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## Message from the Past President



Three years of Presidency of EMS – 2003 to 2005 – seems to be a long time. But time has passed by quite rapidly, and my impression is that it has been a rather short, but a very busy and highly interesting period of my life. I have been fortunate in becoming acquainted with numerous scientists from many different countries who all are actively promoting meteorology and

related sciences. I quickly realized that these people are of a very special kind. They are proactive and enjoy discussing new ideas — working with them has been a very exciting experience.

During the last three years, EMS has grown up, but it is of course continuously growing. As I wrote in an EMS Newsletter three years ago, EMS is a "rather large youngster" and this still applies today. Nearly all European meteorological societies have now joined EMS as Member Societies. In addition there are various meteorological institutions which have joined EMS as Associate Members. There are now 23 Associate Members. The 24<sup>th</sup> has just joined (Instituto Nacional de Meteorologia (INM), Spain), the 25<sup>th</sup> (Finnish Institute of Meteorology) has just applied, and the 26<sup>th</sup> is in the process of applying (Estonian Meteorological and Hydrological Institute) – and hopefully

we are not far from having the National Meteorological Administration of Romania as the 27<sup>th</sup> Associate Member.

The importance of EMS has been steadily increasing. Of particular note is the increasing acceptance of the EMS Annual Meeting as a comprehensive conference at the interface of atmospheric sciences and applications. Being elected as EMS President during the Annual Meeting, Brussels, 2002, I had the overall responsibility for the next three Annual Meetings.

- ♦ Rome in 2003: The Annual Meeting was organised by the Italian Military Aviation Service and was held at the same time as ECAM (European Conference on Application of Meteorology). There were 300 participants with more than 100 from Italy.
- ◆ Nice in 2004: This was the first Annual Meeting where the EMS had the main responsibility for organising the event in co-operation with Copernicus-Gesellschaft. The Annual Meeting was part and partner of ECAC (European Conference of Application of Climate). There were 450 participants.
- ◆ Utrecht in 2005: This was organised by KNMI and the private company MeteoConsul in co-operations with Copernicus- Gesellschaft. The meeting had ECAM and VOLTAIRE (Intercomparison of precipitation soundings) as part and partner of the event. There were more than 500 participants and for the first time the Annual Meeting produced a small surplus.

At all these events we were able to offer a forum for networking within all related scientific areas and to give the EMS Members and Associates the opportunity to discuss and strengthen their co-operative activities.

The Call-for-Papers for the Annual Meeting 2006 with the part and partner ECAC in Ljubljana has just been launched. Hopefully, the Meeting will have as many (or even better more) sessions and participants than we had in Utrecht.

EMS has to thank the numerous Convenors who did great work in organising more than 40 sessions during the EMS Annual Meetings. We rely on these experienced, efficient and distinguished scientists, and we are very grateful that they are doing this most important work so successfully. Also my thanks go to the main organisers of these three Annual Meetings.

A key aspect of fulfilling the mission is the valuable work of the EMS Committees. Looking at our Annual Meetings, it is clear that Education, Media, and Accreditation



Committees have been busy: They organised well attended sessions which stimulated much interest and debate. And in reading this Newsletter you may be aware that the EMS Publication Committee is working successfully and giving information to our members and interested friends.

The Awards Committee discussed and later on decided upon more than 15 awards per year, presented to young scientists mostly from Europe and the USA. For more information see the article about EMS Awards in this Newsletter. These Awards are a means of giving EMS increased visibility in the European landscape of meteorology and related sciences.

I would like to express my deep gratitude to EMS Executive Secretary, Arne Spekat, who has been very effective at coordinating the activities of the EMS. In particular he helped organise the Annual Meetings and added his "human dimension" to the often dry technical preparations for these events. Arne has been the outstanding person within EMS and he has been a good friend to me, not only in all EMS related events but personally as well.

Arne has left his post with EMS because he had the

opportunity to be involved in purely scientifically work again. According to him EMS has been a very noble and important undertaking from the beginning, and he will surely miss being involved.

I am happy to report that we found an excellent successor as EMS Executive Secretary: Dr. Martina Junge. She has come from Hamburg, where she successfully pursued a research career, but is now looking for new challenges. I would like to extend to her a warm welcome.

