

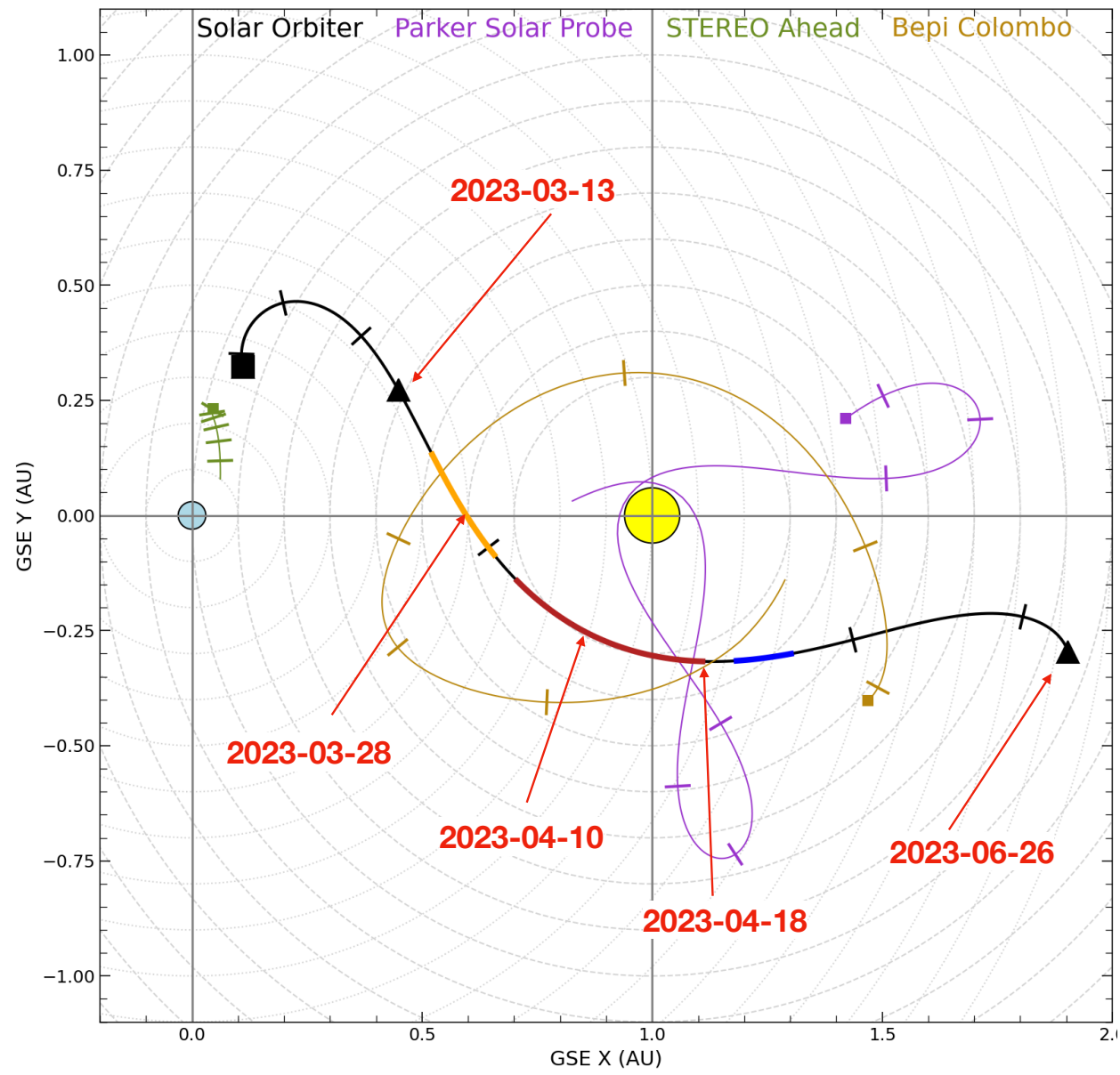
Planned campaigns in LTP11

D. Berghmans

29th Consortium Meeting
Online, 2023-01-27

