



## ***SORCE Team at LASP to Celebrate “NASA Group Achievement Award” –***

Several weeks ago, Gary Rottman accepted the “NASA Group Achievement Award” on behalf of the SORCE Mission Team. This award is presented to a group in recognition of an outstanding accomplishment which has been made through the coordination of many individual efforts and has contributed substantially to the accomplishment of the mission of NASA. The award coincidentally comes after eighteen months of successful operation on-orbit, which is a crucial milestone for SORCE because this is the criterion point NASA uses to determine the mission a success.

The SORCE team will celebrate these achievements on Friday afternoon, October 1.

## ***Erik Richard Joins SORCE Team –***

The newest member of the SORCE team is Erik Richard, who joined LASP on September 1. He is working with the SIM instrument scientists as they analyze SIM science results, and continue calibration efforts. Erik’s background in infrared, near-infrared, and visible laser technology and optics is a great asset to the SORCE team.



Since 1995, Erik had been a CIRES Research Scientist at the NOAA Aeronomy Laboratory in Boulder, Colorado. Prior to that he held post-doctoral positions in Madison, Wisconsin (2 years), and Zürich, Switzerland (3 years). Erik earned his B.S. in Chemistry from the University of California, Irvine, where he grew up, and his Ph.D. from the University of Colorado in Boulder.

LASP is fortunate to gain Erik’s extensive experience in the design and construction of chemical trace gas sensors, and their operational integration on stratospheric aircraft platforms. He has earned three NASA Group Achievement Awards on projects with NOAA.

In his free time, Erik gravitates toward very low Earth orbit activities. He has been involved in competitive radio-controlled model aviation for 32 years, starting when he was just 8 years old. Although limited for time, he is also a glider pilot and an instrument-rated private pilot. His favorite gliding memory is a beautiful calm day soaring to and from Laramie, Wyoming, when the thermals were more than cooperative. In recent years, his young family has taken priority. Erik and his wife have a 2½ year old daughter and a 3 month old son.

Please stop by Erik’s office (Room 213) at the CU Research Park to welcome him.

**69,801**  
**Hits to the SORCE Website**  
*(Since 4/21/03, As of 9/27/04)*

## ***2004 SORCE Science Meeting – PRE-Registration Deadline Extended to Oct. 5***

There is still time to join the 2004 SORCE Science Meeting – ***Decadal Variability in the Sun and Climate***. The pre-registration deadline (for the discounted fee of \$160) has been extended to **October 5**.

The meeting is October 27-29 in Meredith, New Hampshire, and details are available at <http://lasp.colorado.edu/sorce/2004ScienceMeeting/meeting.html>. The website offers the science program description, agenda, abstracts, online registration forms, as well as additional logistical information.

## Final Meeting Agenda (as of 9/27/04)

### Tuesday, Oct. 26

5:30 p.m. Welcoming Reception

### Wednesday, Oct. 27

8:30 a.m. Welcome/Keynote Talk

**Mark Baldwin** – Northwest Research Associates, Bellevue, WA

*The Stratospheric Link Between the Sun and Climate*

#### **Session 1. Solar Radiation – Status of Current SORCE Measurements**

▶ **Gary Rottman**, *The SORCE Mission – Going on Two Years*

▶ **Greg Kopp**, *TIM Status and Contributions to the Total Solar Irradiance Record*

▶ **Jerry Harder**, *The SORCE SIM Instrument: Progress Toward Spectral Irradiance Time Series Throughout the 300-3000 nm Region*

▶ **Bill McClintock**, *Solar Ultraviolet Spectral Irradiance: Results from the SORCE SOLSTICE*

▶ **Tom Woods**, *Variability of the Solar XUV Irradiance from the SORCE XPS*

#### **Session 2. Decadal Variability in the Atmosphere and Oceans**

▶ **David Douglass**, *Climate Sensitivity of the Earth to Solar Radiation and Climate Models*

▶ **Peter Thejll**, *Modulation of Tropospheric Circulation Regimes by Solar Variability*

▶ **George Reid**, *Interdecadal Variability of Sea-Surface Temperatures: The Case for Solar Irradiance Forcing*

▶ **Joanna Haigh**, *Solar Heating of the Lower Stratosphere and Its Influence on Tropospheric Climate*

▶ **John McCormack**, *The Effect of Decadal Solar UV Variability on the Middle Atmosphere: A 2-D Modeling Perspective*

▶ **Lesley Gray**, *Variability of the Winter Stratospheric Vortex Associated with the 11-Year Solar Cycle*

▶ **Terry Nathan**, *Solar Cycle Induced Ozone Perturbations and the Reflection of Troposphericly Forced Planetary Waves*

▶ **Al Powell**, *Lower Atmosphere Diagnostic Analysis for a Sun-Earth Connection*

#### **Poster Reception (Viewing Wednesday-Thursday)**

**Yaseen Almleaky**, *Temperature Increasing Trend Due to Solar Activity During Recent 4 Decades at Saudia*

**Rock Bush**, *Measurements of Solar Radium During Solar Cycle 23*

**Helen Coffey**, *NOAA NESDIS Data Rescue Solar Image Scanning Project*

**Angela Cookson**, *Relationship Between SIM Spectra and San Fernando Observatory's Photometric Sums*



Church Landing at The Inns at Mill Falls is the location of the 2004 SORCE Science Meeting. The Inn's website is <http://www.millfalls.com/>.

