



RPW Consortium & Science Meeting



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30/11-02/12, 2020
Meudon



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Practical informations

- **Covid rules**
 - ***Sanitary pass***
 - ***Wear your mask inside***
 - ***Do not kiss your neighbors in the auditorium***
 - ***Coffee breaks outside***

- **Eduroam works : use your PC for the presentation (send it by email)**
- **If you need a password for wifi let me know**
- **Group dinner on Wednesday evening TBC (see the poll)**
- **Thursday afternoon we will be in the conference room below the large Coupola (building 9)**

LE DE MEUDON -



Solar Orbiter & RPW status

SOLAR ORBITER'S RISKIEST FLYBY

Solar Orbiter is ready to start its main science mission, using regular Venus gravity assists to bring it progressively higher over the never-before-seen Sun's poles. But first it must fly through the hazardous debris-filled clouds that surround Earth.



- Probability of $2.25e-9$ for a debris collision
- Trajectory correction of 2 cm/s on Nov. 20

10-20 Nov

Risk assessments begin, uncertainties high

Uncertainties decrease

25 Nov

Decision to manoeuvre made

26 Nov

If collision probability high enough, manoeuvre performed

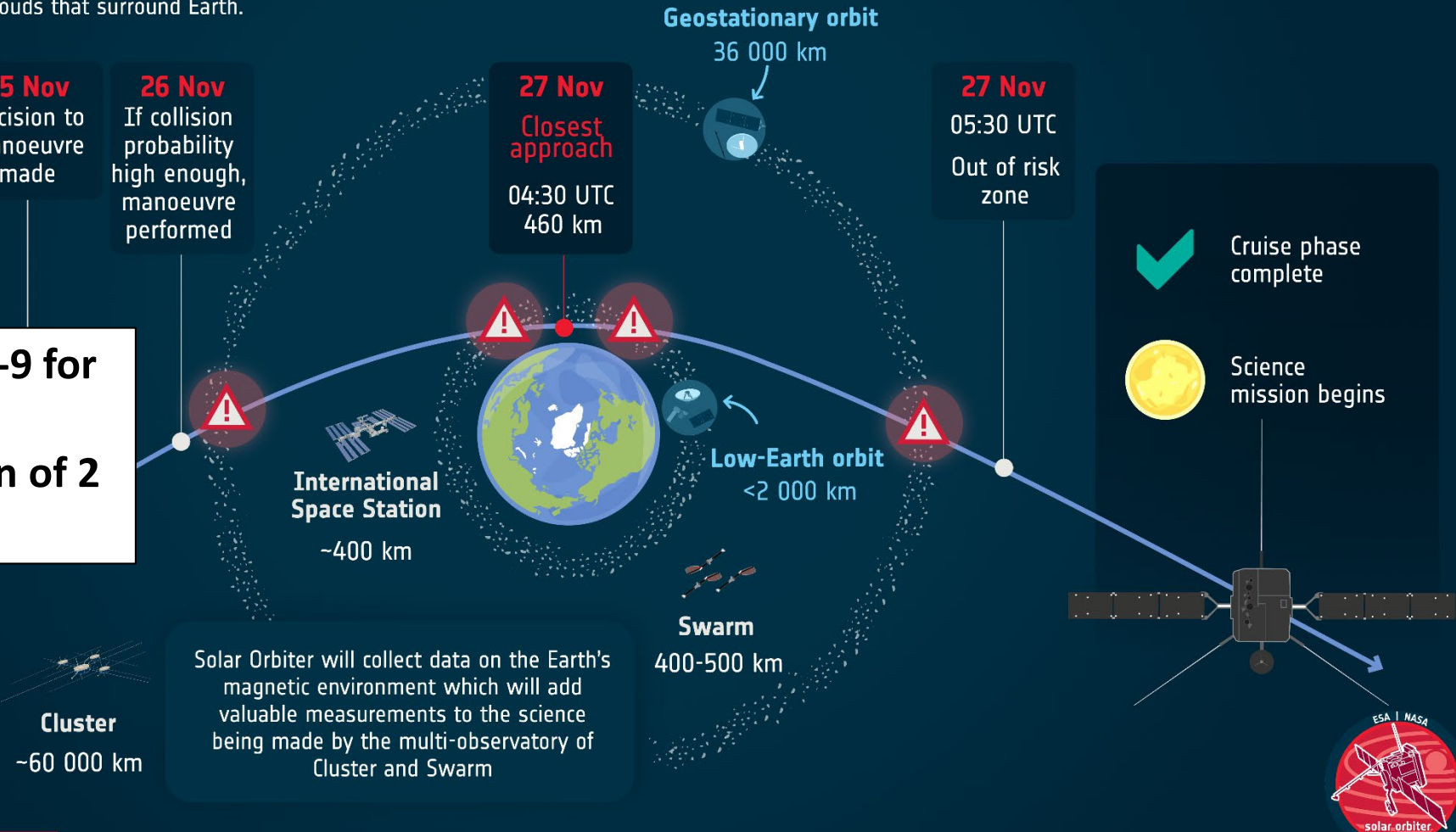
27 Nov

Closest approach

04:30 UTC
460 km

27 Nov

05:30 UTC
Out of risk zone

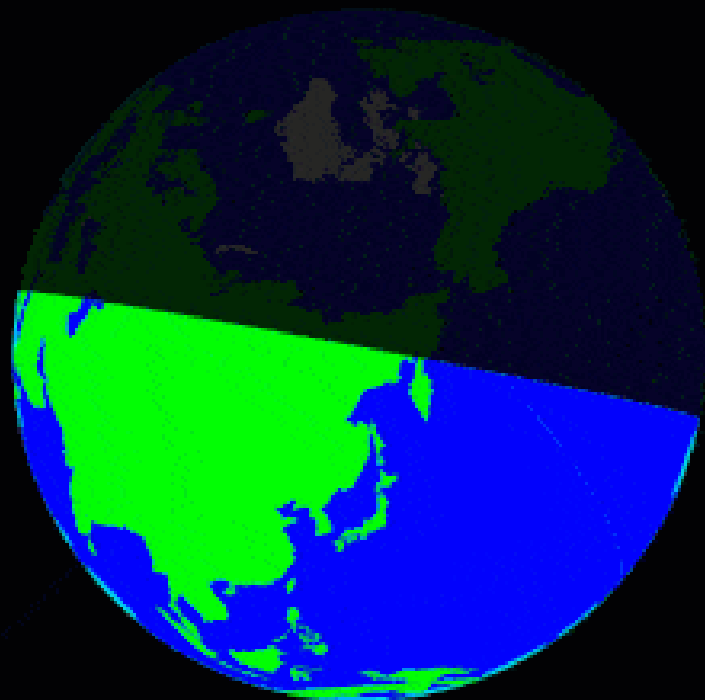


✓ Cruise phase complete

☀ Science mission begins

Solar Orbiter will collect data on the Earth's magnetic environment which will add valuable measurements to the science being made by the multi-observatory of Cluster and Swarm