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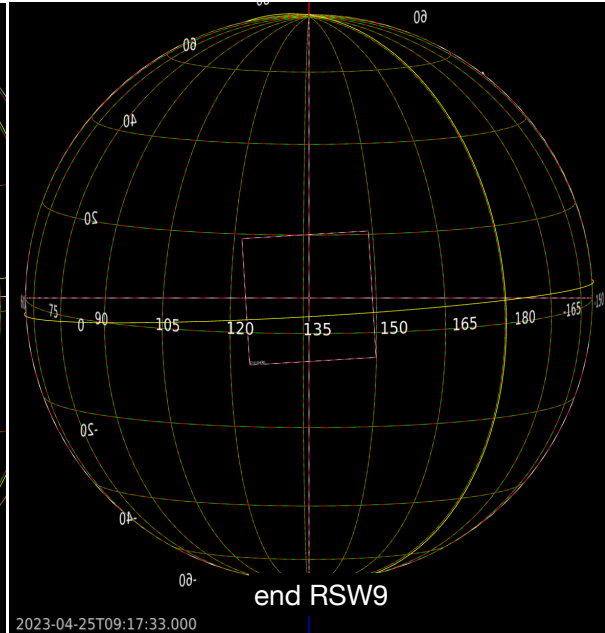
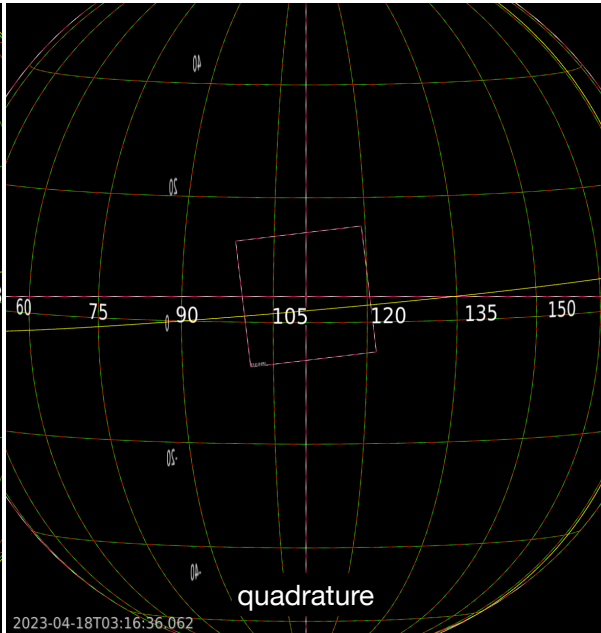
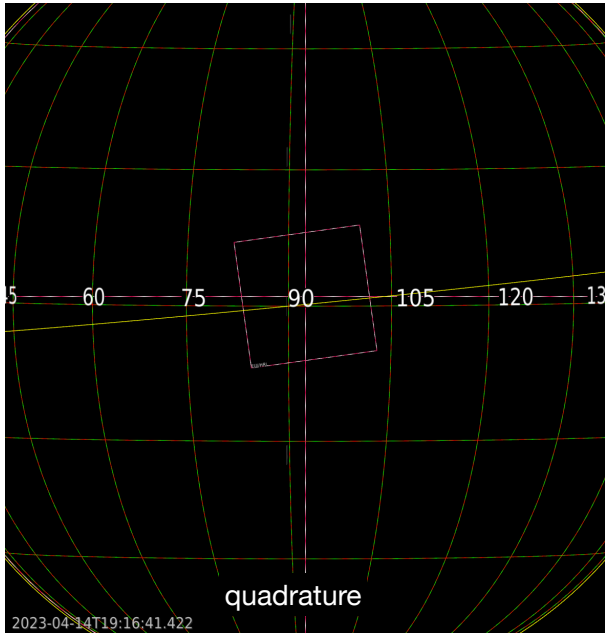
