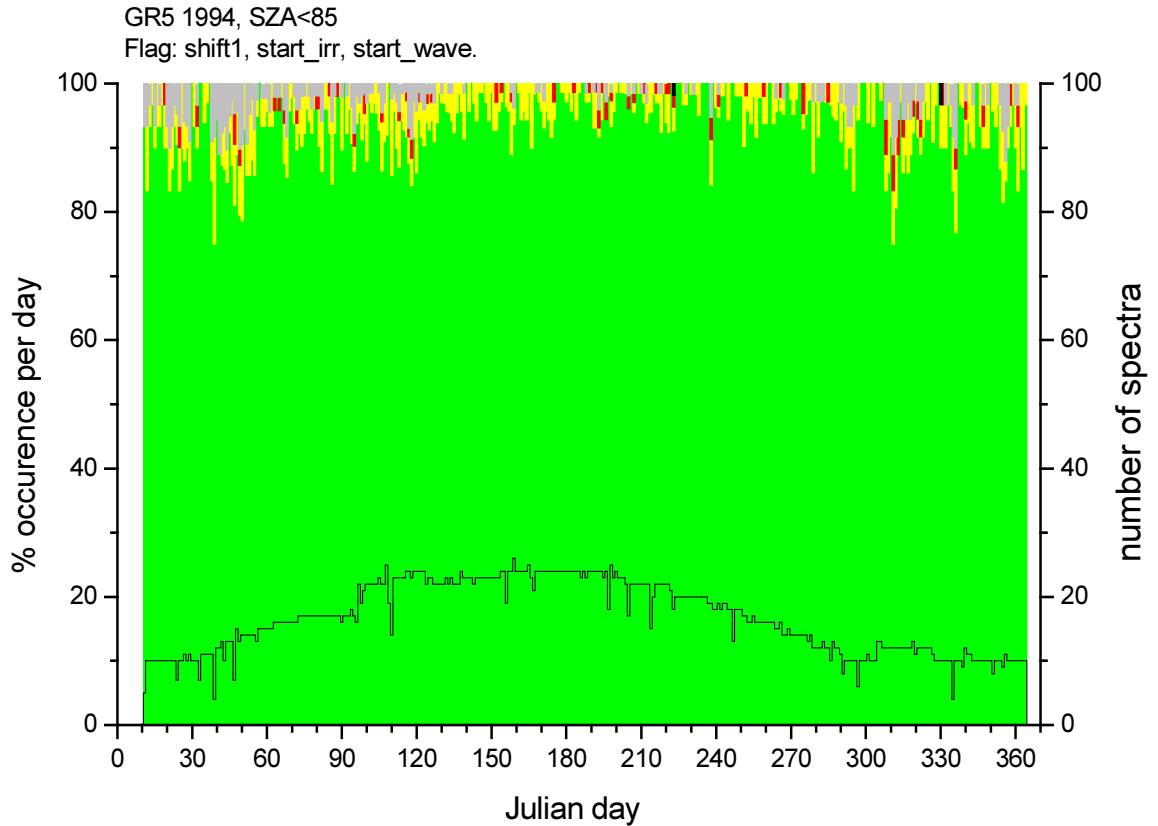
A small number of black flags occur associated with the spike + local_shape category (with red flags < 1.5%). The performance is slightly worse than the previous year.

The shift1 flag indicates that the instrument is relatively well calibrated compared with a extra-terrestrial solar spectrum, although 4.2% grey flags occur.

No spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, with slightly more grey and yellow flags occurring during the start and end of the dataset.

1994:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	95.6	0	0	0	4.4	0	5641	0	0	0	257	0	5898
start_irradiance_flag	97	3	0.1	0	0	0	5720	175	3	0	0	0	5898
Spike+ local_shape	90.9	7.9	1.2	0	0	0	5361	466	69	2	0	0	5898

Comments:

High annual coverage (approximately 95%); high potential value for climatological studies.