Seen from north pole

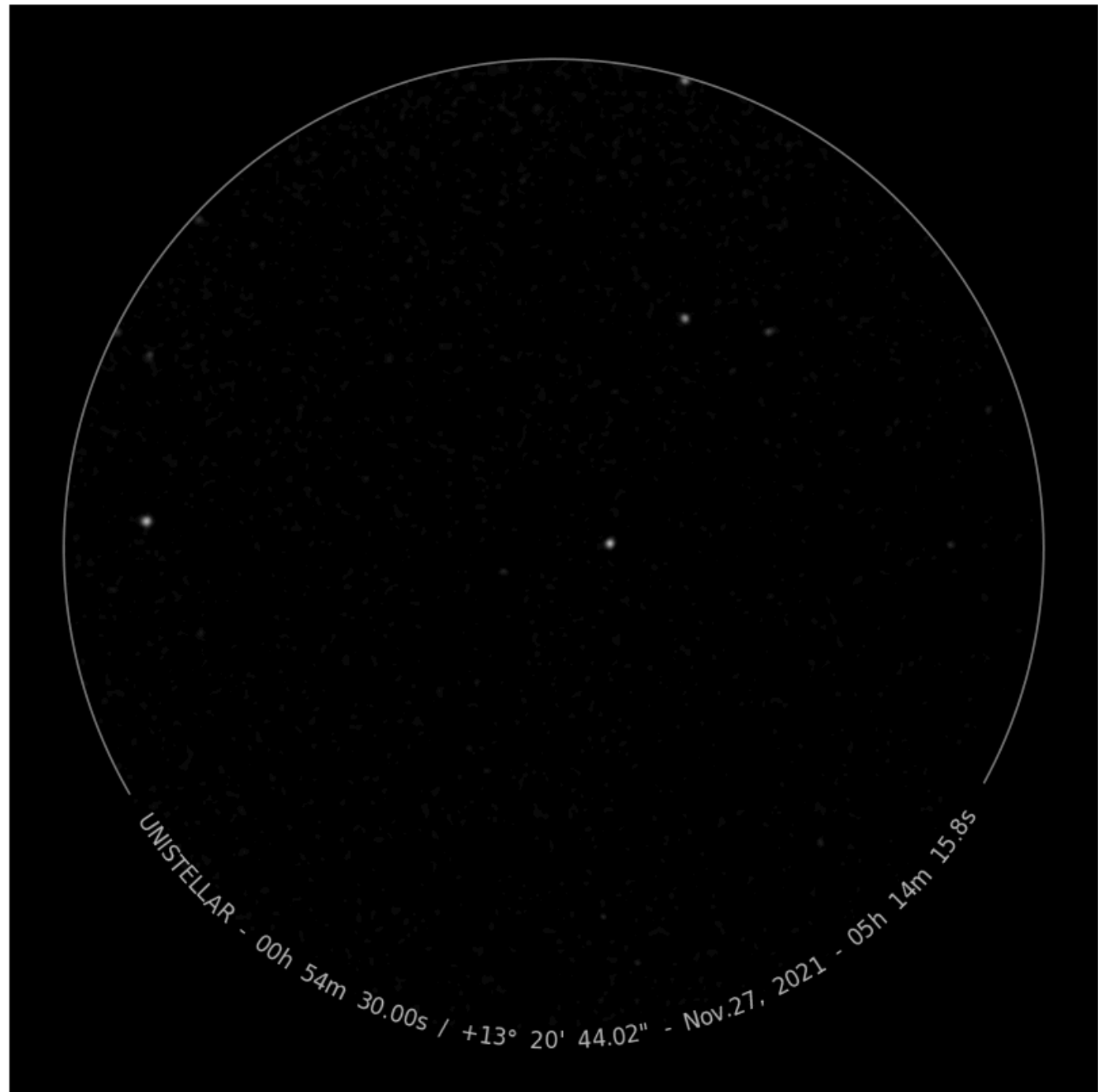


Nov 27 2021 04:00 UTC

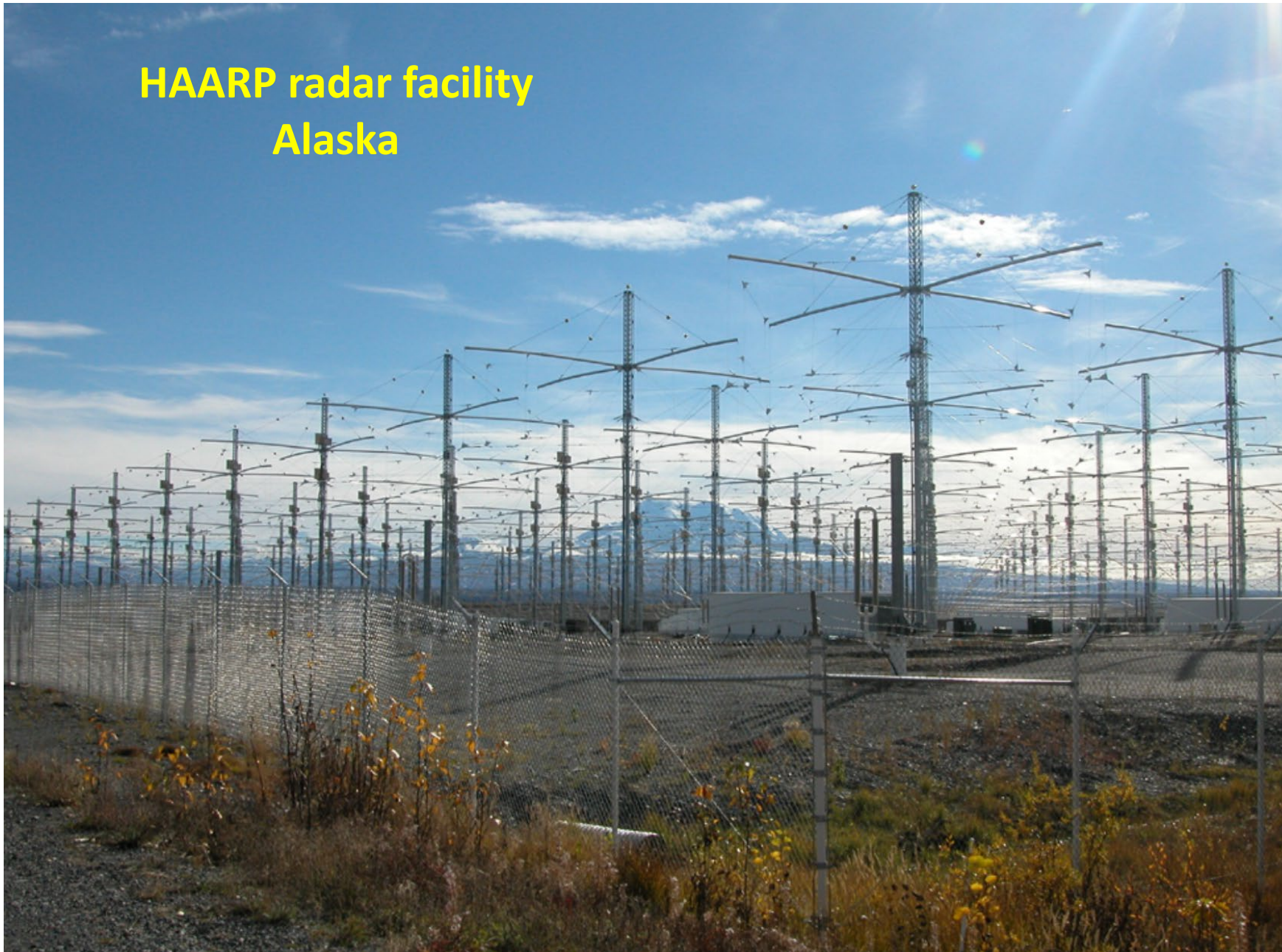


