

ANNEALING 12th

Annealing 12th

- August 17th: Heaters switch on
- August 19th: GeD are at 106 C
– 106 C during 195 h
- August 27th: Heaters switch off
- August 30th: Cryo-coolers switch on
- September 3rd: Camera switch on at 100K

Energy resolution at 80K

Detector	198.3 keV line	882.5 keV line	1107 keV line	1764 keV line	1778 keV line	2754 keV line
0	1,99	2,42	2,62	2,87	2,99	4,07
1	1,9	2,33	2,66	2,91	2,86	3,88
2						
3	1,97	2,34	2,71	2,97	3,02	3,88
4	2,2	2,63	2,91	3,07	3,15	4,4
5	1,87	2,3	2,59	2,83	3	4,12
6	1,99	2,46	2,75	2,96	3,08	4,09
7	1,92	2,37	2,7	2,81	3,09	3,8
8	1,93	2,4	2,76	2,83	3,14	3,74
9	1,87	2,28	2,65	2,79	3,03	3,73
10	1,9	2,39	2,79	2,92	3,29	3,9
11	1,92	2,49	2,6	2,81	3,24	3,62
12	1,96	2,42	2,71	2,86	3,15	3,5
13	1,94	2,43	2,71	2,79	3,19	3,76
14	2,04	2,49	2,79	2,92	3,17	3,73
15	1,96	2,4	2,78	2,95	3,11	4,14
16	1,91	2,41	2,69	2,85	3,02	3,72
17						
18	1,93	2,43	2,81	2,92	2,93	4,02

