

How do we Proceed?

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And now for the Good News Show.

“The Sun shines on all of us.”

(Jean-Pierre Delaboudiniere, ~1996, SOHO/EIT PI)

Solar emissions affect every one on Earth.
It is important/necessary to share the load
of identifying potential hazards to our
societies and the quality of life.k

Definition of the measurement types

Done! (Almost)

- WL Coronagraph
- Heliospheric Imagers
- Magnetograph (LOS B field)
- Interplanetary Magnetic Field
- In-situ Plasma (V , T , n)

- ? EUV imager (EU requirement)
- ? Energetic Protons
- ? High Energy Electrons

Definition of the stakeholders

Almost Done?

DEFINITE

- UK
 - UK Met
 - UK Space
- US
 - NOAA
 - NASA?
 - (SWARM will probably alter the environment)

POTENTIAL

- EU
- Canada,
- Australia
- South Africa
- South Korea
- Belgium

Need bilateral agreements.

Ground Based Observations

- IPS
- Magnetographs (as function of height)
- Neutron Monitors (decreased funding)
- Metric Radio
- H-alpha

Model Development

- A lot of progress has been made recently (last 5 years or so)
 - Assimilative PFSS
 - Non-linear Force Free Mag field
 - CAT of IPS, and density structures, Faraday rotation
 - Geometrical model of CMEs
 - ENLIL
 - Global non-potential modeling showing the frequency of CMEs
- More progress will be made in the next 5 years
 - Combining IPS & FR

Next Steps - Technical

- Define Detailed Instrument Requirements: FOVs, Cadence, Resolution, Range etc
- Justifications for each of the instruments
- Refine S/C Accommodation (Carrington)
- Define the requirements for modeling at the time of the launch of L5
- Define the ground system requirements

Next Steps - Programmatic

- Define International Relationships
- Define Relation between L1 Follow-on & L5
- Define the Mission Class & Mission Lifetime
- Define Development Timeline
- Define the ground system requirements
- Develop Cost Estimate

Issues

- Reviews need to be coordinated and not duplicated.
- Define Environmental Requirements (Vibration Loads, EMC, Contamination, etc)
- Long phase A to define & reduce risks has been very beneficial