

ISCNEWS

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Avi Shapira's final newsletter with a message to the seismological community.



The latest updates, news and activities from the ISC

Dear Colleagues,

In the process of cleaning my desk at my humble office at the ISC, I came across a "wish list" (often referred to as a plan) that I drafted exactly four years ago. Have I managed to accomplish all items on that list? Obviously not all but most of the objectives have been reached. Hence, at the end of my term as Director of ISC, I am satisfied with what has been achieved.

The first important task for ISC was to complete the development and the rewriting of all the software used by ISC for collecting, processing and distributing its data and to apply the newly developed software to the routine operations. In 2005 I was happy to report – mission completed successfully! However, I viewed this major accomplishment as a step towards initiating an upgrade and further development of a new interactive system for analysing and editing the ISC Bulletin. Lacking the necessary funding, it still remains a plan.

The other major development involved the restructure and redesign of the ISC website. Now the website, launched in July 2007, provides much more information and more services than ever before. It facilitates a wide range of new services some of which are continuously modified and improved. The usefulness of the services provided on-line very much depends on the co-operation of the seismological community and with the seismological centres around the world, in particular. I would like to remind everyone that we rely upon you to update information about your contact details and also the procedures and equations that you use to determine your magnitudes. We ask you to put forward your ideas regarding station and agency codes and also to nominate reference events. Lastly, we ask that you send your phase readings and bulletin data as quickly as possible.

I would like to remind all colleagues that ISC automated processes generate the comprehensive ISC Bulletin that provides earthquake information soon after it arrives to ISC. This initial data shows location and magnitude solutions of the same event as derived by different

agencies and associates all available phase pickings. I believe that these quickly available data, although not yet reviewed by ISC seismologists, are extremely useful for many researchers.

A major development for ISC is the migration from the UNIX operating system and Oracle database to the LINUX and an open source database (PostgreSQL). This big project is almost complete. It facilitates computations that are 10 times faster and will save ISC much money on hardware and software maintenance.

These and other advances achieved by ISC in the last 4 years have been described in greater detail in previous newsletters and in my annual reports. All progress made is most definitely the result of the hard, dedicated and highly professional work of ISC staff over the years. These people deserve all the credit.

The ISC strives (and survives) on the collaboration with the seismological centres which is manifested in the contribution of data and also financial support. ISC is indeed proud of the fact that almost every operator of permanent seismic stations is contributing data to the ISC Bulletin. During the last few years, ISC has attained record annual numbers of stations contributing data and annual numbers of associations, phases and

events in its data base. Hopefully, we shall all soon be able to reach agreement about a new scheme of coding seismic stations. The new scheme, if and when approved, will facilitate the incorporation of far more data from temporary station deployments and strong motion instruments.

If one digs into the archives of ISC, you will soon learn that the finance of ISC has always been a worry. The problem has intensified in recent years primarily due to the unfavourable \$/£ exchange rate. Most contributions are in US Dollars or in Euro while most of our expenses are in Pounds Sterling. The decision taken recently by ISC Governing Council to quote the membership units in Pounds Sterling will hopefully reduce the negative effects of the currency exchange rate on the ISC budget. I should also note that most of ISC income is based on contributions from only few organizations. Consequently, I had my share of "white nights" when certain contributions were delayed or even at risk of being withdrawn. However, we were very happy to have new agencies joining the ISC and others raising the number of their membership units. In the last 4 years we had an increase of 16 memberships but unfortunately lost 6.