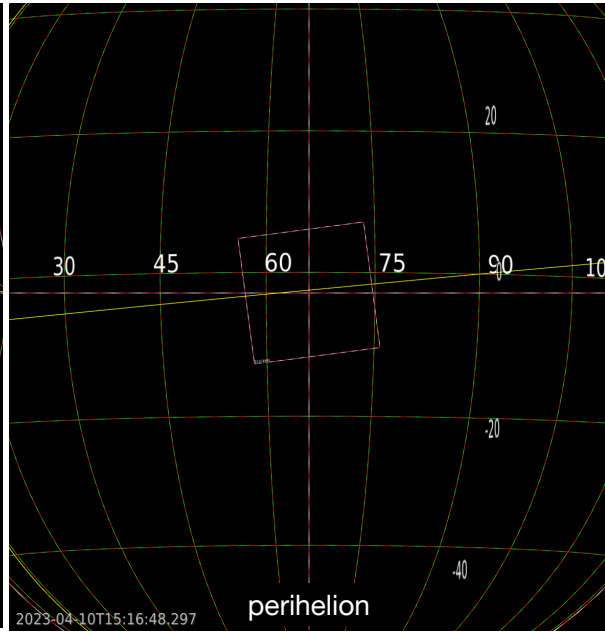
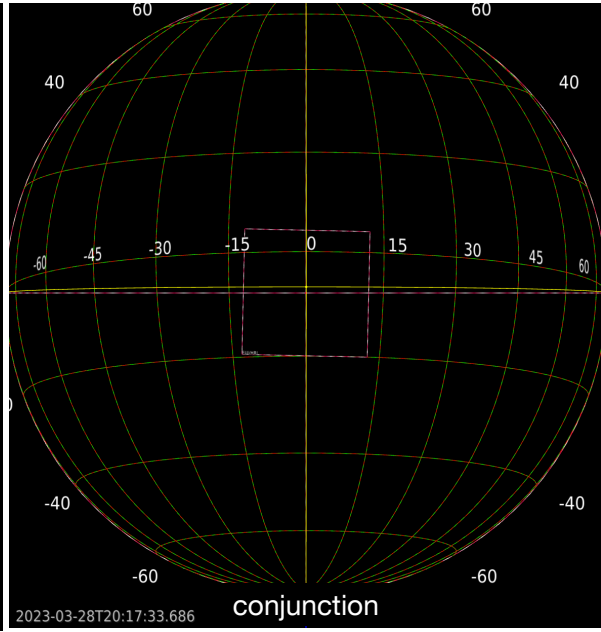
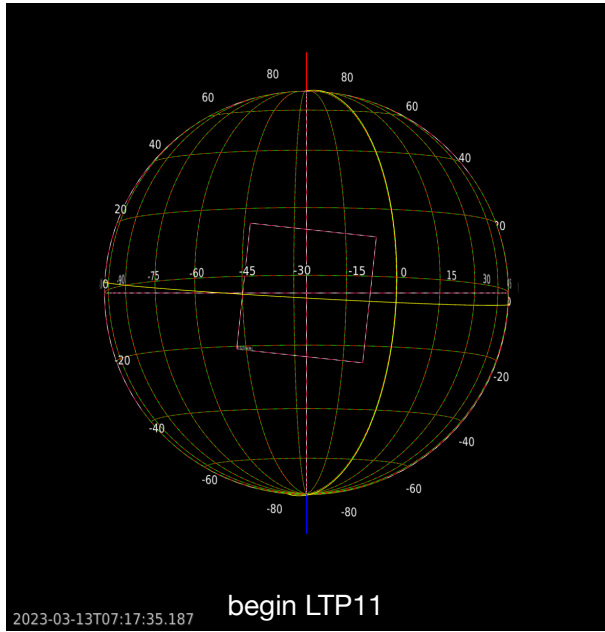