At the beginning of 2005, EMS was able to update the Mission Statement which can be found at:

http://www.emetsoc.org/SDG/Mission\_Statement\_2005.pdf The Mission lays out what the EMS is trying to achieve in the coming years. I am delighted that David Burridge has agreed to be the new EMS President, and that he will lead the EMS in fulfilling its mission. David has huge experience in international co-operation as former director of ECMWF. I have no doubt he will be able to increase the visibility and the influence of EMS in Europe throughout the rest of the world.

Werner Wehry, Past EMS President

## Martina Junge - EMS Executive Secretary



Martina Junge

The new EMS Executive Secretary is Martina Junge. She is a mathematician who has worked in climate research for many years. She has been affiliated with the Max Planck Institute for Meteorology in Hamburg, the Physics Department at Oxford University, the Meteorology Department at Reading University, the National Institute of Geophysics and Vulcanology in Bologna and the Meteorology Department at the University in Hamburg.

Her scientific experiences include the investigation of predictability of ENSO using coupled ocean-atmosphere models, decadal variability in mid-latitudes, the use of adjoint models for sensitivity studies in climate variability, the interplay of storm tracks and European climate variability, the role of Greenland's topography on stationary waves and storm tracks and oceanic teleconnections in the North Atlantic.

Also enjoying teaching and translating, she is looking for new challenges, and hoping to bring new aspects and ideas to the mission of EMS.

When she's not at work she enjoys sitting on the kitchen sofa, the purring cat on her lap, and eating Italian pasta or Italian pizza.

# Fifth Annual Meeting of the European Meteorological Society

#### From 2004 to 2005

In 2004 in Nice, France, EMS organized its Annual Meeting in an expanded format, giving the floor to scientists in parallel lecture sessions and a displaying a large number of posters. The focus was on applications of climatology and meteorology. Having special sessions, round table discussions and so forth, was retained from the approach of past EMS Annual Meetings. EMS was glad to host the 5<sup>th</sup> European Conference on Applied Climatology (ECAC) as a part-and-partner conference. About 450 participants attended the conference with its associated symposia and workshops. In addition meetings of various expert groups were held in conjunction with the Annual Meeting and there was a great deal of co-operation with the COST Programme of the European Science Foundation. Logistics and co-organizing was by the Copernicus organization.

#### **Shaping the Annual Meeting/ECAM 2005**

During the 2003 ECAM/EMS Conference in Rome it was determined that the subsequent ECAM 2005 should be held in the Netherlands. It was foreseen as a part-and-partner conference of the 5<sup>th</sup> EMS Annual Meeting. Among the four candidates Amsterdam, Maastrich, Rotterdam and Utrecht, the latter was chosen as the venue for 2005.

Between 2003 and 2005 the EMS Annual Meeting Programme Committee and the ECAM International Planning Committee coordinated their activities to ensure that the event was well organised and there was a coherent programme. The conference was given a distinct profile by ECAM concentrating more on the creation of a symposium-like structure with the majority of the lectures being solicited by direct approach of the Members of the ECAM International Planning Committee. Generally, the priority at ECAM was to give users of meteorological information the opportunity to address the meteorological community.



Icebreaker at the 5<sup>th</sup> Annual Meeting in Utrecht.

This more top-down approach was complemented by the bottom-up approach of the EMS Annual Meeting which relied on a programme that covers a wide range of meteorological topics, in the construction of which the community can participate. As in previous events the key people would be the Conveners who took responsibility for the quality, scope and organization of the individual sessions.

Furthermore, out of the Hydrometeorology Session of the EMS Annual Meeting in Nice arose the request of the respective community to have the OpenVoltaire Conference (on validation of multi-sensor precipitation measurements) as a part-and-partner in Utrecht.

#### Structure of the 2005 conference

There were five topics considered at the 2005 Annual Meeting (hereafter referred to as EMS5).

- ♦ Atmosphere and the water cycle, a real-time look
- ◆ Climatology
- ◆ Computing in atmospheric sciences
- ♦ Instruments and observations
- ◆ Information provision and education

In addition the special session on future meteorological satellites which took place in Rome 2003 for the first time had a continuation in 2005. The ECAM Conference as well as the Voltaire Conference were integrated so that together all the events covered a wide spectrum of topics. ECAM also had a special round table discussion on the reengineering of the forecasting process.