Overall data-quality impression : A high fraction of high quality spectra

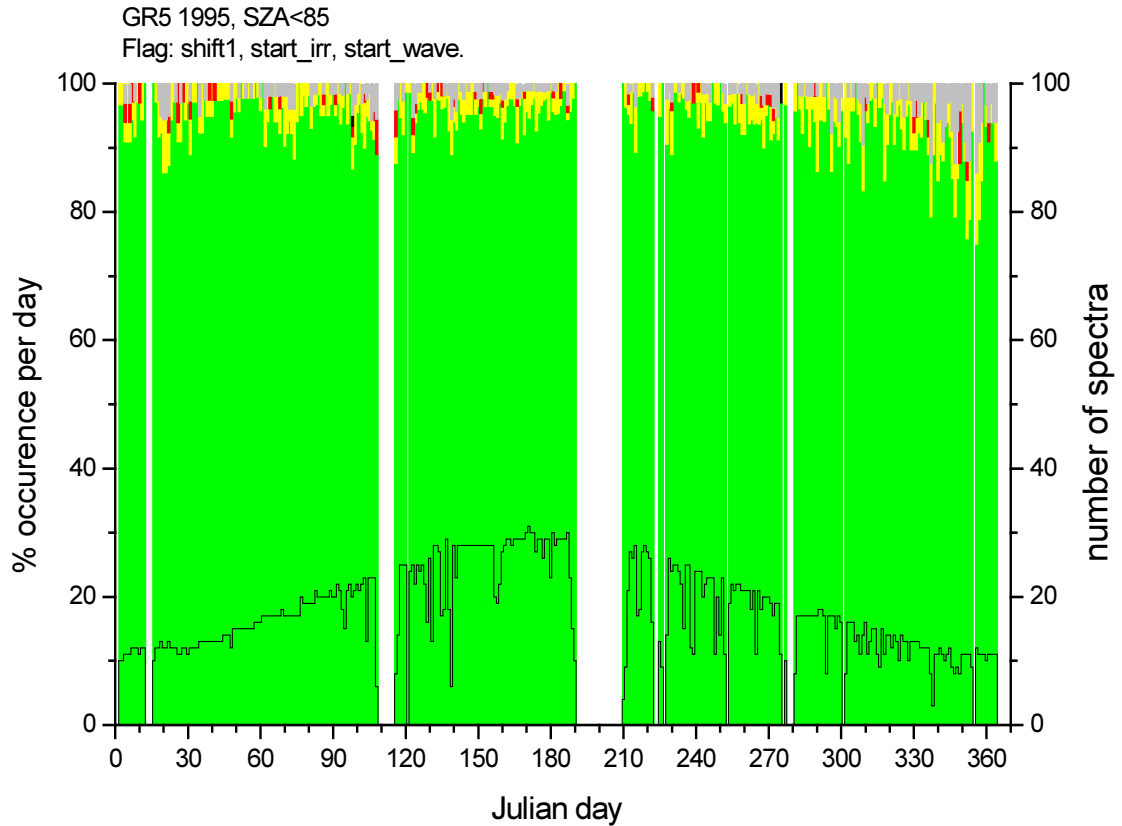
A small number of black flags occur associated with the start_irradiance category (with red flags < 1.5%). The performance is slightly worse than the previous year.

The shift1 flag indicates that the instrument is relatively well calibrated compared with a extra-terrestrial solar spectrum, although 4.4% occur.

No spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, with slightly more grey and yellow flags occurring during the start and end of the dataset.

1995:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	95.1	0	0	0	4.8	0	5500	2	0	0	280	0	5782
start_irradiance_flag	98.4	1.5	0.1	0	0	0	5690	89	3	0	0	0	5782
Spike+ local_shape	91.1	7.9	1	0	0	0	5266	455	59	2	0	1	5783

Comments:

High annual coverage (approximately 85%); high potential value for climatological studies.