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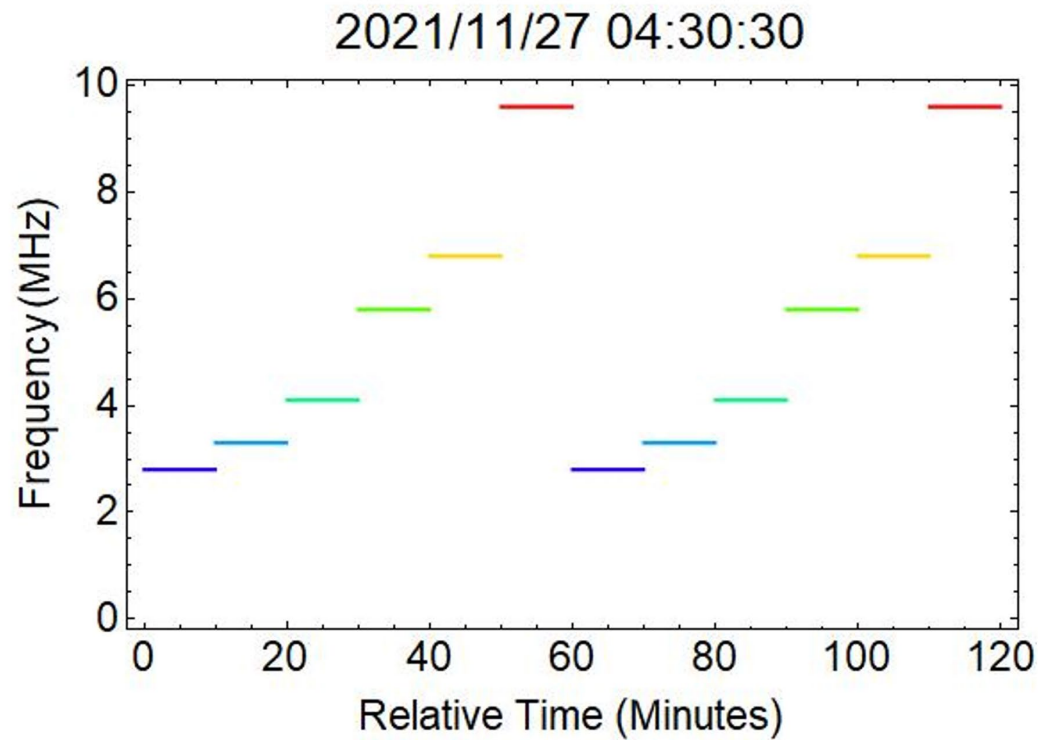


