

Institute of Physics

Bulletin of The Environmental Physics Group

Volume 4, No. 2 — Summer 1998.

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Editor's Report.

Departure of Ranjeet and Quintin.

My co-editor and fellow EPG Committee member, Ranjeet Sokhi, has resigned from both positions to spend more time with his family and concentrate on his work. Quintin Rayer has also resigned, after a brief spell on the Committee. I would like to thank Ranjeet and Quintin on behalf of the whole Committee, and all members of the Group for the excellent service they have put in to the environmental physics community.

Ranjeet and I have very different experiences as environmental physicists. Now that I am the sole editor, it is possible that the diversity of the contents of this Bulletin may be reduced. Therefore I ask all readers to consider what they would like published in the Bulletin, and if you have any material that you would like included, please let me know. This can mean information about conferences, articles, or anything else connected with environmental physics.

New service — Ph.D. Abstracts.

In the centre pages of this Bulletin you will find two Ph.D. abstracts. This is a service to recent Ph.D. graduates and possible employers of them. If you have just completed your Ph.D. in environmental physics, or are supervising a student who has just finished, please consider sending me the abstract for publication. It will reach the 532 members of the EPG, all of whom have an interest in environmental physics.

Submitted abstracts must be accompanied by a written statement of authenticity from the student's supervisor or head of department. This letter must also state that all relevant examinations have been passed, i.e. that the Ph.D. degree will definitely be awarded with no further changes to the thesis. There is no refereeing procedure — the only criterion is relevance to environmental physics. Abstracts should be submitted to me — my co-ordinates can be found on page 52.

Environmental Effects of Non-Ionising Radiation.

A summary of meetings and workshops on this subject will be issued in the next Bulletin of the Environmental Physics Group.

Bulletin on the WWW.

As usual, this bulletin can be accessed at the following URL:
http://www.nerc-essc.ac.uk/~dwcp/Htmls/Epgstuff/bull_top.html

David Pearson (Editor)

The views expressed in this section are those of the editor, and do not necessarily reflect those of the Institute of Physics or of the Environmental Physics Group. Readers are advised to confirm independently all contacts, deadlines and dates in the Bulletin.

EPG Business.

Minutes of the Environmental Physics Group AGM, Brighton, 16 March 1998.

(1) Welcome

The Chairman, Edward Youngs welcomed the attendees (approximately 15 people) to the meeting.

(2) Chairman's & Secretary's Reports

The Chairman and Secretary each gave a report to the meeting (see following pages).

(3) Election of Officers and Committee Members

The following committee was elected (unopposed)

Chair:	Professor Edward Youngs
Vice-Chair:	Dr. Alastair McCartney
Hon. Sec.:	Dr. Peter Hodgson

Committee Members:

John Garland, Dr. David Pearson, Dr. Douglas Peirson, Dr. Neil Roberts, Dr. John Stewart, Alexandra Wilson, Dr. Richard Clarke, Dr. Ian Colbeck, Peter Hughes

(4) AOB

As at last year's AGM, there followed a discussion which centred on whether the Environmental Physics Group should become more active as a pressure group, campaigning on environmental issues. After a lively discussion, the consensus was that the Group should continue to provide a forum in which environmental physics can be discussed and provide expert opinion on various aspects of the subject, in line with IOP guidelines for Group activities. It was felt to be outwith the constitution of the IOP and the Group to become a lobby or pressure group.

A general point was also made about the poor attendance at the IOP Congress and the EPG meeting.

(5) Close

Chairman's Report, 1997-8.

This is the third year in succession that the Environmental Physics Group has held a one-day meeting as part of the Physics Annual Congress. Last year the theme was "Measuring the Environment" and an audience of about thirty heard invited speakers talking about measuring techniques applied to practical questions concerning the atmosphere, biosphere, water bodies and ground water. This year we are considering the different purposes for which environmental modelling is used.

During the last year, in addition to the main meeting at the Congress, the Group co-sponsored two other meetings; one on "Underwater Optics" with the Applied Optics Group, and the other on "Electrostatics and Environmental Cleanliness" with the Static Electrification Group. Neither generated very much interest from members of the EPG. However, the conference on "The Physics of Climate" which was held by the Royal Meteorological Society, supported by the Institute of Physics, at the Royal Society, was oversubscribed and a great success. Our last chairman, John Stewart, was on the organising committee for this conference. In October, a Group visit to the Alcan Recycling Plant at Warrington was enjoyed by some members.

Your committee met three times during the year. It advised on the setting up of a proposed database on careers in Environmental Physics for the Institute of Physics' careers database for students. A leaflet on "What is Environmental Physics?" was finally completed and has been distributed to secondary schools. The Education Group under the chairmanship of Peter Hughes has continued to be active. A textbook on Environmental Physics is being written and should be completed this summer and this is to be followed by an Environmental Physics Reader.

Activities for next year include a Group visit to Silsoe Research Institute on 27 May to see some of their research, and plans are being made for visits to Matra Marconi and to the Building Research Station and for a meeting on environmental noise. There has also been a suggestion that we have a discussion meeting on light pollution experienced by astronomers. The Education Group is organising a Summer School at Exeter in July and next year we expect to help with one or two sessions at the British Association Meeting.

The Committee are always pleased to have the involvement of members whose views and comments, perhaps through the *Bulletin*, are very welcome. Some of you may feel called to accept the Institute of Physics invitation, published in the last EPG Bulletin, to speak to schools about their work in environmental physics. Lastly, may I end with acknowledging the co-operation and help from members of the Committee, with special thanks to our Secretary, Peter Hodgson, and to the Editors of the *Bulletin*, David Pearson and Ranjeet Sokhi.

E.G. Youngs

Secretary's & Treasurer's Report 1997-98.

As the Chairman has outlined, several events were organised throughout the last 12 months, culminating with this meeting at the IOP Congress. The committee feels that the Congress is a key event in the IOP calendar and that it has been worth supporting over the last few years by organising these meetings. However, the low attendance at the Environmental Physics Group AGM is disappointing and the committee may look for alternative occasions for the AGM in future years.

The EPG membership continues to increase; the 1998 figure is 532. The Group encompasses a wide variety of disciplines and interests, so it is not always easy to find the right focus for a meeting. Meetings and visits are often organised in collaboration with other IOP groups or institutions. I appeal to the membership to support the efforts of the committee in organising the right type of event, by suggesting meetings, with offers to speak or participate in some other way and of course by attending.

The Institute as a whole is very aware that the Groups are an important part of the UK physics community. With this in mind a change in the group funding structure has been implemented as from 1/1/98, which should result in a little more money annually for our Group and certainly more independence in how to spend it. There is also the possibility that the EPG will help to form a new Applied Physics Division. These changes mean new opportunities for environmental physicists in the British Isles to become a more integrated community.

Peter Hodgson
Honorary Secretary

Visit to Silsoe Research Institute on 27 May 1998.

A visit to the Silsoe Research Institute at Wrest Park in Silsoe, Bedfordshire, was enjoyed by some members of the Group on 27 May. The station employs engineers, physicists and mathematicians who collaborate with biologists in research programmes concerned with developing innovative engineering for biology-based industries and with understanding and modelling biological systems. The tour of the station started with a visit to the experimental buildings equipped with instruments to measure the effect of wind on building design. This was followed by viewing the work concerned with gaseous emissions from farming practices and wind-tunnel measurements on spray dispersal systems. The tour ended with a visit to the experimental greenhouses concerned with work on the greenhouse environment. Throughout the tour, the staff of the Institute gave clear and enthusiastic accounts of their interesting work. This, together with the pleasant surroundings of Wrest Park set in beautiful gardens that could be appreciated in spite of rather inclement weather, made the visit very well worthwhile.

E.G. Youngs

Education.

The CREST Environmental Challenge

... sponsored by NERC, the Environment Agency and Unilever, provides accreditation for practical project work in schools.

CREST Awards, 1 Giltspur Street, London EC1A 9DD. Tel (0171) 294 3099, internet <http://www.crest.org.uk/>

Floating Point Science Theatre

... is a show, performed by scientists and engineers, for 4-9 year olds on living things in their environment. Commissioned by NERC and available to schools from September 1998.

Steve Mesure, Floating Point Science Theatre, Widmore Centre, Nightingale Lane, Bromley BR1 2SG. Tel (0181) 313 3832.

NERC's Schools Liaison Network.

Liaison Officers are based at larger NERC sites around Britain. They work with local teachers to encourage young people to take an active interest in environmental sciences. Events include school visits, student placements, open days and talks for schools.

Dr. Barbara Knowles, NERC, Polaris House, North Star Avenue, Swindon SN2 1EU. Tel (01793) 411 561, email bkn@wpo.nerc.ac.uk

Conference — The Future of Science & Technology Teaching in Schools. 19-21 October 1998, Nottingham, England.

The aims of this conference are:

- To review the state of Science and Technology teaching in schools in different countries and how it affects student performance;
- To look at the most exciting, innovative, challenging and successful developments globally in Science and Technology teaching in schools;
- To investigate the future of Science and Technology teaching in schools in the context of institutional and pedagogical change;

To provide a showcase exhibition of the latest learning resources for Science and Technology.

Cost: £175 per day; £250 for the whole conference.

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Nigel Akers, Vice Principal (marketing), Djanogly CTC, Sherwood Rise, Nottingham, NG7 7AR. Tel: (0115) 942 4422, fax: (0115) 942 4034, email: ctc@djanogly@notts.sch.uk.

Association for Science Education Annual Meeting. 7-9 January 1999, Reading, England.

"The UK's largest training event for technicians, lecturers and teachers of science. ... A co-ordinated series of conferences for all science educators on current issues and developments." Conference Office, ASE, College Lane, Hatfield AL10 9AA. Fax (01707) 266532, email mbrookman@ase.org.uk, internet <http://www.ase.org.uk/>

Funding and Other Opportunities.

European Environmental Research Organisation Fellowships.

The EERO invites applications for International fellowships which are tenable in a European (including Israel) laboratory outside of the applicant's home country.

LONG-TERM FELLOWSHIPS:

- duration of 1-3 years;
- travel grant;
- subsistence allowance;
- bench fee;
- to young postdoctoral scientists;
- for international and interdisciplinary environmental research.

SHORT-TERM FELLOWSHIPS:

- duration of up to 3 months;
- travel and subsistence allowance;
- no bench fee;
- to initiate collaboration;
- to learn newly-developed techniques;
- to use special facilities in a laboratory in another European country.

Closing dates: 15 February and 15 August annually.

The EERO, PO Box 191, NL-6700, AD Wageningen, The Netherlands. Fax +31 317 484 818

EU Geochemical Facility.

A new EU-supported geochemical facility is being established at the Department of Earth Sciences, University of Bristol. The facility contains a large number of modern instruments to provide chemical analysis of rocks and minerals, trace element analysis, spectroscopy, surface analysis, scanning electron microscopy, experimental geochemistry, isotope geochemistry. The opening date is set at 1 April 1998. EU users obtain free access and have travel and subsistence paid by the EU.