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

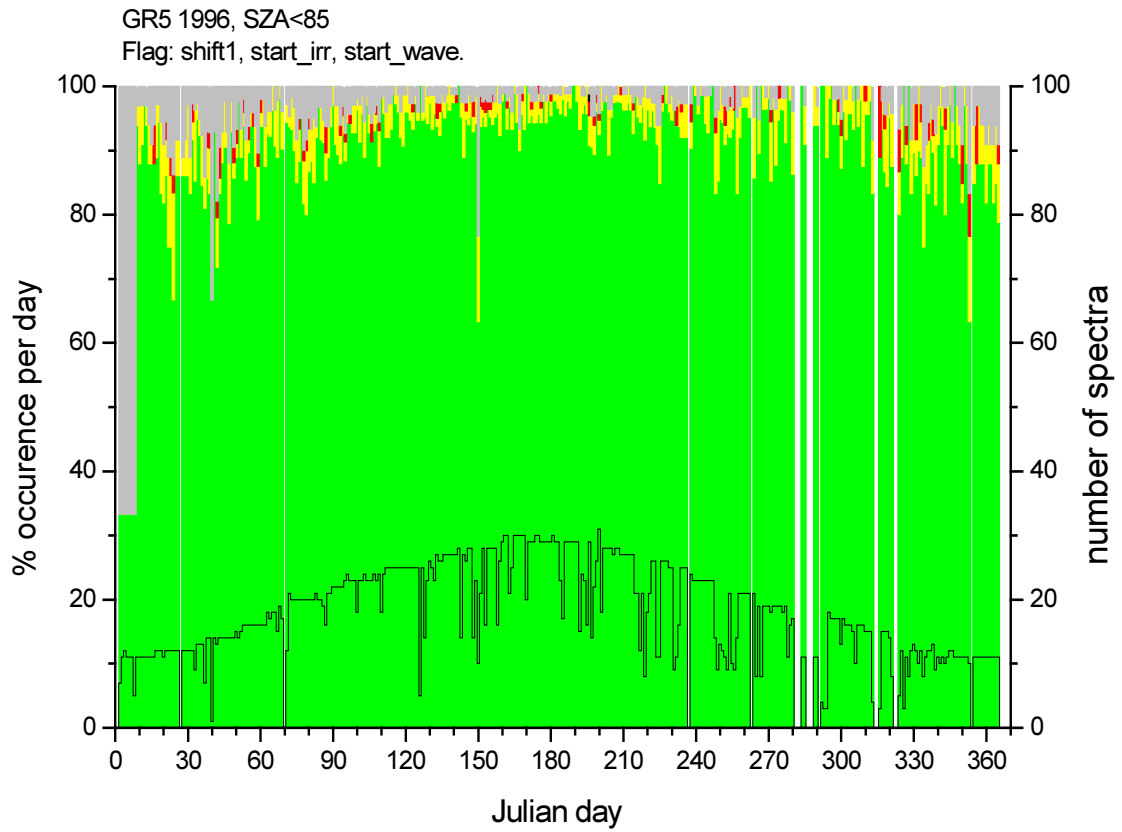
A small number of black flags occur associated with the spike + local shape category (with red flags < 1.5%). No real difference in performance compared to the previous year.

The shift1 flag indicates that the instrument is relatively well calibrated compared with a extra-terrestrial solar spectrum, although 4.8% grey flags occur.

One spectrum with a spike is reported.

The distribution of errors is fairly non-uniform across the dataset, with slightly more grey and yellow flags occurring during the end of the dataset.

1996:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	90.2	0.3	0	0	9.5	0	5764	19	0	0	605	0	6388
start_irradiance_flag	99	1	0	0	0	0	6322	65	1	0	0	0	6388
Spike+ local_shape	88.1	9.4	1.4	0	1.1	0	5631	598	90	1	68	3	6391

Comments:

Full annual coverage (approximately 97%); excellent potential value for climatological studies.