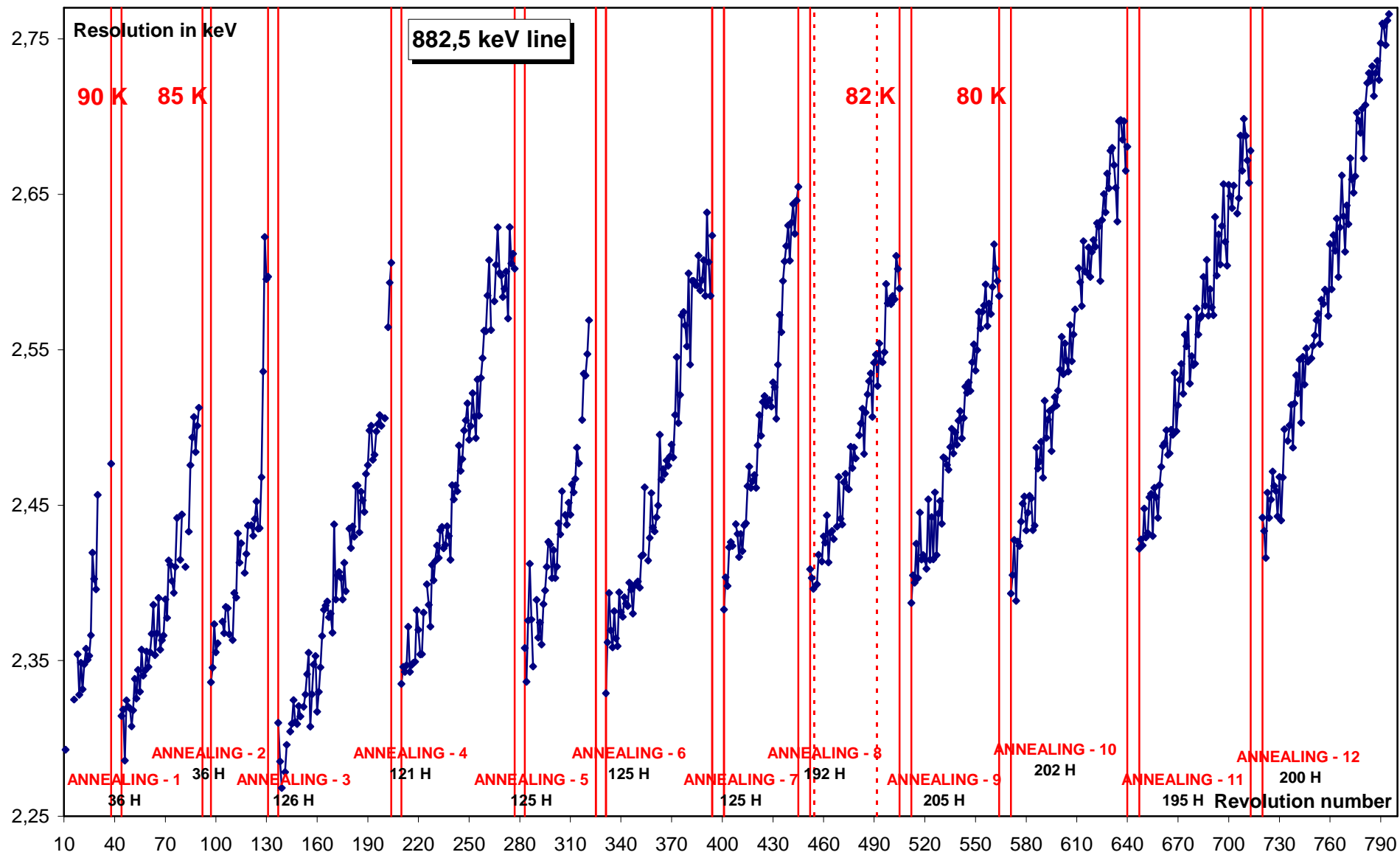
GeD 12 recovery

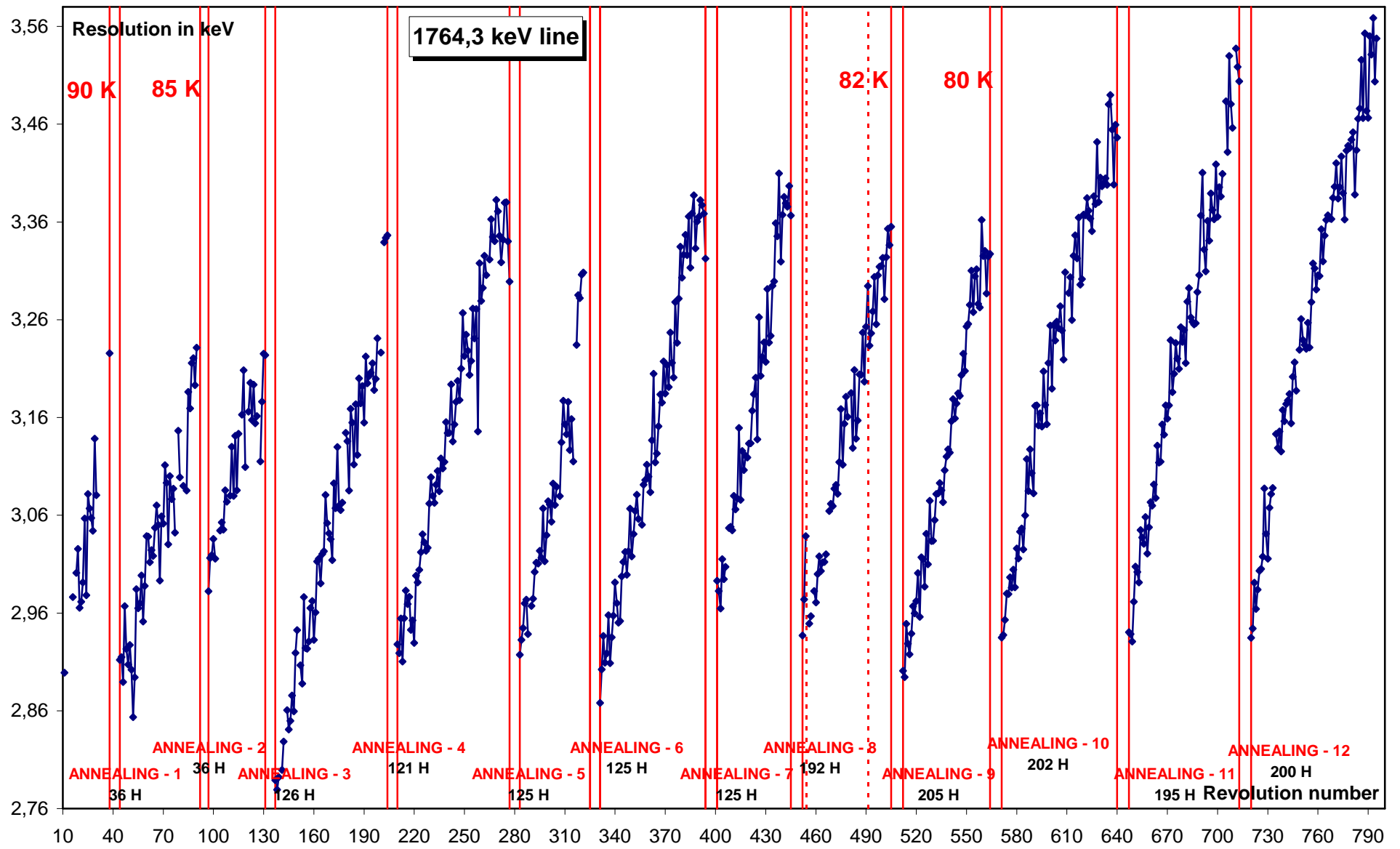
GeD#12 HV		2,5 kV	3 kV	3,5 kV	4 kV
198 keV line, resolution in keV	after annealing 12, 82 K (rev 719)		1,91	1,91	1,97
	after annealing 11, 82 K (rev 646)	2,04	2,05	2,05	2,16
	after annealing 10, 82 K (rev 570)		2,22	2,25	2,4
	after annealing 10, 80 K (rev 571)			2,19	
	after annealing 9, 80 K (rev 514)	2,02	2,1	2,16	2,4