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Contact: stuart.kearns@bris.ac.uk or b.j.wood@bris.ac.uk

Department of the Environment, Transport and the Regions Environmental Protection Newsletter

... contains information of projects to be funded over the next year or so. To get on the list of possible contractors, you need to fill in a form that is available in the newsletter, which is obtained from Ken Nulty, Environmental Protection Group, Floor 6/H10, Ashdown House, 123 Victoria Street, London SW1E 6DE. Tel (0171) 890 6614.

The British Ecological Society (BES) - Awards and Grants

The Marsh Award for Ecology is an annual award given for outstanding achievements and contributions to the science of ecology. The Award is an honorarium of £1,000 plus a certificate and is open to distinguished ecologists from anywhere in the world. The Award is to be given annually at the BES Winter Meeting.

Closing date: 31 July 1998.

The Founders' Prize, commemorating the enthusiasm and vision of the Society's founders, is awarded to an outstanding ecologist, in her or his early career (normally expected to be in their 30s) who is making a significant contribution towards the science of ecology.

The award will normally be biennial, in tandem with the President's Medal. The Prize is an honorarium of 500 pounds sterling and certificate, and will be awarded in December 1998 and biennially after that.

Closing date: 31 July 1998.

See the British Ecology website: <http://www.demon.co.uk/bes/> or contact Hazel Norman, BES, 26 Blades Court, Doedar Road, London, SW15 2NU. Tel (0181) 871 9779, email general@ecology.demon.co.uk

Negev Desert Large Scale Facility.

The European Union has recognized the Jacob Blaustein Institute for Desert Research (BIDR), Ben-Gurion University of the Negev (ISRAEL), as an 'EU Large Scale Facility' for Desert Studies. This allows any scientist from an EU member country or from an associated state (Norway, Iceland, Liechtenstein) to visit the BIDR for a period of up to two months. Access will be provided at no cost to the selected applicants, and will include all infrastructural, logistical, technical and scientific support that is normally provided to external

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users of the facility. The budget covers travel, subsistence and bench fees. Every research facility in the BIDR is entitled to accept visitors ranking from postdoctoral to senior scientists, pending their screening and approval by a steering committee, based on the merit of their applications.

Access will be provided to the following installation(s):

- The Physical Environment Centre;
- The Living Environment Centre;
- The Dryland Water Research Centre;
- The Man in the Drylands Centre;
- Intensive Plant and Algae Production Centre;
- Extensive Plant Production Centre.

Deadlines for submission of Applications: June 1st or October 1st.

The application should include: CV and list of publications, research proposal to be performed at one of the facilities above (1-2 pages), and two letters of recommendation to be sent to BIDR, directly. Priority will be given to users who have not previously used the facility and who would not normally have access to it. The selection process will take into account that the contract with the EU is intended to finance primarily short visits (up to two months) to the facility. Announcement of awards will be sent within two months.

Contact Prof. Zvi Cohen, Project Manager-LSF, The Jacob Blaustein Institute for Desert Research, Ben-Gurion University of the Negev, Sede Boqer, Israel, 84990. Tel: 972-7-659-6717, email: inter@bgumail.bgu.ac.il, fax: 972-7-659-6718, internet <http://www.bgu.ac.il/BIDR/>

Environment — Final Deadline for EC Training Grants.

The final deadline for Individual Training Grant applications (postgraduate and postdoctoral level), under the Commission's ENVIRONMENT AND CLIMATE Programme, is **Thursday 20 August 1998.**

Research Visits to the UK Natural History Museum.

The UK Natural History Museum calls for proposals from researchers looking for financial support to enable them to undertake short-term (up to three months) research visits to the Museum, which is considered to be Europe's leading centre for biodiversity-related systematics research.

N.B. Researchers from UK institutions, under the rules governing this particular support scheme, will NOT be eligible to receive funding to cover travelling and subsistence costs.

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However, they will be entitled to Commission support to cover all access costs and bench fees.

For further information please contact the Museum directly.

MED Programmes.

The European Commission is relaunching the decentralised co-operation programmes (called Med programmes) with the non-EU Mediterranean countries. Between 1992 and 1995 the Med programmes have allowed for the creation of over 470 new networks involving some 2000 partners who received some 67 MEcu in grants.

The relaunch concerns three Med Programmes, of which two are relevant here:

- MED CAMPUS, which brings together, through networking, universities from the North and South of the Mediterranean in order to exchange experiences, know-how, etc.
- MED URBS, which aims to improve the living conditions of people in urban areas and to develop co-operation between local authorities leading to projects in areas such as urban management and planning, the environment, urban transport, etc.

The Commission will establish a technical assistance office "Med Secretariat" which will examine those projects selected in the framework of the 1995 call for proposals for the Med Campus, Med Urbs and Med Media programmes. This review will take place on the basis of the new management norms for decentralised co-operation which have been established. A new call for proposals will be launched in parallel for 1998-1999 projects.

FURTHER INFORMATION: Esmeralda Hernandez Aragones, DG 1B, fax 0032 2 296 7359.

Call for proposals — WELL — Consultancy.

WELL (Water and Environmental Health at London and Loughborough) is seeking to expand its base of consultants in all water and sanitation-related fields. Relevant areas of expertise include environmental monitoring and impact assessment, economics and finance, social development, institutional development, participatory assessment, public and environmental health, and water and sanitation technology and engineering.

Contact: Sue Sherry or Pete Kolsky, WELL, LSHTM, Keppel Street, London WC1E 7HT. Tel: 0171 927 2214, fax: 0171 636 7843, email: WELL@lshtm.ac.uk

or:

Ian Smout or Andy Cotton, WEDC, Loughborough University, Loughborough, Leics LE11 3TU. Tel: 01509 222885, fax: 01509 211079, email: WEDC@lboro.ac.uk, internet <http://www.lboro.ac.uk/well/>

Funding and Opportunities

or:

Rod Shaw, Water, Engineering and Development Centre (WEDC), Loughborough University, Leicestershire LE11 3TU. Email: R.J.Shaw@lboro.ac.uk, tel: (01509) 222886 (or 222885), fax: (01509) 211079, internet

<http://www.lboro.ac.uk/departments/cv/wedc/index.html>

Humboldt Awards

... to provide for non-Germans in any field to work in a German research institute. Available to postdocs with a publications record and independent research experience, with a minimum stay in Germany of 6 months.

Humboldt Foundation, Jean-Paul-Strasse 12, Bonn 53173, Germany. Tel +49 28 83 31 11, email post@alex.avh.uni-bonn.de

Deadlines: none. Decisions are made in March, July and November on applications made 5 or more months before those dates.

Marine partners in USA.

For those who are interested in a one-stop shop for partners in oceanographic research in the US, please note:

CORE (Consortium for Oceanographic Research and Education); Dr. Rick Spinrad (rsinrad@brook.edu) is the entry point. Internet <http://core.cast.msstate.edu>

Corday-Morgan Memorial Fund.

Grants of up to about £500 are available to assist members of any established chemical society or institute in the Commonwealth to visit chemical establishments in another Commonwealth country.

Contact: Corday-Morgan Memorial Fund, c/o The International Affairs Officer, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN.

Additionally, the Royal Society of Chemistry will provide similar grants for visits to developing countries not in the Commonwealth. Contact International Committee Awards, c/o the International Affairs Officer, at the address above.

Marie Curie research training grants.

[From OJ C381/16, 16/12/97, "Call for proposals for RTD actions for the specific programme for research, technological development and demonstration, in the field of marine science and technology."]

The European Commission, in the framework of the Marine Science and Technology Programme (1994 to 1998) provides funds for the training and mobility of researchers in the form of individual research training grants.

The main objective of the Marie Curie research training grants is to provide opportunities for the advanced training, exchange, and mobility of research at the doctoral and post-doctoral level in marine science and technology.

The research topics of the training grant applications are those included in the MAST (1994 to 1998) work programme.

Applicants must be nationals of Member States of the EU or State associated to the programme, including EEA/EFTA States. Applicants must carry out the proposed research in the EU or a State associated to the programme other than their country of nationality or their country of normal activity.

The work programme, the information package concerning the procedures to be followed for the submission of proposals and a copy of the model contract to be drawn up are available on request from the Commission's services. Descriptions of work undertaken in earlier related programmes are also available on request.

Applications for Marie Curie research training grants should be sent to the following address:

European Commission, DG XII/G-6, Marie Curie research training grants SDME 4/39, Rue de la Loi/Wetstraat 200, B-1049 Brussels.

Requests for information (including application forms) should be addressed to: European Commission, DG XII/D-3, MAST programme, SDME 7/80, Rue de la Loi/Wetstraat 200, B-1049 Brussels. Fax: (32 2) 296 30 24.

Deadline: "Proposals must be sent to the Commission before the date specified hereafter at 12:00 noon (local time), as confirmed by the postmark, or delivered by hand ... or to one of the offices of the Commission in the Community or in a State associated to the programme, as confirmed by the date of acknowledgement. **20 August 1998, 12:00 noon.**"

Workshops — Life & Environmental Sciences.

The European Science Foundation (ESF) has issued a call for proposals for a number of exploratory workshops in the field of life and environmental sciences. This aims to identify the most promising new research opportunities which are likely to benefit from a co-ordinated European research effort. Each workshop will allow up to 20 European scientists to develop the case for increased interaction at European level. It is expected that these workshops will then lead to proposals for sponsored networks or programmes, which can be recommended for ESF support for periods of up to five years.

The subject areas to be covered by the workshops are expected to include long-term dynamics of terrestrial ecosystems and other fields in life and environmental sciences. For further information, contact: European Science Foundation, Standing Committee for Life and Environmental Sciences, Ms. Philippa Rowe, 1 quai Lezay-Marnesia, F-67080 Strasbourg Cedex. Tel.: +33 3 88767129, fax: +33 3 88370532, email: LESC@esf.org

Closing date: 30 September 1998.

The Altener Programme: promoting the use of renewable energy sources.



It is a European Union objective to stabilise its carbon dioxide emissions at their 1990 levels by the year 2000, to help counteract the threat of global warming. The ALTENER Programme is one of the Community's responses to the challenge of meeting that target.

Approved in 1993, the ALTENER Programme aims to develop the use of renewable energy sources in the European Community and increase trade in products, equipment and services within and outside it.

ALTENER will do this by: promoting the market for renewable energy and its integration into the internal energy market; financial and economic measures; training, information and outreach activities; and co-operation with countries beyond the Community.

For more information, see <http://europa.eu.int/en/comm/dg17/altener.htm>

Present closing date for calls for proposals is 31 July 1998.

STAAARTE — Scientific Training and Access to Aircraft for Atmospheric Research Throughout Europe.

The German DLR, the French INSU/CNRS, and the UK Met Office have been funded by the European Commission through the TMR (Training and Mobility of Researchers) Programme to offer other European teams free access to their airborne Large Scale Facilities (LSF) which are the DLR-Falcon, INSU-ARAT/Fokker 27 and Met Office-C-130.

The objective of STAAARTE is to allow other teams in Europe, who do not have experience in running an aircraft campaign to:

- receive training;
- perform some limited research;
- gain an appreciation of the potential of atmospheric research aircraft;
- with one of the three aircraft.

Funding by the European Commission will allow about three campaigns per year on each facility over a three year period, starting in 1996. Each campaign will be free of charge for the selected projects. This will include travel for one preparatory meeting, travel and accommodation for one or two scientists during a campaign, research aircraft flight hours and one post-campaign meeting.