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

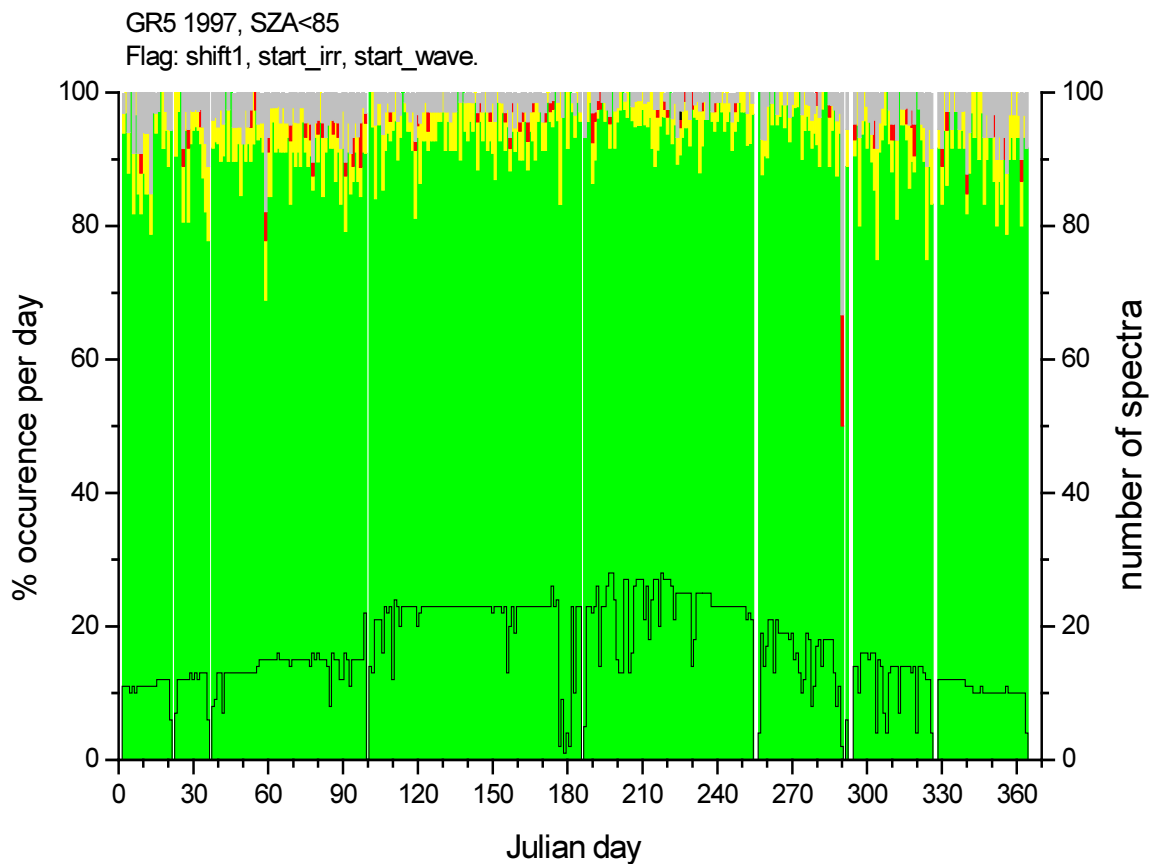
One black flag occurs associated with the spike + local shape category (with red flags < 1.5%). The performance is slightly worse than the previous year.

The shift1 flag indicates that the instrument has some undefined calibration errors compared with a extra-terrestrial solar spectrum, with 9.5% of the spectra having grey flags.

3 (<0.1%) spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, with more grey and yellow flags occuring at the start and end of the dataset.

1997:



Flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	91.5	0.3	0	0	8.2	0	5386	17	0	0	485	0	5888
start_irradiance_flag	98.8	1.2	0.1	0	0	0	5815	68	5	0	0	0	5888
Spike+ local_shape	88.5	10.3	1.2	0	0	0	5210	605	72	1	0	2	5890

Comments:

Extensive annual coverage (approximately 97%); excellent potential value for climatological studies.

