

SPD MEMBERS MEETING

Tuesday, 25 MAY 2010

8:00 pm – 10:30 pm Hyatt: Jasmine

I. Chair's Report (Shadia Habal)

A. Welcome

B. Election Results:

1. David Alexander elected vice chair
2. David McKenzie elected treasurer
3. Kathy Reeves and Marc DeRosa elected committee members

C. Thanks to all nominees.

D. Awards:

1. Hale prize: Marcia Neugebauer
2. Harvey prize: Brian Welsch
3. Writing awards: in the journalist category, selected "Solar Impacts" by Kristina Grifantini, Sky & Telescope magazine, March 2009, pp.30-35; in the scientist category, selected "Reconnecting Magnetic Fields", by Jim Burch and Jim Drake, American Scientist Magazine, Sept.-Oct. 2009, pp.392-399.

E. Specific thanks to Todd Hoeksema and Joan Schmelz.

F. Discussions about low turnout in SPD election

1. **Action item for the secretary: Send out special email announcements about elections in addition to the SolarNews announcements.**

G. Discussion about over subscription of oral talks at recent SPD meetings

1. **Action item: a survey will be sent out by the chair to get community feedback on options.**

II: Treasurer's Report (Joan Schmelz):

A. Budget is much improved. Recovered all the money lost as financial market improved. 2009 Boulder meeting made a lot of income.

III: Vice Chair's Report (Todd Hoeksema):

A. Metcalf award:

1. Established after his death by family, friends, with contribution mainly from members. To be used to fund student travel to conferences.
2. Announcement for solicitation of proposals by meeting organizers for awardees will be made in the June 15 issue of SolarNews.
3. A committee for reviewing the proposals will have been appointed, Todd is one of the members, SPD chair will appoint 2 more members.

B. Proposed venue for next SPD meetings and discussions

1. 2011 will be stand-alone meeting. Two proposals received from

NMSU/Las Cruces and MSU/Bozeman. The proposals are very comparable. SPD committee selected Las Cruces mainly because the solar group at NMSU is new and growing, can benefit from the publicity, and there is strong support from the University management.

2. 2012: the current proposal is to meet with the AAS at Anchorage.
3. 2013: will meet with AGU if they will be able to have a spring meeting in the US. If not, we will have a stand-alone meeting.
4. 2014, stand-alone meeting, TBD
5. 2015, meet with AAS at IAU general assembly at Honolulu
6. Q: any consideration about meeting with AGU fall meeting? A: Too big, SPD loses its identity. Q: Why not a topical meeting with AGU/SPA? Q: meeting with SHINE?

IV: Canfield-fest announcement (George Fisher):

- A. A topical science meeting on what Dick Canfield has worked on over his career. Initial announcement was sent out in March. Second announcement will be sent out June 1 issue of SolarNews. People who are interested in attending should register for the meeting.

V: Student travel awards (Gordon Emslie):

- A: Awarded 8 students this year. Awards have been limited the last couple of years.
- B: Alex Pevtsov has started discussions with the funding agencies (NASA and NSF) about grants for funding SPD student travel, have got positive responses.

VI: Agency reports:

- A: NSF report (Paul Bellaire):
 1. NSF Director Arden Bement departs 1 June 2010; his replacement is unknown
 2. NSF Deputy Director Kathie Olsen stepped down in 2009; current acting Deputy Director is Cora Marrett
 3. New Assistant Director of NSF's Directorate of Math & Physical Sciences (MPS): Ed Seidel (as of May 2010)
 4. New Division Director of Astronomical Sciences (AST): Jim Ulvestad (as of 1 March 2010)
 5. New Division Director of Atmospheric & Geospace Sciences (AGS): Michael Morgan (as of 21 June 2010)
 6. STR budget outlook: STR FY2010 budget = approx \$8.5 M; STR FY2011 budget = flat? Unknown. However, new programs are coming nonetheless: "Dynamic Earth" or "Frontiers in Earth System Dynamics" to be announced in early July 2010.
 7. All stimulus money dispersed last year.
 8. General proposal submission: Please refer to NSF 10-1 on the NSF web site:

“Proposal and Award Policies and Procedures Guide, January 2010” .

NSF recently installed new software that flags proposals not in compliance, preventing processing – please fill out ALL pages in FastLane, even if that means stating “N/A”. Please don’t forget the postdoc mentoring statement, broader impact statement, results from prior support, etc., etc.