Deadline for applications is 21 August 1998. Oversubscription is likely.

For an application form, contact: Meteorological Research Flight, Building Y46, DRA, Farnborough, Hants GU14 6TD, UK.

Call for proposals — ECSC Technical Coal Research Programme.

Projects must be carried out by two member states, at least. High priority will be given to the exchange of results and experience among partners. Proposals for collaborative research in the following areas are invited:

◆ **Mining Engineering**

- *Mining operations:*
 - Optimisation of support systems for highly-stressed roadways,
 - Optimisation of heading performance for rapid development drivages,
 - Application of advance technologies to the local winning process.
- *Mine infrastructure and management:*
 - Application of advanced geotechnical methods for the optimisation of roadways and mine design,
 - Improvements to mine safety and emergency procedures,
 - Environmental problems related to mining and post-mining activities.

◆ **Coal Preparation and Utilisation**

- Coal preparation and handling
- Coal coking and upgrading
- Combustion and gasification of coal

Information packages may be obtained from: European Commission, DG XVII/D/2 TERV 5/12, Rue de la Loi 200, B-1049 Brussels. Fax: +32 2 296 6016, internet www.cordis.lu/ecsc-coal/home.html

See also OJ C 218 (14/7/98), pp21-23, available as an Adobe Acrobat document at: http://europa.eu.int/eur-lex/en/oj/1998/c_21819980714en.html

Closing date: 12 October 1998.

The Royal Society & British Association Millennium Awards.

Awards are currently offered to scientists, engineers and others with a scientific background (e.g. teachers, science centre staff) under the Millennium Awards scheme.

The main objective is to promote awareness and understanding of science and technology and help those in a position to do this acquire the necessary skills and resources to achieve this. All areas of science, technology and engineering are covered. Awards, which are limited to the UK only, can cover skills training, purchase of equipment, travel expenses, publicity expenses and salary and office cost.

Millennium Awards Administrator, BAAS, 23 Savile Row, London W1X 2NB. Tel (0171) 973 3069, email ba.talk.science@mcr1.poptel.org.uk

Next closing date is 31 December 1998.

European Commission List of Experts.

Successful applicants for inclusion in the list will assist the Commission in evaluating progress in programmes and whether its objectives, priorities and financial resources are still appropriate to any changes that have occurred. Relevant programmes include:

- Environment and climate;
- Marine science and technology;
- Health;
- Agriculture;
- Advanced communications technologies and services;
- Industrial and materials technologies.

Funding and Opportunities

Initial lists are valid for three years. The 1998 deadline has passed, *the closing date for 1999 is 15 March 1999*. For more information, contact the following, quoting *reference OJ C 232*: European Commission, DG XII — Science, technology and development, Directorate AP (Evaluation Unit), SDME 2/18, Rue de la Loi 200, B-1049 Brussels, Belgium.

UCAR Visiting Scientist Programme (VSP).

The University Corporation for Atmospheric Research, Boulder, Colorado, USA, operates fixed-term and ongoing VSPs. For more information, contact UCAR Visiting Scientist Programs, PO Box 3000, Boulder, CO 80307-3000, USA. Tel +1 303 497 8649, email vsp@ncar.ucar.edu, internet <http://www.vsp.ucar.edu/>

The Environment Liaison Centre International

... is an international network of hundreds of NGOs and community-based organisations. Its members work towards a more sustainable world through networking and advocacy; research and monitoring; building local capacity; sharing information. Contact The Environmental Liaison Centre International, PO Box 72461, Nairobi, Kenya. Tel +252 2 562015 or 562022 or 562172, fax +254 2 562175, email elci@elci.gn.apc.org or elci@elci.sasa.unep.no

The Austrian Network for Environmental Research

... is a think-tank promoting international research activities and supporting environmental scientists. Areas of current activity include:

- Cultural landscape research;
- Plant-environment interactions;
- Sustainable use of water resources;
- Climate, climate change and atmospheric environment research.

For more information contact the Austrian Network for Environment Research, Environment Division, Austrian Federal Ministry of Science and Transport, Rosengasse 4, A1014 Vienna, Austria. Tel +43 1 53120 7153, fax +43 1 53120 6480.

The Grieg Fester Centre for Hazard Research

... can be contacted through The Director, Prof. Bill McGuire, Grieg Fester Centre for Hazard Research, Department of Geological Sciences, University College London, Gower Street, London WC1E 6BT. Tel (0171) 419 3449, fax (0171) 388 7614, email w.mcguire@ucl.ac.uk

Funding and Opportunities

URGENT — Urban Regeneration and the Environment

... is a new NERC Thematic Programme of £9.7 million, initially focusing on the West Midlands, Glasgow/Edinburgh and South Wales. Information will be generated and analysed on:

- the environmental costs involved in recovering and redeveloping contaminated land;
- the processes involved in revitalising rivers for wildlife and recreation;
- the potential impact of pollution on public health;
- the implications for groundwater following development and redevelopment;
- factors that affect movement of plants and animals within the urban environment.

Partnerships will be formed with city authorities, industry, financiers and regulatory bodies.

The programme manager is Chris Franklin, ETSU, Harwell, OX11 0RA. Tel (01235) 433 591, email chris.franklin@acet.co.uk

ALURE — energy co-operation programme between the EU and Latin America.

From OJ C 36/19, 3/2/98: "Its objective is to strengthen the EU's economic presence in a vibrant growth sector and equip Latin American institutions and utilities to provide more competitive services.

ALLURE has three specific objectives in pursuance of this goal:

- To improve the services of Latin American utilities, preferably in the growth subsectors of electricity and natural gas and to promote business relations with European firms linked to the sector such as utilities, financial operators and industrial firms, in particular small businesses;
- to contribute, where necessary, to the adaptation of legal and institutional frameworks;
- to promote sustainable development with relevant schemes.

Priority will go to schemes directly linked to future investments: this is reflected in increased participation of utilities and financial operators."

Community contributions are typically ECU 300,000 – 500,000 and will not exceed 50% of the project's overall cost. Applying groups must consist of at least two parties from EU Member States and at least one Latin American party. Four page project summaries must be submitted, and if accepted are followed by detailed reports. ***Deadline for detailed reports is 31 August 1998. Next call for applications is 2 February 1999.***

ALURE — Support Team, 4 rue de la Presse, B-1000 Brussels. Tel (32-2) 227 11 25, fax (32-2) 227 11 24, email alure@compuserve.com

EU: Financing Innovation.

The "Financing Innovation" homepage is at: <http://www.cordis.lu/finance/home.html>

NERC: Clouds, Water Vapour and Climate — Pump Priming Initiative.

The NERC Atmospheric Science and Technology Board has allocated £500,000 for a pump priming initiative on Clouds, Water Vapour and Climate (CWVC). This initiative will start in 1998 but a bid for a larger Thematic programme may be made later this year.

The main aim of the CWVC programme will be to improve understanding of the physical processes responsible for the distribution of humidity and clouds, and of their influences on climate. The intention is that, through better basic understanding, parameterisations in global climate models can be improved to better quantify the dominating effects of cloud and humidity on climate. In order to achieve this improved understanding, important questions about the microphysics of clouds, and the radiative properties of water vapour and liquid and ice phase clouds must be addressed. At this stage funding has been secured for the first phase only.

The purpose of the Pump Priming Phase (PPP) will be:

- to improve links between those working on cloud microphysics, the radiation community and global and cloud scale modellers;
- to increase the community involved by training additional young scientists in the proposed studies;
- to attack a limited number of the most urgent scientific issues through a series of co-operative field projects in and around the UK and associated modelling studies.

The community is invited to submit research grant applications for the PPP. Activities which will be considered are:

- the use of airborne and ground based instrumentation in organised field campaigns;
- the development of cloud resolving models;
- the development of cloud/water vapour/radiation parameterisations for GCMs and the study of key radiative transfer processes such as the absorption and scattering;
- properties of typical ice crystals.

Proposals should be directly relevant to the scientific issues discussed in the current programme description. Costs related to any campaign activity should be included in the proposal.

Contact: Mrs M Stevens, Awards and Training Section, NERC Polaris House, North Star Avenue, Swindon SN2 1EU. Internet <http://www.nerc.ac.uk/as/cwvcao.htm>

Closing date 3 August 1998.

Polish-British Joint Research Collaboration Programme (JRP).

The Polish-British Joint Research Collaboration Programme (JRP) is jointly financed and managed in Poland by the British Council and the State Committee for Scientific Research (KBN). Applications can be considered from research groups in pure and applied sciences and also in the social sciences. The JRP is seeking to create a favourable environment for British-Polish collaborations that are likely to lead to proposals for Framework Programme 5 (FPV) funding.

For application forms and guidance notes, please contact Dr. Andrew Murray, British Council, Al. Jerozolimskie 59, 00-698 Warszawa. Tel: 0048 22 695 5900, fax: 0048 22 621 9955, email: andrew.murray@britcoun.org.pl

or:

State Committee for Scientific Research, (Tomasz Lesniowski) ul. Wspolna 1/3, 00-921 Warszawa 53, Poland. Tel: 0048 22 628 85 30, fax: 0048 22 628 35 34, email: tlesniow@kbn.gov.pl or internet: <http://www.britcoun.org/poland/>

Closing date: 31 October 1998

Japan: Collaborative Research Projects (CRP).

Joint applications are invited for UK-Japan Collaborative Research Project awards for exchange visits by UK academic researchers in the fields of science, engineering, technology, agriculture and medicine. A maximum of 5,000 Yen per annum to cover travel and subsistence is available.

More details and an application form are available at:

<http://www.gate-uk.co.jp/council/science/crp.htm>

Those who require a printed application form should send a self-addressed A4-size envelope to: Science Exchanges Officer (CRP), The British Council, 1-2 Kagurazaka, Shinjuku-ku, Tokyo 162-0825, Japan.

Closing date: 1 December 1998

EU Tender — Reporting on Simulated Nuclear Accidents.

The contract will provide all the services necessary for processing data and writing and editing data reports on the tests carried out under the FARO programme, which simulates severe accidents in nuclear power plants. Each data report should include a description of the experimental arrangement and procedure for each test and should include a chapter providing a synthesis of the main results.

See OJ S 124 (01/07/98), p49. For further information, please contact: European Commission, Joint Research Centre, Mr. D. Magallon, Institute for Systems, Informatics and Safety, TP 421, I-21020 Ispra (VA), Italy. Tel: 0039 332 789703 / 789481, fax: 0039 332 785412.

Closing date for requesting tender documents: 20 July 1998
Closing date: 31 August 1998

Books, Reports and Publications.

European Commission documents.

All Commission press releases (reference 'IP/year 2 digits/number') can be obtained from the 'RAPID' web server at <http://europa.eu.int/en/comm/spp/rapid.html>. Log in as 'guest' with password 'guest'.

Official Commission documents (reference 'Com(year 2 digits) number') are available from your local European Documentation Centre. The location can be found at <http://www.cec.org.uk/relays/relhome.htm> or, alternatively, copies can be purchased from the Stationery Office, 51 Nine Elms Lane, London SW8 5DR, tel 0171 873 9090 (General Orders, e.g. Recent OJs, monographs), or tel 0171 873 8372 (enquiries about EU publications), fax 0171 873 8463.