LTPs 10 & 11
2022-12-26 - 2023-06-26

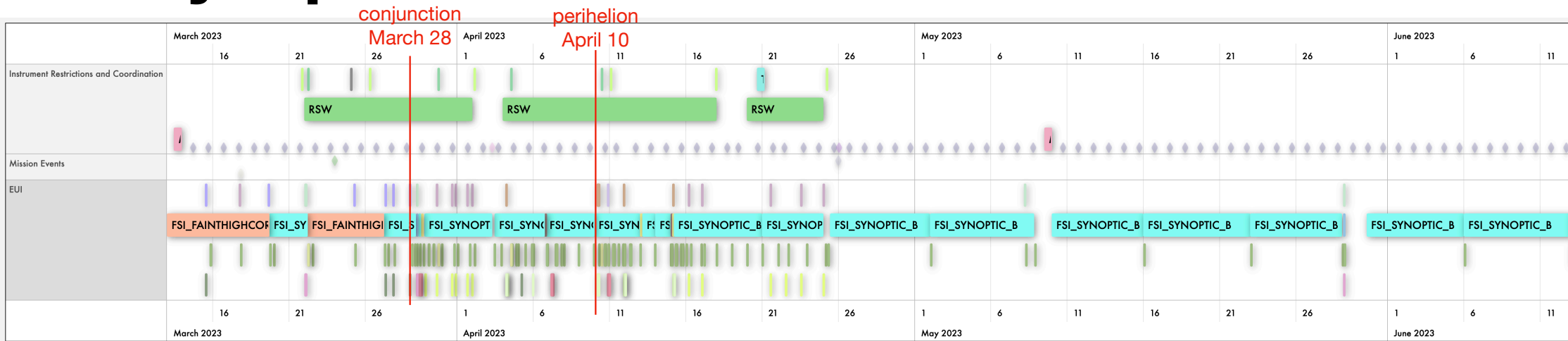
- Period Start
- GAM Restrictions
- ▲ LTP Boundary
- Solar Conjunction
- Safe Mode Blackout
- Perihelion Window
- North Window
- South Window

- Max Downlink
- > RSW Instantaneous
- > IS Instantaneous
- < IS Instantaneous

Window	EXT Start	Start	End	Heliocentric Distance Range [au]		Heliographic Latitude Range [deg]			SC-Sun-Earth Angle Range [deg]			
RSW7 (11 d)	2023-03-18T00:00:00 (TBC)	2023-03-22T00:00:00	2023-04-02T00:00:00	0.495		0.35	-6.8	-7.99	-7.9	16	1.1	15.5
RSW8 (14 d)	2023-04-02T00:00:00	2023-04-04T00:00:00	2023-04-18T00:00:00	0.33	0.29	0.34	-7.4	0	4.0	25		110
RSW9 (5 d)	2023-04-18T00:00:00	2023-04-20T00:00:00	2023-04-25T00:00:00	0.36		0.44	5.3		7.1	119		135

