

Annual Report of European Association Of Remote Sensing Laboratories (EARSeL)

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GENERAL INFORMATION

Two Council meetings were held in 1997, one in January in Paris and the second in Lyngby, Denmark, on the occasion of the anniversary Annual General Assembly and Symposium. It was in fact at the Technical University of Denmark, on the occasion of a European Conference on Remote Sensing held in September 1976, that the Association was founded, the first Bureau elected and the Statutes drafted. The first Chairman, Professor Preben Gudmandsen, is today the Honorary President of the Association and was host to this anniversary meeting, which brought together several of the original founding members and representatives of the sponsoring organisations. These are the Space Unit and the Centre for Earth Observation of the European Commission, the Earth Observation division of the European Space Agency and the Council of Europe. Each of these organisations presented their programmes and plans for the future, which fitted perfectly the theme of the Symposium "Future Trends in Remote Sensing". The Association was also very happy to welcome the President of ISPRS, Dr. Larry Fritz, who gave a keynote paper "High-resolution satellites lead spatial information into an all-digital 21st century".

At their meeting on 16th June, the EARSeL Council elected the new Bureau. Offices are for a two-year period, renewable for one more term in the same office. The new Bureau 1997-1999 is as follows :

Chairman: Dr. Robin Vaughan, University of Dundee, United Kingdom
Vice-Chairman: Prof. Dr. Eberhard Parlow, University of Basel, Switzerland
Secretary-General: Dr. Lucien Wald, Ecole des Mines de Paris, France
Treasurer: Dr. Peter Winkler, FÖMI Remote Sensing Centre, Budapest, Hungary
East/West relations: Dr. Tomas Benes, Lesproject Forest Management Institute, Brandys-nad-Labem, Czech Republic

EARSeL ACTIVITIES DURING 1997

part from the Annual General Assembly and Symposium, EARSeL organises specialist meetings and workshops through its Special Interest Groups (SIGs).

Activities of the Special Interest Groups

The EARSeL SIG on Land Ice and Snow organised a Workshop on this topic at the University of Freiburg in Germany on 17/18 April 1997. All presentations were of high quality and demonstrated the potential of remote sensing for deriving snow and ice parameters in nearly all of the world's cold areas. These demonstrated that remote sensing imagery is being increasingly used as input data for models with which to derive glaciological, snow-hydrological as well as meteorological parameters. It was recommended that future activities should focus on the development of models as well as information extraction using a multi-sensor approach.

The EARSeL SIG on data fusion organised its first workshop in the wake of the annual Symposium. It was a very lively open-discussion session. The goals of the SIG were presented. It was agreed upon that a formalisation of the data fusion in remote sensing would be very helpful and would shape the domain. Principles, standards, concepts, definitions should be expressed by the remote sensing community. Several participants stressed that basic principles in remote sensing and natural sciences are central in data fusion and should be expressed. Instruments for the assessment of the quality, reliability and accuracy were repeatedly requested. The role of in situ data was underlined. One of the goals of the SIG should be to state the requirements / properties of these data for their integration with remote sensing data, in co-operation with the other SIGs, trying not to interfere with their activities. Finally, a need was expressed for the exchange of information and know-how. Demonstration cases should be made which clearly show the benefit of the fusion for a given application. A Web site should be established.

In July 1997 the Lidar Techniques for Land and Sea SIG organised a Workshop in Tallinn, Estonia, where the latest techniques under development were presented. A session was devoted to laser techniques for 3-D modelling, which added a new perspective and suggested integration techniques. The papers were often highly technical and it was agreed that possible users need to be identified and made aware of potential applications. In the case of topographic mapping the National Survey Departments in each country are the natural users and those responsible for environmental problems as regards laser-induced fluorescence techniques for monitoring plant health and water pollution for example.

Annual Symposium

At the annual symposium, held in June at the Technical University of Denmark as mentioned above, after invited keynote papers, where representatives of leading agencies presented their future programmes, the themes addressed covered (1) Methods, Models and System Aspects, (2) Snow and Ice, (3) Ocean, (4) Data Fusion, and (5) Education. The conclusion of these presentations was that the wealth of data presently available and the prospect of many sources of high-resolution data soon to become available present an exciting challenge to researchers, who are constantly finding practical applications to help in mitigating the effects of many kinds of environmental pollution and natural disasters.

Web-site study

EARSeL has conducted a preliminary study for the EC Centre for Earth Observation (CEO) to determine the benefits to be gained by setting up a European Advanced Remote Sensing System (ERSAIS) on the WWW, to be conceived and maintained by EARSeL. The preliminary study presented the technical problems and solutions envisaged. This preliminary study having been well received, it was decided to submit a proposal for its implementation. If this proposal is accepted by the CEO, work could begin during the summer of 1998, a prototype could be available in 1999 and the final site ready by the year 2000.

EARSeL publications in 1997

The quarterly *EARSeL Newsletter* appeared regularly. A new editor, Dr. Lucas Janssen of I.T.C., Enschede, The Netherlands, took over from Dr. Dave Sloggett of ANITE Systems as from the September issue.

The *Proceedings of the annual symposium 1996* were published by Messrs. Balkema, NL.

The *Proceedings of the Freiburg Workshop on Remote Sensing of Land Ice and Snow* were published.

The Proceedings of the Tallinn Workshop will be published early in 1998.

EARSeL MEETINGS PLANNED FOR 1998

Following the high-level Workshop on the "Fusion of Earth Data: Merging point measurements, raster maps and remotely-sensed images", held in Cannes in February 1996, a Special Interest Group on this topic was established, which is organising another workshop on the topic from 28-30 January 1998 in Sophia Antipolis, France.

The Annual General Assembly and Symposium on the theme of "Operational Remote Sensing for Sustainable Development" will be held at the International Institute for Aerospace Survey and Earth Sciences (ITC) at Enschede, The Netherlands, from 11-15 May 1998. There will also be specialist workshops and presentations of the latest software.

The SIG "Imaging Spectroscopy" will hold a specialist Workshop on this topic from 6-8 October 1998 at the University of Zurich, Switzerland.

RELATIONSHIPS WITH ISPRS

The EARSeL SIG on Forestry and Land Use held a joint meeting in December with ISPRS Commission VII/WG4, when they decided to work closely with the EARSeL SIG on Data Fusion techniques. EARSeL will participate in the mid-term Symposium of ISPRS Commission VII, ECO BP'98, to be held in Budapest, by organising a session in which the convenors of several SIGs will present the activities and research results of their group. EARSeL is also giving wide publicity and some of its members will no doubt participate in the mid-term symposium of Commission II "Data Integration: Systems and Techniques", to be held in Cambridge, UK in July 1998.

It is the policy of EARSeL to co-ordinate research efforts and foster the application of remote sensing techniques. We are therefore willing to consider collaborating in the organisation of joint meetings with other remote sensing organisations and in particular with the various Working Groups within the ISPRS Commissions and the other ISPRS Regional members.