Ozone in the United Kingdom — Fourth Report of the Photochemical Oxidants Review Group, 1997. ISBN 1-870393-30-9.

Prepared at the request of the Air and Environment Quality Division, Department of the Environment, Transport and the Regions. Published by the Institute of Terrestrial Ecology, Edinburgh.

This latest PORG report provides an analysis of UK measurements of ozone, and other photochemical oxidants, primarily for the period 1990 to 1995. In particular the report analyses spatial patterns of ozone throughout the UK, trends in ozone concentration and the effects of ozone on vegetation, materials and human health. Other topics covered include: the chemistry of secondary pollutant formation; emissions and concentrations of VOCs and oxidised nitrogen compounds; ozone in Europe; the effects of emission controls on photochemical oxidants.

Further information: <http://mwnta.nmw.ac.uk/ite/porgiv.html>

"The Legal Definition of Waste and its Impact."

The Institute for Prospective Technological Studies (IPTS), part of the European Commission's Joint Research Centre (JRC), has published a report on the legal definition of waste and its impact on waste management in Europe. The report was prepared in response to a request from the Committee for Environment, Public Health and Consumer Affairs of the European Parliament.

Waste legislation in Europe is a very complex subject representing a balance between the numerous issues involved in the waste debate. This study was done in order to identify areas where progress could be made, and to ensure that definitions do not become a barrier to an efficient and sustainable European waste management system. The report discusses:

- Introduction summarising the main issues in the waste debate;
- The various legislative definitions of waste including European, national and international definitions with emphasis on the need for harmonisation;
- Waste generation and European waste statistics;
- Analysis of the main issues in the waste debate;
- Analysis of questions relating to the definition of waste and non-waste;
- Analysis of questions relating to the definition of hazardous waste or non-hazardous waste;
- General discussions, recommendations and conclusion.

The report is free from European Commission, Institute for Prospective Technological Studies, JRC Seville, Library and Documentation Centre, World Trade Centre, Isla de la Cartuja s/n, E-4109 Sevilla, Spain. Fax +34 54 48 83 39, email rafael.castillo@jrc.es

"Kyoto and Beyond — Climate Research and Climate Policy Briefing"

... is also published by the IPTS and available free from the address given in the previous item.

"The Indonesian Forest Fires"

... is also published by the IPTS and available free from the address given in the item above the previous one.

"Environmental Change — Impacts and Technologies"

... is an overview report on current activities and recent results on impacts of environmental change and environmental technologies. References are EUR 18022 or ISBN 92-828-2619-8. It is available from European Commission, DG XII — Science, research and development,

Mrs. Julia Acevedo Bueno, Environment and Climate Programme, 200 rue de la Loi, B-1049 Brussels. Fax +32 2 296 3024, email environ-info@dg12.cec.be

Report — Technology and Competitiveness of Industry.

The Institute for Prospective Technological Studies (IPTS), part of the Commission's Joint Research Centre (JRC), has published a report titled "*Advanced Technology and the Competitiveness of European Industry: The cases of textiles, steel, motor vehicles and aerospace*". The overall aim of the report is to provide the basis for informed debate on the competitiveness of European industry in four sectors:

- Textiles;
- Steel;
- Motor vehicles;
- Aerospace.

It provides a concise overview of each of these sectors, and outlines the specific competitive challenges they face. The report also gives an interpretation of the current implications for the impact of technologies and skills on European competitiveness, and provides a short set of policy proposals.

Copies of the report may be obtained, free of charge, from the Institute for Prospective Technological Studies — JRC Seville, fax 0034 95 448 8339, email: rafael.castillo@jrc.es

Oceanography of the Mediterranean Sea.

The Proceedings of international conference on progress in oceanography of the Mediterranean Sea have recently been published. The conference was supported and co-organized by the EU's Marine Science and Technology (MAST) research programme. A range of topics were covered by the conference including:

- The Mediterranean Sea: a changing environment;
- Marine productivity and dynamics of the pelagic ecosystem of the Mediterranean Sea;
- Biogeochemical fluxes and benthic ecosystem response;
- The Mediterranean Sea: past and present;
- From oceanographic science to policy.

For a copy of the report, please contact: Dr. Elisabeth Lipiatou, European Commission, DG XII — Science, R & D, 200 rue de la Loi (SDME 07/84), B-1049 Brussels, Fax +32-2-2963024, email: Elisabeth.Lipiatou@dg12.cec.be

EU space research projects.

The first compendium of research projects related to space carried out under the EU's Fourth RTD Framework Programme has recently been published by DG XIII. The aim of the report is to show the EU's contribution to research for promoting and safeguarding the economic interests of the space sector. It also provides a useful input into FP5 and will be used to define targets in the promotion of space applications under this new programme. Rather than providing a definitive collection of all space projects funded under FP4, the intention is to give an impression of the range and style of projects supported. The projects documented range from the use of satellite data to study climate change to the development of generic software applied in launchers, and from distance learning to tele-medicine using satellites. The report includes a summary and results for each project, contact details for the project co-ordinator, as well as details of the duration and budget of the project.

Projects from the following programmes are included in the report:

- The Space Applications Institute (SAI) of the Commission's JRC;
- Information Technologies (Esprit);
- Transport;
- Co-operation with third countries and international organisations (INCO) ;
- Industrial Materials and Technologies;
- Environment and Climate;
- Advanced Communications Technologies and Services (ACTS);
- Telematics.

Further information: "RTD projects related to space: Technical overview 1997": EUR 18030; ISBN 92-828-2440-3. For a copy of the report (Price 16.50 Ecu), contact your nearest Stationery Office or see <http://www.the-stationery-office.co.uk/>

"Ocean News" — Elsevier Pergamon Marine Sciences Newsletter

... is distributed free-of-charge to scientists and professionals worldwide. Advertising is accepted for conferences, workshops and positions vacant. Contact the Editor, Sally Stone, by email at s.stone@elsevier.co.uk or phone (01865) 843866 or fax (01865) 843960.

"Everything You Need to Know About Framework 5 in 5 Minutes."

Available from Milehouse Ltd., Suite 2000, 134-146 Curtain Road, London, EC2A 3AR. Tel (0171) 972 0080.

The DG XI's Action Plan 1997–1999

... is available from: DG XI Environment, Nuclear Safety and Civil Protection Documentation Centre, Boulevard du Triomphe 174, TRMF 00/C50, B-1160 Brussels, Belgium. Tel +32-2/296.87.70, fax +32-2/296.95.60, internet

<http://europa.eu.int/en/comm/dg11/dg11home.html>

Booklets available from the National Physical Laboratory.

- *Measurement Services 1997–1998* contains details of measurement services available from the NPL;
- *Training Services 1997–1998* contains details of training available from the NPL;
- *Points of Contact 1997–1998* is an outline of the rôle and organisational structure of the NPL with a list of the current lines of work, and names and telephone numbers of staff involved in each area.

The UK National Focal Point of the European Environment Agency

... produces a useful newsletter. Contact Chris Ward at Room A104, Romney House, 43 Marsham Street, London SW1P 3PY. Tel (0171) 276 8260. Fax (0171) 276 8748. Email Chris.Ward@nfp-gb.eionet.eu.int

Environmetrics

...the official journal of the International Environmetrics Society, has a new design. A free sample copy is available from the publishers, John Wiley. Phone (01243) 843 296 or email cs-journals@jwiley.co.uk.

Europe's Environment: The Second Assessment

... is available at 70 ECUs, but the Executive Summary is free. Both can be ordered, and the latter downloaded for free, at <http://www.eea.eu.int/>

"Environmental Radioactivity in the EC in 1993".

Published by the European Commission's Joint Research Centre and available free of charge from European Commission, Joint Research Centre, Public Relations and Publications Department, I-21020 Ispra (VA), Italy. Fax +39 332 785 818, email prp@jrc.it

Looking Forward — The NERC Strategy for Science

... is available from Mrs. Veronica Guiry, NERC Communications, North Star Avenue, Swindon SN2 1EU. Tel (01793) 411750, email nerccomm@nerc.ac.uk. Together with six "sectoral strategies", it can be found at <http://www.nerc.ac.uk/>. For more information about NERC's science strategy, contact Dr. Michael Schultz, Head of Science Strategy and Business Planning, NERC, Swindon: address as above. Tel (01793) 411633, email m.g.schultz@nerc.ac.uk

Directory of Researchers in Abatement and Mitigation of Greenhouse Gas Emissions.

The UK International Energy Agency (IEA) is working on the above. If you want to be included in it, or know more, contact Ms. Andrea Smith, IEA Greenhouse Gas Programme, CRE Group Ltd., Stoke Orchard, Cheltenham, GL5 4RZ, UK. Tel (01242) 680 753, fax (01242) 680 758, email andrea@ieagreen.demon.co.uk, internet <http://www.ieagreen.org.uk/>

Brochure: "Overview of Selected Projects in Marine Science and Technology (MAST)"

... is available free of charge from DG-XII Information Services, Rue de la Loi 200, B-1049 Brussels, Belgium. Tel 00 322 299 1111, fax 00 322 295 8220.

The World Climate Research Programme Newsletter

... is available free of charge from WCRP Joint Planning Staff, c/o World Meteorological Organisation, 41 avenue Guiseppe Motta, CH-1211 Geneva 2, Switzerland. Tel +41 22 730 8246, fax +41 22 734 0357, email grassl_h@gateway.wmo.ch, internet <http://www.wmo.ch/web/wcrp/wcrp-home.html>

UK Environmental Change Network — Protocols for Standard Measurements at Terrestrial Sites.

ISBN 0 11 702197 0 from The Stationery Office, 49 High Holborn, London WC1V 6HB. Tel (0171) 873 0011, fax (0171) 831 1326.

[Publications listing continues on Page 28]

Ph.D. Abstracts.

Lava flow volume and morphology from synthetic aperture radar interferometry.

Nicola F Stevens, April 1998, University of Reading.

Supervised by: G. Wadge, University of Reading and J.B. Murray, the Open University.

Measurements of lava flow volume and morphology have a range of applications which aid the understanding of volcanic processes, and ultimately, hazard assessment studies and mitigation. Techniques for obtaining these data are to date unexplained, and are highly variable in accuracy with little or no quantitative assessment of errors. The approach needed for mapping specific lava flows depends on the size, shape and setting of the lava and on the resources available.

This thesis takes a comparative methodological overview of existing techniques and focuses on the capabilities and potential of synthetic aperture radar (SAR) interferometry in this rôle, in particular, using data acquired by the ERS platforms. There are two main groups of lava mapping methods: the Planimetric and Topographic. The first involves measuring the surface area of lava and multiplying this by an estimated mean lava thickness. The second compares measurements of the topography before and after lava emplacement and the lava volume and shape are measured from the observed elevation change.

The use of SAR interferometry over other techniques for acquisition of data for the Planimetric and Topographic methods has the major advantages of: dense spatial sampling, a global overview, repeatability of measurements (depending on the repeat-pass interval of the platform), cheapness, archives of data for retrospective studies and a day and night capability. Interferometric data products can be used to measure lava via the generic mapping methods: the Planimetric Method can be applied to coherence information and the Topographic Method is implemented with IfSAR digital elevation models. I illustrate this specifically with ERS SAR data of the 1991-1993 lava flow-field at Mount Etna, Sicily, and the 1995 lava on Fogo, Cape Verde Islands. The quality of results is comparable to expensive field-based techniques.

