

The latest updates, news and activities from the ISC

Executive Committee and Governing Council meet in Cape Town



Members of the Executive Committee, left to right: Chen Qi-fu (China Earthquake Administration), John Woodhouse (ISC host institution: Oxford University), Gary Gibson (Chair, Seismology Research Centre, Australia), Jaroslava Plomerova (Czech Academy of Sciences), Guy Masters (US National Science Foundation, Scripps Institution of Oceanography, UCSD), John Adams (Governing Council Chair, Natural Resources, Canada)

Every other year the ISC Executive Committee (normally seven appointed members) and the ISC Governing Council (representatives of all member institutions, presently 57) meet during either IUGG or IASPEI Assemblies. This time the IASPEI meeting took place very early in the year in Cape Town, South Africa.

Both the Executive Committee (EC) and the Governing Council (GC) evaluated the ISC's performance in 2008 and its plans for the next three years. Based on the great additional support from new and existing member organizations as well as additional grants given in the UK, the ISC was able to employ two new members of staff to proceed with its development programme. The first is responsible for revising the ISC location procedures and the second is trying to make limited automatic measurements from waveforms to improve the accuracy of the ISC Bulletin. The ISC finances were found to be in good shape and the "go ahead" was given to hire another IT personnel member. This person will have to build a brand new modern interactive Bulletin analysis system in place of the old paper-

based batch-mode system that is no longer able to cope with the highly increased volumes of data reported to the ISC by 120 networks and data centres around the world.

The inclusion of the USArray reviewed station picks and ISS station data for 1960-1963 was seen as a major improvement. Both the EC and GC welcomed another new service that the ISC is now offering – the IASPEI list of GT events. Developments in the area of collecting more up-to-date provisional bulletins from around the world (before the final bulletins are given), merging and making those available as part of the automatic ISC bulletin was seen as useful service for seismologists, consistent with the ISC mission. Further work on integrating the EHB bulletin data was welcome. The work under the UK FCO proposal to create a dedicated link to the ISC database for CTBTO and National Data Centres was also seen as a major step forward. The ISC has been encouraged to work in partnership with GEM in preparation of the earthquake catalogues for seismic hazard and also act as a long-term depository of the GEM catalogue-related

products. A mid-term goal of changing the printed ISC Bulletin in favour of the Summary of the ISC Bulletin with attached CD has been also seen as heading in the right direction. The GC discussed a necessity to backup ISC data at other data centres.

"The Strategies of the ISC development 2009-2011" was endorsed in principle with amendments to be received shortly after the meeting. This document is now available from the ISC web-site.

After six years Jaroslava Plomerová stepped down from the Executive Committee. Jarka was an enthusiastic supporter of the ISC in many ways. She was the only Governing Council member who answered positively to Ray Willeman's request in the early 2001 to increase the level of the ISC membership. She was always a great advocate for the accuracy and comprehensiveness of the ISC data and a big supporter of the SKS-splitting project that set the precedent for ISC to deal with actual waveform data.

In view of his input into the development of the ISC location techniques and running of two ISC location workshops in Santiago and Perugia, as well as publishing a dedicated PEPI volume of papers on the ISC location techniques, Johannes Schweitzer of NORSAR was elected by the Governing Council as Jarka's replacement.

At the same time Gary Gibson stepped down from the Executive Committee chairmanship. Gary is another ISC enthusiast who uses the ISC data most extensively whilst evaluating seismic hazard in various regions around the world, especially in developing countries. Gary remains firmly at the top of the league of people identifying, documenting and reporting bugs in the ISC Bulletin, closely followed by Bob Engdahl. His largest input to the ISC services was developing, together with Oriol Gaspà Rebull, an interactive tool for seismic engineers. Gary remains on the committee, serving his second term of six years. Guy Masters was elected to be his replacement.



Jamstec joins the ISC

The Japan Agency for Marine-Earth Science and Technology (JAMSTEC) joined the ISC in 2008. We appreciate the efforts of Kiyoshi Suyehiro, the JAMSTEC Executive Director of Research as well as colleagues of the Institute for Research on Earth Evolution (IFREE/JAMSTEC): Yoshio Fukao (the Director-General), Seiji Tsuboi and Mizuho Ishida. Seiji Tsuboi, who is in charge of matters concerning geophysical networks and databases at IFREE, will be the JAMSTEC's representative to the ISC Governing Council.

The IFREE was set up to understand the creation and evolution of the Earth through the analysis of dynamic processes occurring in the Earth's interior, from the crust, through the mantle, to the core. To conduct these analyses, techniques from geology, geophysics, geochemistry, computer and life sciences are being applied.

Elizabeth Robertson arrives



Beatriz Vera (ISC Lead Analyst, right) is reviewing the work of Elizabeth Robertson (left)

Elizabeth de Joux Robertson finally arrived from New Zealand in March to work at the ISC as a Bulletin analyst to replace Przemys Kowalski who left in December. She previously worked on the GeoNet Project at the Institute of Geological and Nuclear Sciences (GNS Science).

