

# ISCNEWS

April to June 2008 [www.isc.ac.uk](http://www.isc.ac.uk)

ISC members support new developments



The latest updates, news and activities from the ISC

## COMMITTEE DISCUSS DEVELOPMENT PLANS

The ISC Executive Committee met in Thatcham on June 8-9 to review the status of ISC operations and finance and to consider plans for further development. The Committee was pleased to see that the recent ISC Governing Council decision to use British Pounds as a new reference currency for membership subscriptions in 2008 had been already accepted by a large number of ISC member institutions. As a result the financial situation at the ISC has begun to stabilise following a number of years when the Centre's budgets were adversely affected by falling value of US dollar. Also, thanks to a good number of new or increased membership contributions, there is now a possibility for further development of the ISC products and services. The Development Programme, presented for discussion by the Director, has been largely approved and recommended for further consultation with the Governing Council.

The Committee was pleased to see that the Reviewed Bulletin delay was reduced from almost 29 to 24 months in the space of only one year. The Committee praised recently concluded developments in the IT area that proved to be a successful cost saving operation. The Committee positively noted the work that the ISC started in collection of provisional bulletins and alert messages to keep the ISC database up-to-date from the time seismic events occur.



*Guy Masters, John Woodhouse, Jaroslava Plomerova, John Adams, Oleg Starovoi and Gary Gibson at the ISC, the traditional venue for the Executive Committee meeting every other year.*

## ISC MEMBERSHIP



AWE Blacknest, part of UK Atomic Weapons Establishment, has, for over 40 years, been researching techniques to distinguish the seismic signals generated by underground nuclear explosions from those generated by earthquakes. Thanks to the efforts of David Bowers and Peter Marshall, AWE Blacknest recently joined the ranks of ISC members in recognition of the high quality of the ISC data that Blacknest researchers have been using for many years.



In December 2007, shortly before

the ISC staff began their Christmas celebrations, the Italian National Research Council (CNR), a 4 unit member, withdrew their ISC membership. Following our approach, Istituto Nazionale di Geofisica e Vulcanologia (INGV) agreed to increase the existing INGV membership almost two fold to compensate the unexpected financial blow to the ISC caused by immediate withdrawal of CNR. We are most grateful to INGV and personally to Enzo Boschi and Andrea Morelli for their kind assistance.



In line with signs of recovery in Iraqi seismology, the Iraqi Meteorological Organization & Seismology has joined the ISC ranks and is looking forward to contribute bulletin data from the Iraqi Seismological Network that is currently being upgraded with instruments from Kinematics. The central station will

be located in the headquarters of Seismology Department in Baghdad. Other stations will include Badra, Kirkuk, Basra, Mosul & Rutba. We are grateful to the Head of Seismology Department, Ali. A. Ali, and Head of the organization, Dawood Sh. Mahmood, for their role in this matter.



The Scientific Executive Board of the GeoForschungsZentrum Potsdam has agreed to increase its membership contribution to the ISC by 1 unit in support of ISC's new developments. The new GFZ representative Prof. Dr. Hüttl has told us that the GFZ Executive Board will consider a further reasonable increase after plans to improve ISC services have advanced. We are grateful to Reinhardt Hüttl and Rainer Kind for their generous support.

## NEW STAFF MEMBERS

JOHN EVE has been hired to take over the ISC data collection duties from Peter Dawson who has decided to retire at the end of July 2008. John knew very little about seismology when he arrived for his interview. Some while ago John set his working patterns around one of most important goals in his life – raising his son Oliver. He interrupted his career as a military then civil aviation pilot but now that Oliver is growing up John decided to make a complete change and applied to join ISC that is only 5 miles away from his home.



John's technical background and international communication skills, obtained whilst teaching students from developing countries to fly, have already helped him in his new job. Thanks to some meticulous training from Peter Dawson, John has already 'gone solo' and managed to successfully collect data from various agencies with excellent results. His knowledge of seismology is growing every day.



JUAN BENJUMEA has joined the ISC for 3 years to make yet another breakthrough in the ISC traditions. He is planning to try setting an automatic system of taking useful measurements from waveforms that are freely available on-line. An immediate task is the production of alternative ISC event magnitudes based on amplitudes measured at the ISC in addition to conventional ISC magnitude estimates that in recent times suffered from numerous inconsistencies in local network practices of measuring amplitudes. The second important task of Juan would be to generate consistent sets of picks of surface reflections to give ISC better estimates of depth of those events where no close station is available and where the depth often has to be set to a default value.