I also examine the difficulties posed by large, thick flows, such as the 1991-1993 lava flow at Mount Etna, which demonstrate a complex dynamic relationship of post-emplacement behaviour that complicates the procedure.

Dr. N.F. Stevens, Dept. of Earth Sciences, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK. Email n.f.stevens@open.ac.uk

Roughness Lengths and Roughness Sublayer Corrections in Partly Forested Regions.

Meelis Mölder, 1998, Uppsala University.

Acta Universitatis Upsaliensis. *Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science and Technology* 345. 45 pp. Uppsala. ISBN 91-554-4149-1.

Questions related to water resources management and climate change at regional to global scales have inspired research about processes governing exchange of water, heat and carbon between land and atmosphere. The concept of roughness length is fundamental in deduction of bulk transfer relations from the generally accepted Monin-Obukhov similarity theory for this exchange. The theory has been questioned close to rough forest surfaces. A major problem has been to find effective roughness-length values for patchy boreal landscapes. This thesis contributes to these issues by theoretical analyses and measurements with focus on the roughness lengths, especially for temperature (z_{0t}), at various scales and on corrections of the Monin-Obukhov theory over forest surfaces.

It was originally shown that the logarithmic quotient (kB^{-1}) of roughness lengths for wind and temperature roughly equals 2 for barley. Analysis of pasture data showed that kB^{-1} depended on the roughness Reynolds number, Re_0 : $kB^{-1} = 0.08Re_0^{0.5} - 1.9$. A re-evaluation of barley data similarly gave: $kB^{-1} = 0.348Re_0^{0.3} - 1.2$.

A measurement system was developed with a novel subsystem for humidity (and CO_2) measurements based on an IR gas analyser and a cascade filter. With this system, a roughness sublayer was detected extending to one tree height above the tree crowns. The eddy diffusivities for heat and humidity, but not for momentum, were much enhanced in the roughness sublayer. The multiplicative roughness sublayer corrections took the form: $\phi_{e,q} = z/z_*$ with $z_* = 35.9$ m and $\phi_w = (z/z_*)^{0.6}$ with $z_* = 23.9$ m (above displacement height).

kB^{-1} equalled -0.5 when forest surface temperature was given by the average radiation temperature over $20^\circ - 80^\circ$ nadir angles at 4 azimuths. A negative value may be caused by eddy diffusivity for heat exceeding that for momentum in the roughness sublayer. The regional kB^{-1} factor was 1.5 for a 10 km upwind area. The regional z_{0t} was biased towards the forest-component z_{0t} .

Key words: flux parameterisation, profile measurements, radiation temperature, displacement height, barley, pasture.

Meelis Mölder, Department of Earth Sciences, Hydrology, Uppsala University, Villavägen 16, SE-752 36 Uppsala, Sweden

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ISSN 1104-232X

ISBN 91-554-4149-1

Brochure on the Atmospheric Environment Issues in Developing Countries Programme

... is available free of charge from SEI Communications, Box 2142, S-103 14 Stockholm, Sweden. Tel +46 8 723 0260, fax +46 8 723 0348, email orders@sei.se, internet <http://www.sei.se/>

Modelling The Atmosphere — brochure of the UK Universities Global Atmospheric Modelling Programme (UGAMP), 1992–1997

... is available from CGAM, Department of Meteorology, University of Reading, Reading, RG6 6BB; internet <http://www.met.rdg.ac.uk/ugamp/ugamp.html>

or:

ACMSU, Department of Chemistry, University of Cambridge, Cambridge, CB2 1EW; internet <http://www.atm.ch.cam.ac.uk/acmsu/>

“Pollution Control Technologies: Limiting the Environmental Impact of the Hydrocarbons Industry”.

Brochure published by DG XVII, and available free of charge from Centre for Marine and Petroleum Technology, Offshore Technology Park, Mr. Jonathan Shackleton, Exploration House, Aberdeen AB23 8GX, UK. Tel (0870) 608 3442, fax (01224) 706 601, email j.shackleton@cmpt.co.uk, internet <http://www.cmpt.co.uk/>

New Journal — “Risk Management: An International Journal.”

“The Journal welcomes articles for publication. Contributors are encouraged to discuss ideas for papers with Martina McGuinness on (0116) 252 5708, email mmm10@le.ac.uk; or Dr. Martin Gill on (0116) 252 5709, email mg26@le.ac.uk”

Introductory offer of subscription at £79.00 in the UK, normal price £160.00. Contact the Perpetuity Press, PO Box 376, Leicester LE2 3ZZ, UK. Tel (0116) 270 4186, internet <http://www.perpetuitypress.co.uk/securitybooks/>, fax (0116) 270 7742, email info@perpetuitypress.co.uk

GOOS News — Newsletter of the Global Ocean Observing System

... is available from GOOS Project Office, IOC, UNESCO–1, rue Miollis, F-75732 Paris Cédex 15, France. Fax +33 1 45 68 58 12.

Climatological and Geophysical Data CDs

... are available as usual through <http://www.ngdc.noaa.gov/Store/>

New Journal — “Environmental Engineering and Policy: International Journal for Environmental Engineers, Scientists and Policy Makers.”

“Many environmental problems arise in complex scientific, technical, economic and public policy contexts. Consequently, solutions require integration of these contexts. *Environmental Engineering and Policy* will be truly unique in covering scientific research, discoveries and innovations related to complex environmental engineering and relevantated [sic] policy issues in the following fields:

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- Environmental regulations and compliance;
- Pollution prevention;
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 - special issues focusing on a specific topic of international concern;
- A certificate and a monetary award given for the best paper each year.”

Special offer: first two issues free to subscribers. Volume 1 (4 issues) costs DM498 plus carriage charges of DM22.60 outside Germany. Contact Springer-Verlag London Ltd., Sweetapple House, Catteshall Road, Godalming, Surrey GU7 3DJ.

Meetings, Conferences and Events.

Second Trabzon International Energy and Environment Symposium. 27–29 July 1998, Trabzon, Turkey.

Dr. Burhan Cuhadaroglu, Department of Mechanical Engineering, Karadeniz Technical University, Trabzon 61080, Turkey. Tel +462 325 3223, fax +462 325 5526, email burhan@risc01.bim.ktu.edu.tr

SUN 21 — First International Week for a Sustainable Energy Future. 27 July – 1 August 1998, Basel, Switzerland.

United Nations Environment Programme Working Group on Sustainable Product Development (UNEP-WG-SPD), internet <http://unep.frw.uva.nl/>

Oil Spill 98 — Oil & Hydrocarbon Spills, Modelling, Analysis & Control. Incorporating the First International Oil Spill Modelling Workshop. 29–31 July 1998, Southampton, UK.

Liz Kerr, Oil Spill 98, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA. Tel (01703) 293223, fax (01703) 292853, email liz@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

Arctic Bouy and Sea Ice Charts Conference. 3–7 August 1998, Seattle, Washington, USA.

<http://www.npolar.no/acsys/seattle98/index.htm>

Fourth International Symposium on Environmental Geotechnology and Global Sustainable Development. 9–12 August 1998, Boston, USA.

Dr. Vincent Ogunro, 4th International Geoenvironmental Symposium, Center for Environmental Engineering Science and Technology (CEEST), University of Massachusetts (North Campus, Rm E-114), One University Avenue, Lowell, MA 01854, USA. Tel 508 934 3185, fax 508 934 4014, email ogunrov@woods.uml.edu

Summer School — Technology Management. Leuven, Belgium, 16 – 29 August 1998.

The European Doctoral Summer School provides a unique opportunity for doctoral students in technology management to learn from leading academics in the field, and to meet colleagues with similar research interests. During the intensive ten-day course, students have an opportunity to visit R&D establishments and to participate in interactive workshops. Senior managers from industry and research organisations will be invited as guest speakers or as workshop leaders. Students present and discuss their thesis topics to the group and thereby gain 'conference' presentation experience.

E-mail Ms. Hilde Vermeulen at: MOTSummerSchool98@econ.kuleuven.ac.be, internet http://www.techman.org/Conferen/DSS_98.htm

Second International Conference on Climate and Water. 17–20 August 1998, Espoo, Finland.

Nea Helenius, Helsinki Institute of Technology, Water Resources Engineering, Tietotie 1, FIN-02510, Espoo, Finland. Fax +358 9 451 3827, email nhelenius@ahti.hut.fi, internet <http://ahti.hut.fi/wr/caw2>

International Conference on Satellites, Oceanography and Society. 17–21 August 1998, Lisbon, Portugal.

David Halpern, Jet Propulsion Laboratory, MS 300-323, California Institute of Technology, Pasadena, CA 91109-8099, USA. Fax 818 393-6720, email halpern@pacific.jpl.nasa.gov

Fifth IGAC (International Global Atmosphere Chemistry Project) Scientific Conference. 19–25 August 1998, Seattle, USA.

Patricia Quinn, NOAA/PMEL/OCRD, Building 3, 7600 Sand Point Way NE, Seattle, WA 98115, USA. Fax +1 206 526 6744, email quinn@pmel.noaa.gov, internet <http://saga.pmel.noaa.gov/cacgp98>

First International Symposium on Issues in Environmental Pollution. 23–26 August 1998, Denver, Colorado, USA.

FIRST INTERNATIONAL SYMPOSIUM

Denver, Colorado
23–26 August 1998



ISSUES IN ENVIRONMENTAL POLLUTION

“Bringing together research, modelling and policy issues in

- persistent organic chemicals;
- metals and radioactivity;
- ozone and acidic deposition;

Meetings, Conferences, Events

- particulates;
- globalclimaticchange.”

Internet <http://www.elsevier.nl/locate/iep98>
The deadline for submission of abstracts has passed.

**Sixth International Conference on Palaeoceanography —
“Reconstructing Ocean History: A Window Into The Future.” 23–28
August 1998, Lisbon, Portugal.**

Agencia Abreu SA, Congress Department, Av 25 de Abril, 2-Edificio Abreu, 2795 Linda-a-Velha, Portugal. Fax 351 1 414 3058, email ovaia@abreu.mailpac.pt.

**Fourth International Conference on Greenhouse Gas Control
Technologies. 30 August – 2 September 1998, Interlaken, Switzerland.**

GHGT-4, Johanna Nehring, Energy and Global Change, ABB Corporate Research Limited, Baden-Dattwil, Switzerland. Tel +41 56 486 80 37, fax +41 56 493 45 69, email joanna.nehring.cherc.abb.ch.

**Eighth Annual V.M. Goldschmidt Conference of the Geochemical
Society. 30 August–3 September 1998, Toulouse, France.**

Email goldconf@lucid.ups-tsl.fr, internet <http://www.obs-mip.fr/omp/umr5563/goldconf98.html>

**Coastal Zone Canada '98 — “Community-Based Integrated Coastal
Management: Sharing Our Experience—Building Our Knowledge.” 30
August – 3 September 1998, Victoria, BC, Canada.**

Internet <http://www.ios.bc.ca/ios/czc98>

**4th International Conference on Urban Transport and the Environment
for the 21st Century. 31 August – 2 September 1998, Lisbon, Portugal.**

“This conference aims to bring together engineers, scientists and managers from industry, research organisations and governments who are working on the development of new technologies, planning and management of urban transport systems. The meeting will address

Bull. EPG 4, No. 2, 1998.