HAARP radar facility Alaska



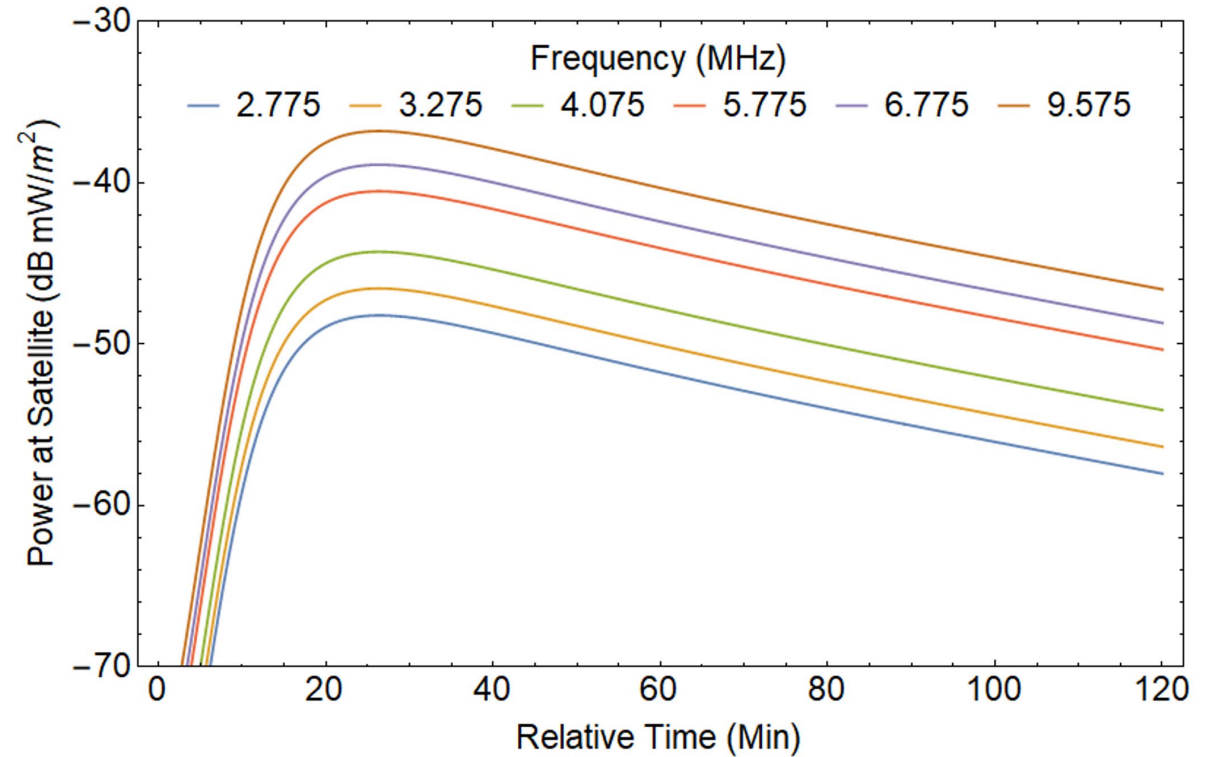
HAARP Viewing of Solar Explorer Pass, 26-27 November 2021
 Frequency Plan: 2.775, 3.275, 4.075, 5.775, 6.775, 9.575 MHz with 10 Minute Dwell