Besides the Voltaire community there were three new communities which approached EMS and for which sessions were held (scintillometry, urban climate and circulation patterns). Also three topics were covered by joint EMS-ECAM sessions (verification, ensemble modelling and renewable energy).

EMS was particularly grateful that the ECAC Advisory Board agreed to be responsible for the climate-related sessions of EMS5 (a "year between ECAC Conferences"), thereby ensuring continuity. Clearly, at the Annual Meeting in 2006 there will be a much broader coverage of climate topics under the auspices of the next ECAC conference.

In 2004, there were at least a half dozen Actions of the European Science Foundation's COST Programme holding expert and working group meetings in conjunction with the Annual Meeting, for which EMS provided facilities. Furthermore a meeting of the COST-Technical Committee took place at the same time. Because there happened to be other major conferences held in 2005 at about the same time as the EMS5 the number of COST Actions present in 2005 was less. However, the COST Technical Committee still decided to have its autumn meeting close to the EMS5.

#### Networking

There a synergy in the fact that this conference features sessions on topics which coincide with activities such as COST. So it is practical for participants of their Actions to attend a conference in which their results can be presented and the Actions gain visibility (also through the exhibition). Obviously a "critical mass" is generated so that the Action use the opportunity to hold working group and management committee meetings as well.

Networking can also be summarized under the fact that opportunity is given to meet, discuss, negotiate, etc. Furthering factors are, for example, the joint lunch breaks, the ice-breaker and the conference dinner.

#### Size matters

Nearly 600 abstracts were submitted. Some could not be accepted and there were some abstracts withdrawn for vari-

Opening ceremony at the  $5^{th}$  Annual Meeting in Utrecht involving three members of the Programme Committee – from left to right Harry Ottens (MeteoConsult) Janneke Ottens (KNMI) and Werner Wehry (President of EMS).

ous reasons. In the end the programme encompassed about 340 oral presentations and about 180 posters. For most of the time there were four parallel sessions. The overall number of participants was a little over 500. But this is not the only field in which there will be growth from 2004 to 2005: The commercial scientific exhibition was almost twice as large as last year!

The conference's web site is and will remain at: www.copernicus.org/ems/2005

It now includes presentations from the conference as well.

Arne Spekat, Past EMS Executive Secretary

### **EMS Awards**

The following is an extract from the Terms of Reference of the Awards Committee.

EMS needs Europe-wide tasks for supporting meteorological science and meteorologists. EMS should involve much effort in these tasks, and it should spend as much as possible (maybe 20% or even more of its disposable income) for awards and travel subsistence funding. The latter should encourage as many members of EMS Societies as possible to take part in EMS Conferences.

The hub for submissions is the EMS Secretariat. Candidates may be proposed by any EMS Member Society or Associate Member; alternatively, candidates may also submit an application themselves to their own national Society. The Member Society should then decide on the merits of applications it receives and accordingly submit the proposal to the EMS or refer the application.

#### **Young Scientist Travel Award**

In 2003 the EMS Council established a system of Young Scientist Travel Awards (YSTAs) to support young scientists and to improve the visibility of EMS. So far the awards have been allocated as follows.

- ◆ 2002 There were five awards for scientists from Austria, France, Germany, Italy and Switzerland.
- ◆ 2003 Awards were made to support scientists attending two conferences: three students were supported from Austria, Czech Republic and Romania and two groups of students from Germany and the UK.
- ◆ 2004 There were 16 Awards thanks to a special grant from ECMWF. Five conferences were attended by young scientists from nine countries: Croatia, Czech Republic Switzerland, France, Germany (5), Netherlands (2), Sweden, UK (2) and USA.
- ◆ 2005 Support was provided for students from eight different countries to attend five conferences: Austria (2), Croatia (2), France, Italy (2), Romania (2), Switzerland and Ukraine. There was also a new Media Award which was presented to a broadcast meteorologist from the USA.

#### **Young Scientist Award**

EMS launched its main scientific Prize, the Young Scientist Award (YSA), in 2003. This was presented for the first time at the 3<sup>rd</sup> EMS Annual Meeting in Rome. The YSA prize is 1,000 Euro plus expenses for travel and subsistence to attend the EMS Annual Meeting.

