

The contribution to IHY from the COST296 Action MIERS: Mitigation of Ionospheric Effects on Radio Systems

Giorgiana De Franceschi · Lucilla Alfonsi · David Altadill ·
Pal Bencze · Alain Bourdillon · Dalia Buresova · Ljiljana R. Cander ·
Benito de la Morena · Lefteris Economou · Miguel Herraiz ·
Kirsti Kauristie · Jan Lastovicka · Silvia Pau · Gracia Rodriguez ·
Richard Stamper · Iwona Stanislawska

Received: 11 January 2008 / Accepted: 2 September 2008 / Published online: 25 December 2008
© Springer Science+Business Media B.V. 2008

Abstract The objective of the COST296 Action MIERS (Mitigation of Ionospheric Effects on Radio Systems) is to develop an increased knowledge of the effects imposed

G. De Franceschi (✉) · L. Alfonsi · S. Pau
Istituto Nazionale di Geofisica e Vulcanologia - Rome, Rome, Italy
e-mail: defranceschi@ingv.it

D. Altadill
Observatorio del Ebro, Tortosa, Spain

P. Bencze
Hungarian Academy of Sciences, Geodetic and Geophysical Research Institute, Sopron, Hungary

A. Bourdillon
Institut d'Electronic et de Telecommunications de Rennes, Rennes, France

D. Buresova · J. Lastovicka
Institute of Atmospheric Physics, Prague, Czech Republic

L. R. Cander · R. Stamper
Rutherford Appleton Laboratory, Council for the Central Laboratory of the Research Councils,
Oxfordshire, UK

B. de la Morena
Instituto Nacional de Tecnica Aeroespacial, Torrejón de Ardoz, Spain

L. Economou
Intercollege Limassol Campus, Limassol, Cyprus

M. Herraiz · G. Rodriguez
Universidad Complutense Madrid, Madrid, Spain

K. Kauristie
Finnish Meteorological Institute, Helsinki, Finland

I. Stanislawska
Space Research Center- Polish Academy of Science, Warsaw, Poland

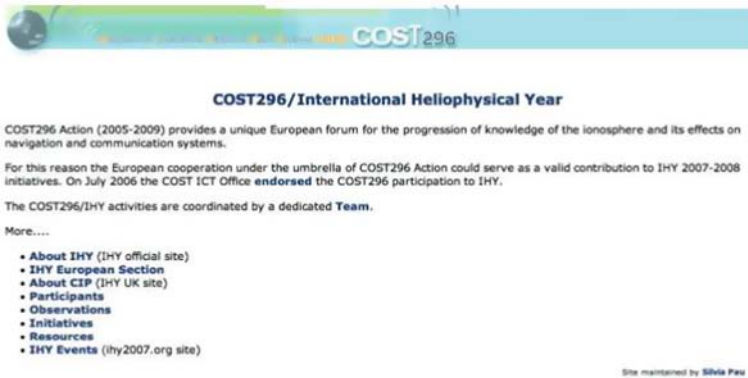


Fig. 1 Home page of the COST296/IHY web site (http://ionos.ingv.it/IHY/ihy_index.html)

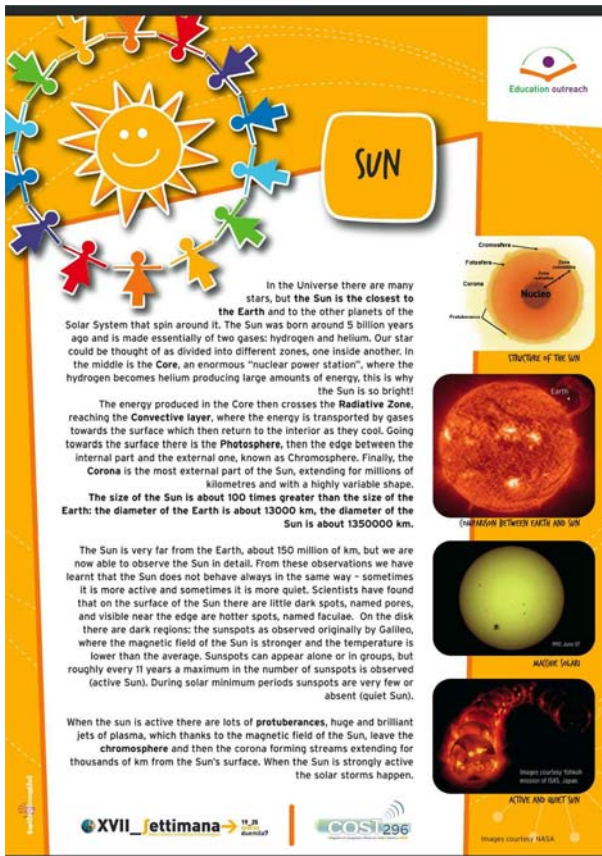


Fig. 2 Example of the cards provided to the teachers during the competition for the School-Calendar



Fig. 3 Cover of the Calendar

by the ionosphere on practical radio systems, and for the development and implementation of techniques to mitigate the deleterious effects of the ionosphere on such systems (<http://www.cost296.rl.ac.uk>). The COST296 Community contributes to the international efforts of IHY with scientific and outreach activities as well. After the realization of a web site hosted by Istituto Nazionale di Geofisica e Vulcanologia (INGV), developed also to promote the ionospheric physics to the open public, the COST296 Community supported an initiative addressed to the pupils of the primary school of several European Countries: the realization of a school-calendar dedicated to the Sun and to the Sun-Earth connections.