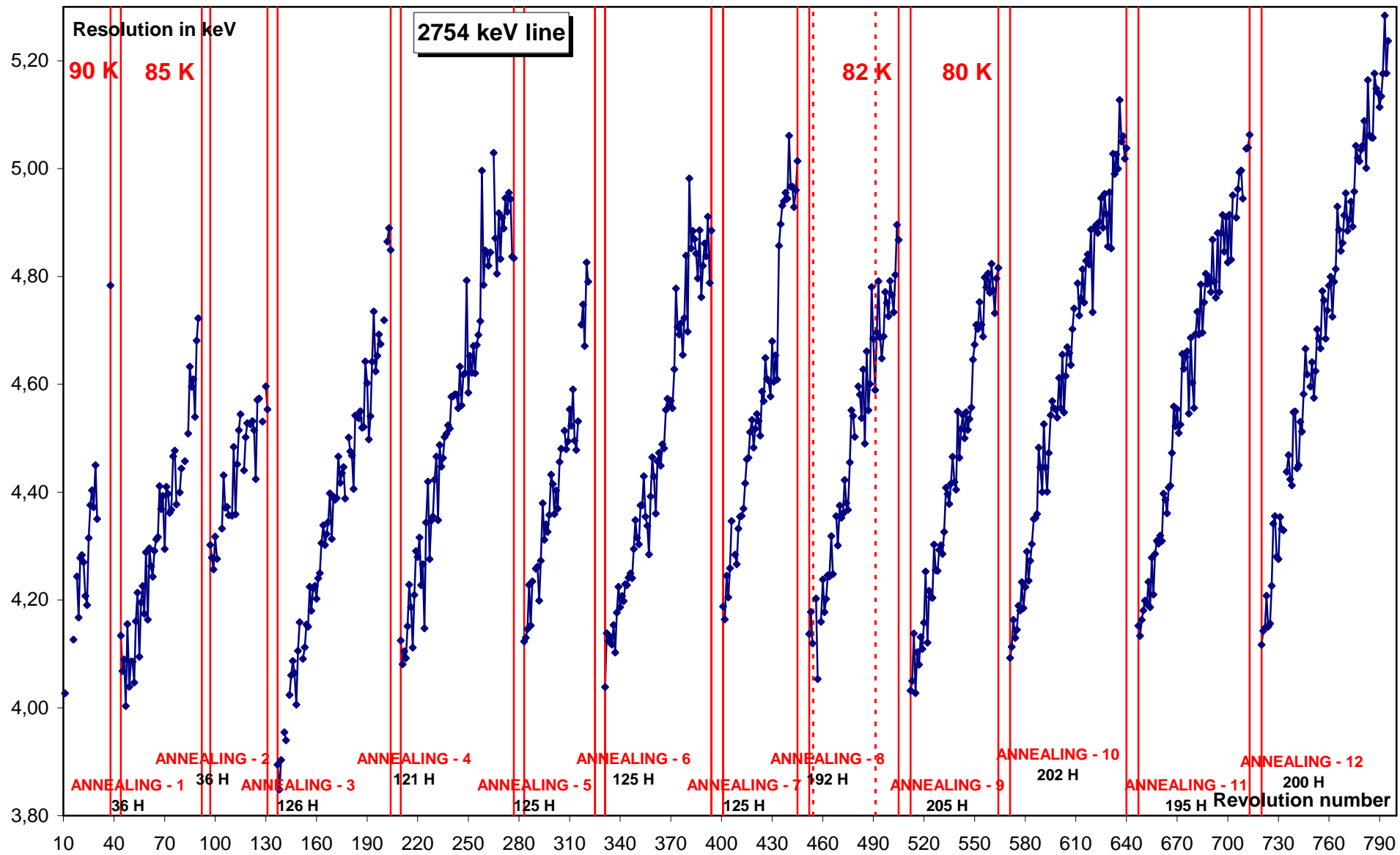
GeD 12 HV is now set to 4 kV Nominal value