In 2003 it was decided to present two awards as there were two candidates who had submitted excellent PhD



## 6<sup>th</sup> Annual Meeting of the European Meteorological Society

4-8 September 2006, Ljubljana, Slovenia

The sixth EMS Annual Meeting will take place at the Cankarjev Dom Conference Centre in Ljubljana, Slovenia, from 4–8 September 2006. This conference is at the interface of atmospheric sciences and applications. It will be held with the 6<sup>th</sup> European Conference on Applied Climatology. The topics and themes are:

#### Atmosphere and water cycle - a real time look

Boundary layer processes

Short-range forecasting methods

**Environmental meteorology** 

Severe weather and atmospheric hazards

Agrometeorology

Hydrometeorology

#### Instrumentation and methods of observation

Measurements and measurement networks

Remote sensing

Instruments

#### **Information provision**

Meteorology and society, media, education, accreditation

#### **European Conference on Applied Climatology**

Climate change, prediction, monitoring

There is also a side meeting of the 1st FORALPS Conference

#### For more information go to:

http://meetings.copernicus.org/ems2006

theses. The prize money of 1000 Euros was not split but instead the award was given twice to:

- ♦ Dr Daniela Meloni, University of Rome, Italy
- Dr Richard Forbes, University of Reading, UK
  The 2004 and 2005 Awards were presented during the Annual Meetings in Nice and Utrecht to:
- ◆ Dr Szilvia Horvath, Universities of Szeged and Budapest, Hungary
- ◆ Dr Martijn P.C. de Jong, Delft University of Technology, The Netherlands

During the Annual Meeting, Utrecht, the first Kipp & Zonen Award related to Boundary Layer Research was presented by the CEO of the company, Mr Ben Dieterink, to Dr Geert-Jan Steeneveld, Wageningen.

#### Awards for 2006

For 2006, the EMS Council decided to support a variety of conferences with EMS Awards. The allocations are shown in the table. There are 18 awards amounting to 5,600 Euros plus trophies.

EMS Awards in 2006	Amount (Euros)	Number	Total (Euros)	
Young Scientist Travel Awards				
ESA Symposium: 15 Years of Progress in RADAR Altimetry, Venice, 13–18 March 2006	300	1	300	
EUMETSAT Meteorological Satellite Conference, Helsinki, 12–16 June 2006	300	1	300	
7 <sup>th</sup> International Conference on Popular Meteorological and Oceanographic Education, Boulder, 3–7 July 2006	350	2	700	
13 <sup>th</sup> International Symposium for the Advancement of Boundary Layer Remote Sensing, Garmisch-Partenkirchen, 17–20 July 2006	300	1	300	
ENVISAT Summer School, Frascati, 31 July-11 August 2006	150/100/50	3	300	
12th Conference on Mountain Meteorology, Santa Fe, USA, 28 August-1 September 2006,	300	1	300	
ECMWF Seminar on Polar Meteorology, Reading, 4–8 September 2006	300	1	300	
6 <sup>th</sup> Annual Meeting of the EMS, Ljubljana, 4–8 September 2006	300	3	900	
Young Scientist Award				
6 <sup>th</sup> Annual Meeting of the EMS, Ljubljana, 4–8 September (award: 1000, travel and registration: 600)	1,600	1	1,600	
Other Awards				
Media Forum, October/November 2006, France	Trophy	2	0	
EMS Media Award, Ljubljana, 4–8 September 2006	300	1	300	
WMO 2 <sup>nd</sup> THORPEX International Science Symposium, Landshut, 4–8 December 2006	300	1	300	

The EMS Council meeting in March 2006 discussed new awards such as Honorary Awards and/ or Honorary Medals, but no decision has been taken about whether to establish these awards.

Further information about how to apply for an award can be found at:

http://www.emetsoc.org/awards/index.html

Information about the EMS Awards Committee and its Terms of Reference are available at:

http://www.emetsoc.org/ems\_resolutions.html#C35

Werner Wehry, Past EMS President

# The mission of EMS Education Committee



I would like to inform you about the activities of the EMS Education Committee established in 2002 to support the strategy and ideas of EMS in the area of education. To achieve the objectives of the Society, which are to advance meteorology (and sciences related to it) at a European-wide level, and to assist the devel-

opment of applications of these subjects for the benefit of the peoples of Europe and elsewhere, education plays a particularly important role in two areas.

- To promote the provision of basic education in meteorology so as to help people to understand the benefits coming from developments in meteorology and climatology.
- ◆ To support education in meteorology and its applications as a scientific discipline.