Meetings, Conferences, Events

the varied problems of urban transport and will include roads, light railways, waterways and their general integration.”

... in conjunction with ...

**COMPRAIL 98 — the Sixth International Conference on Computer
Aided Design, Manufacture and Operation in the Railway and other
Advanced Mass Transit Systems. 2–4 September 1998, Lisbon, Portugal.**

“The aim of this conference is to update the use of computer-based techniques and to promote the general awareness of these techniques in the design, manufacture and operation of railways and other advanced passenger and freight transit systems by discussing how the planners, designers, manufacturers and operators can benefit from the latest developments in this area of information technology.”

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

**ECO BP '98 International Symposium on Resource and Environmental
Monitoring, 1–4 September 1998, Budapest, Hungary.**

Dr. Gabor Remetey Fulopp, tel +36 1-301-4052, fax +36 1-301-4691, email gabor.remetey@f-m.x400gw.itb.hu

UK Oceanography '98. 7–11 September 1998, Southampton, UK.

“It is our aim to produce a balanced programme of presentations from established scientists and young researchers. Papers on all aspects of Oceanography including Applied Oceanography and related topics are welcomed and papers emphasising the interdisciplinary nature of the subject are particularly encouraged.”

UK Oceanography '98, Southampton Oceanography Centre, European Way, Southampton, SO14 3ZH. Email oceans98@soc.soton.ac.uk, internet <http://www.soc.soton.ac.uk/OTHERS/CSMS/oceans98.html>

The deadline for submissions has passed.

**The Second International Climate and History Conference — “Past and
Present Variability: A Context For the Future?” 7–11 September 1998,
Norwich, UK.**

Bull. EPG 4, No. 2, 1998.

Meetings, Conferences, Events

Susan Borland, The Second International Climate and History Conference, Climatic Research Unit, School of Environmental Sciences, University of East Anglia, Norwich NR4 7TJ. Tel (01603) 456161, fax (01603) 507784, email s.boland@uea.ac.uk, internet <http://www.cru.uea.ac.uk/cru/conf>

Coastal Environment '98 — "Environmental Problems in Coastal Regions." 8–10 September 1998, Cancun, Mexico.

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

24th Annual Conference and Exhibition of the Remote Sensing Society — "Developing International Connections." 9–11 September 1998, University of Greenwich, Kent, UK.

RSS98, School of Earth and Environmental Sciences, University of Greenwich, Medway Towns Campus, Chatham Maritime, Kent, ME4 4AW. Phone (0181) 331 9803, fax (0181) 331 9805, email rss98@gre.ac.uk, internet <http://www.gre.ac.uk/~rss98/>

The Aerosol Society's Fifth International Aerosol Conference. 12–18 September 1998, Edinburgh, Scotland.

The Aerosol Society, PO Box 34, Portishead, Bristol BS20 9NR, UK. Tel (01275) 843 357, fax (01275) 817 428, email admin@aerosol-soc.org.uk, internet <http://www.aerosol-soc.org.uk/>

11th World Clean Air and Environment Congress and Expo. 13–18 September 1998, Durban, South Africa.

On the interface between developing and developed countries. Conference Secretariat, PO Box 36782, Menlo Park 0102, South Africa. Fax +27 12 348 1563, email wissing@iafrica.com

European Environment Conference. 14–15 September 1998, University of Leeds, UK.

Improving environment performance in a European context. The Conference Manager, ERP Environment, PO Box 75, Shipley, West Yorkshire, BD17 6EZ, UK. Tel (01274) 534 0408, fax (01274) 530 409.

Meetings, Conferences, Events

SPIE's First International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment and Space. 14–17 September 1998, Beijing, China.

Jinxue Wang, email jwang@eos.ucar.edu

ESLAB Symposium — "Remote sensing methodology for earth observation and planetary exploration." Noordwijk, The Netherlands, 15 – 18 September 1998.

Organised by the European Space Agency, the symposium will discuss the need to conduct space programmes more efficiently, with shorter development schedules, more standardised interfaces and the reuse of standard sub-systems and instruments in order to cope with decreasing budgets.

ESTEC — European Space Research and Technology Centre, ESLAB 32 Symposium Secretariat, ESTEC Conference Bureau, Postbus 299, 2200 AG Noordwijk, The Netherlands. Tel: +31 71 5655005, fax: +31 71 5655658, email eslab32@estec.esa.nl, internet <http://www.estec.esa.nl/CONFANNOUN/98a01/index.html>

Hydrosoft '98 — Hydraulic Software. 16–18 September 1998, Lake Como, Italy.

"The ... conference ... will bring together engineers and scientists interested in the applications of software in the fields of hydraulic engineering and water resources. In addition to the three main areas of interest, namely: groundwater flow, open channel flow and pressure flow, contributions are invited on the subject of contamination of both aquifers and water supply systems as well as papers covering flood and drought hazard assessment."

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

Business Strategy and the Environment Conference. 17–18 September 1998, University of Leeds, UK.

The Conference Manager, ERP Environment, PO Box 75, Shipley, West Yorkshire, BD17 6EZ, UK. Tel (01274) 534 0408, fax (01274) 530 409.

Ocean Drilling Forum. 19–22 September 1998, Edinburgh, Scotland.

Invited talks cover:

- continental margins;
- resources;
- Earth's internal processes;
- Earth's external processes.

There will be field trip to Ballantrae ophiolites, S.W. Scotland on 19 September. Alastair Robertson, tel (0131) 650 8546, fax (0131) 668 3184, email Alastair.Robertson@glg.ed.ac.uk

The European Symposium on Remote Sensing — “Sensors, Systems and Next Generation Satellites.” 21–25 September 1998, Barcelona, Spain.

Including:

- Atmospheric sensing
- Earth surface sensing
- Platforms and systems

Ten conferences will take place within the framework of the Symposium. For more information see <http://www.europto.org/>, or email debby@associationhq.com. EUROPTO Series — Remote Sensing, Boulevard St. Michel 15, B-1040 Brussels, Belgium. Tel +32 2 743 1573, fax +32 2 743 1550.

Microsystems: Sensors & Actuators for Industrial Applications. 22 September 1998, Besancon, France.

The aims of the meeting are to foster exchange and encourage co-operation between European industrialists and researchers.

Innovation Relay Centre Centr'Est, Arist/CRCI Bourgogne, Parc de l'Europe, Place des Nations Unies, BP 209, F-21006 Dijon Cedex, France. Tel 0033 3 80604091, fax 0033-3-80604023, email ld-arist-b@axnet.fr, internet <http://bourgogne.arist.tm.fr/>

Second European Conference on Applied Climatology (ECAC 98). 22–25 September 1998, Vienna, Austria.

Zentralanstalt für Meteorologie und Geodynamik, Postfach 342, A-1191 Wien, Austria. Tel +43 1 36 0 26 2201, fax +43 1 36 0 26 2672, email ecac@zamg.ac.at, internet <http://www.zamg.ac.at/~ECAC98>

Atmospheric Electricity and Lightning Protection. 23 September 1998, University of Reading, England.

Dr. G. Harrison, University of Reading. Email: R.G.Harrison@reading.ac.uk

Euro Environment Conference and Exhibition — International Conference on Industry and Environmental Performance. 23–25 September 1998, Aalborg, Denmark.

Conference Secretariat, Aalborg Congress & Cultural Centre, PO Box 149, DK-9100 Aalborg, Denmark. Tel +45 99 35 555, fax +45 99 35 5580, email euro@akkc.dk, internet <http://www.akkc.dk/uk/euro/envire/index.htm>

Seminar — Perspectives on Environmental Engineering. 24–26 September 1998, Hamburg, Germany.

The seminar will offer a possibility for the presentation of the experiences of different countries in this field, as well as cater for the analysis of examples of environmental engineering programmes in some EU countries.

Prof. Walter Leal Filho, Environmental Technology Sector / Arbeitsbereich Umweltschutztechnik, Technical University of Hamburg Harburg, Eissendorfer Strasse 40, D-21073 Hamburg, Germany. Tel 0049 40 7718-0 or 7718 3327, fax 0049 40 77182155, email leal@tu-harburg.de

Closing date for registration is the 30th August 1998. Cost: DM 300.

Workshop on the Assessment of EMEP Activities Concerning Heavy Metals and Persistent Organic Pollutants and Their Further Development. 24–26 September 1998, Moscow, Russia.

Marina Varygina, Meteorological Synthesizing Centre East, Kedrova str. 8. K. 1, R-117 292 Moscow, Russian Federation. Tel +7 095 124 4758, fax +7 095 310 7093.

Sixth International Conference on Modelling, Monitoring and Management of Air Pollution. 28–30 September 1998, Genova, Italy.

“The objective of this sixth International Conference on Air Pollution is to bring together scientists working in industry, research organisations, government and academia who are working on monitoring, simulation and management of air pollution problems. The emphasis

will be on the development of experimental and computational techniques which can be used as a tool for the solution and understanding of practical air pollution problems, from which it is possible to evaluate proposed emission control techniques and strategies. Case studies will be presented and discussed in detail. Papers may also be accepted on a more theoretical nature, which are mathematically and computationally based."

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet
<http://www.wessex.ac.uk/>

OCEANS '98 — Conference on Coastal Management & Ocean Resources. 28 September – 1 October 1998, Nice, France.

United Nations Environment Programme Working Group on Sustainable Product Development (UNEP-WG-SPD). Internet <http://unep.frw.uva.nl/>

Environmental Engineering and Management. 30 September – 2 October 1998, Barcelona, Spain.

"The importance of sustainable development requires engineers, scientists, technologists and environmental managers, both in industry, government and academia, to familiarise themselves with current environmental issues; contribute positively to debate on these issues and to propose and implement sound engineering solutions to safeguard the future. In particular, there are five main areas identified which require urgent engineering solutions, namely: the efficient use of all energy sources; the recovery and recycling of materials; the repair of existing damage and the development of cleaner technological products. This is resulting in the development and implementation of new methods and procedures for environmental management which modify the traditional approaches. As a consequence the emphasis has changed from pollution control to pollution prevention. This conference aims to attract papers on all aspects of environmental engineering and management. These will include strategic issues, environmental management tools, environmental technologies and cleaner production, environmental modelling and pollution prevention. The topics of education and training will also be addressed."

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet
<http://www.wessex.ac.uk/>

European Land Ocean Interaction Studies. 30 September – 3 October 1998, Huelva, Spain.

The main objective of the conference is to provide a forum for discussion of all aspects related to coastal zones and the interchanges between the ocean and the land. Plenary and parallel sessions will consist of keynote talks and oral presentations of scientific results from current ELOISE projects.

The five main themes to be addressed will be:

- Global change and biogeochemical cycles and fluxes;
- Ecosystem structure and functioning and human impacts;
- Coastal zone management;
- Modelling and data management;
- Integration of natural and socio-economic sciences in coastal zone research.