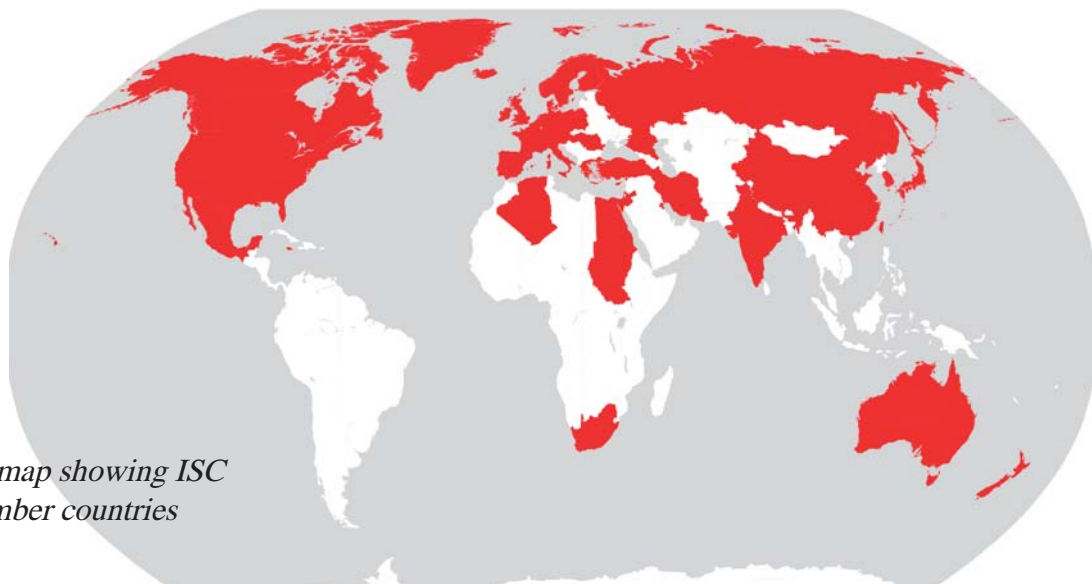
On arrival at the ISC one of the items on my agenda was to extend the visibility and involvement of ISC in the international arena e.g., UNESCO, GEOSS, CTBTO, eGY, GYPE and suchlike. As expected, this is a very slow process but progress was made.

I shall be leaving the ISC before the end of 2007 and I therefore take this opportunity to thank present and past ISC staff, members of the governing bodies of ISC and all ISC data contributors for their fruitful cooperation. The list is long and to save me the embarrassment of forgetting to name somebody, I shall avoid listing all the many people I wholeheartedly thank.

I was very happy to come and serve the ISC and I am very happy to return back home. I wish ISC a continuation of a rewarding, productive and successful service to the global seismological community.

Avi Shapira





Global map showing ISC member countries

Migration to Linux

Over the past year the ISC has been working toward a switch from Sun to Linux. This project is now near completion with a functioning database and editing system. Currently testing by the editors is being carried out to ensure that the entire system is working correctly and all services are in place. We anticipate the system being in operation early in 2008 at which point the main benefit to users outside of the ISC will be an improvement in speed of services offered via the ISC website and eventually new services previously difficult to implement.

Closing the gap

All ISC members and data contributors must have noticed the accelerated rate at which the on-line monthly bulletins are edited and distributed. This is the result of the great efforts of ISC seismologists, Baokun Li, Beatriz Vera and Przemyslaw Kowalski, headed by Dmitry Storchak, to reduce the backlog of bulletin editing. Their hard work is highly appreciated.

Visits

D. Storchak was invited by the Technical University of Freiberg, Germany to take part in the annual meeting of the Working Group on Seismology for the Council for Research in Physics of the Earth Interior and to partake in the celebrations for the 50th anniversary of Berggießhübel Observatory, Germany. The meeting was held in September. Dmitry made presentations on the status and possible improvements of data exchange with German Seismic Networks and also the ISC development plans. He also held discussions regarding possibilities of further co-operation between geophysical institutions in Germany and the ISC.

By invitation of the organizers, A. Shapira participated in meeting of the DESIRE project of GeoForschungsZentrum, in Potsdam, Germany in September.

ISC was represented by A. Shapira at the international seminar in Suzdal, Russia

devoted to the "50th Anniversary of the International Geophysical Year (IGY) and the Electronic Geophysical Year (eGY)". Avi presented the ISC activities with emphasis on its on-line services. The CODATA Working Group for the eGY met during the seminar and Avi discussed co-operation with the World Data Centers and the need to protect important historical documents that have been collected by ISC over the years and the urgent need to convert them from the printed form to

electronic format. (see flood pictures).