Keywords E/PO · Space weather

1 Description of the COST296/IHY outreach activities

Our outreach activities refer to:

- the realization of a web site: http://ionos.ingv.it/IHY/ihy_index.html;
- the production of a European school-calendar.

The web site is organized in different sections (Fig.1):

- Participants: a list of the COST296 Institutions contributing to the IHY activities;
- Observations: explanatory pages about the different scientific activities of each Institution;
- Initiatives: a list and a brief description of the IHY activities of the COST296 Action;
- Resources: set of downloadable files (official documents, past presentations, outreach material, layout for presentations).

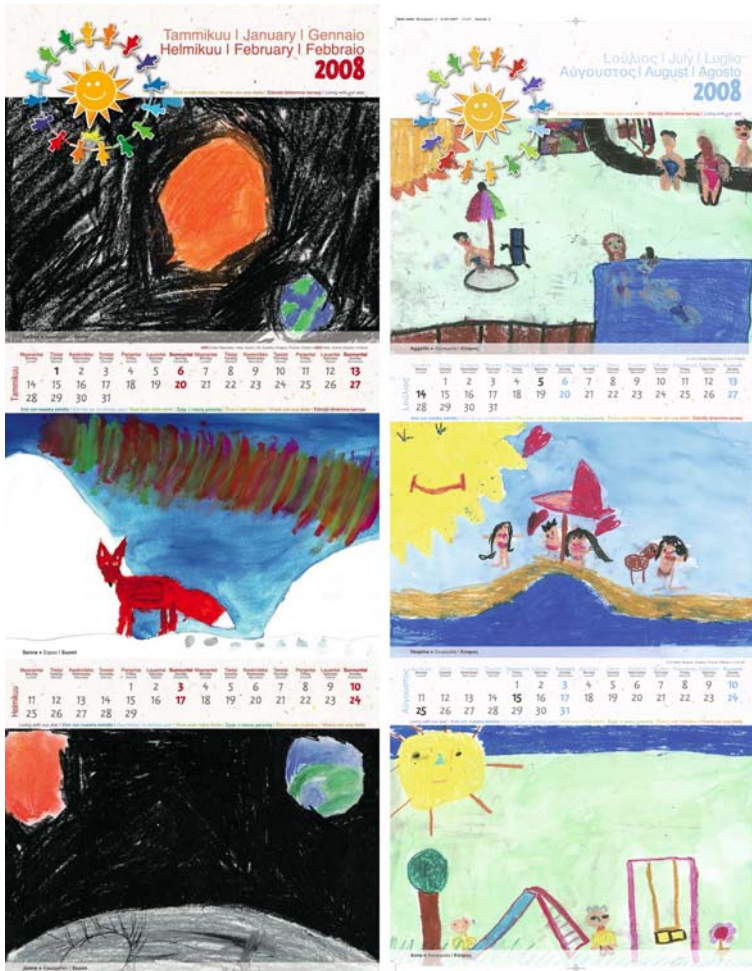


Fig. 4 Pages of the Calendar dedicated to Finland (left) and to Cyprus (right)

The sections with outreach vocations are Observations and Resources. Both the sections, in fact, contain useful information to learn the activities of the participating institutions and links to download related documents.

The diamond point of the COST296/IHY outreach activities was the realization of a School-Calendar 2007–2008. The calendar was produced with the drawings made by pupils of the primary schools (6–11 years old) of eight different European Countries: Cyprus, Czech Republic, Finland, France, Italy, Poland, Spain, UK. Each Country organized a competition at national level with a common title: Living with our Star, to call for contributions on the Sun and Sun-Earth relationship. To stimulate the fantasy of the pupils and to take the opportunity of education on the proposed topics, some cards on specific items have been produced and provided to the teachers (Fig.2).

At the end of June we received more than 1,300 artworks and, after an hard selection, only 25 of them were finally chosen. In order to give visibility to each Country, every nation is represented by three drawings and host two of the sixteen months included (from September 2007 to December 2008) in the calendar (Fig.3). One of the most interesting features of the drawings is the latitudinal connotation of the authors, as evidenced, for instance, in the comparison between the Cypriot and Finnish pages (Fig.4). On September 20th, 2007 a Celebration Day was organized at INGV headquarter in Rome to award the winners and to present officially the Calendar. This activity has confirmed once again the power of the outreach initiatives as effective tool to divulgate the physical sciences and to support the importance of the research to the open public.

Acknowledgements This work has been supported by the COST office. The authors thank the Education and Outreach Group of Istituto Nazionale di Geofisica e Vulcanologia and Laboratorio di Grafica e Immagini for the Concept Design.