Opening Speech by the President of the IAG Reference Frame Sub-commission Europe (EUREF)

J. A. TORRES[1]

Dear Vanessa Lawrence, Ordnance Survey's Director General

Dear Angela Smith, Ordnance Survey's Minister

Dear James Kavanagh, Director of the RICS Land Group

Dear Zuheir Altamimi, President of IAG Regional Reference Frames Sub-commission

Dear colleagues and friends

Welcome to the Symposium 2007 of the IAG Sub-commission for Europe.

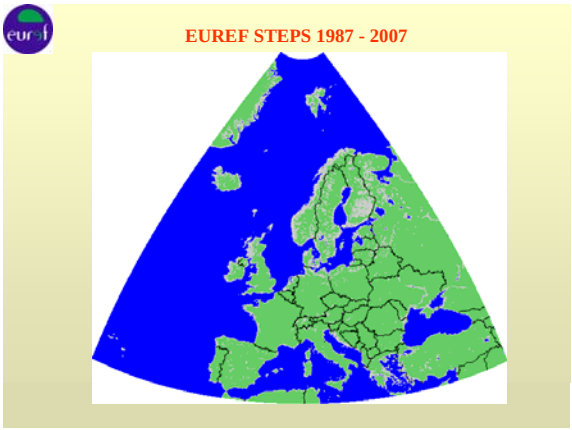
This event is a very special one, for different reasons. Personally, because it is my last symposium as President of this Sub-commission. For EUREF, because it represents the explicit involvement of this country in our activities and also because this year marks the 20th anniversary of our constitution.

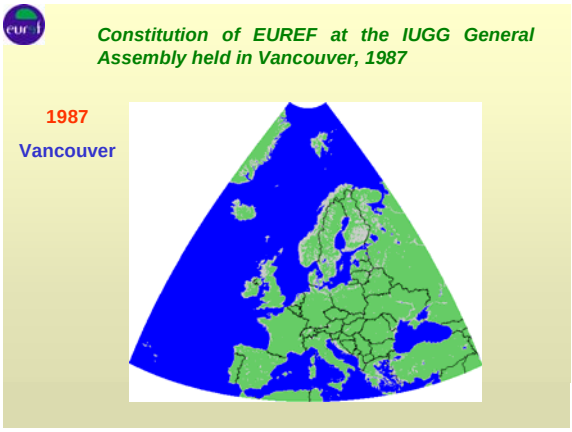
Therefore, I'm delighted to convene in London, hosted by the Ordnance Survey of Great Britain and the Royal Institute of Chartered Surveyors, a country that is contributing in a particular way for the development of geo-information in Europe and world-wide, in the line of remarkable past achievements, being geodesy an important and infra-structural part of it.

Given these circumstances, I thing that it might be useful to bring to our minds the path travelled by EUREF in these 20 years period.

This travel goes around the places where the EUREF symposia occurred and gives a good perspective of the involvement of the different countries in our work. It's also interesting to notice how close we were of the political changes that marked Europe in the 90's.

The EUREF tour also shows the main decisions concerning the scientific and technical aspects, reflecting the evolution process that never stops, having always in mind how to introduce the results into the day-to-day practice.





[1] Eng. João M. Agria Torres: SPUIAGG, Instituto Geofisico D. Luis, Rua Escola Politécnica, 58, P - 1250 - 102 Lisboa, Portugal, tel. +351-21-3 90 33 11, fax +351-21-3 95 33 27, e-mail jatorres@iol.pt

zero meeting of EUREF and launch of the EUREF 89 GPS campaign, in a cooperation with Working Group VIII of CERCO

1988

Munich and Frankfurt

first approval of a GPS campaign as an extension of EUREF 89 and the decision to create a densified network of permanent stations in Europe

1993

Budapest

definition and adoption of the European Terrestrial Reference System, ETRS89 and creation of a directory of EUREF sites

1990

Florence

development of the permanent GPS network in coordination with the International GPS Service and incorporation of the vertical system