9. AGS and the NSO: The current NSF leadership is reviewing the transfer of NSO from AST to AGS; please consider this a work in progress... This transfer should be finalized in FY2011...
10. Q: Last year you mentioned that the transfer of NSO is entirely uncertain, what is the current status? A: Tim said he has talked to Seidel and confirmed that this transfer would happen. Q: What is the statistics on the Space Weather proposals? A: Approximately 30 proposals submitted, success rate on the order of 15%, \$1M available.

B. NASA report (Jeff Newmark):

1. Evolving heliophysics system observatory: a lot of spacecrafts working together.
2. Analyzing the data will be challenging
3. ROSES 2008 selection: 35 selected for funding (2 LCAS, 4 IDP), \$5M
4. ROSES 2009 SR&T Program have been received: 123 proposals (113 SHP SR&T, 10 LCAS), anticipate < \$3.5M in new first-year funding to be available, < 1:5.5 acceptance rate. Peer review on going. Announce results this summer.
5. ROSES 2010 SR&T due dates shifted 6 weeks later NOI=1/21/11, proposals 3/18/11
6. Several sub-orbital successful launches
 - Delays in 2010 WMSR due to Thrust Termination System availability
7. Future years-expected funding levels are similar with slow growth.
8. SMD FY11 budget strategy:
 - Be responsive to the science community by supporting the priorities established in the NRC Decadal Surveys.
 - All missions should be chosen through Decadal Surveys or competitive peer review.
 - Responsive to national priorities, such as OCO-2
 - Per usual SMD practice, each Theme manages within its existing budget envelope, with the exception of minor near-term zero-sum trades (re-phasing) to address pressing issues.
 - Projects in development are budgeted to a LCC reflecting a 70% cost confidence level or, more conservatively a joint-cost-and-schedule confidence level.
 - SMD is actively refining the cost ranges for projects in formulation to improve budget estimates as these projects make their way through Phases A and B

9. SMD 2010 budget dipped down, but the following year budgets are expected to go up in all aspects.
10. NASA Science Mission Launches: IRIS Dec. 2012, then Orbiter Probe, a number coming up
11. Heliophysics GI program:
 - Roses 2009 15 S&H selected for funding \$1.6M
 - Roses 2010: Not solicited
 - Roses 2011: Anticipated solicitation
12. Causes and Consequences of Minimum Solar Cycle 24: Roses 2009 - One time only solicitation - 17 (9 S&H) proposal selected for funding (\$1.8M)
13. New mission news:
 - SDO launched Feb 11, 2010
 - Soar Orbiter (FOSO selection) - extended phase A
 - Solar Probe Plus - proposal received
 - Small Explorers- SMEX Selected: IRIS, GEMS
14. NASA's Science Mission Directorate has released an announcement on tentative plans to solicit new PI-led missions for the Explorer Program. Full information: <http://explorers.larc.nasa.gov/EX>

C. LWS report (Lika Guhathakurta):

1. LWS program organization (chart)
2. Highlights: SDO, RBSP, BARREL, Solar Probe Plus
3. LWS TR&T strategic goals
 - Solar Storms
 - Sun Climate
 - Near Earth Radiation
 - Ionosphere-Thermosphere
4. TR&T Steering Committee: new membership for 2011 to be solicited
5. Heliophysics summer school for the next 3 years will start, using its new textbooks.
6. Heliophysics postdoctoral fellowship program, 3 new posdocs selected.
7. Book written by Jack Eddy published by NASA. Change name of heliophysics postdoc program to Eddy fellow program
8. Upcoming SDO data gallery on ipod.

VII. Observatory reports:

A. NSO Report (Steve Keil):

1. NSO is uncertain about transition to AGS in NSF, need community input. Has had good experience with AST. Not sure about how well AGS can run NSO.
2. 2010/11 program plan for ATST:
 - Contracts (A&E)

