



International Living With a Star

<http://ilwsonline.org>

ILWS MISSION:

Stimulate, strengthen, and coordinate space research to understand the governing processes of the connected Sun-Earth System as an integrated entity.

OBJECTIVES:

To Stimulate and Facilitate:

- The study of the Sun-Earth connected system and the effects which influence life and society.
- Collaboration among potential partners in solar-terrestrial space missions.
- Synergistic coordination of international research in solar-terrestrial studies, including all relevant data sources as well as theory and modeling.
- Effective and user driven access to all data, results, and value-added products.

MEMBERSHIP:

Space organizations committed to contribute to ILWS over the next decade. Contributions to include any of the following:

- Space Flight Missions
- Mission payloads or subsystems
- Mission launch or tracking services
- Additional data sources supporting flight missions (sounding rockets, balloon, or ground-based)
- Data dissemination, storage, distribution, and value adding systems
- Supporting theory and modeling

ACTIVITIES:

ILWS facilitates activities that stimulate the development of space weather missions and support international research collaboration.

- International science community workshops
- Collaborative inter-agency mission development
- Outreach activities at international meetings
- Annual meetings of ILWS Working Group and Task Groups

ILWS HISTORY:

In 2000, NASA established *Living With a Star*, a program to support space weather research. Other international space agencies were establishing space weather programs as well.

In 2001, the *Interagency Consultative Group* (IACG) established a Task Group to study prospects for developing an *International Living With a Star* program. The Task Group met in May 2001 in Tenerife and determined the following:

- The ILWS program has substantial potential for stimulating and enabling a new international effort in solar-terrestrial research.
- ILWS could provide an umbrella for forging necessary international coordination, cooperation, and bi-lateral and multi-lateral agency collaborations.

In January 2002 the IACG accepted the recommendation of the Task Group, establishing *the International Living With a Star Program*

The ILWS Kickoff Meeting was held in September 2002 in Washington, DC. Participants included ESA, Canada, Denmark, Finland, France, Japan, Norway, Russia, Switzerland and USA (NOAA and NASA).

The first ILWS Task Groups formed in 2002-2003.

ILWS officially commenced in January 2003, and celebrated ten years of success in February 2013 with the ILWS Tenth Anniversary Symposium at the United Nations in Vienna, Austria.

ILWS SUCCESS STORIES:

Partnerships between agencies have created new opportunities to develop and support cooperative analysis of missions (such as Hinode, STEREO, Kuafu, SWARM, Koronas-Foton, ePOP, Picard, Solar Orbiter).

Two task groups (Ionosphere-Thermosphere-Mesosphere and Magnetosphere) have successfully completed the activities described in their charters, and the others continue to forge ahead.

There have been four ILWS science workshops: Goa, India in 2006, Varna, Bulgaria in 2007, Ubatuba, Brasil in 2009, Beijing, China in 2011. The next will be held in Irkutsk, Russia, June 24-28, 2013. These workshops engage scientists from the entire space weather community and guide the ILWS Working Group in setting priorities.

We are on the verge of an exciting decade of discovery and international cooperation. However, much remains to be done.

- Articulate a powerful and sustainable vision for our science
- Strengthen the international framework of cooperation
- Establish a data and modeling infrastructure
- Work with other international organizations
- A well-organized ILWS will help address all of these needs.

ILWS Agencies and Delegates

-  **Canadian Space Agency (CSA)** - KENDALL, David
-  **Centre National de'Etudes Spatiales (CNES)** - PRADO, Jean-Yves
-  **Center for Space Science and Applied Research (CSSAR)** - WANG, Chi
-  **Chinese National Space Administration (CNSA)** - WU, Ji
-  **Community Coordinated Modeling Center (CCMC)** - HESSE, Michael (*Ex Officio*)
-  **DLR German Aerospace Center** - FRINGS, Wolfgang
-  **European Space Agency (ESA)** - ESCOUBET, Philippe
-  **Finnish Meteorological Institute** - PULKKINEN, Tuija
-  **IAC Astrophysical Institute, Canaries** - MARTINEZ PILLET, Valentin
-  **Indian Space Resource Organization (ISRO), Bangalore, India** - DUTTA, Jayati
-  **INAF - ASI Turin Astronomical Observatory** - ANTONUCCI, Ester
-  **INPE National Space Research Institute** - GONZALEZ, Walter
-  **Institute of Experimental Physics, Slovak Academy of Sciences (SAS), Kosice** (in collaboration with Technical U. and P.J. Safarik U. in Kosice) - KUDELA, Karel
-  **IPS Radio and Space Services, Australia** – NEUDEGG, David
-  **IWF/OEAW Austrian Academy of Sciences** - NAKAMURA, Rumi
-  **Japan Aerospace Exploration Agency (JAXA)** - FUJIMOTO, Masaki
-  **Korean Astronomy and Space Science Institute (KASI)** - CHO, Kyung-Suk
-  **KFKI Research Institute for Particle and Nuclear Physics** - KECSKEMETY, Karoly
-  **GSRT, Greece** - DAGLIS, Ioannis
-  **Moroccan Ministry of Higher Education** - NAJID, Nour-Eddine
-  **NASA Headquarters** - GUHATHAKURTA, Lika
-  **National Space Agency of Malaysia (ANGKASA)** - ASILLAM, Mohd Fairos
-  **National Space Institute, Denmark** - NEUBERT, Torsten
-  **National Space Organization (NSPO), Taiwan** - CHENG, Frank
-  **NOAA Space Weather Prediction Center (SWPC)** - ONSAGER, Terry
-  **Norwegian Space Center** - BREKKE, Paal
-  **NSAU Ukrainian Space Agency** - PARNOWSKI, Aleksei
-  **PMOD/WRC Davos Physical Meteorological Observatory** - SCHMUTZ, Werner
-  **Romania Space Agency (ROSA)** - HASEGAN, Dumitru
-  **Russian Federal Space Agency (RFSA)** - PETRUKOVICH, Anatoli
-  **Science and Technology Facilities Council (UK)** - CASTELLI, Chris
-  **Space Research Institute (IKI)** - PETRUKOVICH, Anatoli
-  **Swedish National Space Board (SNSB)** - KÖHLER, Johan

