

HMI & AIA E/PO Report
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For period 15 February – 14 March

1. Science Fellow -- Service Learning Program & Partnership with Stanford's Haas Center & Montana U.

The second quarter for our student Science Service Learning program is in full swing. We have 7 undergraduate Science Fellows working directly with the community, putting into practice what they learned in the first quarter of their class at Stanford. Six of the Science Fellows have chosen to work with the Boys and Girls Clubs of the Peninsula, at 3 sites that serve under-represented students from ages 8 through 14.

The Fellows meet weekly to design their programs, then split up in pairs with each set working on day a week at one of the particular sites. The Science Fellows base their programs and activities on those evaluated and proven through an assortment of NASA and other programs. At the end of the week, the Science Fellows discuss their experiences, locate areas for improvement, and upgrade the plan based on their experiences. The quarter will be ending this week, giving the students a 2 week break before continuing activities in Quarter 4.

One Science Fellow is working closely with John Beck, a solar scientist on the HMI project, to develop an E-zine project based on a Blog (web log) model. (See www.scienceblog.com). Their targets are high school students and science teachers. Articles will be based on an interview with a research scientist, as interpreted and expanded upon by our Science Fellow. The site will also feature reader forums for discussion of key issues.

We have arranged with Cheri Morrow to conduct a retreat on 31 March to discuss and evaluate the Science Fellows' experiences with the children and their projects. We are also exploring the details of collaborating with AIA's Montana Science Fellows.

2. Solar Planetarium Program (*jointly funded by NASA's LWS program*)

The Lawrence Hall of Science is **still** awaiting delivery of the LWS grant funds to begin this project. We are also looking into the possibilities of collaborating with AIA Co-Is at Harvard-Smithsonian Center for Astrophysics on their development of a solar planetarium program.

3. Solar Sudden Ionospheric Disturbance Monitor (SID) (*jointly funded by NSF's CISM program*)

Our community college student has begun analysis of the SID data collected by our 3 beta monitors. Already, events are being detected that were not identified by the GOES satellite as solar flares. We are looking into the sources of these events.

The research quality monitors (AWESOME) are nearing completion, scheduled for May. We are beginning to organize the high school and community college placement program for these monitors.

4. Brief updates:

- **Summer EXITE Camp for Underserved Middle-School Women Students**

In June 2004 Stanford will host its first EXITE camp, jointly sponsored by the Carnegie Institute for Plant Biology, the Center on Polymer Interfaces and Macro Molecular Assemblies in Chemical Engineering, and the Stanford Solar Center. The camp was originally designed and is being funded by IBM. About 24 girls will attend the program Monday through Friday for a week to learn about plant biology, chemistry, astronomy, and earth sciences through a series of hands-on projects. Faculty and research staff from several Stanford departments will teach the program, with Stanford undergraduates acting as Camp Counselors, and a local middle school math/science teacher acting as a participant and advisor. Logistics will be handled by the Office of Science Outreach. Follow up during the school year will occur with Stanford graduate students acting as volunteer mentors for each participant. The week will culminate in a poster session and BBQ to which the participants, their families, and mentors will be invited.

- **Chabot Space and Science Center Partnership**

The AIA team already has a well-established partnership with the Chabot Space and Science Center. We are meeting with their staff to expand this partnership through the SDO mission. Areas of potential collaboration include providing live or near-live imagery to the museum from the SDO instruments. We are also looking into a collaborative effort to support NASA's Ancient Observatories Theme for 2005.

- **Presentation Bank Status** (*jointly funded by SOHO/MDI*)

Our joint project with the AGU Space Physics and Aeronomy Education Committee and the MDI Instrument Team continues. A "draft" slide set designed for distribution through the AGU has been developed and reviewed by the Editorial Committee. Suggestions have been delivered and the final version is in development, scheduled for completion by the end of March. The presentation has been pretested at 3 public occasions and has received positive feedback. Turns out that one of the key problems has been finding imagery in sufficiently high quality resolution for use in the presentation set.

Now that the prototype is nearing completion, we are exploring possibilities of extending the concept to a more complete and fully-tested collection of presentations and imagery based on the SPA fields. We are working with both the AGU and the AGU SPA Education Committee to identify existing slide sets and presentations that we might collect to "seed" the SPA Presentation Bank.

- **4H Astronomy Project**

Students in our 4H Astronomy Project are preparing an enhanced planetarium program for presentation at the local Palomares 4H Club meeting on April 6. Additional topics, including one on the Sun, are being added to the program that was test-run in February and March.

We are also working out the administrative details to develop a more formalized relationship with the Alameda County 4H Program. The issue is stalled right now over an indemnification clause that the UC Regents are requiring for their 4H leaders.

- **Chabot Community College Collaboration**

We continue to collaborate and support the Chabot Community College program in Integrated Science, English, and Math. We are planning a year-end trip to Stanford as an incentive for the students to complete the program