- RFP releases (M1, Enclosure, TMA, M1 Mount, Thermal Support, ...)
 - Operating and Site Development Agreement (OSDA) with the UH (NSF)
 - Conservation District Use Application (CDUA) process (UH)
 - Filling construction positions
 - Begin construction (once CDUP is in hand – 6 months?)
 - Prepare and hold PDRs for instruments
3. NSB meeting August 5-6, 2009 gave approval for NSF to fund construction of ATST. ROD issued by NSF December 3, 2009.
 4. Construction funding status: AARA funds \$146M available 1/11/2010, MREFC funds \$7M FY09, \$13M FY10, total funding to date \$166M
 5. ATST spending and funding profiles
 6. CDUA milestones: The CDUA was submitted to the DLNR by UH on March 10, 2010. DLNR requested changes to the CDUA in late May, which are in process. Resubmission is planned by June 15, 2010.
3. Next steps for DST and Sunspot Programs
 - Transition to ATST era: ATST is top priority; DST: focus on operation and maintenance, minimal instrument development for DST
 - Current instruments: IBIS, SPINOR, FLRS, DLSP, High-speed speckle system, UBS, 2 AO systems, MCAO Bench, ROSA
 - SP facilities will support ATST construction
 - Build up to ATST operations: Develop service observations; Develop data pipelines; Develop community data reduction algorithms w/partners (HAO, IFA, Arcetri, KIS, ...); Train students and post-docs –future users and support staff of ATST; Advance ATST science objective definition and ATST observation planning; Refine ATST operations model.
 4. ATST construction activities at Sac Peak:
 - ATST AO and wavefront correction system construction and testing
 - Polarization Analysis & Calibration
 - Coudé Lab
 - ATST sample instrument
 - Visible Broadband Imager instrument construction
 - ATST Cameras
 - MCAO/AO development for BBSO (pathfinder for ATST)
 5. 2010/11 program plans for Tucson
 - McMath-Pierce Solar Telescope (ATST related activities): Advanced Image Slicer (AIS) and Integral Field Unit (IFU); Enhance control system to exploit NAC (1–5 microns) and thermal-IR; Implement new guider; Conduct Scientific Operations.
 - GONG: Continue streamlining operations; Add H-alpha capability to all the sites; Establish funding partnership(s) – Air Force, NOAA? Incorporate into synoptic network with SOLIS
 - SOLIS: Install final instrument → Full-up Operations; Improve VMG calibrations and reduction, add chromospheric modulator; Incorporate into synoptic network with GONG:
 6. 2010/11 program plans for Digital Library and Virtual Solar Observatory:
 - Operation of NSO node

- Include SDO data, remote distribution
 - Continue collaboration with U.S. and European institution
 - Start Development of Data Center to incorporate Synoptic and ATST Data
7. 2010/11 program plans for (HQ) development and staff consolidation:
 - Released solicitation for HQ location
 - Held Pre-letter of Intent Briefing
 - Letters of Intent were due April 30th
 - Full proposals due Dec 30th
 8. Long-Range plan
 9. Q: What will be the data policy for ATST? A: Will be open policy, maybe with a proprietary period.

B: HAO Report (Yuhong Fan):

1. Overview of HAO:
 - Research in solar-terrestrial physics: 4 science sections
 - Facility: Mauna Loa Solar Observatory
 - Instrument development
 - Cyberinfrastructure
 - Visitor's program
2. MLSO instrument update:
 - Coronal Multi-Channel Polarimeter deployed to MLSO in March, expected to provide scientific observations fall 2010.
 - PICS H α instrument was removed from the spar (to fit CoMP) and replaced with a Coronado Solar Max 60.
 - COSMO K-coronagraph will replace MK4 end of 2012
3. MLSO new data products:
 - CoMP data expected in fall 2010
 - An archive of historical eclipse observations (from 1869 to present day) available
 - Movies of new, featured events (EPLs, CMEs)
 - Detailed information at http://mlso.hao.ucar.edu/mlso_news.html
4. Instrument development status:
 - New K-coronagraph: science requirements finalized, conceptual design reviewed and approved
 - ViSP: Conceptual design completed; Instrument science requirements finalized; Currently working on finalizing design (optical, mechanical, software, cost assessment) in preparation of project's Preliminary Design Review by NSF in Jan. 2011.
 - Prominence Magnetometer (ProMag): Deployed at the 40-cm coronagraph of the Evans Solar Facility (NSO/SP) Aug. 2009; No science data yet; Currently at HAO for repair (beam-splitter cracked last winter due to thermal stresses); Planned for re-deployment in Aug. 2010
 - Fabry-Perot Interferometers (FPIs) for measuring thermosphere and mesosphere neutral wind: FPI China 1 delivered; another one is under

construction; FPI Resolute operational; FPI balloon (HiWIND) under construction (test flight Sep 2010); FPI Antarctica under construction (deployment Oct 2010)