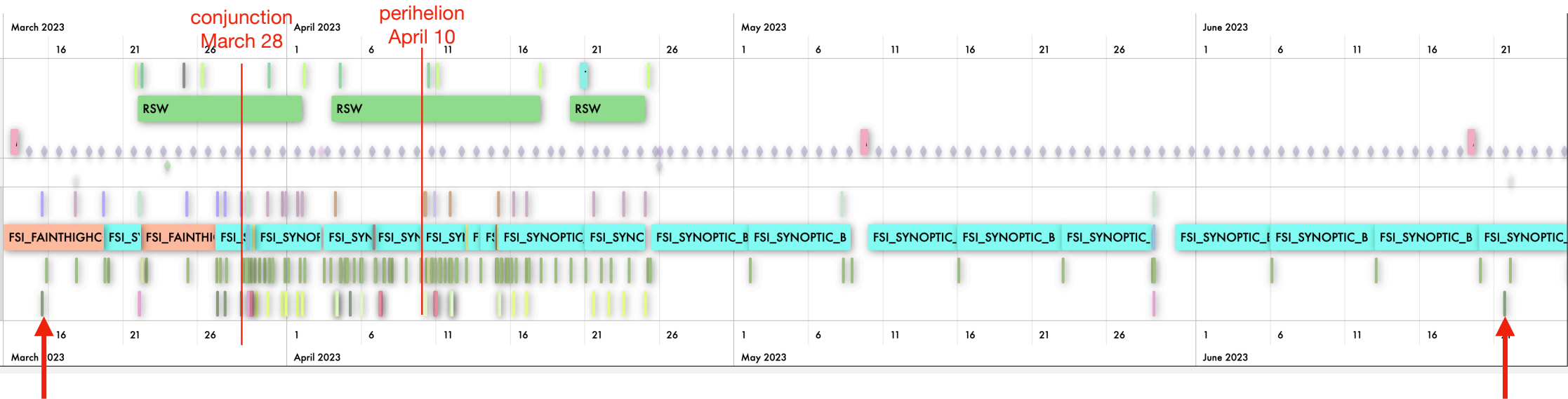


FSI Synoptics



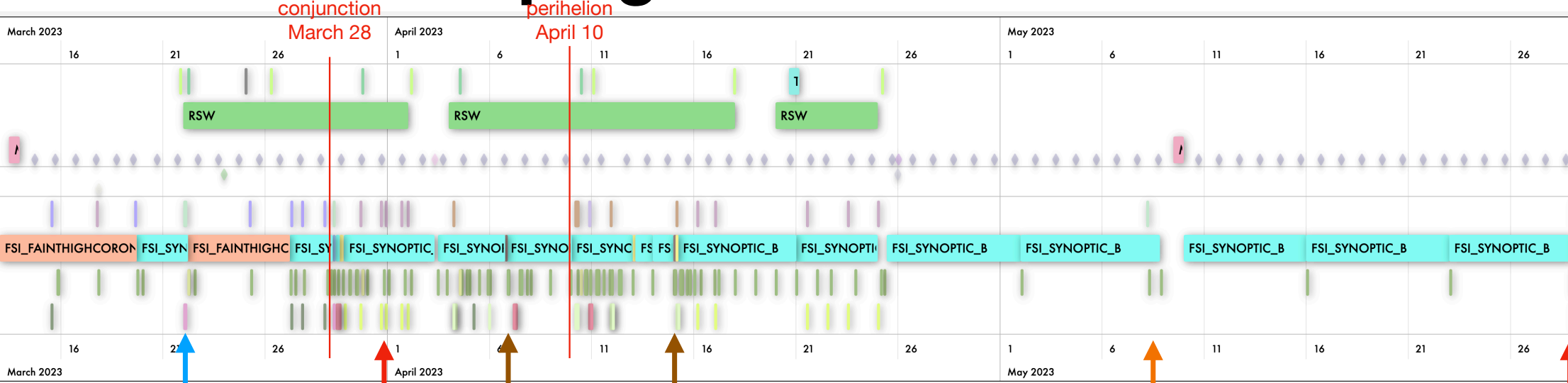
- before and beginning of RSW7: FSI174 occulted 2x2, 18min cadence (support for Metis Eruption Watch)
- default during RSWs = 2 channels @ 10min cadence, (181 MiB/day)
- Metis Density fluctuation SOOP: 3 hours FSI174@30s deep exposures (20s)
- after RSW9: reduced to FSI174@15min, FSI304@12h

PSP support



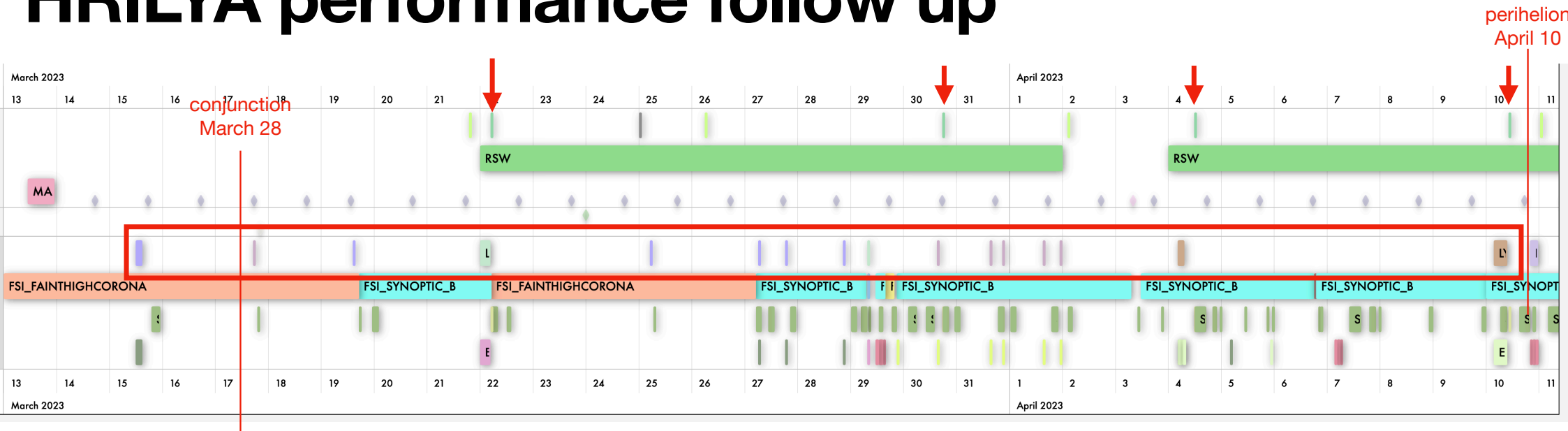
- March 15: 3h HRIEUV@10s + HRILYA@30s (close to Earth, free telemetry)
- June 21: 108 HRIEUV images (far from Earth, telemetry very limited)