European Commission, DG XII — Science, research and development, Dr. Hartmut Barth, Environment and Climate programme, 200 rue de la Loi (SDME 7/57), B-1049 Brussels, Fax +32-2-2952097, E-mail: hartmut.barth@dg12.cec.be

or:

European Commission, DG XII — Science, research and development, Dr. Klaus-Gunther Bartel, MAST Programme, 200 rue de la Loi (SDME 7/83), B-1049 Brussels. Fax +32-2-2960324, e-mail: klaus-guenther.bartel@dg12.cec.be

Internet <http://europa.eu.int/comm/dg12/eloise/eloise-c.html>

Closing dates have passed.

R&D Management. 30 September – 2 October 1998, Avila, Spain.

The conference will examine various aspects of strategy and alliances which have the potential to be a powerful factor in research and development, technology and innovation management. It will involve an examination of relevant concepts and themes, a discussion of the practical problems that might be experienced and consideration of the implications for research and development management.

SOCINTEC, David Uriate, C/Mayor 10, E-48930 Las Arenas Vizcaya. Tel.: 0034 944800211, fax: 0034 944800391, email: rdmacon@socintec.com

or:

Manchester Business School, The R&D Research Unit, Jeff Butler, Booth Street West, Manchester M15 6PB. Tel 0161 2756338, fax 0161 2756489, email j.butler@fs2.mbs.ac.uk, http://www.techman.org/R&D_98.htm

ASE 98: Applied Sciences and the Environment. 5–7 October 1998, Cadiz, Spain.

“This conference brings together mathematicians, physicists, chemists, environmental scientists and engineers The solution of environmental problems caused by the increase of pollutants requires the application of a number of mathematical tools ranging from those required for data collection and analysis algorithms, to transport advective models, simulation of environmental processes, technologies to control the pollutant processes and models that can simulate remediation. Mathematicians, scientists and engineers working in this field must be aware of the processes involving mixing and dilution, chemical and biological processes, mathematical modelling, data acquisition and measurement, site optimization techniques, porous media flow, fluid dynamics and other complex problems which need to be expressed in mathematical form. This conference aims to provide a forum of discussion for scientists working with mathematical models for the environment in different fields and types of applications so that they can share their knowledge and experience in their fields.”

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet
<http://www.wessex.ac.uk/>

Fifth International Conference on Remote Sensing for Marine and Coastal Environments. 5–7 October 1998, San Diego, California, USA.

“... applying remote sensing and related techniques to solve real-world problems in marine and coastal environments. The conference will encompass all aspects of remote sensing of the marine environment, including fundamental principles, sensor design and evaluation, data interpretation, algorithm development and validation, advanced processing techniques, data integration and management, and economic evaluation of applications.”

ERIM Marine Conference, P.O.Box 134008, Ann Arbor, MI 48113-4008, USA. Tel +1 734 994 1200 x3234, fax +1 734 994 5123, email wallman@erim-int.com, internet
<http://www.erim-int.com/CONF/marine/MARINE.html>

Submission deadlines have passed.

Risk Analysis: Computer Simulation in Risk Analysis and Hazard Mitigation. 6–8 October 1998, Valencia, Spain.

“This Conference is concerned with all aspects of risk analysis and hazard mitigation ranging from specific assessment of risk to hazard mitigation associated with both natural and anthropogenic hazards. Strategic issues of sustainable development, efficient use of resources, energy economics and education are also of interest.”

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet
<http://www.wessex.ac.uk/>

First EARSeL Workshop on Imaging Spectroscopy. 6–8 October 1998, Remote Sensing Laboratories, Zurich, Switzerland.

The Workshop will cover the main aspects of hyperspectral data acquisition including fundamental principles, advanced techniques, data interpretation and operational use of imaging spectrometers. The objectives will be to present the state-of-art and progress made in this remote sensing technology, and to exchange information on large national and international projects, existing equipment and methods, and requirements for future scientific and technical development. The plenary and poster sessions as well as round table discussions will give participants the opportunity to present their latest results on the following topics:

- Atmospheric applications;
- Limnological applications;
- Geologic applications;
- Monitoring of vegetation;
- Urban and other applications;
- Operational use of imaging spectrometers;
- Hyperspectral data interpretation, integration with other types of sensors;
- Preprocessing, calibration and validation of hyperspectral data;
- New instruments and techniques.

Submission deadlines have passed, but *registration is cheaper if done by 1 August.*

EARSeL Secretariat, 2, avenue Rapp, F-75340 Paris Cedex 07, France
Tel: +33 1 45 5 673 60, fax: +33 1 45 56 73 61, email: EARSEL@METEO.FR
or:

Michael Schaepman, Remote Sensing Laboratories, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich, Switzerland. Tel: +41 1 635 51 45, fax: +41 1 635 68 46 or 68 48, email: schaep@geo.unizh.ch
Internet <http://www.geo.unizh.ch/~schaep/earsel/earsel.html>

International Conference on Snow Hydrology — The Integration of Physical, Chemical and Biological Systems. 6–9 October 1998, Brownsville, Vermont, USA.

Janet P. Hardy Cold Regions Research and Engineering Laboratory, 72 Lyme Road, Hanover, NH 03755-1290. Fax (603) 646-4397, email: jhardy@crrel.usace.army.mil, internet
<http://www.crrel.usace.army.mil/snow98>

**“GIS: Coming of Age” — The Tenth Annual AGI Conference at GIS 98.
13–15 October 1998, Birmingham NEC, UK.**

The Association for Geographic Information, 12 Great George Street, London SW1P 3AD.
Tel (0171) 334 3746, email info@agi.org.uk, internet <http://www.agi.org.uk>

The deadline for submissions has passed.

**Structural Integrity for Nuclear & Pressurised Components. 20–22
October 1998, Amsterdam, The Netherlands.**

The conference aims to cover all aspects of the subject, including the links between structural integrity requirements and NDE (Non-destructive Evaluation) performance. The overall objective of the conference is to provide an up-to-date assessment of the state of development of the subject and to permit technical interchange between experts on an international basis. Papers are invited on all aspects of the use of NDE for underwriting the structural integrity of nuclear and pressurised plants.

European Commission, Joint Research Centre, Institute for Advanced Materials, Dr. Michel Bieth, PO Box 2, 1755 ZG Petten, The Netherlands. Fax 0031 224 561568, email bieth@jrc.nl

**American Association for the Advancement of Science. 25–28 October
1998, Fairbanks, Alaska, USA.**

Internet <http://www.gi.alaska.edu/>

**Annual Meeting of the Geological Society of America. 26–29 October
1998, Toronto, Canada.**

Tel 303-447-2020 or 800-472-1988, fax 303-447-0648, email meetings@geosociety.org,
internet <http://www.geosociety.org/meetings/98/>

**ERCPC 98 — European Round Table on Cleaner Production. 30 October –
1 November 1998, Lisbon, Portugal, and Pre-Conference for African
Countries, 30 October.**

United Nations Environment Programme Working Group on Sustainable Product
Development (UNEP-WG-SPD). Internet <http://unep.frw.uva.nl/>

**“Wanted: Environmental Technologies” — Exhibition on Environmental
Equipment and Technology. 3–6 November 1998, Lyon, France.**

Described as an “inverted fair”, the meeting will be oriented towards requests for technology, rather than offers. Meetings will be set up between large companies looking for specific environmental technologies and smaller companies that have developed them.

Contact IRC Rhône-Alpes Auvergne, Chamber of Commerce and Industry of Lyon, Ms. Anne Tirilly, 20 rue de la Bourse, F-69289 Lyon, France. Tel +33 4 72 40 57 94, fax +33 4 72 40 59 65, email tirilly@lyon.cci.fr.

Deadlines: registration for offers of technology not later than 30 September 1998. Deadline for registration for requests for technology has passed.

**Envirosoft 98 — Development and Application of Computer Techniques
to Environmental Studies. 10–12 November 1998, Las Vegas, USA.**

“ENVIROSOFT 98 will present the most recent developments and practical implementations in the theoretical, numerical and applicable aspects of computer analysis, simulation, modelling, control and forecasting for environmental applications. The Conference aims at the establishment of a useful connection between originators of environmental software programs and their possible users, thus reducing the present large duplication of effort in software development.

The main objective of ENVIROSOFT 98 is the creation of a proper forum for discussion among managers and engineers involved in the creation, development or application of computer software to environmental problems.”

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK.
Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet
<http://www.wessex.ac.uk/>

**EL-TEX '98 “Electrostatic and Electromagnetic Fields — Hazards and
Protective Properties of Textile Fabrics”. 24–25 November 1998,
University of Lodz, Poland.**

Joanne Koprowska, Conference Centre, University of Lodz, Kopcinskiego St 16/18, Lodz,
Poland. Email K.GRZYWACZ@MAIL.IW.LODZ.PL

Aqua Enviro (AE) Technology Transfer Course — From Waste Minimisation to Zero Emissions. 3 December 1998, Wakefield, UK.

Zena Hickinson, Courses Secretary, AE Technology Transfer, School of Civil Engineering, The University, Leeds, LS2 9JY. Tel (0113) 233 2296, fax (0113) 233 2243, email z.hickinson@leeds.ac.uk

The Aerosol Society: Drug Delivery to the Lungs IX. 14–15 December 1998, Church House Conference Centre, Westminster, London.

Papers on all topics are welcome, but the following will be given special emphasis:

- Advances in CFC-free systems for drug delivery to the lungs;
- Advances in pulmonary delivery technology.

The Aerosol Society, PO Box 34, Portishead, Bristol BS20 7FE, UK. Tel (01275) 373300, fax (01275) 373304.

Fees:	2 days	1 day
Members	£160	£90
Non-members	£190	£125
Full-time students	£50	

Closing date for submissions: 18 September 1998
Final extended abstracts required: 6 November 1998

American Meteorological Society Annual Meeting — “Climate and Global Change: Focus on the Americas”. 10–15 January 1999, Dallas, Texas, USA.

Call for papers is found in the Bulletin of the AMS. Abstracts due at AMS HQ, *no later than 1 October 1998*.

Thirteenth International Conference and Workshops in Applied Geologic Remote Sensing — “Practical Solutions for Real World Problems”. 1–3 March 1999, Vancouver, Canada.

International Conferences, Applied Geologic Remote Sensing, ERIM International Inc., PO Box 134008, Ann Arbor, MI 48113-4008, USA. Fax +1 734 994 5123, email geology@erim-int.com, internet <http://www.erim-int.com/CONF/GRS.html>

Deadline for abstracts has passed.

Third International Scientific Conference on the Global Energy and Water Cycle. Sometime in March 1999, somewhere in China.

No details available.

Wind Energy for the Next Millennium. 1 – 5 March 1999, Nice, France.

The aim of this conference is to present and discuss both commercial and political aspects governing the future of wind energy. It will also review and discuss the technology and innovation required for large-scale commercial utilisation of wind energy, and provide a forum for presentation, exchange and discussion of scientific results and perspectives. Papers on wind energy are invited on the following topics:

- Business, market and policies;
- Technology and science.