5. HAO's Community Spectro-Polarimetry Analysis Center (CSAC) update:
 - Provides data reduction, analysis, and interpretation software in support of a diverse range of spectro-polarimetric instruments currently in operation: SDO/HMI, Hinode/SOT/SP, DLSP, NSO/SPINOR, NSO/SOLIS, SST/SP
 - The current active CSAC User Group contains at least 42 individuals [only those registered] from 14 institutes across the world
 - CSAC Inversion Client is operational and open to the public. MERLIN (Milne-Eddington gRid Linear Inversion Network) Inversion Client routinely processes data from Hinode/SOT/SP. VFISV (Very Fast Inversion of the Stokes Vector) code is the workhorse of the SDO/HMI Stokes data.
 - Future: Incorporation of advanced inversion algorithms (e.g., LILIA which computes atomic level populations in LTE and provides estimates of LOS variation in the inferred quantities) for the open client is ongoing; Automated 180-degree azimuth disambiguation (AZAM) code published on site and will be run through the Hinode/SOT/SP archive; COSMO Prototype instruments (CoMP, ProMag, and ChroMag) development and support; ViSP development and support.
5. Modeling/Research highlights:
 - Global models of turbulent dynamos show cyclic mean-fields
 - Realistic Radiation MHD models of Sunspots.
 - MHD models of CME initiation
 - Coupled Magnetosphere-Ionosphere-Thermosphere Model: available at CCMC
 - Upper thermosphere extension of the Whole Atmosphere Community Climate Model Development (WACCM)
 - Study of solar-like oscillations using Kepler data
6. Management transition:
 - Michael Knölker stepped down as Director of HAO in September 2009. He continues as a Senior Scientist
 - Stan Solomon is serving as Acting Director
 - Michael Thompson has been appointed HAO Director and Senior Scientist. He starts at HAO in July 2010
 - Keith MacGregor continues as Deputy Director, and Steve Tomczyk is the new Assistant Director for Instrumentation

C. Solar C report (Ed DeLuca):

1. The following-on mission to Hinotori, Yohkoh and Hinode, Solar C is in its initial planning stages. Two mission profiles are being considered:
 - Plan-a: high latitude > 40 deg, 1AU mission
 - Plan-b: high resolution chromosphere-corona, high data rate mission
2. During the coming year we expect a joint JAXA, NAOJ, NASA science and technology definition team to be formed. This group will define the mission

implementation and prepare a report for consideration by the heliosphysics community.

VIII. E/PO (Zoe Frank):

- A. The Coronal Courant: Student newsletter/online magazines, two issues have come out
- B. Committee: Zoe Frank (Chair), Emilie Drobnes (Vice Chair), Dave Dooling, Rich Wolfson, Spiros Patsourakos, Henry (Trae) Winter, Ignacio Ugarte-Urra, Cristina Rabello-Soares, David McKenzie, Julie Stern (editor, "The Coronal Courant")
- C. Web Related Projects/Discussions:
 - 1. Web page updates (Ignacio Ugarte-Urra)
 - 2. Student Newsletter (Web-zine) (Julie Stern) – plan quarterly issues, looking for input from students and faculty
 - 3. Recent discussion of ways to foster communication and interaction with SPD students (SPD on FaceBook, for example)
- D. Meeting related events:
 - 1. Family science events:
 - Pearl St. Family Science Event, June 2009, Boulder, CO
 - AstroZone Family Science Event, Miami Dade County Library, Main Branch, May 2010
 - 2. SPD student events:
 - 2009 SPD Student Reception (~ 50 attendees, students & advisors)
 - Follow-up survey of students was positive, moderate response rate
 - Joint SPD and AAS Graduate and Undergraduate Student Reception, Hyatt Regency, May 23, 2010 (5:30PM)
 - 3. Display booth opportunities:
 - AAS meeting, January 2010, Washington, DC
 - Current AAS & SPD joint meeting, May 2010, Miami FL
 - 4. Budget:
 - Allocated \$2K in May 2009
 - SPD funding is supporting the Student Reception (\$250), power (\$160), and internet access (\$1K) for the SPD display booth
- E. EPO has become a formal SPD committee in 2010.

IX. SPD Summer School Status:

- A. There are several summer schools for 2010 and 2011. LWS has 3 more summer schools. SPD summer school committee needs to plan for 2012?

X. Notes from Liaison Officers:

- A. Tom Ayres' Liaison report notes that we are at an exciting time for both solar and stellar astronomy, with many successful space missions. Strongly encourage bi-annual meetings with the AAS. Next joint meeting should have more joint sessions on solar-stellar topics.

Meeting adjourned at 10:30pm