1994

Warsaw

joint meeting of EUREF, Commission on Recent Crustal Movements, CERCO Working Group VIII and the former REUN Su-commission

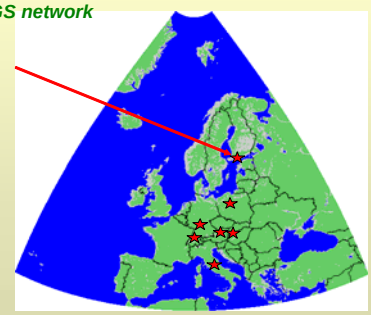
1991

Vienna

decision to start the EUVN project and proposal to the IGS that the EUREF network be the regional densification for Europe of the global IGS network

1995

Helsinki



adoption of the results of the EUREF 89 campaign as a first realization of ETRS89 and the creation of the Technical Working Group

1992

Berne

approval of the EUVN 97 GPS campaign and decision to develop a new European geokinematic height reference network

1996

Ankara

decision to change the permanent GPS network from experimental to operational status and to make available the database of EUREF campaigns

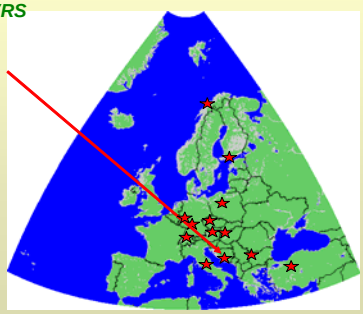
1997

Sofia

recommendations to replace the NNR-NUVEL-1A by ITRF2000 (rotation rate) and generation of a geoid model consistent with ETRS89 and EVRS

2001

Dubrovnik



acceptance of the adjustment of the EUVN 97 GPS campaign and of the Unified European Levelling Network adjustment (UELN 98)

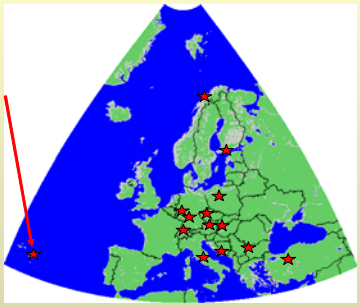
1998

Bad Neuenahr – Ahrweiler

decision to launch the European Combined Geodetic Network (ECGN) and the EUREF-IP projects

2002

Ponta Delgada



acceptance of EUVN 97 as improvement and extension of EUREF 89 and first decision in favour of the concept of an integrated network

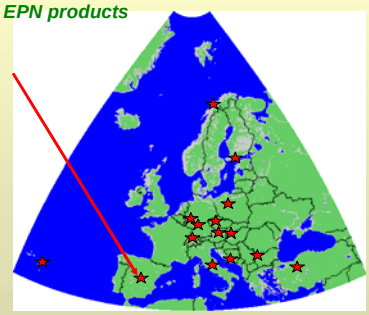
1999

Prague

recommendations to adopt ETRS89 at national level and first contacts with the meteorological community to provide data for the improvement of EPN products

2003

Toledo



acceptance of the reorganization of the EPN, definition of EVRS and support of CRS in a joint initiative with CERCO

