

ACTIVITIES AND INITIATIVES OF THE EUREF TECHNICAL WORKING GROUP

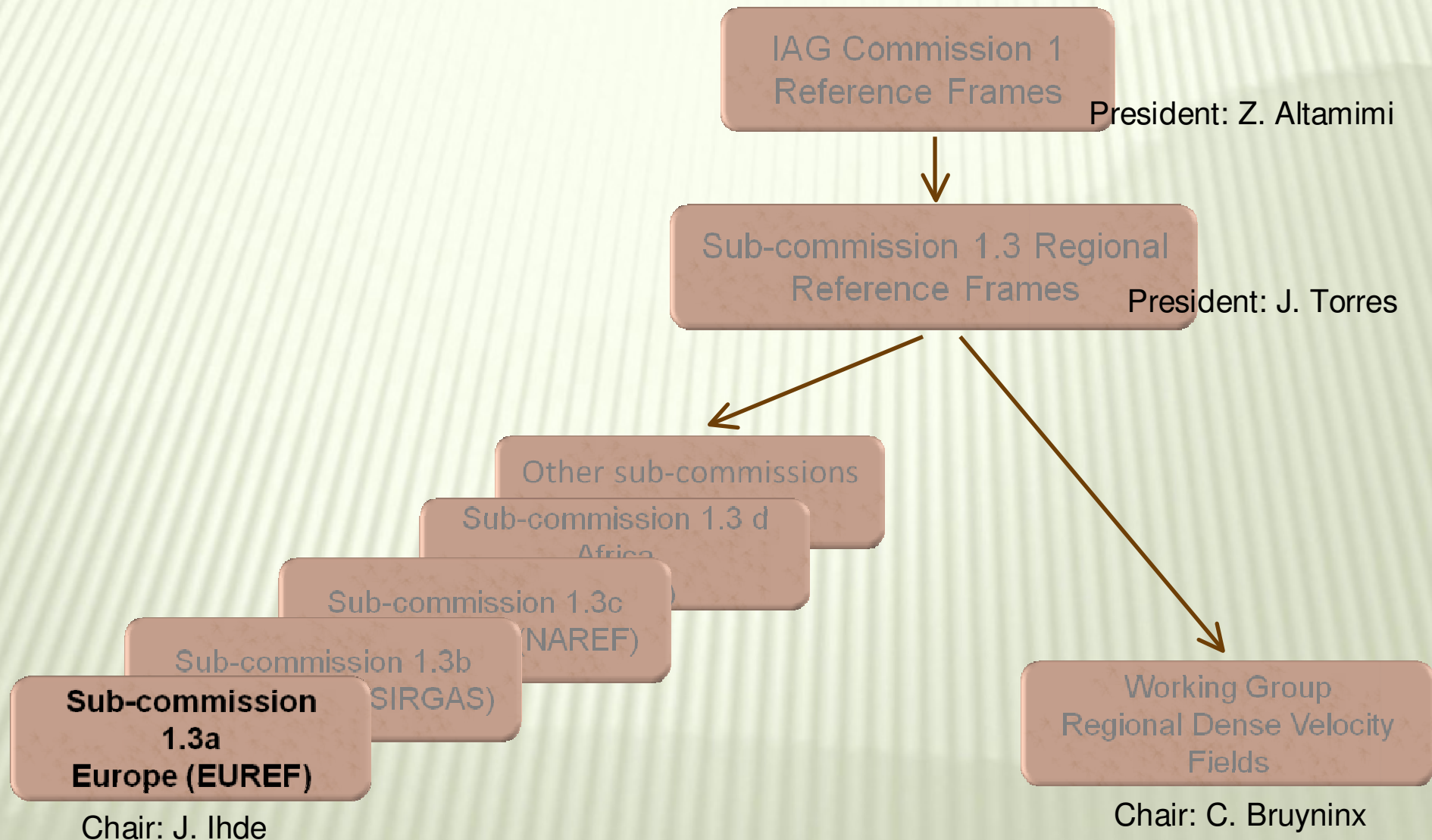


EUREF 2010 symposium
Gävle, Sweden
June 2-6, 2010

C. Bruyninx

For more info . . .
<http://www.euref.eu/html/twg.html>

INTERNATIONAL ASSOCIATION OF GEODESY (IAG)



EUREF TECHNICAL WORKING GROUP (TWG)