Annealing 12th

- Energy resolution still under “control”
- GeD 12 back to nominal behavior
- High energy particles rate still very high
- Still waiting for solar activity to restart.....



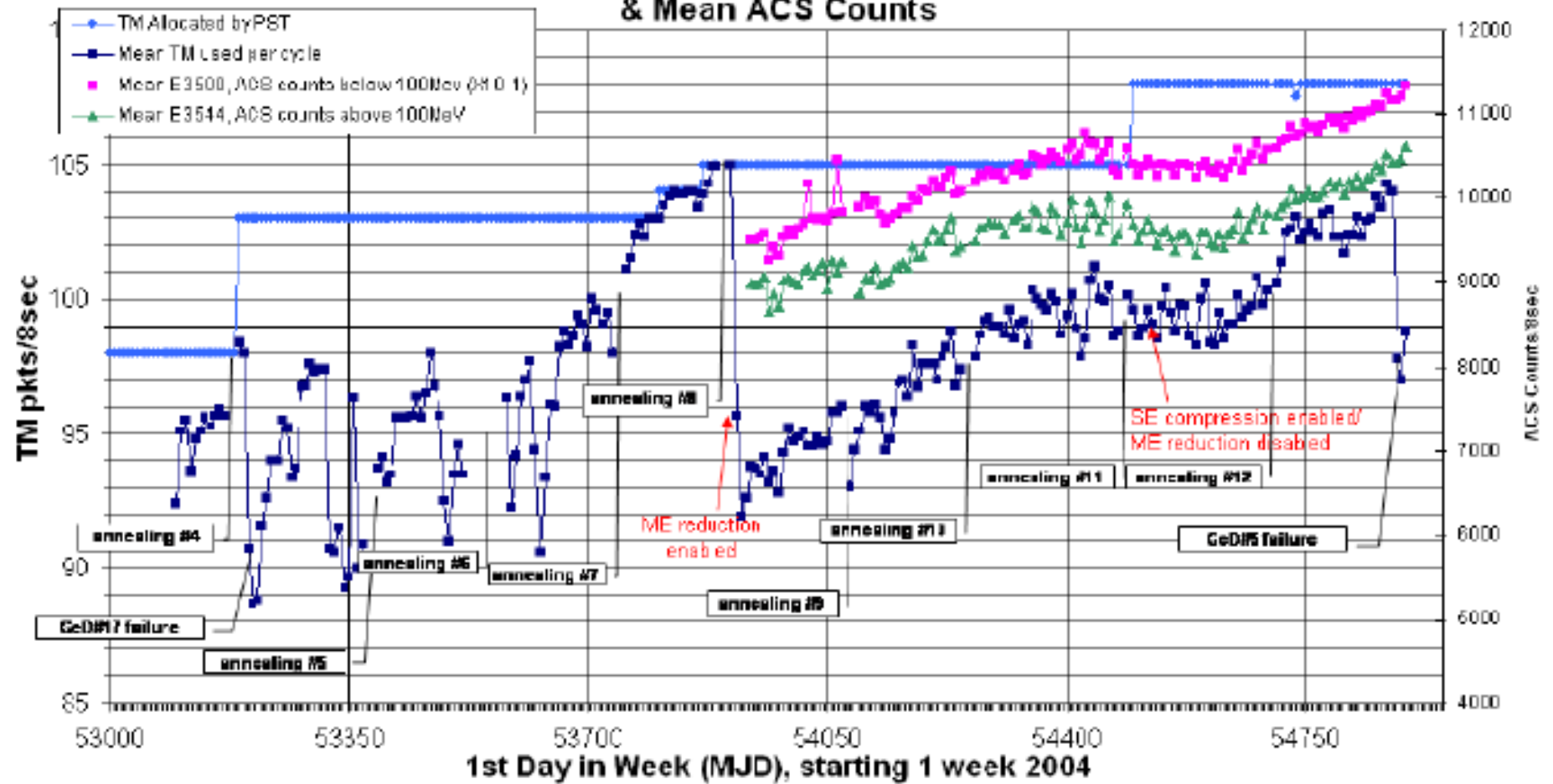




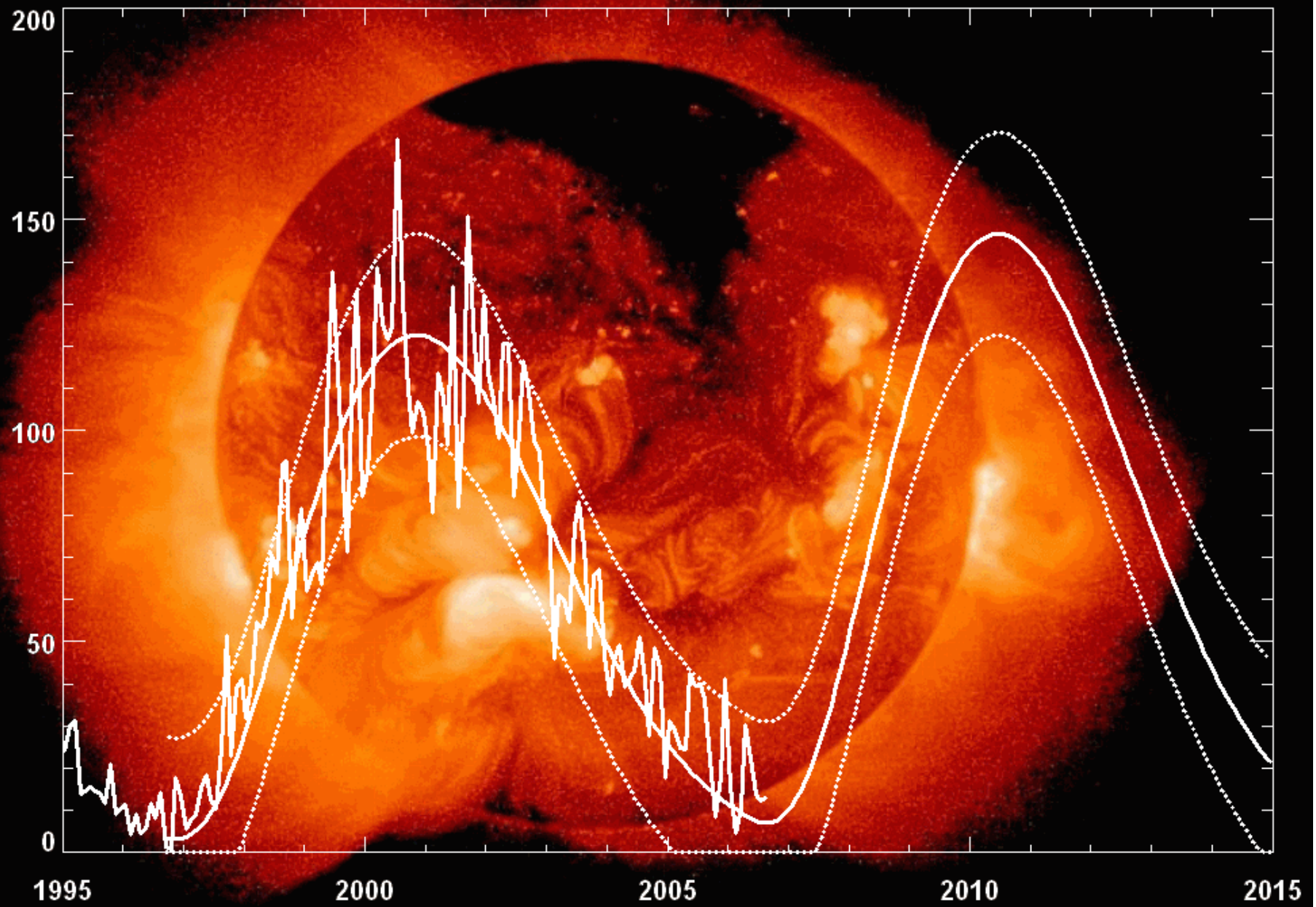
ANNEALING 13th

- Degradation quite high
- Compromise with long term planning pushed the annealing to April 20th
- Degradation exceeds all records!
- Annealing duration will be one revolution more....Hope for a good recovery!

