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ASTRONÓMICA E GEODÉSICA E GEOFÍSICA
(SPUIAGG)**

**INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
(IUGG)**

NATIONAL REPORT

1999 – 2002

**PRESENTED TO THE XXIII GENERAL ASSEMBLY
OF THE INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS**

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Preface

The scientific progresses achieved in Portugal, related to the last four years period, reflect very large appropriations of the improved technical facilities in all domains of activity.

It is a pleasure to report the implementation of the scientific structures, as well as the increasing participation of national specialists in Meetings, Symposia and General Assemblies where the visibility of the Portuguese community was highlighted.

The support of the Association's correspondents to prepare the National Report for the 1998-2002 period, presented in Sapporo, was a valuable input, namely the IAG (International Association of Geodesy), IASPEI (International Association of Seismology and Physics of the Earth's Interior), IAMAS (International Association for Meteorology and Atmospheric Sciences) and IAPSO (International Association for the Physical Sciences of the Ocean) correspondents gave important practical informations about the developments covering many scientific subjects and challenges, that could be addressed by global remote sensing and modern information technologies.

There are great opportunities for answering questions related to the seismic hazard assessment which understanding is based upon networks of continuously operating Global Positioning System (GPS) receivers and SAR interferometry; during this report period the Portuguese Scientific Community start to participate in the wide efforts to use the geodesy techniques to study the crustal movements, associated to the different steps of seismic activity, in order to assess static and dynamic displacements.

The implementation of the marine geophysics research was very promising and contributing to a better understanding of the tectonic and tectonophysics structures in southern areas of Portugal, where the seismic hazard related to the activity expressed during historical periods by impressive reports, such as the 1755 earthquake, continues to be main objective of projects funded by national agencies or financed in the framework of EU programs.

As far it concerns meteorological and climate development:

a) The organization in Lisbon on climate issues of one conference on climate issues call the attention for the preparation of comprehensive approaches in this matter, in order to be prepared for impact simulations and evaluations of medium and long term socio-economic disruptures

b) In order to modernize the structures of the main institution dealing with operational meteorology and geophysics, based upon the available modern technologies and taking into consideration the discussions on the policy for integrating the university scientific sectors, two projects of short to medium term development have been prepared and submitted to the government, receiving the Ministry of Science approval by spring 2001.

In the domain of the physical sciences of the ocean:

a) More works were done on the influence of the transport of sediments, their dynamics, their course and respective consequences. Monitoring is increasing and more and more data is being collected as demonstrated by the amount of reports issued by the different Portuguese institutions involved.

b) The concentration in the problems and implications of the biological production are continuous source of interest and the centers dedicated to the biology of the ocean maintain a steady amount of publishing of publications treating those subjects.

c) More and more people are dedicated to the mathematical representation, becoming the mainstream with several important and innovative works in progress or recently concluded. Predictive models were implemented and tested.

Finally it is worthwhile to mention that the post-graduate academic degrees continue to be implemented by the Portuguese Universities thanks to the wide agreements between the Portuguese Scientific Agencies and other European Institutions.

Professor Dr. Luis Alberto Mendes-Victor, President of SPUIAGG