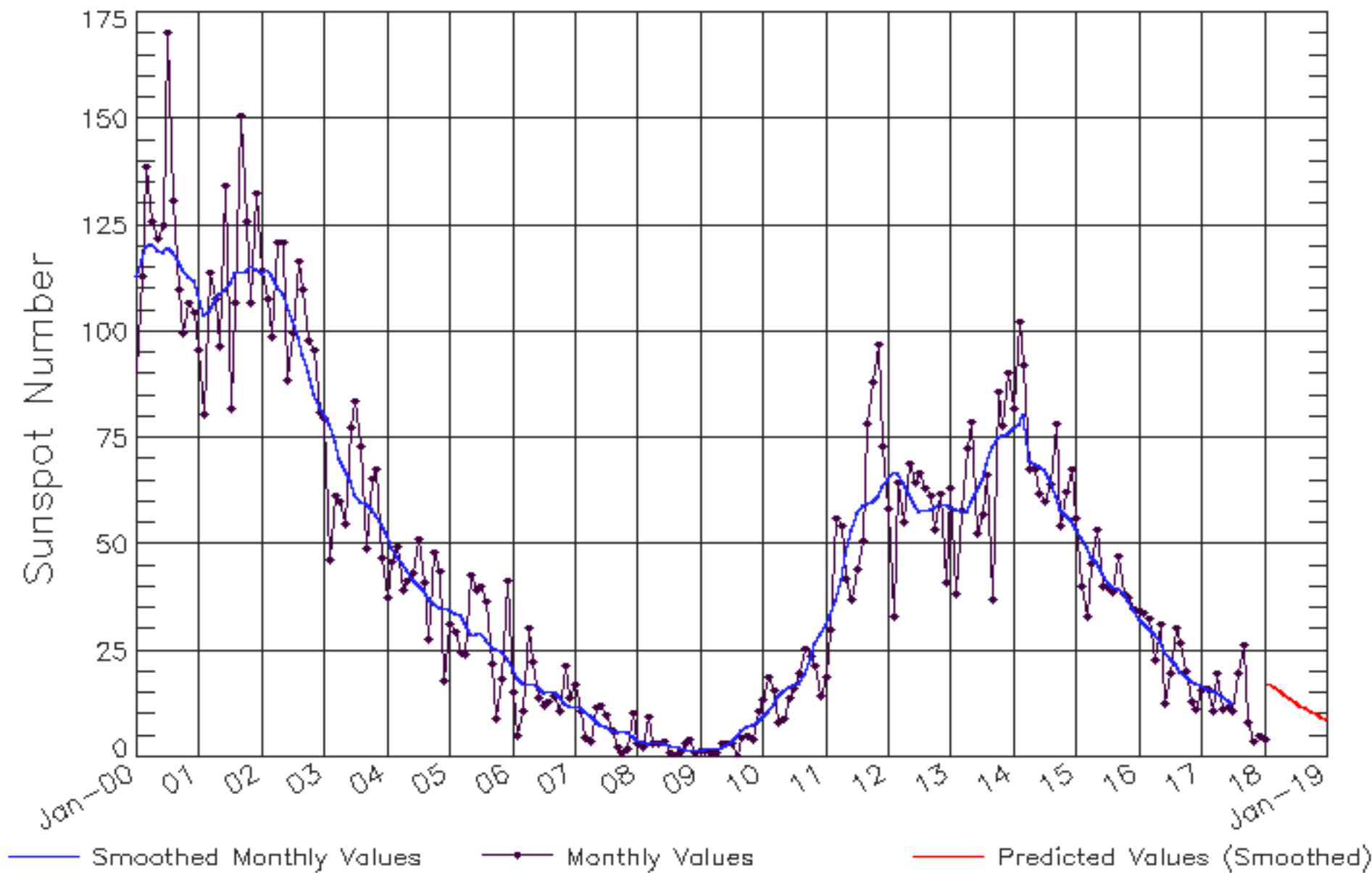


SPI STATUS