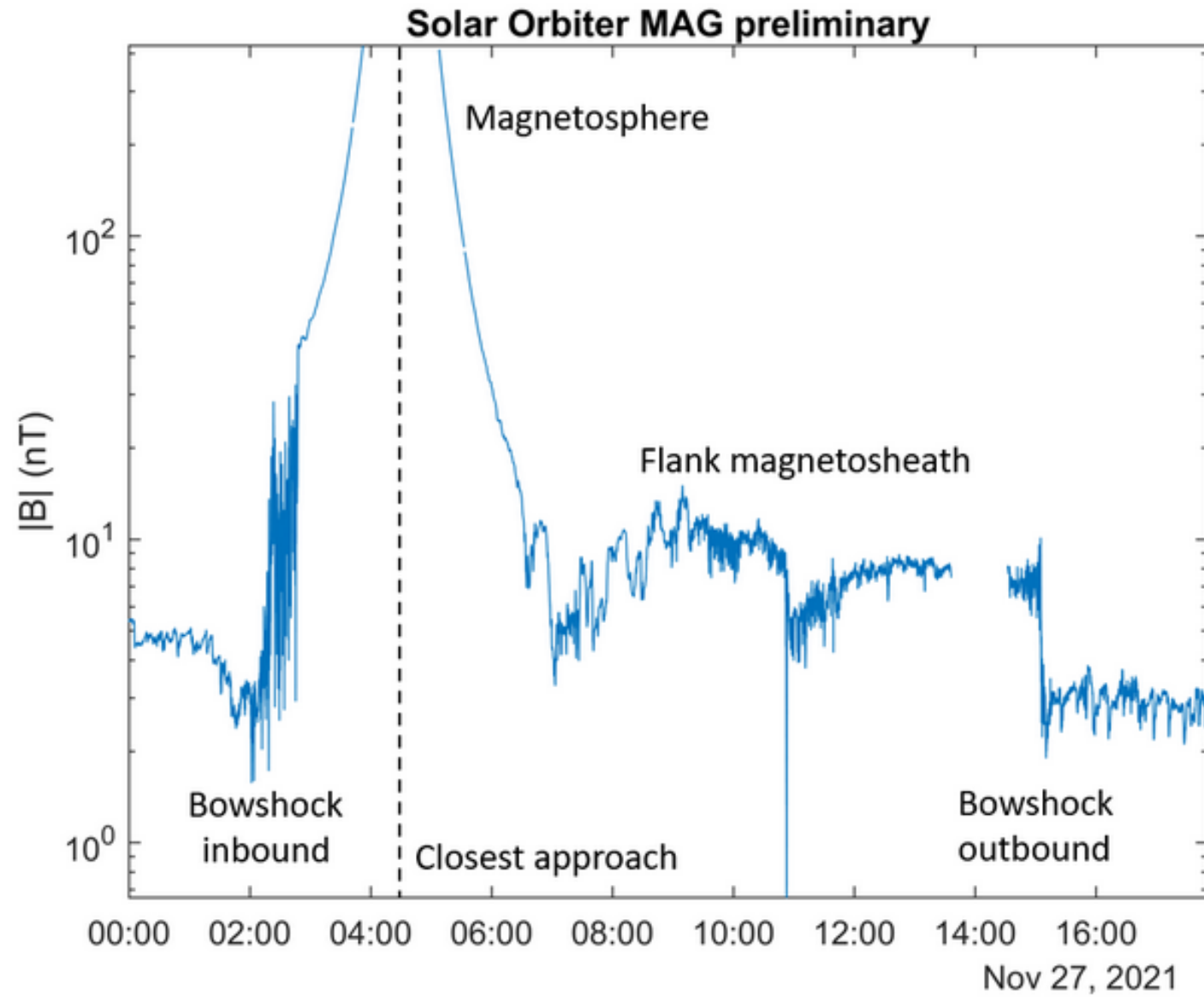
HAARP Viewing of Solar Explorer Pass, 26-27 November 2021
 Frequency and Pointing Plan: 10 Minute Segments with HAARP Starting at 04:30:30 GMT



