

**In this issue:**[News](#)[Tutorial](#)[Related Conferences](#)[Presentation of DIAS results in International Meetings](#)[Published papers about DIAS](#)[Call for contributions](#)

DIAS is a demonstration project co-funded by the [eContent](#) programme of the European Commission, of two years duration (2004 - 2006).

**DIAS consortium members:**

- [National Observatory of Athens, Greece \(Co-ordinator\)](#)
- [University of Athens, Department of Telecommunication and Informatics, Greece](#)
- [Rutherford Appleton Laboratory, Council for the Central Laboratory of the Research Councils, UK](#)
- [National Institute of Geophysics and Volcanology, Italy](#)
- [Swedish Institute of Space Physics, Sweden](#)
- [Leibniz Institute of Atmospheric Physics, Germany](#)
- [Space Research Center, Polish Academy of Sciences, Poland](#)
- [Blustaff S.p.A., Italy](#)

**DIAS data contributors:**

- [Pruhonice Ionospheric Station Institute of Atmospheric Physics, Czech Republic](#)
- [Observatori de l'Ebre, Spain](#)

**NEWS****Ionospheric session at EGU assembly**

As a part of the 3<sup>rd</sup> EGU Assembly - Vienna (Austria), 2 - 7 April 2006, (<http://meetings.copernicus.org/egu2006/index.html>), the session ST5.7 "Measurements of ionospheric parameters influencing radio systems" will be held.

**Session information:**

The advanced terrestrial and space-based systems including GPS and the HF telecommunications and radar ranging require ionospheric information and predictions. To reach this goal, ionospheric

measurements and modelling is needed. Therefore the main purpose of the symposium is to present new information on ionospheric measurements and advanced measuring techniques, on measurement evaluation, interpretation, dissemination and archiving, on development of methods of ionospheric predictions, forecasting and nowcasting (with emphasis to European area but including results from other areas, as well), including the results obtained in the projects COST271 and COST296. Papers on related modelling and simulations are accepted, as well.

**Abstract deadline:** 13 January 2006.

For further information: J. Lastovicka (jla@ufa.cas.cz) and L.R. Cander (l.cander@rl.ac.uk) session conveners.

## DIAS Web Demonstrator

During the DIAS splinter session held at the 2<sup>nd</sup> European Space Weather Week (ESA-ESTEC, Noordwijk, The Netherlands 14 - 18<sup>th</sup> November 2005) the potentialities of the project have been demonstrated to some potential customers, through the presentation of the DIAS Web Demonstrator. It is now available on the web, through DIAS prototype (<http://www.iono.noa.gr/dias/> or [http://ionos.ingv.it/DIAS\\_Demo/Start.htm](http://ionos.ingv.it/DIAS_Demo/Start.htm)).

## DIAS Training kit

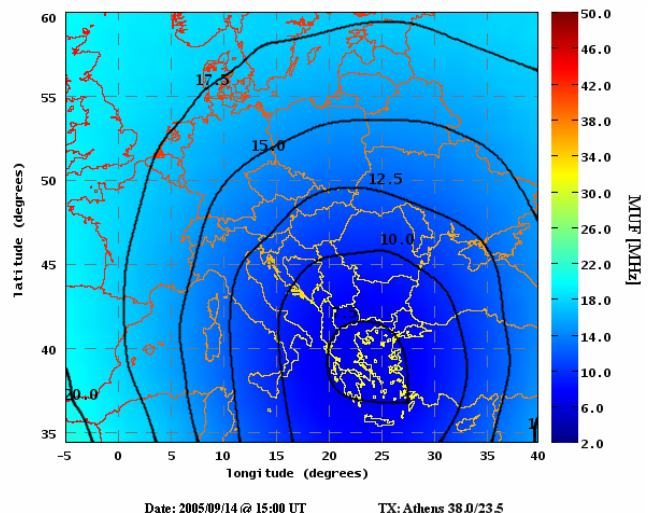
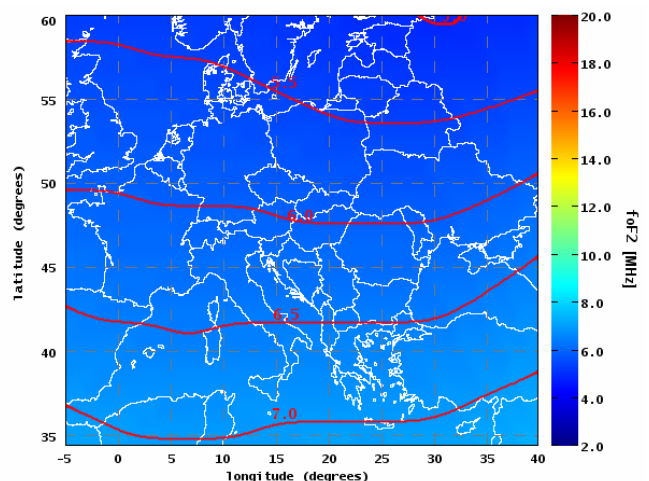
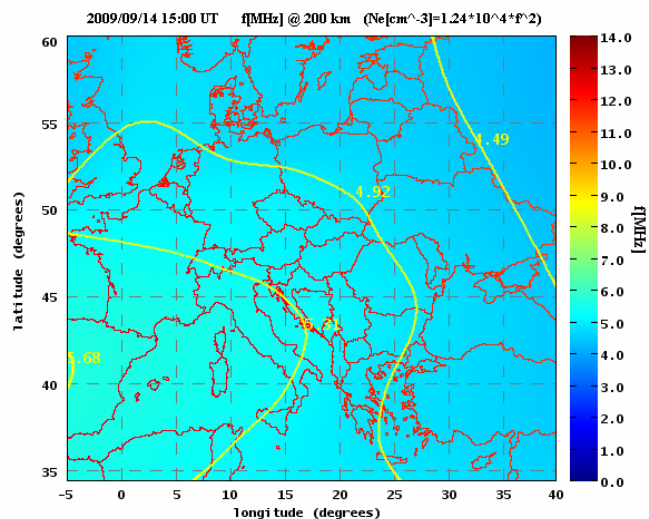
A training kit for DIAS user has been produced. It includes a new release of [DIAS brochure](#) and the demonstration CD of DIAS products and services. It is possible to receive the web demo CD asking for it at the address: [dias@ingv.it](mailto:dias@ingv.it).