Whereas the first one is directed at the lower levels of educational activities as well as other forms of out-of-

school activities, the second is aimed mainly at university degree education and professional activities.

We would like to map the situation in these domains across Europe. It is recognized that there are the valuable activities of GLOBE or METLINK, but their position across Europe differs significantly between individual countries. At the university level there is strong movement, following the Bologna declaration, toward the unified system of university education to ensure compatibility of the degrees and mobility of the students within Europe. In this process there are specific problems of education in meteorology as it is usually a small subject in terms of the number of students. We have been developing the ECTOM database which could provide basic information on the availability of courses in meteorology and related sciences on a European-wide scale.

#### **Education sessions at the EMS Annual Meetings**

During last couple of years we started to organize the education sessions within the EMS Annual Meetings as part of the topic dealing with Information Provision. At the first meeting in Nice we ran the session titled "Education"

and information to the general public" with 14 contributions and last year in Utrecht we had 13 contributions in the session entitled "Education in meteorology and climatology – from the basis for understanding science to the science of earth system development". We hope there will be even more contributions about education at this year's EMS Annual Meeting in Ljubljana (3–7 September, 2006).

The educational session at the meeting in Ljubljana will be a good opportunity for the exchange of ideas, experience and information about the role of meteorology in scientific education and the potential for advancing education in atmospheric sciences. Contributions in the following areas would be particularly welcome.

- ◆ Appearance of meteorology, climatology and hydrology in national curricula in all levels of education across the Europe and elsewhere are welcome.
- The organization of education in meteorology and climatology in different countries.
- ◆ New advances in education of atmospheric sciences.
- ◆ The educational components of EU projects.
- ◆ National and international additional programmes and activities for school pupils.
- Education in meteorology provided by National Meteorological Services for themselves for their professionals.

#### Some future activities

EMS co-organizes the EWOC (Education: Weather, Oceans, Climate) meetings. This year there will be an EWOC meeting in Boulder, USA, 3-7, July. For more information please visit the meeting web pages:

http://www.ametsoc.org/MEET/fainst/ewoc2006.html

The EMS Education Committee gives its full support to EWOC and encourages people to attend and to submit contributions relevant to the educational interests of the EMS.

We expect to have a meeting of EMS Education Committee during EMS Annual Meeting in Ljubljana. Unfortunately, not many of the original members of the Committee are active; there are few that attend the Annual Meeting, present contributions in our education session or attend the meetings of the Committee. However, to obtain a full picture of the situation across Europe, we need more contributors and it is necessary to build a better infrastructure. We do not intend to increase the bureaucracy - we simply want to have functional network of contributors from individual Member Societies. To do this there is no necessity for Member Societies to establish education committees if they do not already have one. All that is required is for each Member Society to designate a contact point who is interested in education. In addition we would like to know about anyone who is willing to contribute to the educational activities of the EMS. Those people need not become members of our EMS Education Committee, although they would be welcome anyway.

By reaching a reasonable critical mass of people interested in meteorological education there will be a bigger source of experience and information which could be of benefit to all EMS Member Societies. If you are interested in being involved in the educational activities of the EMS, please contact the Chair of the EMS Education Committee (tomas.halenka@mff.cuni.cz). Further questions or ideas are welcome as well as information about contact persons designated by Member Societies (if not yet done).

Tomas Halenka, Chair EMS Education Committee

## **New Member Societies**

The EMS now has 33 Member Societies representing nearly 11,000 scientists from 27 European countries. The most recent Member Societies to join EMS are:

- ◆ Cyprus Meteorological Association (CyMetA)
- ◆ Finnish Association of Geophysics (Geofyysikkojen liitto, GFL)

#### Cyprus Meteorological Association (CyMetA)

The Cyprus Meteorological Association (CyMetA) was founded in 1994 by employees of the Meteorological Service of Cyprus. Recently the statute of the Association was revised so that citizens of Cyprus with an interest in meteorology or citizens of other countries belonging to meteorological associations can apply for registration. The Council of the Association consists of five members.