Juan holds a professional degree in Civil Engineering and has been working for a number of years under the leadership of Hansjürgen Meyer in the Seismological Observatory of South-Western Colombia. He has over ten years experience in seismological processing software development and already begun the developments described with a great enthusiasm, learning from the experience already gained in this field by other researchers.

## USARRAY DATA IN FROM 2006-06

From the data month of June 2006 the ISC started using station phase picks from the USArray. These picks are manually reviewed by the staff of the USArray Array Network Facility (ANF) guided by Frank Vernon of Scripps Institution of Oceanography, UCSD. To include this important contribution into the ISC data collection, over 1,600 station codes for existing and planned sites have been registered in the International Registry by the ISC Data Collection Manager Peter Dawson. Of course Peter never expected an easy approach to his retirement in three remaining weeks.

Approximately 26,000 phases from 170 stations have been received from IRIS for the month of June 2006. Those are reported in the ISF format as associated to events that normally were already reported by other agencies. These picks contribute towards ISC locations of events both in and outside the U.S. The ISC is grateful to Bob Woodward, USArray Director, IRIS and Rick Benson, Director of Operations at IRIS DMC for putting a great deal of effort into organizing this data transfer.



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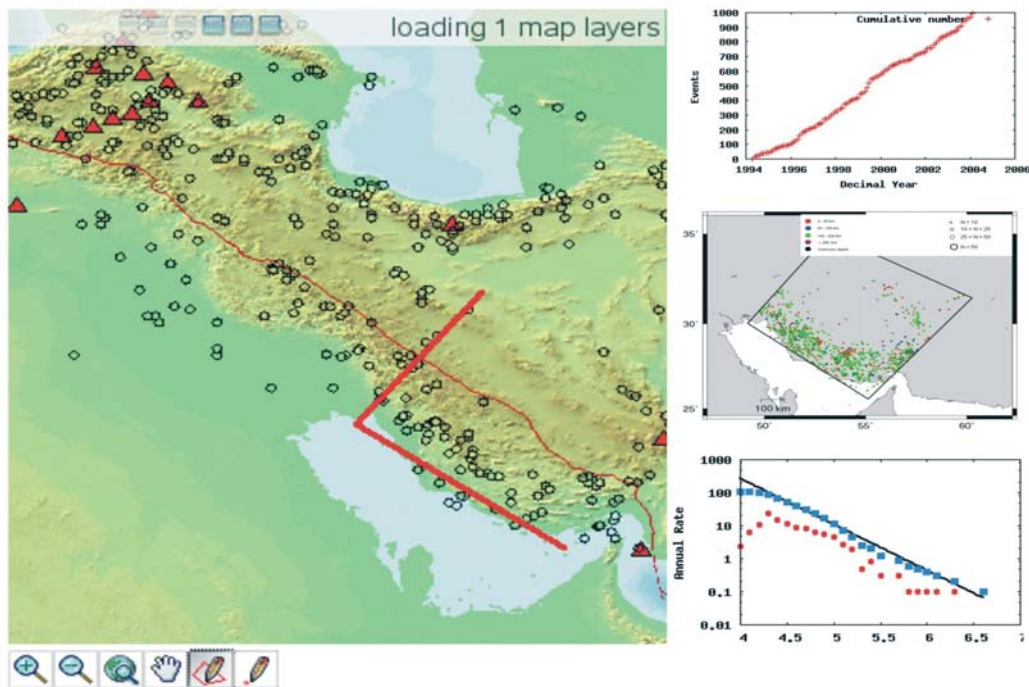
## SEISMICITY PARAMETERS FOR SEISMIC HAZARD ASSESSMENT

The ISC provides a relatively new service that has been recently upgraded and refined by Oriol Gaspà Rebull - a first order approximation of seismicity parameters commonly used in engineering applications ([www.isc.ac.uk/mapbuilder/wfst/engineer/index.html](http://www.isc.ac.uk/mapbuilder/wfst/engineer/index.html)).

Earthquake information is acquired from the ISC database. Data are selected by choosing the geographic area and

the period of interest with the possibility of a simple time window de-clustering process to eliminate foreshocks or aftershocks. The selected data set is then presented by means of frequency-magnitude relationships using unified magnitude and compiled into a list of events with the most relevant hypocentre, magnitude, unified magnitude and de-clustering information.