We thank Prof. Gvishiani, the director of the Geophysical Centre of the Russian Academy of Science for the invitation and for their financial support. During his visit to Russia, A. Shapira was invited by Prof. J. Zetzer, the director of the Institute for Geosphere Dynamics (IGD) of the Russian Academy of Science where he presented the ISC to the IGD staff.



Participants at the meeting in Germany including Reinhard Mittag, (far right) seismologist in charge of Berggießhübel Observatory who worked at ISC between 1995 and 1997



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Obituary of Dr Edouard Pronet Arnold

Second Director of the ISC, 1969-1977

As reported in the last ISC Newsletter, Edouard Arnold, known frequently as Edward or Ed, died suddenly at his home in Lakewood, Colorado on 2006 July 15th aged 76 years.

Edouard was born in South Bend, Indiana on 1930 March 3rd to Anglo-French parents who shortly took their whole family to live in new York. Edward grew up there and took a first degree at a university in the city in electrical engineering. During the Korean War he saw active service with the US Navy in the Pacific. Upon demobilisation he joined the Convair Aircraft Company in San Diego, California developing programmable electronic calculators. Tiring of the aviation and defence industries, Edward changed career to study geophysics and seismology in particular. In 1960, he was appointed to a doctoral studentship at King's College, Cambridge under the supervision of Sir Harold Jeffreys at DAMTP. His doctoral thesis was on S-wave travel times and Earth structure beneath Japan.

On completion of his doctorate in 1965, Edward briefly worked at the newly established ISC in Edinburgh under its first Director, Dr P L Willmore, before returning to the US to work for NOAA at Rockville, Maryland with Leonard Murphy. In 1969 he was appointed as successor to Willmore as Director of ISC, a post he held until 1977. He returned to the United States, living in the Denver, Colorado area and working for the US Geological Survey in Golden, Colorado until his retirement in 1995.

Edward Arnold's contribution to the establishment of the ISC and the seismic data services it provides is immense. With his close association with Jeffreys, he developed a secure and robust earthquake location procedure which the ISC used for more than thirty years. He was well aware that some of the computer programs would be in use for many years and made every effort to make them transferable, easily, quickly and efficiently to other computing systems. These early years were made difficult for ISC which had to gain access to computer systems, of which there were few, which could provide the day-to-day computing needed for ISC's operational data services. Edward Arnold introduced the high-level compilers that allowed seismologists to manipulate the earthquake locations and observations without special knowledge of the programs. He streamlined the preparation of the Catalogues of Earthquakes and the Bibliography of Seismology and introduced in-house computer programs for typesetting the data. The back-log of data reached over four years but by the end of his tenure this was well on the way to falling to the current level of two years. These achievements provided the stability and services that the seismological community has come to expect for the ISC over a very long time.

Edward Arnold wrote several papers on constructing global seismic travel-time tables and was a member of the group that produced the 1968 Travel Time Tables published in the BSSA. While with the US Geological Survey he undertook several projects to improve the global reporting of seismic data to ISC and NEIC particularly from S E Asia.

Edward was a bon viveur and a very good friend to his staff at ISC, but a very private man which contributed to the delay in his reported death.

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Time to build an Ark?

On 20th July 2007 the town of Thatcham suffered severe flooding after several hours of heavy rainfall. As the afternoon wore on water poured from surrounding hills determined to find its way to the Kennet and Avon Canal situated just behind the ISC building. Pipers Lane filled with water making it impossible to drive through and consequently became a parking lot of abandoned flooded vehicles. As the water rose the staff of the ISC barricaded its doors with old computer print-out, the 'slots', and watched as it reached within an inch of entering the building. The rain finally stopped and the waters began to recede. The Centre was more fortunate than some of the local householders but the prospect of a flooded building has made us think hard about protecting not only the historical documents that we store but also the valuable equipment.



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