- ✖ Technical Working Group = EUREF steering committee
- ✖ The EUREF TWG was created at the EUREF symposium in Berne, 1992
- ✖ Meets twice to three times a year to manage current activities
- ✖ Minutes of the meetings are published together with the symposia proceedings + <http://www.euref.eu/>
- ✖ Members elected by the plenary (4 year term, renewable once), ex-officio members, members in charge of special tasks

CURRENT MEMBER LIST

- ✖ Zuheir Altamimi, France
- ✖ Elmar Brockmann, Switzerland
- ✖ Carine Bruyninx, Belgium (TWG chair)
- ✖ Alessandro Caporali, Italy
- ✖ Jan Dousa, Czech Republic
- ✖ Rui Fernandes, Portugal
- ✖ Heinz Habrich, Germany
- ✖ Helmut Hornik, Germany (EUREF secretary)
- ✖ Johannes Ihde, Germany (EUREF chair)
- ✖ Ambrus Kenyeres, Hungary
- ✖ Martin Lidberg, Sweden
- ✖ Jaakko Mäkinen, Finland
- ✖ Markku Poutanen, Finland
- ✖ Wolfgang Söhne, Germany
- ✖ Günter Stangl, Austria
- ✖ João Torres, Portugal

Honorary members:

- ✖ Claude Boucher, France
- ✖ Erich Gubler, Switzerland
- ✖ Herman Seeger, Germany
- ✖ Werner Gurtner[†], Switzerland
- ✖ Herman Seeger, Germany
- ✖ Knud Poder, Denmark

EUREF GOALS

Define, realise, maintain, provide access and promote the adoption of

- ✖ ETRS89

European Terrestrial Reference System

- ✖ EVRS

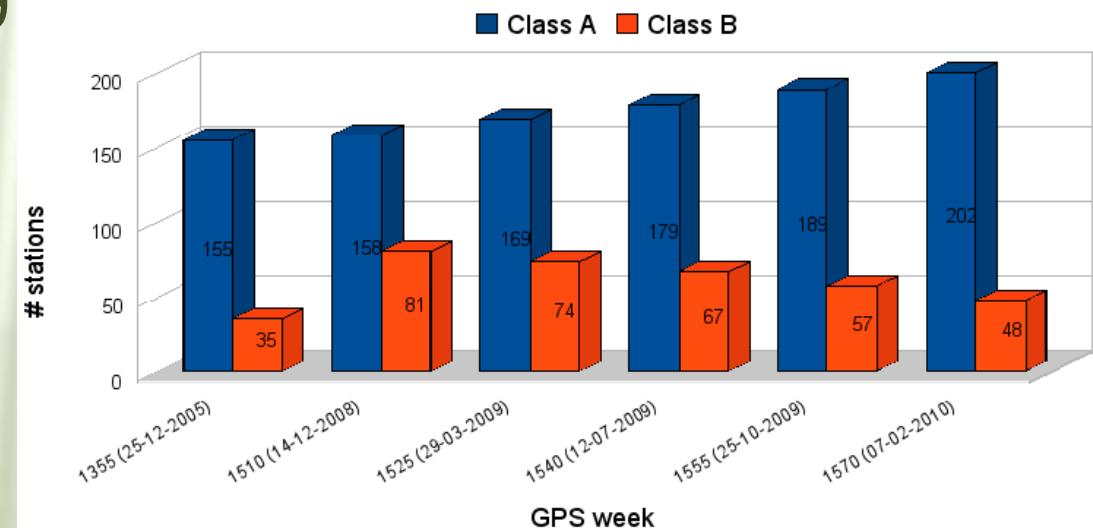
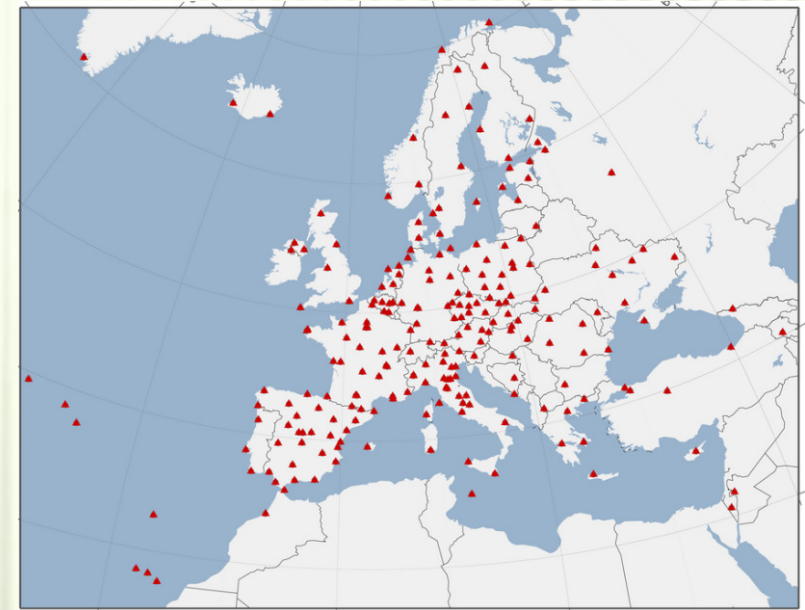
European Vertical Reference System