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

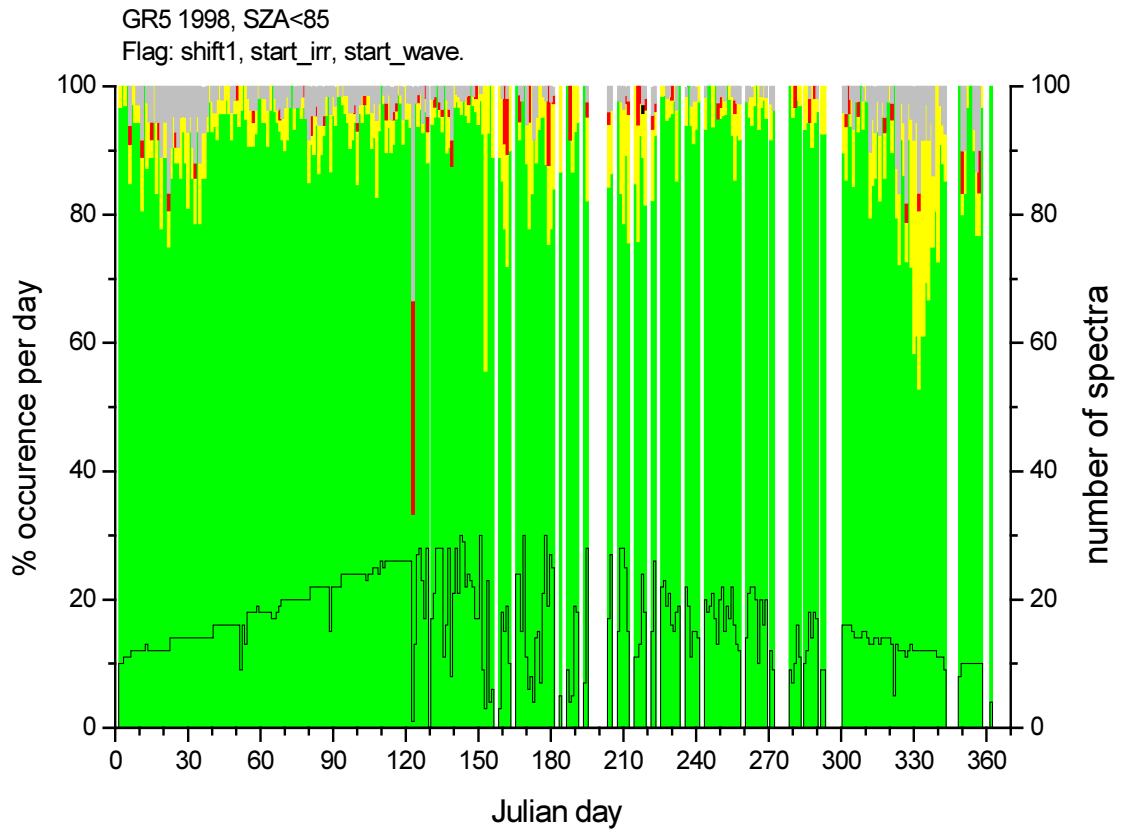
One black flag occurs associated with the spike + local shape category (with red flags < 1.5%). No real difference in performance compared to the previous year.

The shift1 flag indicates that the instrument has some undefined calibration errors compared with a extra-terrestrial solar spectrum, with 8.2% of the spectra having grey flags.

3 (<0.1%) spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, with more grey and yellow flags occuring at the start and end of the dataset.

1998:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	89.7	2.3	0	0	7.9	0	4560	118	1	0	404	0	5083
start_irradiance_flag	95.6	3.8	0.6	0	0	0	4860	192	31	0	0	0	5083
Spike+ local_shape	89.9	9	1.1	0	0	0	4569	457	55	1	1	1	5084

Comments:

High annual coverage (approximately 95%); high potential value for climatological studies.

