



Birthday Bash to Celebrate SORCE's First Year!

January 25, 2004 marked the first year of a very successful SORCE mission. The spacecraft and instruments are performing exceptionally well, and the science data collected are exceeding all expectations. All SORCE science data are available to the entire science community through the Goddard DAAC, which can be accessed through the SORCE website -- http://lasp.colorado.edu/sorce/data_access.html.

Scientists working in many different disciplines and on a variety of missions/projects are actively using SORCE's data to compare and learn. It is a very exciting time for research, and the SORCE data and SORCE science meetings will have a major impact. The SORCE data



Gary Rottman and Caroline Himes cut the SORCE birthday cake. Although Gary was nominated for several solar fashion awards, he did not receive any awards at this year's competition.

products continue to be refined and improved, and most have reached a quality level suitable for research. The SORCE team is still refining the data corrections that will address on orbit changes in instrument responsivity, so these present data products are not yet appropriate for detection of long-term solar variability.

In just one short year there have been several outstanding SORCE discoveries. The flare events in late October provided SORCE with a perfect opportunity to demonstrate its capabilities – the TIM instrument produced the first definitive measurements of a flare seen in the total

solar irradiance, and there is the discovery of the Cr XX emission in the SOLSTICE flare spectrum. Tom Woods, SORCE project scientist, has submitted a paper addressing the flare results to Geophysical Research Letters. The Astrophysical Journal Letters is reviewing a paper submitted by Juan Fontenla regarding how the infrared emissions measured by SIM differ from model predictions, and this new observational constraint will lead to refinement and improvement of the models.



To acknowledge SORCE's first year, everyone was invited to celebrated with fun, games, food, and birthday cake. Keeping with the "futures so bright, you've gotta wear shades" theme, people dressed appropriately with Sun protection including hats, sunglasses, and Hawaiian shirts. Those winning awards for their enthusiastic sense of fashion were Roger Gunderson (best shirt, top right corner), Willie Mein (best overall Sun protection, top center), Drew Hunt (best sunglasses), and Pat Brown (best hat, above with Gail Tate, who was nominated in several categories). Jerry Harder and Orbital employees, Grace Baird, SORCE ACS engineer, and Dave Oberg, SORCE systems engineer, enjoy the festivities in the bottom left image. Orbital employees were in town to participate in a mission PDR for AIM and they were happy to share in the celebrate with the success of the Orbital spacecraft bus.





A 10-minute version of Yard Wars brought 8 teams head-to-head for the SORCE Flyers competition. Armed with paper, colored markers, paperclips, tape, and a pair of scissors each team had 4 minutes to create a paper airplane for each member of their team. Aiming for a colorful image of a very active October Sun, players flew their crafts at designated targets for points. The winning team was SIM who ended with 22 million points, although the majority of those points were earned for making the “most creative plane design” and for making the most “unlikely to fly plane, but it flies anyway plane”. The Orbital team came in second place with 17 million points.



^^ Judges, Gary Rottman and Tom Woods, prepare for the SORCE Flyers competition. Each team had 1 minute to fly as many planes as possible through the holes in the Sun.



^^ Tom Woods explains the SORCE Flyers rules standing in front of the Sun target, which has 3 targets -- coronal hole, active network, and plane.

Rob Fulton from Orbital >> (bottom center) and Ann Windnagel (top center) from the XPS team show their planes hoping for applause for “best decorated”.

Brian Boyle >> (center left) from the SIM Team pleads for applause with his plane that says, “I love Gary” and “I love Tom” on the wings. It worked!



SORCE Science Meeting News

The December 2003 meeting – *Physical Processes Linking Solar Radiation and Solar Variability with Global Climate Change* – focused on the understanding of the physical processes that connect the Sun’s radiation and its variability to our terrestrial environment, including the processes involved with climate and ozone response to solar radiative forcing and the mechanisms that cause solar activity and radiation variations. Attendees enthusiastically shared information, ideas, and opinions over the 2-1/2 days. The detailed agenda, abstracts, and many of the final presentations are available on the SORCE Meeting website – http://lasp.colorado.edu/sorce/sonoma_science_meeting_agenda.html



SORCE Science Meeting in Sonoma, California, December 2003.

Mark your calendar for the 2004 SORCE Science Meeting --

The 2004 SORCE Science Meeting is in the planning stages. The meeting will be the last week in October, and the final location will be posted on the SORCE website as soon as contracts are signed. The SORCE meeting website is -- <http://lasp.colorado.edu/sorce/meetings.html>.

Living With a Star Science Workshop, March 23-26, 2004 --

“Connecting our Dynamic Sun to the Heliosphere and Geospace” is the topic of the LWS workshop to be held in Boulder, Colorado. The meeting will be devoted to the scientific topics that connect the Sun’s variability to the effects on Earth and near-Earth space. The abstract deadline is Friday, February 13. For more information, the meeting website is -- <http://lasp.colorado.edu/sdo/meetings/>.



Upcoming Meetings / Talks –

SORCE scientists plan to present papers or attend the following 2004 meetings:

Living With a Star Science Workshop, March 23 – 26, Boulder, Colorado

AGU / CGU Meeting, May 17 – 21, Montreal, Canada

AAS / Solar Physics Division, May 30 – June 3, Denver, Colorado

COSPAR Meeting, July 18 – 25, Paris, France

SPIE – Optical Science and Technology, August 2 – 6, Denver, Colorado

SORCE Science Meeting, late October, Location tbd

AGU Fall Meeting, Dec. 13 – 17, San Francisco, California