The aims of the Association are:

- ◆ The growth and tightening of relations and friendship between the members of Contact.
- ◆ The promotion and distribution of meteorology by organizing lectures and seminars with general or more special subjects of meteorology, in collaboration with other relevant associations.
- ◆ The mutualism between the members with the foundation of a common fund and a common insurance plan

- for the case of emergency, and generally for the prosperity of the members.
- ◆ The attendance in European or other international companies and organizations, aiming at the promotion of their work, and the growth of relations with the members of these companies and organizations.
- ◆ The issue of a newsletter on the activities of Association, letters of the members and other related subjects.
- ◆ The creation and regular updating of a web page.
- ◆ The submission of proposals pointing out the problems in the working places of the members.

The CyMetA organized among others, the 7<sup>th</sup> Panhellenic Conference of Meteorology and Physics of Atmosphere in 2004. Every year the association organizes 2–3 events, some of which are offered free to the members.

For more information about CyMetA use: http://www2.cs.ucy.ac.cy/~meteo/home.html meteo@ucy.ac.cy

# Finnish Association of Geophysics (Geofyysikkojen liitto, GFL)

The Finnish Association for Geophysics was founded in 1955 for advancing the professional interests of meteorologists, hydrologists and oceanographers. The Association organizes

seminars typically twice a year, excursions to relevant environment-related institutes and production units and separate lectures on current matters related to the scientific and professional interests of the members. The Association also gives grants to its members for participation in scientific and professional seminars and congresses (e.g. bi-annual Nordic Meteorologists' Conferences).

The number of members is presently around 230, of which the majority are meteorologists. The Chair of the Association is presently Mrs Lea Leskinen. The EMS contact is Dr Raino Heino. The board consists of twelve members

(ten meteorologists, one hydrologist and one oceanographer). The Association's General Assembly takes place once a year in February.

Further information about the Association can be found in its Newsletter which is published a few times each year. Also the establishment of a web site is being planned which will provide additional information. If there are any queries about GFL please contact person is:

Mr Timo Laine, GFL Secretary, FMI, Box 503, FI-00101, Helsinki, Finland e-mail: timo.laine@fmi.fi

### **New Associate Members**

EMS Associate Members make a valuable contribution to the activities of EMS. They include international organisations, national meteorological services, companies providing meteorological services and instrument manufacturers. The following have become Associate Members over the last few years.

- ◆ Deutscher Wetterdienst (DWD), Germany
- ◆ Campbell Scientific
- ♦ Modem
- ♦ Degreane Horizon
- ♦ Instituto Nacional de Meteorologia, Spain

Information about how to become an Associate Member of the EMS can be obtained by contacting the EMS Executive Secretary at ems-sec@met.fu-berlin.de

Here is information about some of the new Associate Members.

#### **Deutscher Wetterdienst (DWD)**

The Deutscher Wetterdienst (DWD), which was founded in 1952, is the National Meteorological Service of the Federal Republic of Germany and falls under the portfolio of the Federal Ministry of Transport, Building and Urban Affairs. Systematic weather observation and its analysis has a long tradition in Germany – so the oldest records of weather observations date back to 1781 (Hohenpeissenberg, Bavaria). Exact records and profound analyses still form the basis of the various services of the DWD.

Today the DWD is responsible for providing services for the protection of life and property in the form of weather and climate information. This is the core task of the DWD and includes the meteorological safeguarding of aviation and marine shipping and the warning of meteorological events that could endanger public safety and order. Furthermore, the DWD has other important tasks such as the provision of services to the Federation, the Laender and the institutions administering justice, as well as the fulfilment of international commitments entered into by the Federal Republic of Germany. The DWD thus co-ordinates the meteorological interests of Germany on a national level in close agreement with the Federal Government and represents the Government in intergovernmental and international organisations. These tasks are embodied in the Law on the Deutscher Wetterdienst of 10 September 1998.

The spectrum of activities of the DWD is wide: from weather observation and forecasting around the clock to recording and monitoring of physical and chemical processes



DWD Headquarters in Offenbach

in the atmosphere including radioactivity in the air and precipitation and even to providing basic meteorological services for the Bundeswehr (German Federal Armed Forces).