ETRS89 – DEFINITION & REALISATION

- ✖ Linked to the stable part of the Eurasian plate
- ✖ « Stable coordinates »
- +Coordinate jumps
 - ✖ Reference frame changes → adopt ETRF2000 as the conventional frame for the ETRS89 (no new ETRF frame association with ITRF2008, **Altamimi, Session 1**)
 - ✖ Local geodynamics → TWG is reflecting on how to provide assistance to countries faced with this problem

ETRS89 – PROVIDE ACCESS

- ✖ EUREF Permanent Network (EPN), (Bruyninx, Habrich, Session 1)
- ✖ EPN coordinates and velocities updated each 15 weeks
- + Class A → to be used for densifications of ETRS89
(*Guidelines for EUREF densifications, Bruyninx et al 2009*)
- + Class B (mostly young sites)



ETRS89 – PROVIDE ACCESS

- ✖ EPN re-processing effort started (**Völkse**n, **session1**)
- ✖ Real-time analysis pilot project:
 - + 48% of EPN : real-time data streams
 - + ETRF2000 orbits/clocks → provide direct access to ETRS89 in the field
 - + **Söhne (session 1), Weber (session 2)**

ETRS89 – PROMOTE ADOPTION

- ✖ Guidelines for EUREF densifications
- ✖ Validation of EUREF campaigns (IE/UK, Greece, Czech Republic, **session 6**)
- ✖ Inquire about adoption of ETRS89: update of questionay sent in 2005
- ✖ INSPIRE:
 - + Dec. 2009: adoption of Implementing Rules (IR) for the nine themes of INSPIRE Annex I, developed by eight Thematic Working Groups (TWG)
 - + One of the IR: Coordinate Reference Systems (CRS) - ETRS89 and EVRS play a fundamental role
 - + Presentation in **Session 1 (J. Torres)** :evolution from version 3 to the adopted IR on CRS

ETRS89 – PROMOTE ADOPTION

- ✖ Survey on usage ETRS89 coordinates in NMCA continued (**Brockmann, session 1**)
- ✖ ITRS ↔ ETRS89 on-line transformation programs on-line: [http://www.epncb.oma.be/ dataproducts/coord trans/](http://www.epncb.oma.be/dataproducts/coord_trans/)

EVRS

- ✖ UELN continuous development:
 - + Russia, Bellarusia, Ukraine, Turkey
- ✖ EUVN_DA project finalised
- ✖ EVRF2007 released and distributed to the countries
 - + Transformations from EVRF2007 to national height systems
- ✖ What does EUREF consider a realization of the EVRS?
 - + Set up similar validation procedure as used for the validation of EUREF campaigns?

COOPERATIONS



EuroGeographics

- MOU signed August 2007
- Mutual projects, e.g. INSPIRE



EUMETNET

- MOU signed June 2007
- Mutual exchange of data



International GNSS Service

- Common standards
- Cross-fertilization
- EUREF involved in IGS real-time, antenna calibration WG and Infrastructure committee

RECENT/FUTURE ACTIVITIES

- ✖ New EUREF Web site
 - ✖ New EUREF campaign database
 - ✖ ETRS89 questionnaire
-
- ✖ Best student poster award
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- ✖ Since EUREF 2008, selection of papers/poster presented at annual EUREF symposium published in peer-reviewed Bulletin of Geodesy and Geomatics.

MORE INFORMATION

- × EUREF
 - × <http://www.euref.eu/>
- × EUREF Permanent Network
 - × <http://epncb.oma.be/>
- × ETRS89
 - × <http://etrs89.ensg.ign.fr/>
- × EVRS
 - × <http://www.bkg.bund.de/geodIS/EVRS/>
- × CRS (Information system for European Coordinate Reference Systems)
 - × <http://www.crs-geo.eu/>