Elizabeth has an MSc degree in Geophysics from Victoria University in Wellington. She was given a good recommendation by Professor Euan Smith who praised her exceptionally for a methodical, meticulous and most diligent approach to data analysis. Overall Elizabeth had nearly six years of

experience working directly with GeoNet regional and teleseismic waveforms. Kevin Fenaughty, her former boss, has especially noted her eye for detail, high standards of quality control and ability to come up with useful ideas during brainstorming sessions. We at the ISC appreciate the sacrifice made by GeoNet when letting Elizabeth go.

She has already picked up a lot of the information needed to be able to analyse the ISC Bulletin and her Toastmasters experience came in very handy recently when she gave a public talk to the Newbury Society with an excellent comparative analysis of seismicity and seismic hazard in Britain and New Zealand.

Meetings and Workshops

Dmitry Storchak was invited to Pavia in Italy to a GEM-funded workshop convened by Bill Bakun and Max Stucchi. The workshop aimed to identify items for an historical macroseismic catalogue proposal to GEM. The ISC is offering to GEM its collection of intensity data points for events of the second half of 20th century as well as advertising its possible role as a long-term repository of the GEM catalogue related information. In parallel, the ISC is also involved in communications with another group led by Willie Lee on the instrumental seismic catalogue.

Both István Bondár and Dmitry Storchak were invited to Vienna to take part in CTBTO-oriented Data Mining workshop, where specialists in this area discuss possible ways to improve methods and procedures used in processing data at CTBTO as part of the International Scientific Studies project.

Old Data Sets are Welcome

As discussed before, the ISC is currently working on modernizing its seismic event location procedures. Once these procedures have been designed, coded, tested and approved by the Governing Council, we are planning to put them into operation and most importantly, make an effort to re-compute the entire ISC Bulletin collection based on AK135 velocity model to make the dataset as consistent as possible through the years.

As part of this project we will aim to rectify known problems with the data and with station positions. It also appears timely at this point to include those data sets that were originally missing from the data collection, including data from permanent networks and temporary deployments that at the time were not made available to ISC for one reason or another.

We invite our data contributors and users to consider sending us those missing bulletin datasets for the period between 1960 and 2008 that they consider useful to be included into the ISC Bulletin - the definitive and most comprehensive summary of the world seismicity. An obvious requirement would be the correctness of the time stamp and positions of stations involved.



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****Analyst Position available****

After almost three years of editing the ISC Bulletin, Baokun Li from CENC/CEA is planning to return back to her work at CEA and her husband and little daughter back in Beijing. In order to fill the vacancy, the ISC is presently looking for a seismologist with a university degree, experience in running seismic networks and processing waveforms, good working knowledge of English and experience with Linux. Applicants are warned that this is not a research but rather an operational position. The full text of advertisement can be found on the ISC web-site.

Interactive ISC Bulletin Selection Tool

Oriol Gaspà Rebull is happy to make the interactive ISC Bulletin search live and is waiting for suggestions and bug reports whilst being safely away on holiday in Australia. Users of the on-line ISC Bulletin are used to filling out the form before receiving a limited set of ISC Bulletin data. The new tool is designed to work alongside the standard tool (www.isc.ac.uk/search/custom/index.html) and allows users to choose the data in an interactive fashion using polygons drawn on a map. The output of this search includes not only the extract of the ISC Bulletin but also shows various types of seismic events, GT-events, source mechanisms,

analyse magnitude relations, observe the evolution of the completeness magnitude through the years, analyse sequences and clusters of earthquakes, draw depth profiles and make comparisons of agency's solutions. One important feature of this tool is that one of the outputs includes those magnitude parameters that are considered by the ISC as best for each event. This feature is supposed to answer requests of those users who experienced difficulty in dealing with numerous magnitude estimates that are being reported by various agencies to the ISC and also reported as part of the ISC Bulletin.

The screenshot shows a web browser window titled "International Seismological Centre - Mozilla Firefox" with the URL <http://81.149.237.71/search/custom/index.html>. The interface features a world map with three numbered steps: 1.- Navigate, 2.- Draw polygon, and 3.- Select & click within Polygon. A red polygon is drawn over the Indian Ocean region. To the right of the map are controls for "Start Date" and "End Date" (year, month, day), a "Refresh Map" button, and a "Depth Range" section with "Min Depth" and "Max Depth" input fields. Below these are checkboxes for "3D distribution" and "Only 20% of ISC Bulletin events have ISC hypocentres computed". At the bottom, there are five tabs: "Earth Seismicity", "Focal Mechanisms", "Magnitude Relations", "Magnitude of Completeness", and "Declustering". Each tab has specific sub-controls, such as "Add specific events to an overview of the seismic activity" for Earth Seismicity, "Collect moment tensor solutions and beachballs" for Focal Mechanisms, and "Analyze magnitude relations" for Magnitude Relations. A "SUBMIT NOW" button is located at the bottom right of the form.

Snow in England

For those who work at the ISC, discussing the weather soon becomes an essential part of social life. Yet another example of its unpredictability was given to us this January when the snow fell and stayed for as long as seven days, which is most unusual as far as the longest serving members of the ISC staff can remember. The "severe and treacherous weather conditions" mostly affected the British part of the ISC staff. This is yet another argument for keeping the ISC fairly international.



Baokun Li, Beatriz Vera, Juan Benjumea, Oriol Gaspà Rebull and István Bondár supporting the melting snowman on day 7.



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