

Science Objectives Team of
Next Generation Solar Physics Mission
(NGSPM-SOT):
Aims and activity report

2016.09.09

Toshifumi Shimizu (ISAS/JAXA)

NGSPM-SOT chair

NGSPM-SOT

- An advisory group for the study of a possible multilateral NASA-JAXA-ESA solar physics mission concept.
- The primary role is to develop and document scientific goals and priorities of a potential multilateral NGSPM within the agencies resources.

NGSPM and Solar-C

- Likely to be a Japan-led mission expected to include substantial contributions from US and Europe.
- Former Solar-C, proposed in 2015
 - After studies over 5 years
 - To be launched early 2020's
- NGSPM
 - The study will investigate mission science requirements for a potential mission to be launched after 2024.
 - Scientific goals may be changed for the new time frame.

Objectives of NGSPM-SOT

- a) Develop the science goals for NGSPM
- b) Assess how these scientific goals are aligned with JAXA, ESA and NASA agency priorities
- c) Assess the required measurements necessary to meet the science goals
- d) Assess the top-level observational (mission design) strategy for the NGSP mission to accomplish the scientific goals
- e) Identify the minimum performance for the mission systems
- f) Deliver a science report that supports the generation of documents suitable for input into any future joint Announcement of Opportunity or Call for Missions.

NGSPM Work Timeline

- Team kick-off meeting (#1) on 13 July 2016
 - with the representative of three agencies
Masaki Fujimoto (ISAS/JAXA), Luigi Colangeli (ESA), Steve Clarke (NASA)
 - F2F member meeting on 8-9 Sep (today)
- Team meeting #2 in late Sep: First status report
 - Potential to meet at AGU in SF in Dec 2016
- The draft of the science report will be delivered to the agencies 9 months after #1 (April 2017)
- The final report 12 months after #1 (July 2017)

Two phases of the team work

- Phase 1: Review Solar-C science objectives and produce revised set of science goals.
[NOW]
- Phase 2: Assess mission design options and come up with more than one mission design option to accomplish the objectives.

NGSPM-SOT membership

NASA appointed Members

- David McKenzie, NASA, Marshall Space Flight Center
- Ted Tarbell, Lockheed Martin Solar and Astrophysics Laboratory
- John Raymond, Smithsonian Astrophysical Observatory
- Sara Gibson, High-Altitude Observatory

ESA appointed Members

- Louis Ramon Bellot Rubio - Instituto de Astrofísica de Andalucía, Spain
- Mats Carlsson - UiO Institute of Theoretical Astrophysics, Norway
- Lyndsay Fletcher - University of Glasgow, UK
- Sami Solanki - Max-Planck-Institut für Sonnensystemforschung, Göttingen

JAXA appointed Members

- Kiyoshi Ichimoto, Kyoto University/NAOJ
- Kanya Kusano, Nagoya University
- Toshifumi Shimuzu, ISAS/JAXA, membership chair
- Hirohisa Hara, NAOJ

Confidentiality of the team's work

- The work process will be open.
- The team's work should have a strong connection with the community.
- All the members are points of contacts with the worldwide community
- They will engage with the community, and collect ideas to build up the best optimized science goals and mission design options.