

R_SMALL_HRES_MCAD_Polar-Observations



From SOL-PHI-MPS-MN1500-TN-2

This SOOP is inspired by science goal 1 of 2.3 in the MPS document and is also consistent with the second part of 2.1 (apart from the number of physical quantities)

Default SOOP duration: Several days

Pointing requirements: Poles

Triggers: disabled

SOOP Coordinators

TBD PHI coordinator, Andrzej Fludra

Description

SOOP design to address polar magnetic field objectives that don't necessarily rely on the the highest resolution and cadence PHI data, nor all five physical parameters that PHI can return. The rest of the remote sensing observations provide supporting data.

Instrument	Mode	Comment
PHI	PHI_magnetograph_HRT_2 (HRT), 2-5 mins cadence, no binning	Full FoV, 2-5 minute cadence, 3 quantities, no binning
EUI	FSI Synoptic mode (S) EUV & LYA Coronal hole modes (C)	Keep defaults for now, could potentially match PHI cadence
SPICE	SPICE_fast_wind (SPICE Pseudo-observations for SOOPs)	
SoloHI	Normal observing programme	
Metis	Off pointing so door closed	
STIX	Normal observations	

SAP objective	Target	Duration	Opportunity (e.g., orbital requirements, solar cycle phase, quadrature ...)	Operational constraints	Additional comments
4.1 How is magnetic flux transported to and re-processed at high solar latitudes?	High Latitudes				
4.2 What are the properties of the magnetic field at high solar latitudes?	Solar Poles	repeated high cadence bursts of several days duration	high latitudes, median to high resolutions	off pointing so no Metis	
4.4 Are there separate dynamo processes acting in the Sun? (4.3.1)					
4.5 How are coronal and heliospheric phenomena related to the solar dynamo?					