

Opening Remarks by D/TOS, Mr. G. Winters

It is my pleasure to welcome you to ESTEC and to this Workshop on Space Weather organised by the Space Environments & Effects Analysis Section.

This is the 3rd workshop in the series. The first workshop in late 1998 can be seen in retrospect as the kick-off point for the investigation of the needs for a European space weather applications programme.

This present workshop finds us at the end of the phase of the initiative in which several activities produced analyses of space weather problems and possible space and ground segments which could be required to address end user needs. Those activities will be presented during this workshop. I was particularly pleased to see the important role played by the Concurrent Design Facility at ESTEC.

An important function of the workshop is to provide the context for deciding on the contents of the next phase of the programme, which we assume, will be a partnership between ESA and other European and non-European organisations. On this last point I have particular pleasure in welcoming the many participants from beyond Europe who are attending and continue to support these efforts.

Europe clearly has important skills and assets which can underpin space weather services and we must investigate how to bring these to bear in a co-ordinated fashion. Of course this will depend on first establishing the economic and other benefits of a programme.

As head of the *Directorate of Technical and Operational Support*, I am keenly aware and interested in the effects of the space environment on ESA and other European spacecraft. Radiation effects, electrostatic charging and communications' interference, are all space weather related domains which are supported by specialists in my directorate. It is clear that problems in this area are on the increase as spacecraft use more sensitive technologies, provide new services, and fly in more hazardous environments, and as pressure increases to reduce costs.

So there are two goals of this Space Weather workshop:

One is to review the work done over the last 2 years and to have an overview of all the scientific, technological, and economic issues related to Space Weather users and services.

The other goal is, to see how best to co-ordinate efforts within Europe and beyond to provide the best services for potential users, and to decide on the next steps for ESA.

So I wish you an enjoyable and fruitful three days, and look forward to seeing the results of your efforts.