

ISES - Europe

1. Propose a new regional coordination agency status for Europe;
2. Propose a new regional expert agency status;
3. Discuss the participation of ESA's space environments and effects analysis group to ISES under such status.

ISES role

- ISES is an emanation of URSI, IAU and IUGG. Its present mission encompasses the rapid, standardized and free exchange of space weather data, the preparation of the International Geophysical Years and the monthly 'Spacewarn Bulletins' on satellite status. In addition, ISES promotes and develops space weather services by means of workshops and information dissemination to the public.

ISES structure

- Presently, ISES consist of Regional Warning Centres, Warning Agencies (currently the World Warning Agency for Satellite hosted at NASA GSFC and the World Warning Agency for Space Weather hosted at NOAA/SEC) and Service Agencies (currently the World Days Service hosted at NOAA/NGDC)..
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Proposition for new Coordination levels

- Space weather data and services have grown considerably in term of quantity and diversity.
- As a result several new organisations especially from Europe are in principle eligible for ISES membership as RWC.
- Recently, SIDC from Belgium, IRFL from Sweden, and CLS from France have been integrated in ISES and it is anticipated that several other organisations which could also provide a very useful space weather service (cf table in Annex A) would apply for membership.
- Also the need in Europe for new types of observations (especially space based) would require an efficient coordination of the resources justified by a substantial local network of service providers.

ISES coordination in Europe

- To cope with this new situation it appears useful that the coordination, at least in Europe, be organised at a level intermediate between the rather local or specialised RWC activity and the global ISES structure. Such a coordination is needed both at a local level in order to better coordinate activities from various centres of the same regions and world wide in specific specialised areas. Therefore it is considered that it could be accomplished by two types of agencies with either a coordination function at regional level or an expert function.

Regional Coordination Agency for Europe

The Regional Coordination Agency for Europe will:

- Monitor, coordinate and support the activity of the European RWC's;
- Establish and maintain a local data dissemination infrastructure;
- Promote the space weather applications to potential users;
- Collect requirements for new services and new data and propose strategy development to meet these requirements.
- In Europe, this activity could initially be undertaken by ESA which is developing a Pilot European Space Weather Service over the years 2002 through 2004. Any subsequent European space weather programme, endorsed by European organisations would take on this coordination role.

Regional Expert Agency for Space Weather Effects on Spacecraft

- Address specific user domains in liaison with the other regional expert agencies in the same field of expertise:
 - - Agree on metrics to evaluate predictions of the models and perform joint evaluations;
 - - Co-develop and compare models of space weather effects;
 - - Gather customer's feedback.
 - - Prepare plans for future developments.
 - - Collectively report to the directing board of ISES.

- It is proposed that ESA's space environments and effects analysis section would become a Regional Expert Agency for Space Weather Effects on Spacecraft. It is already the role it actually has in Europe for the space users. ESA could undertake to liaise with the already identified international partners, NASDA, NASA-GSFC, NASA-MSFC/SEE, and NPU.
- There is presumably also a potential for such coordinated activities in the other following fields:
 - - Geomagnetic effects on ground;
 - - Ionospheric effects on radio links;
 - - Space weather effects on aircraft electronic and aircrew;

Schedule and constraints

- Discussion at the Space Weather Working Team meeting in Toulouse on 10 April 2002 and will be modified according to the comments received.
- The amended version will be discussed at the ISES meeting on 14 April in Boulder.
- The commitment of ESA in activities requiring say more than 0.1 man years effort shall require approval at ESA director level.