Calibration campaigns



- ↑ “Monthly” LED campaigns (March 29, Late May) (no telemetry for late April)
- ↑ FSI flat field mosaics (April 6, April 15)
- ↑ HRILYA star campaign (May 8)
- ↑ Full disk “crazy” mosaic (March 22, @0.488au, 15deg from Earth)

HRILYA performance follow up

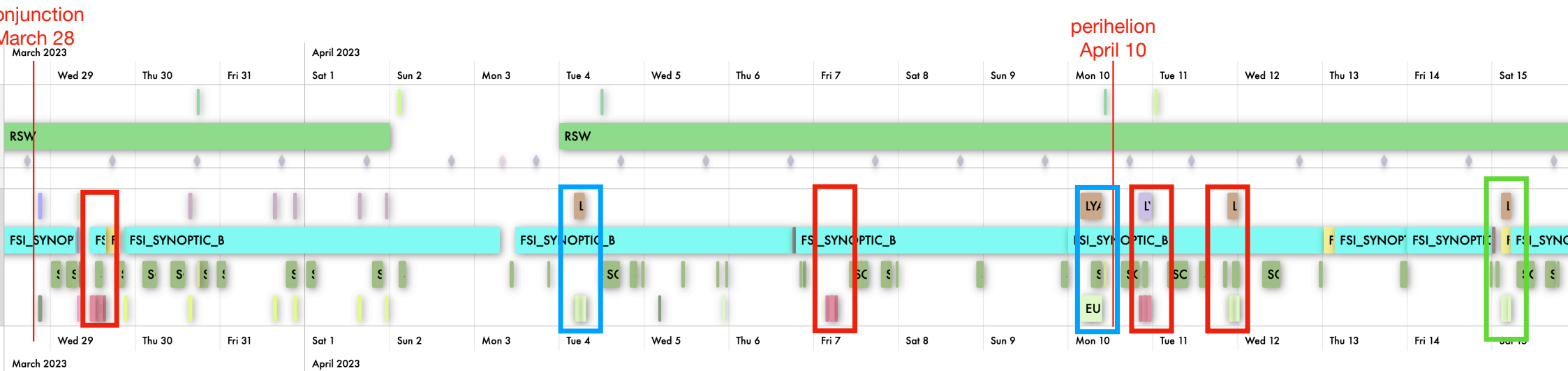


- 16 HRILYA sequences from March 15 (@0.58 au) to April 10 (and beyond)
- 4 TAC slots March 22 (@0.49 au), March 30 (@0.38 au), April 4 (@0.32 au), April 10 (@0.29 au)
- Possible actions:

- switch from 2x2 to 4x4 binning (and vice versa depending on resolution)/
- adjust voltages/exposure to counteract throughput losses
- deprioritise HRILYA images (to save TM for later)
- close HRILYA door (in case of catastrophic failure of front filter) Edited

iVSTP interactions need to be identified beforehand

Large HRI bursts: Nanoflares and RS burst SOOPs



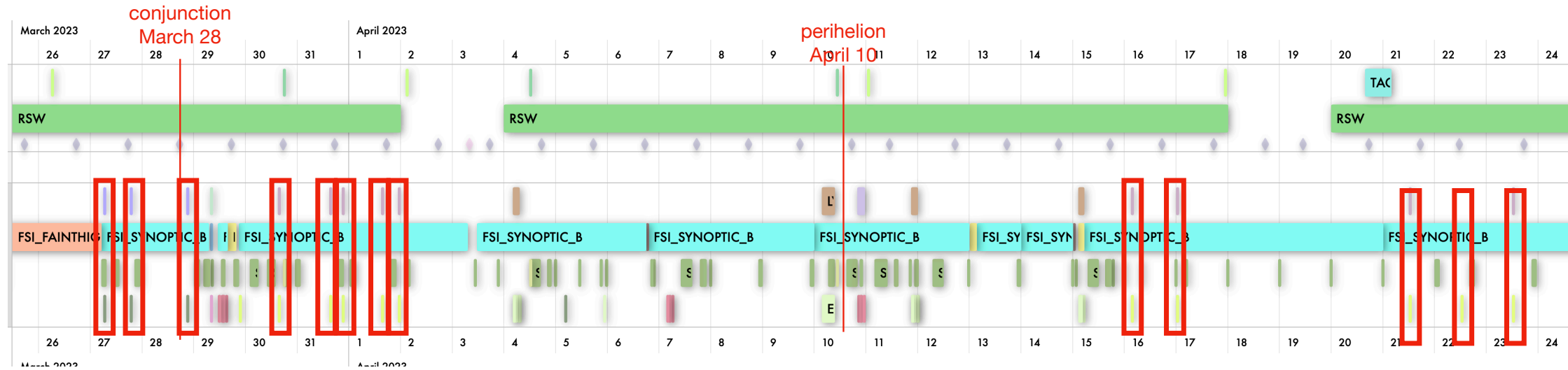
- Typically 2 HRIs, > 2000 MiB, HRIEUV up to 3s cadence, HRILYA@30s

- Action region: March 29, April 7, April 10, April 11

- Disk center: April 4, April 10

- Limb/prominence: April 15 (includes FSI@60s)

1h HRI bursts



- Typically 2 HRIs, 750 MiB, 1h of HRIEUV@5s+ HRILYA@30s
- ◻ 13 slots in support of SOOPs with lots of pointings: Composition SOOP, Slow Wind Connection SOOP, Connection Mosaic SOOP
- 14 other off-pointings are not covered by HRI because of telemetry limitations

Others

- Polar Campaign:
 - March 29: 800 MiB on March 29 (~conjunction)
 - April 24: 240 MiB on April 24
- Sunspot Oscillations (A. Fludra): 228 MiB, Bright Points (A. Fludra): 0 MiB

LTP11 planning for LTP (with RSW)														
Assumptions														
Available TM [MiB]		43000												
Duration [days]		105												
Activity		TM/unit [MiB]	# times	Total telemetry	Cumulative TM	Left-over TM								
					0	43000								
FSI synoptics, 2 channels, 2 telescopes		181.343	36	6528.348	6528.348	36471.652								
FSI reduced synoptics		61.75	60	3705	10233.348	32766.652								
FSI Occulter 2x2		129.7	9	1167.3	11400.648	31599.352								
monthly LED campaign		98	2	196	11596.648	31403.352								
FSI flatfield		227	2	454	12050.648	30949.352								
HRILYA star campaign		155	1	155	12205.648	30794.352						only ingress		
1h daily burst (HRIEUV@5s, HRILYA@30s)		750	13	9750	21955.648	21044.352						14 pointings not covered		
Large bursts (HRIEUV/LYA)		2400	7	16800	38755.648	4244.352								
polar campaigns		520	2	1040	39795.648	3204.352						insufficient TM/unit		
1h HRIEUV@2s continuous mode		1800	0	0	39795.648	3204.352						no quiet time in LTP11		
crazy mosaic		540	1	540	40335.648	2664.352								
PSP support		544	2	1088	41423.648	1576.352								
sunspot oscillations		228	1	228	41651.648	1348.352								
FSI deep exposures		228	1	228	41879.648	1120.352								

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