

30 June 2011

Dear Colleagues,

Following are: (1) the working agenda and member assignments for the workshop; (2) information on travel and lodging; and (3) the list of actual and virtual participants.

In regard to the schedule, we have set aside blocks of time for the various topics to be discussed and have designated a Topic Leader to organize the session. If you feel you were mis-assigned or would like to be involved with additional topics, please contact me or Leif. Feel free to make any suggestions on the schedule.

Note that the workshop has been shortened from a five days to four days. The excursion to Carlsbad on Wednesday will be a full day and Friday will be for splinter meetings or travel.

We view the September workshop as the first step in an effort to provide the solar community with a vetted long-term sunspot number and the tools to keep it on track. This will take a lot of work and we look forward to collaborating with each of you. We will hold a second workshop in Europe during 2012 and are considering a special Topical Issue of Solar Physics for the eventual joint publication of the SSN series and the accompany historical, procedural, and scientific papers.

Sincerely yours,

Ed & Leif

Workshop Schedule

Monday 19 September *The Sunspot Number, Total Immersion*

08:00 **Ed Cliver** Welcoming remarks / Logistics / Ground rules / Goals & Aspirations

08:15 **Leif Svalgaard** (Thomas Friedli) - Rudolf Wolf & the Sunspot Number

08:45 **Frédéric Clette**, Laure Lefevre & Leif Svalgaard - History, Evolution, and Construction of the International Sunspot Number

10:00 Break

10:20 Continuation

11:15 **Jose Vaquero**, Frédéric Clette, & Thierry Dudok de Wit, & (Rainer Arlt) - Historical Sunspot Records

12:00 Lunch

13:30 [David Hathaway](#) (Ken Schatten) – The Group Sunspot Number

14:30 Break

14:50 [Tom Bogdan](#) or [Doug Biesecker](#) & Leif Svalgaard – The Boulder Sunspot Number

15:30 [K.S. Balasubramaniam](#) & Carl Henney – Automated Sunspot Number from ISOON

16:00 [Bill Livingston](#), Frédéric Clette, Phil Judge, Laure Lefevre, & Ken Tapping
– The Disappearing Sunspots & the Recent Solar Minimum

17:00 Open Discussion

Tuesday 20 September *Sunspots & The Magnetic Needle*

08:30 [Ed Cliver](#), Kalevi Mursula & Leif Svalgaard – Why the SSN Needs Revision

09:00 [Leif Svalgaard](#), Kalevi Mursula, & Alexis Rouillard – Historical
Geomagnetic Data

10:00 Break

10:20 [Lief Svalgaard](#) & [Kalevi Mursula](#) – Using Geomagnetic Data to Calibrate the
Sunspot Number (or not)

12:00 Lunch

13:30 Ingrid Cnossen, Art Richmond & Aaron Ridley – Earth's Changing Dipole &
Geomagnetic Activity (TL = TBD)

14:30 Break

15:00 Continuation

16:00 Open Discussion

Wednesday 21 September *From a Peak to a Cavern (and back)*

Convoy leaves for Carlsbad Caverns at 08:30

Thursday 22 September *Keeping Tabs on the Sunspot Number*

08:30 **Alexei Pevtsov**, David Hathaway, Carl Henney, & Ali Kilcik (Peter Foukal) - Sunspot Area as a SSN Correlate: Greenwich and Beyond

10:00 Break

10:30 **Ken Tapping**, Carl Henney & Stephen White - The F10.7 Index

12:00 Lunch

13:30 **Luca Bertello**, Jeff Morrill, & Alexis Rouillard (Peter Foukal) Development of the Ca II K-line Index

14:30 Break

15:00 **Ed, Leif & All** Summary / Mid-course Assessment / Planning for the 2nd Workshop

16:00 Adjourn

Note: Persons whose names are in parentheses will be collaborating but not attending

Airport/Lodging information:

The closest airport - about a two hour drive - is El Paso, Texas. Albuquerque, NM is the alternative - about a 4.5 hour drive from Sunspot. Let us know once you've made your arrangements and we can serve as a clearing house for carpooling. Because of ATST activity, housing is at a premium at Sunspot. There are only a few apartments available, on a 'first come - first served' basis (Contact Lou Ann Gregory; lgregory@nso.edu; 575-434-7078). We've arranged for a block of rooms for 18-24 September at the Lodge in Cloudcroft (<http://www.thelodge-nm.com/>), about 15 miles (~30 minutes) from the observatory [Reservations cannot be made on line; call 1-800-395-6343 (Reference No. = 2768VB; \$77 + 12.1875% tax = \$86.38)]

Participants:

Ed Cliver, AFRL (Co-Organizer; Interests - long-term solar and solar wind reconstruction)

Leif Svalgaard, Stanford (Co-organizer; Geomagnetic observations; Long-term solar and solar wind reconstruction)

Rainer Arlt,** Astrophysical Institute Potsdam (Historical sunspot observations)

K.S. Balasubramaniam, AFRL (Modern sunspot observations with the Air Force's IS00N telescope)

Luca Bertello, National Solar Observatory (Calcium II K-line Index)

Tom Bogdan or Doug Biesecker, Space Weather Prediction Center (Space weather forecasting & US sunspot number)

Frederic Clette, Royal Observatory of Belgium (Construction of the international sunspot number)

Ingrid Crossen, High Altitude Observatory (Effect of Earth's changing dipole on geomagnetic observations)

Thierry Dudok de Wit, Centre National de la Recherche Scientifique (Long-term solar/terrestrial reconstructions)

Peter Foukal,** Heliophysics Inc. (Ca II K-line Index, Sunspot areas)

Thomas Friedli,** Rudolf Wolf Gesellschaft

David Hathaway, NASA Marshall (Sunspot cycle; Group sunspot number)

Carl Henney, AFRL (Sunspots, F10.7)

Phil Judge, High Altitude Observatory (Solar magnetic fields)

Ali Kilcik, Big Bear Solar Observatory (Sunspots)

Laure Lefevre, Royal Observatory of Belgium (Construction of the international sunspot number)

Bill Livingston, National Solar Observatory (Secular changes in sunspots)

Jeff Morrill,* NRL (Ca II K-line index)

Kalevi Mursula, Oulu University (Validity of using geomagnetic observations to calibrate the sunspot number; Group sunspot number)

Alexei Pevtsov, National Solar Observatory (Sunspot area; Solar magnetic fields)
Art Richmond,* High Altitude Observatory (Effect of Earth's changing dipole on geomagnetic observations)

Aaron Ridley, University of Michigan or a TBD CSEM Member (Effect of Earth's changing dipole on geomagnetic observations)

Alexis Rouillard (Long-term solar and solar wind reconstruction; Long-term variation of the calcium plage index)

Ken Schatten,** a.i. solutions (Group sunspot number)

Ken Tapping, Herzberg Institute of Astrophysics (10-cm radio flux)

Jose Vaquero, Universidad de Extremadura (Historical sunspot record)

Stephen White, AFRL (10-cm radio flux)

* Unconfirmed

** Participating but not attending