**Steven Dewitte**, *Measurement of the Long-Term TSI Trend: What is Needed Versus What is Achieved*

**Linton Floyd**, *SUSIM MgII Core-to-Wing Ratio Index*

**Claus Fröhlich**, *Comparison of the VIRGO & TIM Data*

**Claus Fröhlich**, *Some Thoughts about the Reliability of Reconstructions of TSI into the Past*

**Delores Knipp**, *Direct and Indirect Thermospheric Heating Sources for Solar Cycles 21-23*

**L. Kortvelyessy**, *How Does the Sun Force Our Climate?*

**Pilar Montanes-Rodriguez**, *Global Measurements of the Earth's Visible Spectral Albedo*

**Jeff Morrill**, *Center-to-Limb Variation of the Solar UV Spectrum Observed by SKYLAB*

**Christopher Pankratz**, *SORCE Science Data Processing and Availability*

**Alfred Powell**, *Vertical Propagating Wave Diagnostic Analysis*

**Dora Preminger**, *Inferring TSI from Sunspot Areas Only*

**David Salstein**, *Relationships Between Solar Activity, Earth Rotation and Atmospheric Angular Momentum*

**Marty Snow**, *The SOLSTICE Observing Technique*

**Marty Snow**, *The Role of Spectral Resolution in Measuring the Solar Magnesium II Index*

**Guoyong Wen**, *Empirical Orthogonal Function Analysis of Solar Spectral Irradiance from SIM*

**Richard Wolfson**, *A Solar-Cycle Influence on New England's Climate?*

**Shengpan Zhang**, *Response of the O(1S) Dayglow to the Solar Zenith Angle and Solar Irradiance: An Empirical Model by WINDII on UARS*

### Thursday, Oct. 28

8:30 a.m. Keynote Talk

**Vikram Mehta** – CRCES, Columbia, MD

*Decadal Climate Variability – Societal Impacts, Phenomena, Problems, and Prospects*

### **Session 3. Mechanisms and Modes of Decadal Solar Variability**

- ▶ **Dick White**, *Variability of the Sun's Radiative Output in the Last 30 Years and Its Relationship to the Record in Global Warming*
- ▶ **Stephen Walton**, *What Photometric Images Have (and Haven't) Taught Us about TSI*
- ▶ **Claus Fröhlich**, *Re-Analysis of the Long-Term Changes of the NIMBUS-7 Radiometer and Behavior of Total Solar Irradiance During Solar Cycle 21*
- ▶ **Tom Woods**, *Variation of the Bright Solar Lyman-Alpha Emission: Estimation of the UV Decrease During the Maunder Minimum*
- ▶ **Ken Schatten**, *The Nature of Sunspots and Faculae: Fluid Dynamics vs. Magnetic Inhibition*
- ▶ **Tom Berger**, *High Resolution Observations of Solar Faculae*
- ▶ **Peter Foukal**, *What Decadal Irradiance Variations Teach Us about the Likelihood of Multi-Decadal Variations*

### **Session 4. Climate Variability Modes (e.g. ENSO, NAO/AO, PDO) and Nonlinear Responses**

- ▶ **Amy Clement**, *The El Niño/Southern Oscillation: Mechanisms and Impacts*
- ▶ **Mark Cane**, *Volcanic and Solar Forcing of the Tropical Pacific Over the Past 1000 Years*
- ▶ **Michael Mann**, *Dynamical Mechanisms of Solar Climate Forcing in Past Centuries*
- ▶ **Sultan Hameed**, *Responses of the Atmospheric Centers of Action to the Solar Cycle in the East and West Phases of the Quasi-Biennial Oscillation*
- ▶ **Dave Thompson**, *On the Dynamics of Stratosphere / Troposphere Coupling*
- ▶ **Alexander Ruzmaikin**, *Solar and QBO Influences on the North Annular Mode*
- ▶ **Hans Mayr**, *The QBO as Amplifier and Conduit to Lower Altitudes of Solar Cycle Influence?*
- ▶ **Eugene Cordero**, *The Response of the QBO to Zonal-Mean Ozone Perturbations Consistent with the 11-Year Solar Cycle*
- ▶ **Murry Salby**, *Evidence of the Solar Cycle in the Circulation of the Stratosphere and Its Influence on the Troposphere*

### **7:00 p.m. Science Dinner**

**Dan Schrag** – Harvard University, Cambridge, MA  
*Snowball Earth and Other Climate Tales of Earth and Her Neighbors*

### **Friday, Oct. 29**

#### **8:30 a.m. Keynote Talk**

**J. Madeleine Nash** – Electronic Journal Information Service (EJIS), San Francisco, CA  
*Chasing El Niño: A Science Writer's Walk on the Wild Side of Climate*

### **Session 4 continued: Climate Variability Modes (e.g. ENSO, NAO/AO, PDO) and Nonlinear Response**

- ▶ **Jose Rial**, *Nonlinearities in the Climate of the Last Ice Age: The Origin of the D-O Oscillations*
- ▶ **Fabrizio Sassi**, *The Effect of ENSO on the Dynamical and Thermal Structure of the Middle Atmosphere*
- ▶ **Enric Palle**, *Changes in the Earth's Albedo Over the Past Two Decades*
- ▶ **Shuntai Zhou**, *Sensitivity of Stratospheric Zonal Wind to Solar Cycle Variations*
- ▶ **Shaopeng Huang**, *Lunar Regolith Temperature as a Monitor of the Radiation Budget of Earth*

### **Meeting Overview and Panel Discussion**

### **Upcoming Meetings / Talks –**

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

SORCE Science Meeting, October 27-29,  
Meredith, New Hampshire  
AGU Fall Meeting, Dec. 13-17,  
San Francisco, California

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