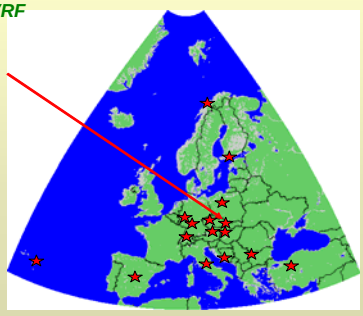
2000

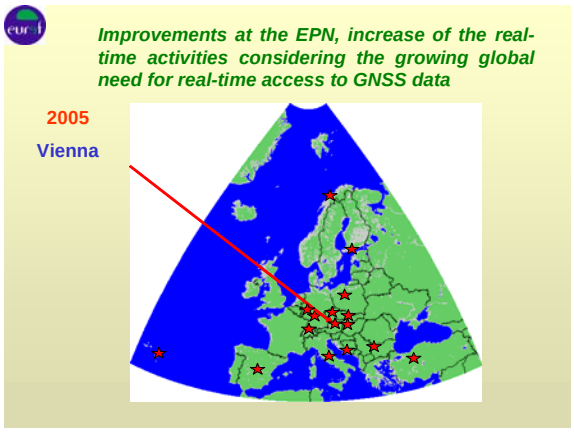
Tromsö

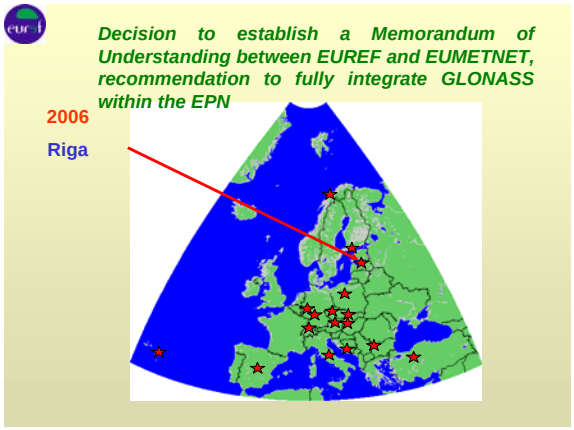
adoption of the ToR, first results of the European Velocity Field project and decision to prepare the technical specifications for the new EVRF

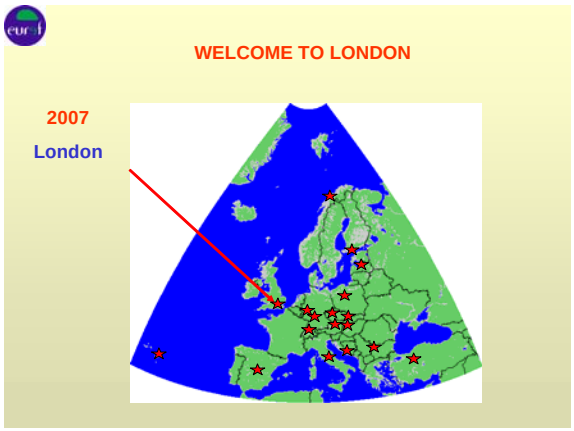
2004

Bratislava









We must not forget that the kind of matters we are involved in take a considerable time to be consolidated, that's why I call it an evolution and not a revolution. A good example is the ETRS89 defined seventeen years ago and still today being introduced into practice. This means that any changes we make must be consistent not only with the past decisions but also valid within a reasonable time frame in the future.

When we do this exercise it's recognizable the evolution in the symposium topics to make new items more visible in order to prepare ourselves for the future. If you take a look at the EUREF 2007 programme you will notice this once more, with a full session dedicated to real-time GNSS. Our achievements are a result of all the efforts, dedication and cooperation that characterize the persons and the institutions in Europe contributing to the work of this Sub-commission. A key instrument in this process is the TWG, Technical Working Group, that produces solutions and acts as the think-tank of EUREF.

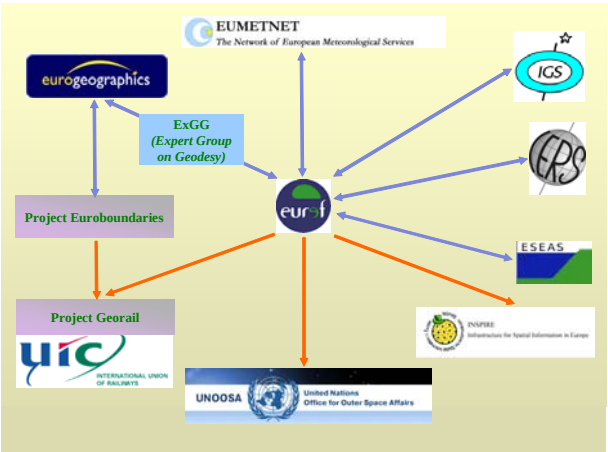
On behalf of EUREF I thank Zuheir Altamimi for his dedication and efficiency in chairing the TWG. By the way, I congratulate him as well for his recent election as President of Commission 1 - Reference Frames of the International Association of Geodesy and wish him all the success.