In 1990 the meteorological service of the former German Democratic Republic was integrated in the DWD. The DWD headquarters are located in Offenbach; there are 19 regional advisory centres throughout the country, 16 weather radar sites, two meteorological observatories, 9 upper air stations, 173 weather stations and 1,450 phenological stations. The total number of staff members of DWD was 2,600 in 2005. The DWD is divided into five Business Areas: Research and Development, Technical Infrastructure, Climate and Environment, Weather Forecasting Services and Personnel and Business Management. Together with the President of the DWD, the heads of these five Business Areas form the Executive Board of Directors, with the President serving as Chairman of the Executive Board. The divisions of Press Office, Office of the President and International Affairs, Strategy and Internal Audit assist the President directly.

In its role as the National Meteorological Service of Germany the DWD is also a provider of scientific and technical services and a competent institution for public and private partners in the field of meteorology.

For more information about the Deutscher Wetterdienst go to:

#### www.dwd.de

or use the e-mail address dwd.offenbach@dwd.de

#### **Campbell Scientific**

Campbell Scientific has built a global reputation for weather stations that meet standards set by the world's Meteorological Organisations. For more than twenty years, Campbell's dataloggers have been at the heart of environmental monitoring stations and networks all over the world.

The Campbell range of dataloggers continues to grow, and all are fast, accurate and flexible enough to fit into existing systems, or interface with a wide range of sensors and probes. Self-contained and built to operate on low-power, in extreme climates or high altitudes, these loggers can process incoming measurements, make decisions, control external devices and communicate with your PC using a wide range of telecommunications methods.

The web address of Campbell Scientific is: www.campbellsci.co.uk

#### Modem

Modem is a research and development company created in 1992. Its head office is located in Chevannes in France.

Initially Modem concentrated on the design and manufacture of equipment for maritime radio communications. Then it became involved in designing systems which integrated radio communication, GPS positioning and Inmarsat satellite communication. More recently Modem interests have turned to radiosounding and the company now provides radiosondes, groundstations and balloons.

For further information about Modem go to: www.meteomodem.com or contact modem@meteomodem.com

#### **DEGREANE HORIZON SAS**



DEGREANE HORIZON SAS is a meteorological systems specialist based in Cuers next to Toulon (France) and is recognized as one of

the world's leading manufacturers for measurement and engineering in the field of meteorology.

The company focuses on providing Civil Aviation Authorities, National Met Services, Meteorological Research Institutions and Marine Agencies with the sensing technologies and integrated systems solutions they need to carry out their missions. It has a large spectrum of products and services related to atmospheric, terrestrial and oceanographic monitoring.

DEGREANE HORIZON systems and solutions are designed to reliably satisfy the operational requirements of agencies responsible for transportation safety, environmental protection and the general protection of people and property from the impact of severe weather.

The Company has now more than 20 years experience know-how in the engineering and the manufacture of advanced meteorological products and systems for aeronautic meteorology and professional observing networks.

The web and e-mail address of DEGREANE HORI-

www.degreane-horizon.com and contact@degreane-horizon.fr



INM Headqarters in Madrid

#### Instituto Nacional de Meteorología (INM)

The origin of meteorology as an official service in Spain dates back to 1860. The "Central Institute of Meteorology", currently the INM, was created in 1887 and by 1893 it was issuing regularly weather charts and forecasts. Today the INM is a General Directorate under the Ministry of Environment. Under Royal Decree it is responsible for the official activities related to meteorology and climatology in Spain, including weather information for general purposes. The INM retains exclusive responsibility for the main meteorological infrastructure in the whole territory of Spain, international exchange, aviation and maritime services as well as the meteorological support to Defence.

The INM headquarters are located in Madrid with a structure of four main Divisions: Observation, Forecasting, Climatology & Applications and Administration. Other departments report directly to the Director: Press, International Relations and the Training Centre. There are 15 Regional Centres, distributed throughout the continental territory of Spain and the isles, 96 observatories, some of them with specialized functions, 31 aeronautical offices in civil airports and 23 Defence meteorological offices. The INM has nearly 250 automated stations and networks of meteorological radars and lightning detection. There are about 1,500 members of staff and the annual budget close to 100 million Euro including international subscriptions. As well as providing a wide range of services, INM dedicates important resources to research and development and to international cooperation in meteorology and related fields.

For more information about INM go to: www.inm.es.

#### Information about EMS

EMS website: www.emetsoc.org

EMS Executive Secretary: ems-sec@met.fu-berlin.de

#### **Production of EMS Newsletter**

Editor: Bob Riddaway (EMS Publications Committee)

Typesetting and graphics: Rob Hine