Further information on b-value, peak ground acceleration or other seismic parameters can be obtained based on the compiled list of events as well as a downloadable file with all available information in the ISC database for selected zone with the magnitude info for each event.



## 2008 EGU BENO GUTENBERG MEDALLIST



We are pleased to learn that Professor John Woodhouse, a member of the ISC Executive Committee, has been awarded the 2008 Beno Gutenberg Medal by the European Geophysical Union (EGU) for "his pioneering and unselfish contributions to theoretical, observational and computational seismology, which led to major discoveries on the Earth's internal structure and earthquake characteristics".

John has served on the ISC Executive Committee for many years, representing the ISC's current host institution – the University of Oxford. He is always a source of useful and timely advice and guidance.

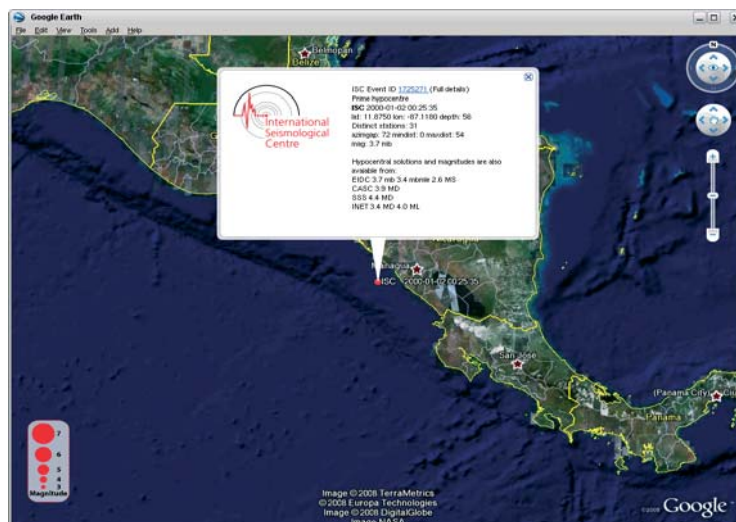


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## GOOGLE EARTH & GOOGLE TRANSLATOR

Thanks to James Harris, the ISC on-line Bulletin search now offers a KMZ output file for display using GoogleEarth with every search. This shows details of all events in the search as well as providing a link to full details and arrival data of each event. As this is the first version of this service please let us have feedback about information you would like to see included.



In addition to this development, the ISC bulletin editors will soon be able to use a similar tool to see if reported events of interest could be attributed to open pit mines so well seen on GoogleEarth maps.

Discussions about the qualities of the old ISC logo displaying the name of the Centre spelled in 8 different languages led to a new development on the ISC web-site, where the contents of pages can now be translated into several dozens of languages with a help of new Google service called Google Translate. Thanks to truly international character of the current ISC staff we were able to judge translation quality on the spot. Indeed the automatic translation offers those readers not strong in the English language a fair bit of assistance in understanding, justo poco de ayuda en la comprensión, Немного справедливой помощи в понимании, uczciwej trochę pomocy w zrozumieniu.

## CONFERENCES & VISITORS

Dmitry Storchak participated in the Nordic Seismology Seminar this year held in Oslo and hosted by NORSAR. The seminar traditionally brings together seismologists from Denmark, Finland, Iceland, Norway and Sweden along with colleagues from neighbouring countries wishing to discuss recent advances in the field. Dmitry was invited to present ISC data collection in the region as well

as to share his thoughts on the future development plans of the ISC. He was fortunate to be able to exchange views with many colleagues from the region and felt definite support for the ISC mission. A number of institutions offered further assistance to the ISC with new data and financial contributions.

This quarter the ISC was popular with visitors from the U.S. and Australia: Steven Taylor from Rocky Mountain Geophysics, Dale Anderson from Los Alamos National Laboratory, Debbie Fagan from Pacific Northwest National Laboratory, David Jepsen and Matthew Purss from Geoscience Australia and, finally, Brian Kennett from Australian National University.

Brian Kennett - ANU



Steven Taylor - Rocky Mountain Geophysics -  
with Dmitry Storchak



This newsletter can be viewed online at:  
[www.isc.ac.uk/doc/newsletter/2008q2/2008q2.pdf](http://www.isc.ac.uk/doc/newsletter/2008q2/2008q2.pdf)

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