## TUTORIAL

### The Ionospheric weather in the past and future.

While the Sun energy is one of the main factors that supports terrestrial life, it can sometimes wreak great havoc on Earth. During solar eruptions the entire terrestrial magnetosphere and ionosphere experienced radical changes. Yet the danger posed by solar flares is not just limited to these regions. The transformation of the ionosphere changed the propagation properties not only for terrestrial waves, but for transionospheric waves as well. Mankind also sometimes witnessed spectacular changes in radiocommunication and navigation as it happened during October 2003 solar activity increase. The change in the ionosphere's electron concentration was so great that amateur short-wave radio enthusiasts were surprised to note cases in which frequency bands 20 times beyond their usual frequency ranges could be used. During another disturbances observed in November 2004 situation repeated; most of the previously available radio frequencies were rendered unusable. October 2003 and November 2004 represent most pronounced disturbances during last decade, but smaller disturbances appeared almost every month can remarkably changed usual conditions in the ionosphere. Although solar eruptions cannot be prevented, it is possible to minimize their negative

impact. Nevertheless, this requires instantaneous follow and accurate forecasting. DIAS recounted the actual ionospheric situation and offers wide spectrum of predicted maps: long-term, short-term, also in digital form. Three figures present samples for foF2, MUF and electron concentration for randomly chosen disturbed epoch.



## RELATED CONFERENCES

- AGU Fall Meeting 2005  
Moscone Center West, 800 Howard Street  
San Francisco, CA, USA  
5 - 9 December 2005  
<http://www.agu.org/meetings/fm05>
- International Heliophysical Year European General Assembly  
Paris, FRANCE  
10 -13 January 2006  
[http://calys.obspm.fr/IHY/IHY\\_colloque/](http://calys.obspm.fr/IHY/IHY_colloque/)
- ION NTM 2006  
Hyatt Regency Hotel, Monterey, California  
18 - 20 January 2006  
<http://www.ion.org/meetings/>
- Third CNES Workshop On Earth-Space Propagation  
Toulouse, France  
22 - 24 February 2006  
<http://www.cnes.fr/>
- IEE Ionospheric Radio Systems and Techniques conference  
London, UK  
18 - 21 July 2006  
<http://conferences.iee.org/IRST2006/>

## PRESENTATION OF DIAS RESULTS IN INTERNATIONAL MEETINGS

International Heliophysical Year European General Assembly

["Ionospheric specification and forecasting methods based on observations from European ionosondes participating in DIAS project"](#)

**Belehaki, Lj. Cander, B. Zolesi, J. Bremer, C. Juren, I. Stanislawska, D. Dialetis and M. Hatzopoulos**

An invited talk about DIAS in relation to ionospheric radio propagation and predictions will be presented by the project coordinator, Dr. Anna Belehaki, during the 3<sup>rd</sup> EGU Assembly in the session ST5.7 "Measurements of ionospheric parameters influencing radio systems". More details in the next issues.

## PUBLISHED PAPERS ABOUT DIAS

"DIAS Project: The establishment of a European digital upper atmosphere server", Belehaki A., Cander Lj., Zolesi B., Bremer J., Juren C., Stanislawska I., Dialetis D., Hatzopoulos M., Journal of Atmospheric and Solar-Terrestrial Physics, Vol. 67, no. 12, pp. 1092-1099, 2005.

## CALL FOR CONTRIBUTIONS TO DIAS NEWSLETTER

If you would like to submit a short contribution for the next issue of the DIAS newsletter, please contact the editorial office: [DIAS@ingv.it](mailto:DIAS@ingv.it).

The goal of DIAS is to develop a pan-European digital data collection on the state of the upper atmosphere, based on historical data collections and on real-time information provided by ionospheric stations belonging to Public European Research Institutes. DIAS services, such as radio propagation characteristics for the European region, ionospheric maps, alerts and warnings for ionospheric disturbances, etc., will be useful for large number of HF communication and navigation systems users and will contribute to the formation of a network of public research institutes and private sector users. For the effective exploitation of DIAS products and services a network of users will be established that will work together with DIAS data providers to bring out the full potential of this type of information.

Detailed information about the project can be found on [DIAS home page](http://www.iono.noa.gr/DIAS/) (<http://www.iono.noa.gr/DIAS/>).

To change your e-mail address, to unsubscribe or to receive more information, please contact the editorial team: [DIAS@ingv.it](mailto:DIAS@ingv.it) or visit: <http://www.iono.noa.gr/DIAS/>