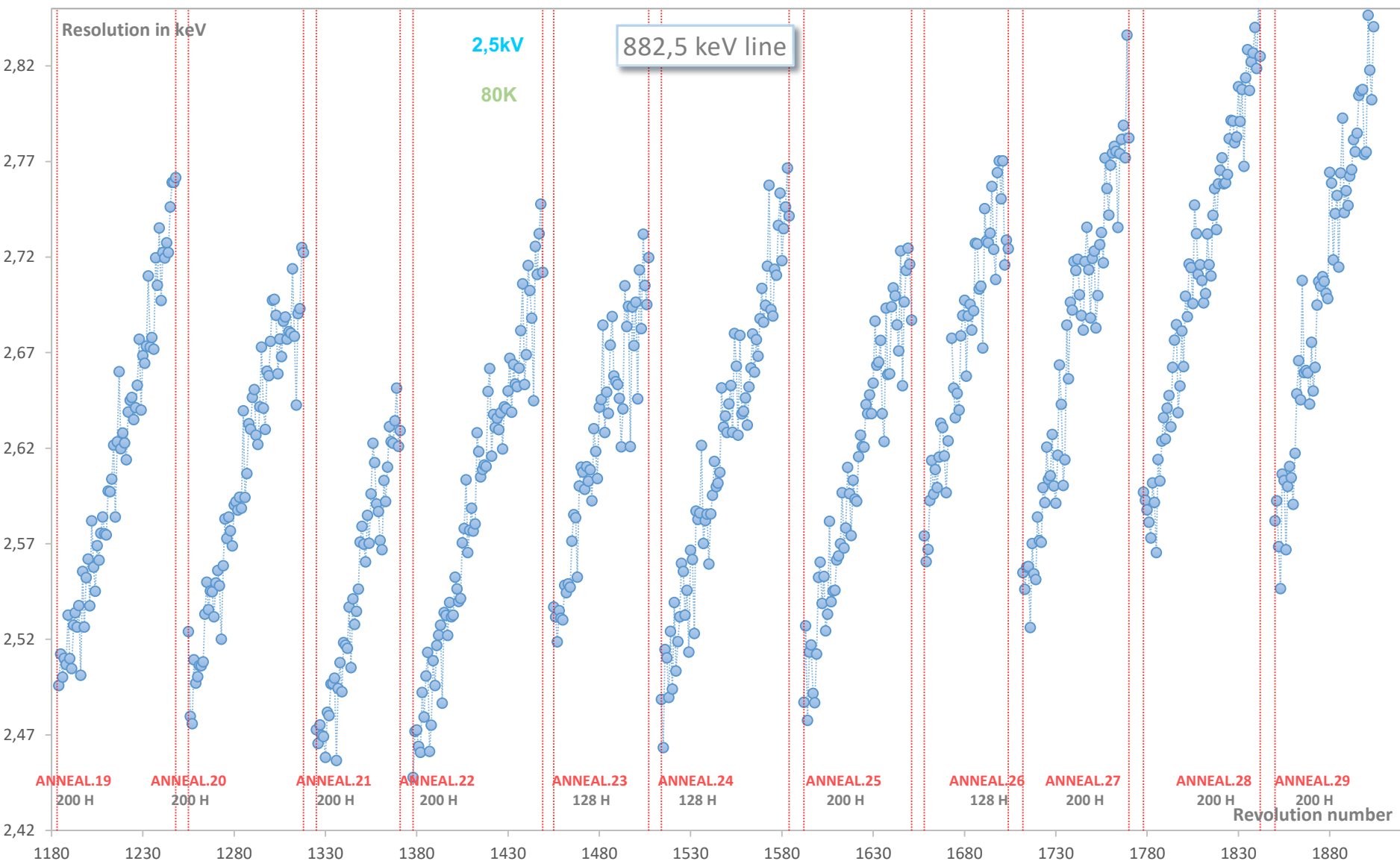
ISES Solar Cycle Sunspot Number Progression