Riso National Laboratory, Wind Energy and Atmospheric Physics Department, Dr. Erik Petersen, PO Box 49, DK-4000 Roskilde, Denmark. Tel +45 46 77 50 00, fax +45 46 77 59 70, email: erik.lundtang@risoe.dk

or:

WIP, Sylvesterstrasse 2, D-81369 München, Germany. Tel +49 89 7201235, fax +49 89 7201291, internet <http://www.wip.tnet.de/>

Deadline for abstracts is 15 September 1998.

Second International Conference on Urban Air Quality. 3–5 March 1999, Madrid, Spain.

Organised by the Environmental Physics Group and other organisations The overall aim of this meeting is to provide a forum for scientists, engineers and decision and policy makers to meet and discuss the latest developments in this field. It is hoped that this series of conferences will encourage international collaboration between researchers, regulators and policy makers. In light of this, the organisers welcome the participation of SATURN and TRAPOS both of which represent important frameworks for urban air pollution research.

The topics for the conference will include:

- Measurement and monitoring of urban air pollutants on a local and urban scale
- Sampling techniques and instrumentation
- Analysis of air pollutants
- Use of surface instrumentation for monitoring urban air quality and meteorology
- Emission models and inventories
- Source apportionment studies
- Urbanscale modelling
- Emergency urban and regional forecast modelling

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- Roadside air quality modelling including street canyons
- Wind tunnel & physical modelling studies
- Modelling validation & sensitivity studies
- Urban canopy meteorology & chemistry
- Applications of Geographical Information Systems (GIS)
- Remote sensing and satellite data assimilation for urban air quality
- Environmental and health impact of urban air pollution
- Urban air quality management systems (AQMS) & decision support systems (DSS)
- Data integration into environmental models
- Use of World-Wide-Web for urban air quality monitoring, modelling information and archiving

Dr Ranjeet S Sokhi (Chairperson), Atmospheric Science Research Group (ASRG), Department of Environmental Sciences, University of Hertfordshire, College Lane, Hatfield, AL10 9AB, UK. Tel (01707) 284520, fax 01707 285258, email: r.s.sokhi@herts.ac.uk

Deadline for receipt of 300 word abstract **25 September**
Deadline for receipt of 2 page abstract **18 January**

μRAD 99 — Sixth Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment. 16–18 March 1999, Firenze, Italy.

The microwave radiometry community is invited to participate in this meeting and present new research results and instrument designs in the field of remote sensing of land, ocean and atmosphere. Suggested topics are listed below but consideration will be given to papers on other related subjects.

- Theory of microwave radiometry, physical principles and models of emission, scattering and absorption from the Earth's atmosphere and surface;
- Inversion of radiometric data and retrieval of atmospheric and surface parameters;
- Radiometric observations of the atmosphere (temperature, water vapor, clouds, rain, pollutants) and the surface (soil and vegetation, ocean, ice, snow);
- Polarimetric radiometry and applications;
- Novel Radiometric imaging systems;
- Observation from advanced satellite systems;
- Potential new applications for climate and global change;
- New technological development (receivers, antennas, calibration);
- Anticipated radiometric missions (field campaigns and spacecraft).

Dr. Paolo Pampaloni, CNR-IROE, Via Panciatichi 64 – 50127 Firenze, Italy. Fax +39 55 4235 290, email microrad@iroe.fi.cnr.it, internet <http://wmicro.iroe.fi.cnr.it/mrad99.htm>

Deadline for abstracts is 1 November 1998.

Bull. EPG 4, No. 2, 1998.

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ELECTROSTATICS 1999 — includes Exhibition of electrostatic equipment and instruments. 28–31 March 1999, University of Cambridge, England. Preceded by a 1 day Introductory Workshop on Electrostatics.

Papers in the following and related topics are solicited:

- Assessment of Materials
- Atmospheric Aspects and the Environment
- Biological Applications
- Charged Particle Physics
- Computer Modelling
- Corona and Gas Discharge
- Electrohydrodynamics
- Electrofluidization
- Electrets
- Electrophotography
- ESD/EOS
- Electrostatic Precipitation
- Electrostatic Sensors Transducers & Motors
- Electrostatic Spraying of Powders & Liquid
- Electrostatics in Polymer Processing
- Electrostatic Hazards
- Gas Discharge Reactions
- Liquid Metal Ion Source
- Methods of Measurements
- Novel Materials
- Numerical & Analytical Techniques
- Separation & Sorting
- Static Elimination
- Scanning Probe Microscopy

Miss Belinda Hopley, Conferences Department, The Institute of Physics, 76 Portland Place, London W1N 3DH. Tel: +44 (0)171 470 4800, fax: +44 (0)171 470 4900, email: conferences@iop.org, internet <http://www.ioppublishing.com/IOP/Confs/ESTAT/>

Workshop: as main conference except internet: <http://www.jci.co.uk/Wks-prg.html>

Deadlines: ***1 September 1998 — Hardcopy submission of abstracts***
 14 September 1998 — Electronic submission of abstracts

Oceanology International 99 — Pacific Rim. 27–29 April 1999, World Trade Centre, Singapore.

Topics include:

- Marine environmental management;
- Marine information technology;
- Acoustics;
- Operational modelling;
- Integrated coastal zone management.

Deadline for abstracts: Friday 9 October 1998.

Bull. EPG 4, No. 2, 1998.

Angela Pederzoli, Conference Manager, OI 99 Pacific Rim, Spearhead Exhibitions Limited, Ocean House, 50 Kingston Road, New Malden, Surrey KT3 3LZ, UK. Tel (0181) 949 9222, fax (0181) 949 8168/8186/8193, email angela@spearhead.co.uk, internet <http://www.spearhead.co.uk/>

Water Pollution 99 — Modelling, Measuring and Prediction. Lemnos, Greece, 24–26 May 1999.

The conference's "chief objective is to provide a forum of discussion for scientists and managers working in different aspects of water pollution. It is anticipated that the wealth of information exchanged in such an international meeting will be of great benefit to all involved with water pollution problems."

Deadlines: abstract as soon as possible, no later than 1 September 1998; final Paper 5 January 1999.

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

Coastal Engineering 99: Computer Modelling of Seas and Coastal Regions. Lemnos, Greece, 26–28 May 1999.

"The conference will address the computer modelling of seas and coastal regions under normal and extreme conditions, with special interest on practical applications currently being carried out around the world. Discussion will also take place on environmental problems of coastal areas which are frequently densely populated or sites of major industrial developments as well as on the topic of coastal protection and remediation work. "

Deadlines: Submit Abstract as soon as possible; submit Final Paper 5 January 1999.

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

Third International Scientific Conference on the Global Energy and Water Cycle. 9–12 June 1999, Beijing, China.

No details available.

ERES 99 — Earthquake Resistant Engineering Structures. Catania, Italy, 15–17 June 1999.

"The objective of the symposium is to provide a forum for discussion of both basic and applied research in the various fields of engineering relevant to earthquake resistant analysis and design of structural systems. The symposium will create an atmosphere that is conducive to fruitful interaction and exchange of ideas as well as state-of-the-art information between scientists and engineers from both academia and industry."

Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Tel: (01703) 293223, fax: (01703) 292853, email: wit@wessex.ac.uk, internet <http://www.wessex.ac.uk/>

Deadlines: submit abstract as soon as possible before 6 October 1998; submit final paper by 2 February 1999.

Air Pollution 99 — Modelling, Monitoring and Management of Air Pollution. San Francisco, USA, 27–29 July 1999.

See the entry on "Air Pollution 98" for information and contact details.

Deadlines: submit abstract as soon as possible and no later than 27 October 1998; submit full length paper by 23 February 1999.

Third International Symposium on Environmental Software Systems. August 1999, University of Otago, Dunedin, New Zealand.

The purpose of the symposium is to present and discuss the fundamentals, progress and actual trends in this area in terms of methods, tools and state-of-the-art applications." Topics include the following applications and methods:

- Monitoring
- Measurement networks
- Wastemanagement
- Knowledge bases
- Water resource management
- GIS, inventories
- Administrative systems
- Information systems
- Impact assessment
- Decision support
- Ecosystem research
- Modelling, Visualization
- Agriculture
- Remote sensing
- Ecological management
- Ecobalances
- Environmental networks
- Distributed technology
- Process control
- Real time systems

Mrs. Linda Robson, ISESS 1999 Conference Secretariat, EII CANADA, University of Guelph, Guelph, N1G 2W1, Canada Email linda@snowwhite.cis.uoguelph.ca, tel +1 (519) 824 4120 Ext. 3760, fax +1 (519) 837 0323, internet <http://www.htw.uni-sb.de/eig/isess1999/>

Deadline for submissions is December 1, 1998. You can register electronically at the WWW site above.

News and Information.

European Parliament Reports On Combating Air Pollution.

During a recent meeting of the European Parliament's Committee on the Environment, the MEPs called on the Commission to draw up a strategy for reducing the negative impact of agriculture on the environment, directed especially at ammoniac emissions.

The Committee also approved a report by British Socialist Anita Pollack on the Commission's proposal for a Directive setting limit concentrations for sulphur dioxide, nitrogen oxides, particulates and lead. This proposal, the first Directive stemming from the framework Directive on ambient air quality, contains measures aiming to introduce limit values, warning thresholds, tolerance margins and deadlines for compliance, applicable to the four pollutants. Finally, the Committee emphasised the need for further research in this area and called on the Commission to review the Directive before September 2003.

University Researchers — Be Prepared!

There will be a second Research Assessment Exercise in 2001. Timetable:

October 1998	Responses to the additional consultation questions;
Spring 1999	Announcement of: <ul style="list-style-type: none">• the number and definition of units of assessment;• number and membership of panels;• details on preparing submissions, and data requirements and definitions;
Summer 1999	Panels to consult on draft criteria for assessment;
End of 1999	Panels to publish final assessment criteria;
31 March 2001	Census date for assigning research active staff to the HEIs where they are in post;
30 April 2001	Submission date.

Foresight next round to be launched in April 1999.

The Foresight programme aims to improve the competitiveness of the UK economy, and enhance the quality of life, by bringing together business, the science base and Government to identify and respond to emerging opportunities in markets and technologies.

The programme was launched in 1994 and is spearheaded by 16 independent panels set up to explore opportunities in different sectors of the economy. The panels include representatives from business, Government and academia. Following widespread consultation involving some 10,000 people, the panels published their findings and recommendations in 1995. The current phase of the programme aims to engage the wider business community in Foresight, reaching out beyond the research and development functions in companies. A second national Foresight review will begin in 1999.

The programme is managed by the Foresight Directorate in the Office of Science and Technology, DTI.

You can submit your views via the internet at the following URL:

http://www.foresight.gov.uk/consultation/form_end.html

WWW Pages of Interest.

N.B. URLs (Internet addresses) are sometimes case-sensitive.

Interactive History of the Earth Sciences	http://www.ametsoc.org/AMS
UK Telephone Code Locator	http://www.warwick.ac.uk/cgi-bin/Phones/nng
Oftel's National Code & Number Change Framework Document	http://www.oftel.gov.uk/numbers/oftnum.html
LINK Online	http://www.dti.gov.uk/ost/link/
Remote Sensing Tutorial	http://code935.gsfc.nasa.gov/Tutorial/Start.html
Download <i>Adobe Acrobat</i> reader	http://www.adobe.com/acrobat/

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