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

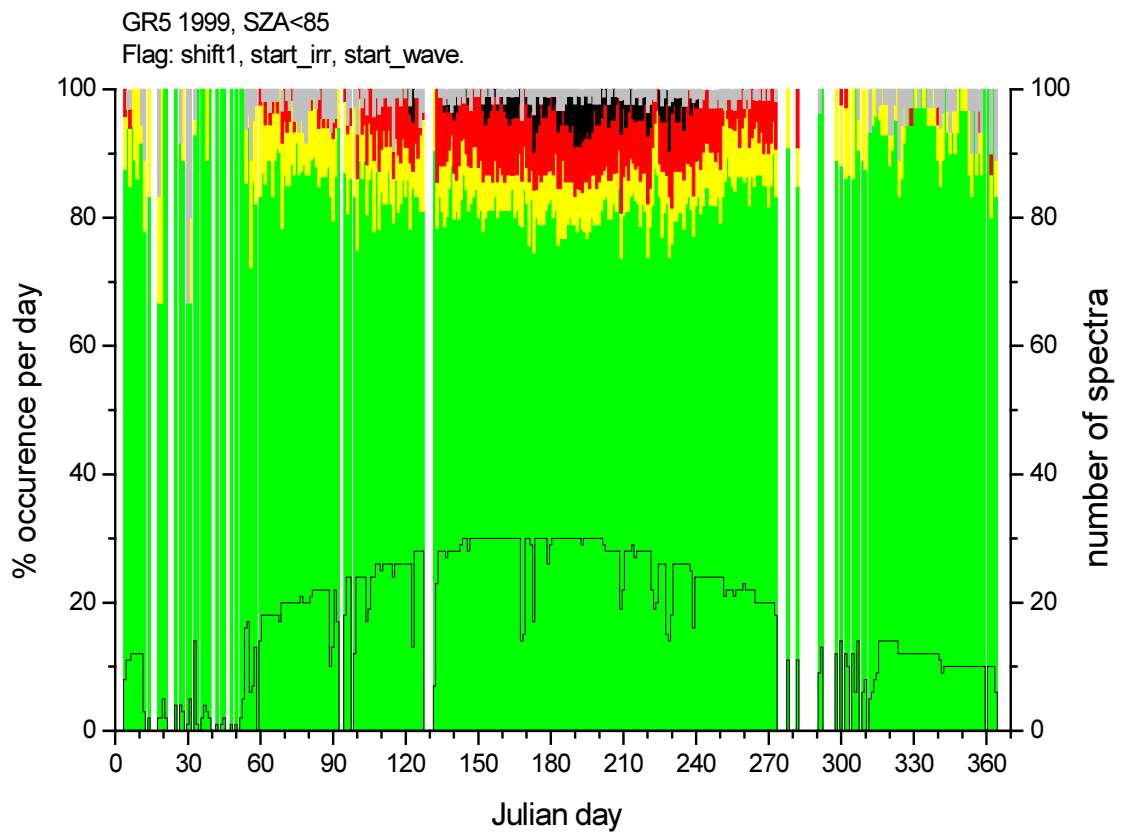
One black flag occurs associated with the spike + local shape category (with red flags < 1.5%). No real difference in performance compared to the previous year.

The shift1 flag indicates that the instrument has some non-critical and undefined calibration errors compared with a extra-terrestrial solar spectrum, with 2.3 and 7.9% of spectra having yellow and grey flags, respectively.

1 spectrum with a spike is reported.

The distribution of errors is fairly non-uniform across the dataset, with more grey and yellow flags occuring at the start and end of the dataset.

1999:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	93.9	0.1	0	0	5.9	0	5669	9	0	0	359	0	6037
start_irradiance_flag	63.1	15.4	17.8	3.7	0	0	3812	930	1073	222	0	0	6037
Spike+ local_shape	94.3	5.2	0.5	0	0	0	5692	312	31	0	2	0	6037

Comments:

High annual coverage (approximately 90%); high potential value for climatological studies.

Overall data-quality impression : a fraction of the spectra is of questionable quality, with 21.5% of poor quality for the start irradiance flag.