As some of you are aware, our colleague Carine Bruyninx, responsible for one of the most important EUREF's components, the EPN, EUREF Permanent Network, had a trouble with her foot about one week ago and cannot join us here. I take this opportunity to say, on behalf of all of us, that we miss her and wish her a fast recovery. And, of course, thank her for the efficient work as responsible for the EPN.

As you know, the IAG is actively implementing the project GGOS, Global Geodetic Observing System. The fundamental issue in GGOS is the delivery of consistent observations, parameters, conventions, to the geo-sciences community. I'm convinced that EUREF is prepared to contribute very much to this project, since we always have been very careful in the way how our data are produced to fulfil the requests for quality, consistency and homogeneity.

A special reference to EuroGeographics. The relationship between both organizations, EuroGeographics and EUREF, has been and will continue to be an important tool for the full recognition and adoption of the reference systems defined by our Sub-commission. As you will see later on during the symposium, we are working in order to establish a more convenient and effective link as a natural evolution of the work of the Expert Group on Geodesy.

On behalf of EUREF I thank EuroGeographics for the interest in the cooperation and for the financial support to the organization of this symposium, as usual. Thanks are also due to the Bundesamt für Kartographie und Geodäsie (BKG) for supporting the publication of the symposia proceedings and to the Instituto Geográfico Português (IGP) for supporting the EUREF web portal.



Besides EuroGeographics and the natural bodies within the International Association of Geodesy, EUREF has been increasing the external links as for example with the meteorological community represented by EUMETNET and the International Committee on GNSS where we have the status of associate member. Furthermore, we are acting as a SDIC, Spatial Data Interest Community, within INSPIRE as well. I believe that EUREF will extend the external liaisons in the future in order to be closer to the increasing community involved in geo-referencing activities.

It's an honour for our Sub-commission to convene in London, a metropolis that speaks for itself. Furthermore, this country has great traditions in Geodesy and related sciences. I just recall here the imperial standards of length that we can see in a wall in Trafalgar Square and the names of Everest and Newton.

In fact, these two great scientists were very much aware of the importance of the link between the geometrical and physical components related with the Earth's system. Most people know the name Everest from the peak in the Himalayas, but they don't know that Everest was in fact a great geodesist, who even computed a revolution ellipsoid that was used – and still is, I believe – in several regions in the world.

As far as Newton is concerned, all we know about his strong dispute on the shape of the Earth, basing his theories on the behaviour of the Earth's gravity field, besides on other fields in science, which is something that still today is one of our concerns. This was a remarkable contribution to science, showing the power of reasoning allied with efficient mathematical tools and sustainable physical theories, as has been commented by Voltaire. To honour him and appreciate a magnificent piece of art I invite you to use your free time here in London to visit Sir Isaac Newton's monument at Westminster Abbey.

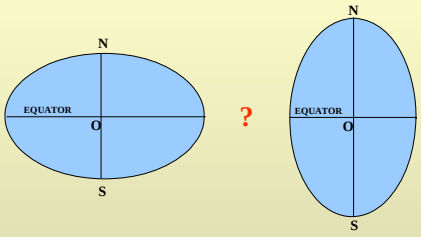
SIR ISAAC NEWTON

1678 - Philosophiæ naturalis principia mathematica

Rotational ellipsoid as the equilibrium shape of an homogeneous, fluid and rotating Earth

Proposition XVIII. Theorem XVI

The planets axis are shorter than the diameters perpendicular to the axis



Vous avez confirmé dans ces lieux pleins d'ennui
Ce que Newton connut sans sortir de chez lui

Voltaire

On behalf of EUREF I thank the Ordnance Survey of Great Britain and the local organizing committee, Paul Crudacce and Mark Graeves, who made all the efforts to provide a pleasant working environment and make our stay in London an occasion to remember.

I wish us all an agreeable work and a successful symposium.