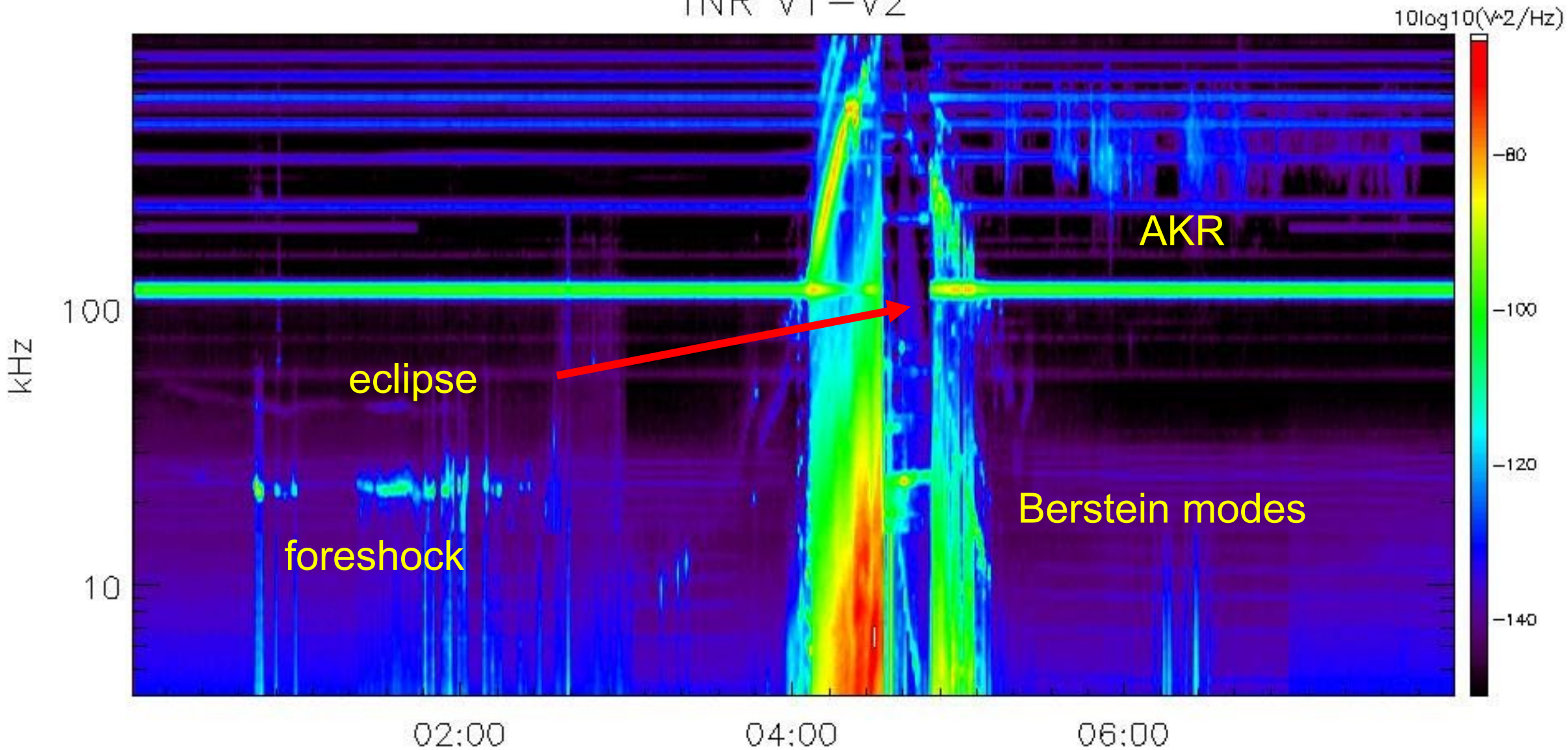
5

HAARP to Solar Observer 2021/11/27 04:30:30

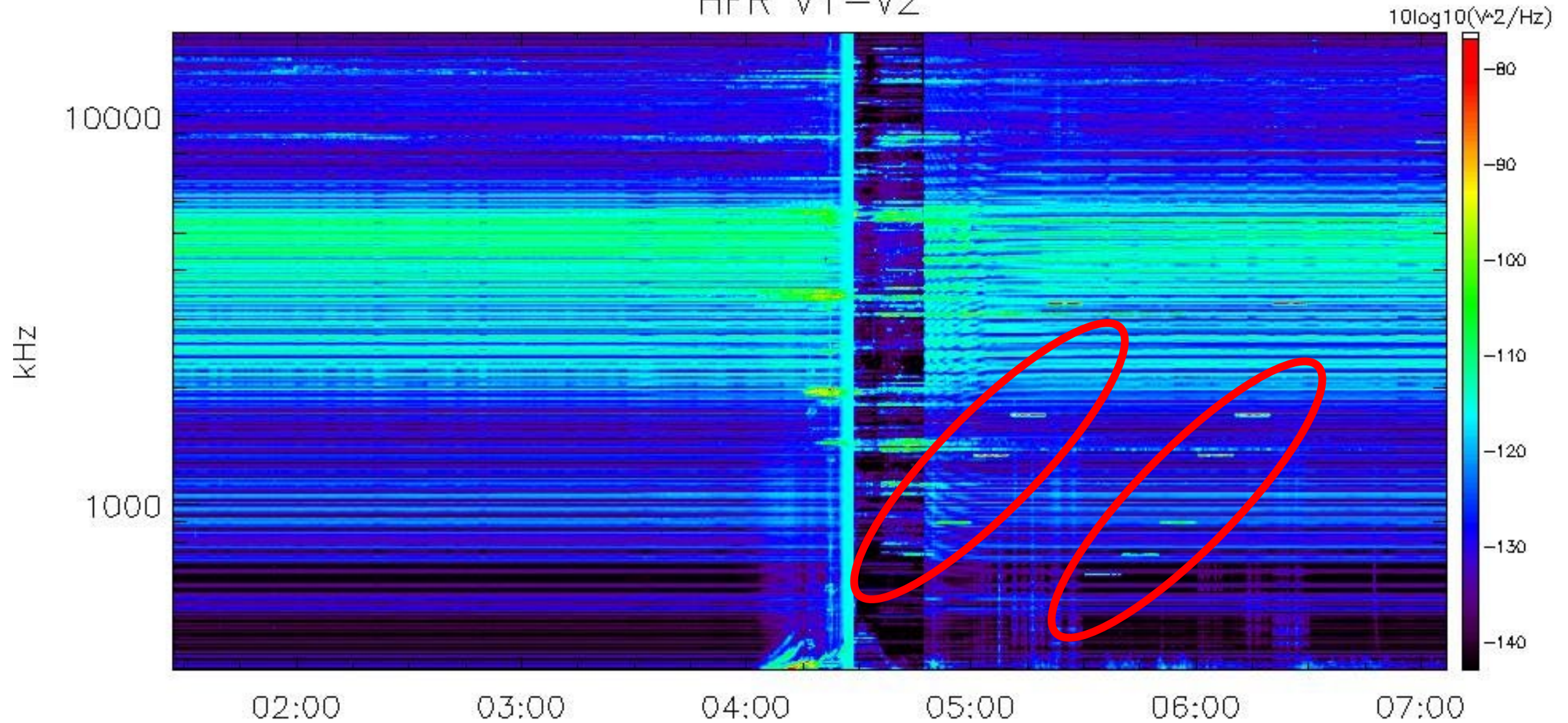




TNR V1-V2



HFR V1-V2







The nominal science phase has started!

<https://solarorbiter.esac.esa.int/soopkitchen/#/event-collections>

Soopkitchen v8.4.2 Home Observation Definitions **Event Collections** Planning Account

Event Collections

Label ↑↓	Status ↑↓	Validity Start Date ↑↓	Validity End Date ↑↓	Creation Date ↑↓	Description ↑↓	Username ↑↓
<input type="checkbox"/> 2020_February_CReMA_Issue4-0_NoRSCruise_SIFECS	N/A	2020-02-06 23:58	2030-09-02 15:11	2019-03-13 14:58	3 Passes per week during cruise. No RSCW defined. Used for IS data optimisation	andrew 
<input type="checkbox"/> 2020_February_CReMA_Issue4-0_Cruise_SIFECS	N/A	2020-02-06 23:58	2030-09-02 15:11	2019-03-20 10:01	3 Passes per week during Cruise. All RSCWs included as defined by mini-SWT Jan 2019, with supporting passes included.	david 
<input type="checkbox"/> 2020_Feb_Cr-4-0-Cruise-MLP1_1-SWT24_v2_fix	N/A	2020-02-06 23:57	2030-09-02 15:12	2019-04-26 09:12	All RSCWs included as defined by mini-SWT Jan 2019, with additional supporting passes included for RSCW 2 and 3.	david 
<input type="checkbox"/> LTP02_FECS02_PTEL00001	N/A	2020-06-26 00:00	2021-01-01 00:00	2019-07-25 12:16	FECS_2020178_2021001_2019206_v01_S.SOL, PTEL_002_____00001_S.SOL	david 
<input type="checkbox"/> LTP02_FECS01_PTEL00001	N/A	2020-06-26 00:00	2021-01-01 00:00	2019-07-25 14:47	FECS_2020178_2021001_2019206_v01_S.SOL, PTEL_002_____00001_S.SOL	anik 