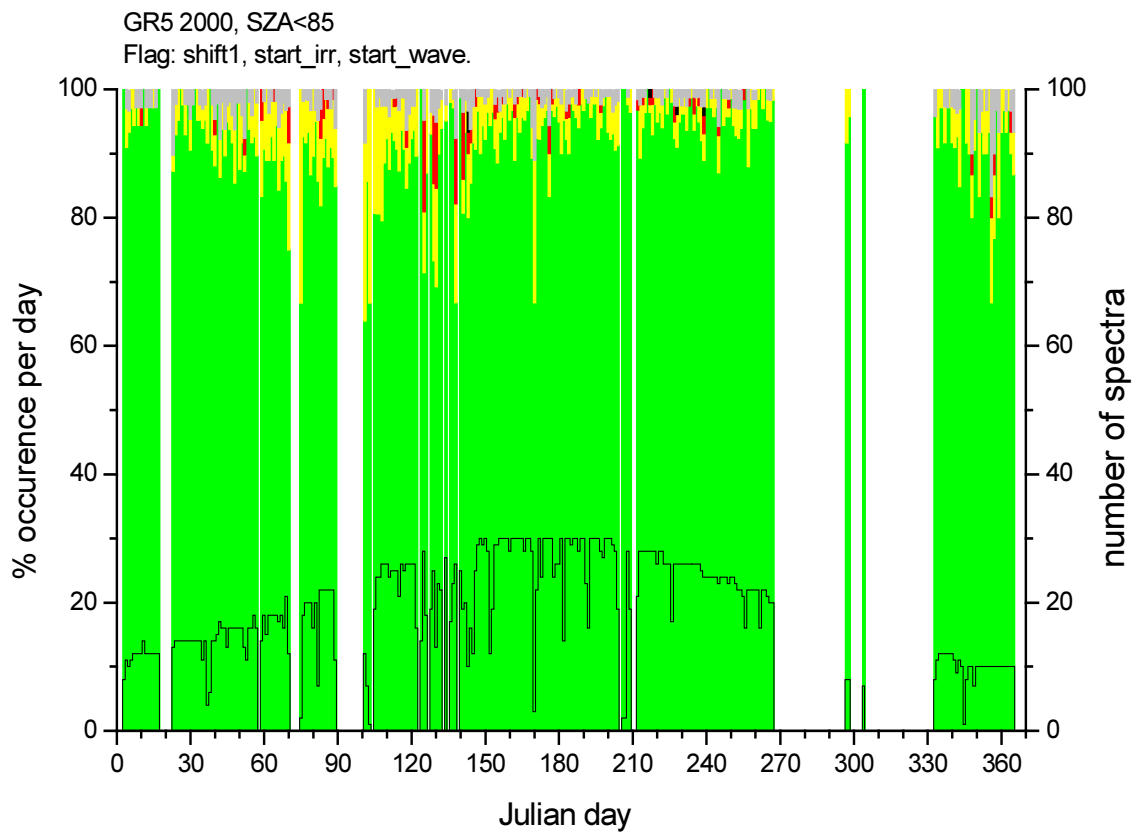
Many black flags occur associated with the spike + local shape category (with red flags < 18%). The performance is worse than for any of the previous years.

The shift1 flag indicates that the instrument has some non-critical and undefined calibration errors compared with a extra-terrestrial solar spectrum, with 0.1 and 5.9% of spectra having yellow and grey flags, respectively.

No spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, with the red and black flags occurring during the summer of this year. Some distortion of the measured spectra occur

2000:



flag	Green %	Yellow %	Red %	Black %	Grey %	Cor. %	Green	Yellow	Red	Black	Grey	Cor.	Num
Shift1_flagging	92.5	1.8	0.1	0	5.6	0	4912	95	6	0	298	0	5311
start_irradiance_flag	94.4	4.5	1.1	0	0	0	5014	238	57	2	0	0	5311
Spike+ local_shape	91.5	7.6	0.8	0	0	0	4861	405	42	2	1	0	5311

Comments:

Moderate annual coverage (approximately 75%); medium potential value for climatological studies.

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

A few black flags occur associated with the start irradiance and spike + local shape categories (with red flags < 1.5%). The performance is slightly better than the previous year.

The shift1 flag indicates that the instrument has some non-critical and undefined calibration errors compared with a extra-terrestrial solar spectrum, with 0.1 and 5.9% of spectra having yellow and grey flags, respectively.

No spectra with spikes are reported.

The distribution of errors is fairly non-uniform across the dataset, where more flags occur during the spring of this year.