Observed data through Jan 2018



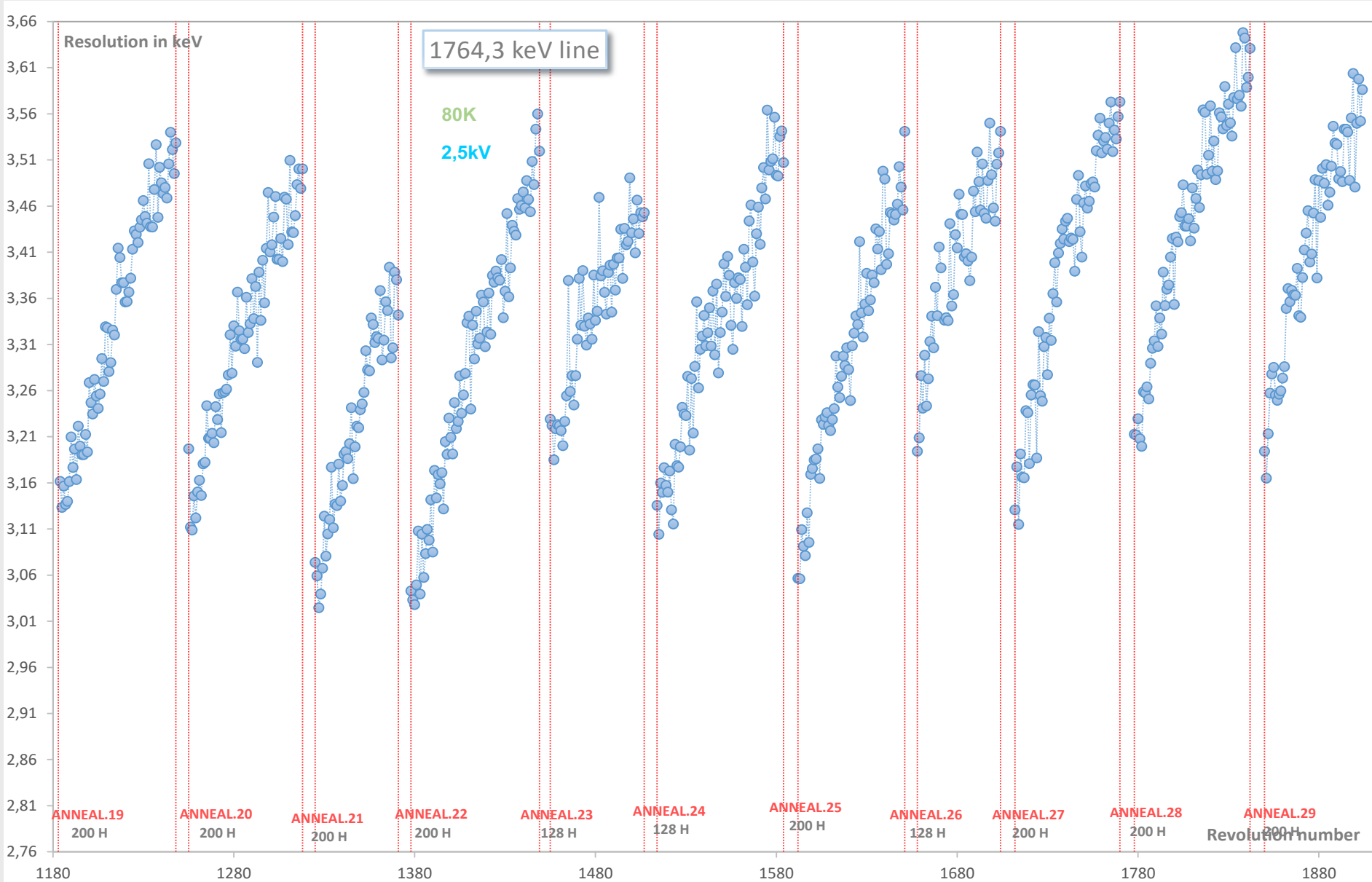
SPI CAMERA STATUS

ENERGY RESOLUTION HISTORY: 882.5 keV



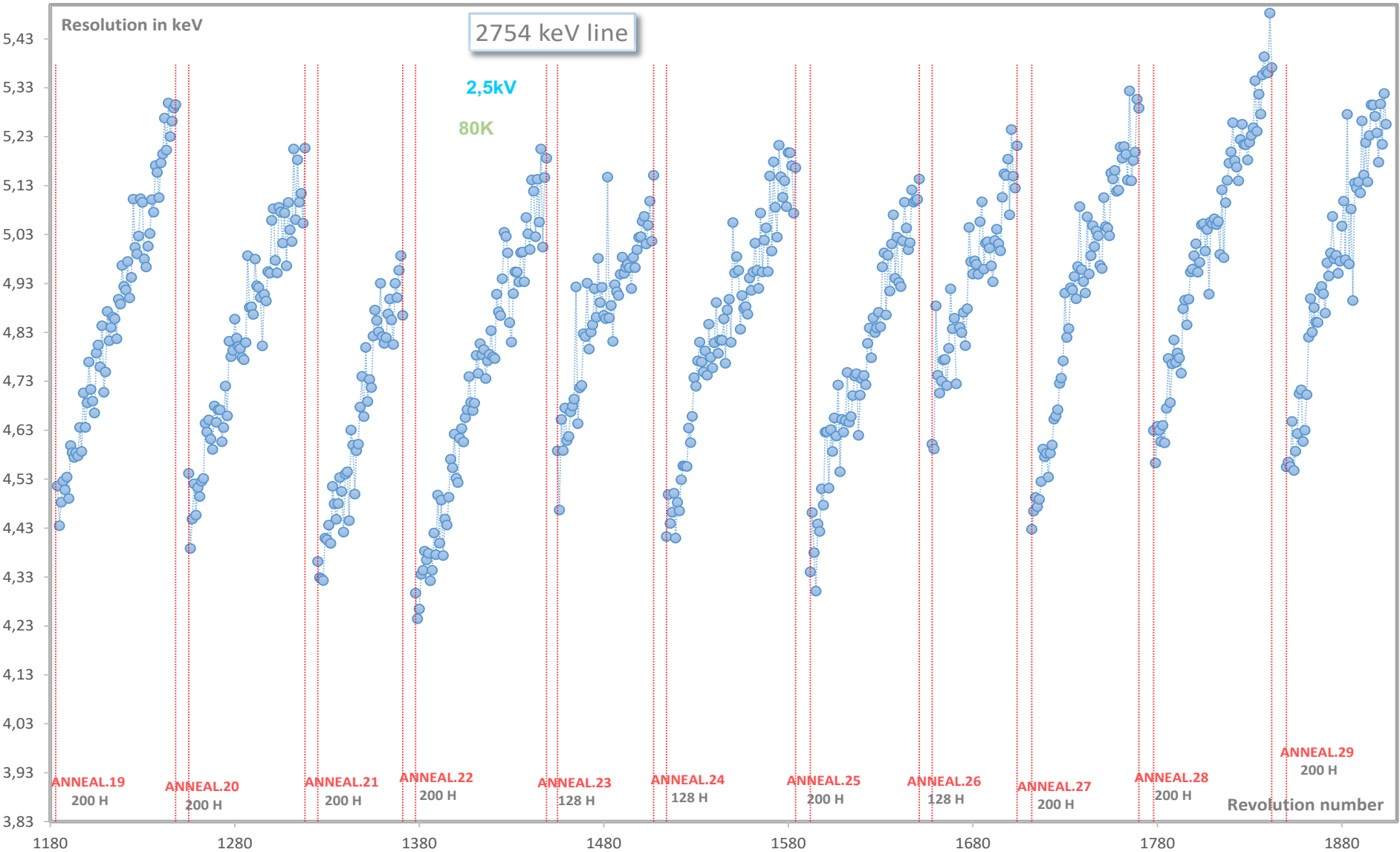
ENERGY RESOLUTION HISTORY: 1764.3 keV

- Regular annealing (GeD at 105C) restore GeD energy resolution.



ENERGY RESOLUTION HISTORY: 2754 keV

- Regular annealing (GeD at 105C) restore GeD energy resolution.



ANNEALING 30th

- Start January 26th
- Duration ~200 hr
- Switch-on: Feb 12th

Annealing 30th Switch-on

	1.5kV 98K	2kV 98K	2.5kV 98K	2.5kV 87K	2.5kV 80K
0	2.39	2.40	2.31	2.35	2.32
1	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00
3	2.63	2.18	2.17	2.15	2.21
4	2.68	2.54	2.57	2.48	2.47
5	0.00	0.00	0.00	0.00	0.00
6	2.32	2.31	2.27	2.20	2.16
7	2.64	2.27	2.20	2.12	2.15
8	2.88	2.60	2.69	2.64	2.67
9	2.17	2.13	2.08	2.08	2.07
10	2.68	2.40	2.33	2.26	2.26
11	2.49	2.36	2.32	2.31	2.25
12	2.76	2.90	2.99	2.63	2.40
13	2.26	2.18	2.24	2.13	2.14
14	3.09	2.73	2.66	2.39	2.34
15	2.36	2.34	2.22	2.17	2.12
16	2.52	2.35	2.29	2.19	2.23
17	0.00	0.00	0.00	0.00	0.00
18	2.39	2.23	2.26	2.16	2.10

Abnormal behaviour of GeD 12. An anomaly report has been issued.

GLOBAL SPI STATUS

Camera

More and more “problems” during the switch-on:

Some GeD need lower and lower temp to obtain good resolution

Nevertheless energy resolution is still very good and under control.

DFEE, PSD,DPE:

No anomaly.

ACS:

ACS calibration never looked at since January 2003.

Waiting for ACS calibration status

Global SPI CALIBRATION (Crab) stable.

GLOBAL SPI STATUS

No redundancy activated.

Plans by ESOC to test DPE2:

- Can be done together with “standard” SPI operations

- IASW ready for DPE2

- Standalone test: no interaction with SPI nominal.

No “cross-strapping”: Activation of SPI-2 (SPI redundant) would required a huge effort...

Operations: Due to “Spacon merge” ESOC is modifying some procedures...