SPI Mean TM Bandwidth Occupation in Science Mode & Mean ACS Counts

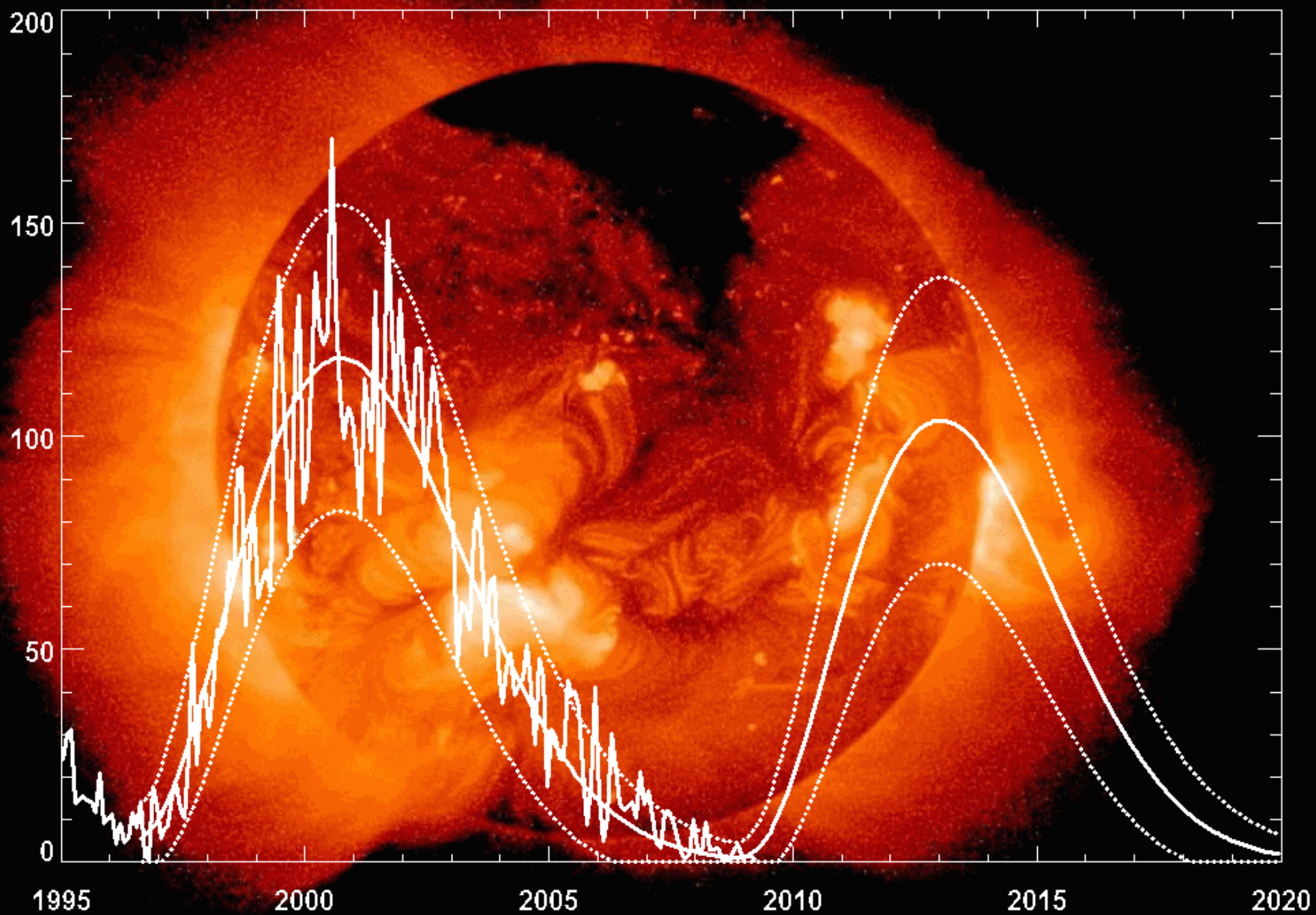


Cycle 23-24 Sunspot Number Prediction (September 2006)



NASA/MSFC/Hathaway

Cycle 23-24 Sunspot Number Prediction (April 2009)



NASA/MSFC/Hathaway

TOWARDS more TM SAVINGS

- Background is still increasing !
- Study of loss-less compression for PSD and multiple events

GeD 5 failure

- Since Feb 19th GeD#5 stops working
- Reactivation failed
- Cause is unknown
- Sensitivity impact is marginal 16/17
- Failure occurs at perigee - like GeD17
- New IASW will reduce HV during radiation belts.
- Still 85 % is working after 7 yr