Crab observations in 2017

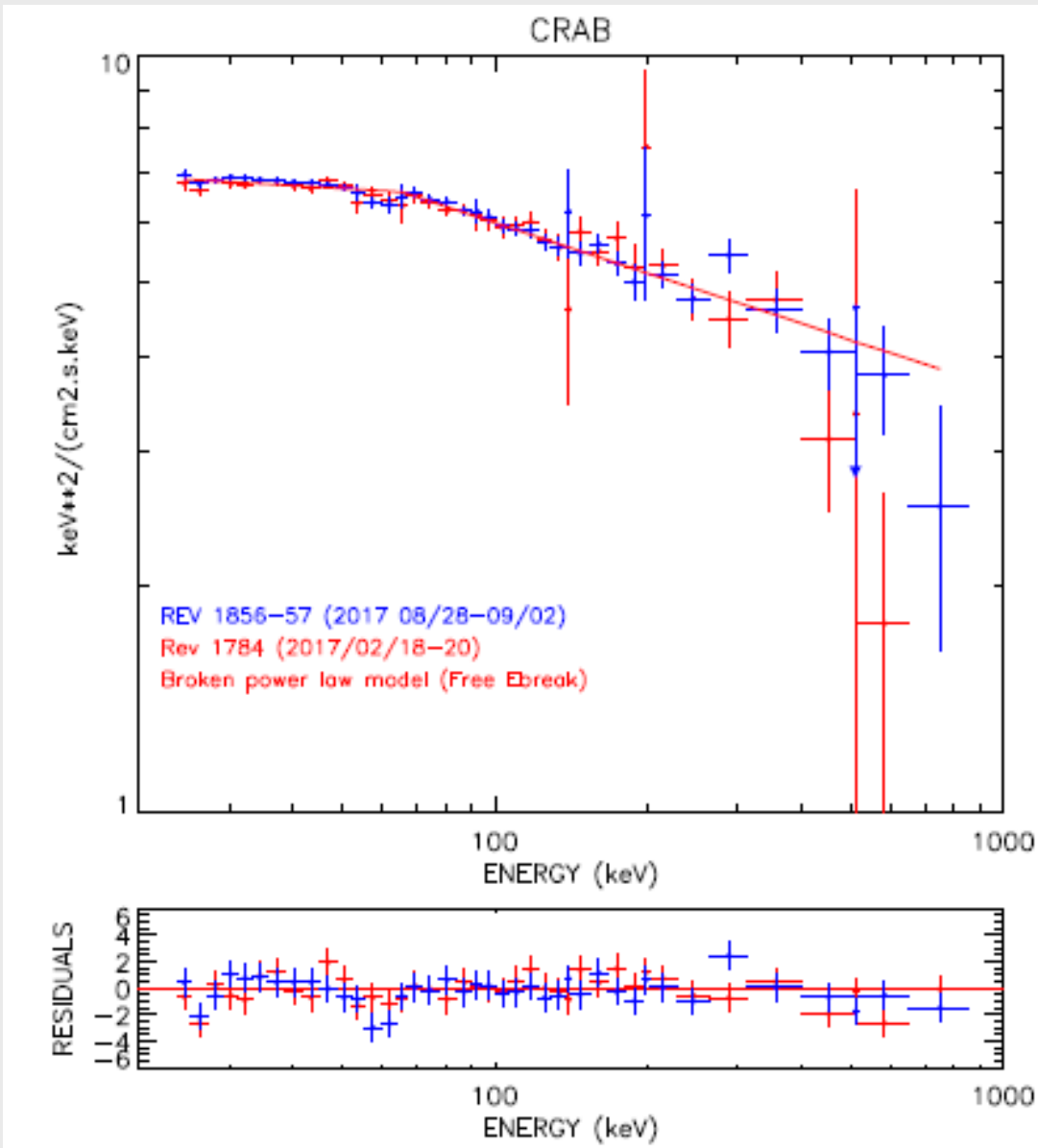
REV 1856 +1857
283 ks (useful duration)

Best-fit parameters:

PhoIndx1 = 2.04 +/-0.01
BreakE = 65.3839 +/- 5 keV
PhoIndx2 = 2.22 +/- 0.02
Flux @100 keV 6.2 E-4 ph/cm2/s/keV

E break fixed to 100 keV

PhoIndx1 = 2.08 +/-0.01
BreakE = 100 keV
PhoIndx2 = 2.29 +/- 0.02
Flux @100 keV 6.4 E-4 ph/cm2/s/keV



Cygnus X1: SPI / NuStar cross calibration

- Common fit :
 - $E > 20$ keV
- Shapes are similar
- Normalisation differs by 12-16% depending on models
- 35ks NuStar (20/05/2014)
- 256ks SPI (5-6/05/2014 and (20/05/2014)

