

# ESEAS and EUREF Cooperation

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TWG Meeting  
November 7 – 8, 2005  
Wabern, Switzerland

# Topics

- 3<sup>rd</sup> Call for Participation in the European Sea Level Service (ESEAS)
- Workshop on „Sea Level Variations- Towards an Operational European Sea Level Service“ , October 2005

## 3rd Call for Participation (1/4)

- Deadline for submission of proposal originally September 20, 2005
  - But now open until end of year 2005
- ESEAS activities:
  - The ESEAS Research Infrastructure (RI) Project (funded by the European Commission) is going to be completed.
  - 21 European countries are participating in ESEAS
  - About 200 tide gauges are registered
- The Call is based on international initiatives like
  - The European Unions' Global Monitoring for the Environment and Security (GMES) and
  - the Group on Earth Observation (GEO) and it's 10-year Implementation Plan for the Global Earth Observation System of Systems (GEOSS)
- This Call is a step in preparing a European contribution to the UN International Early Warning Programme (IEWP)

## 3rd Call for Participation (2/4)

- Call asks among others for „ESEAS Supporting Centres“ that may be
  - (1) data centres which store data related to sea level, such as GPS campaigns or CGPS, absolute gravity, or satellite altimetry measurements; they may be integrated in National Centres or maintained by other centres outside the ESEAS, such as the EUREF analysis or data centre;
  - (2) analysis centres integrated in other services or programmes providing products relevant for the ESEAS or
  - (3) research institutes carrying out sea-level related research, which has the potential to improve the quality, quantity and applicability of the products provided by the ESEAS.
- EUREF Proposal submitted on September 20, 2005
  - Based on proposal for 2<sup>nd</sup> Call from November 2001 with a few extensions
  - Participation as „Supporting Centre“ proposed

## 3rd Call for Participation (3/4)

*EUREF proposes its participation in the ESEAS by delivering for all EPN stations close to tide gauges:*

- *validated GPS meta-data information (through the EPN web-site and ftp archive) ,*
- *free access to the GPS data (ftp archive),*
- *weekly coordinate estimates in SINEX format (ftp archive).,*
- *station coordinates and velocities from the newest EPN multiyear solution (ITRF2004 densification),*
- *if requested, special SINEX files could be prepared containing only those permanent stations actually accepted as ESEAS stations,*
- *any kind of re-analysis of the complete EPN network since the beginning of its operation, if this action will be decided within EUREF in the future.*



## 3rd Call for Participation (4/4)

*EUREF proposes its participation in ESEAS by setting up an Ntrip-based infrastructure and could provide:*

- *Technical support to test the capabilities of Ntrip,*
- *access to EUREF-IP data streams,*
- *Ntrip Software ,*
- *assistance at the establishment of an Ntrip-based data transport for ESEAS.*

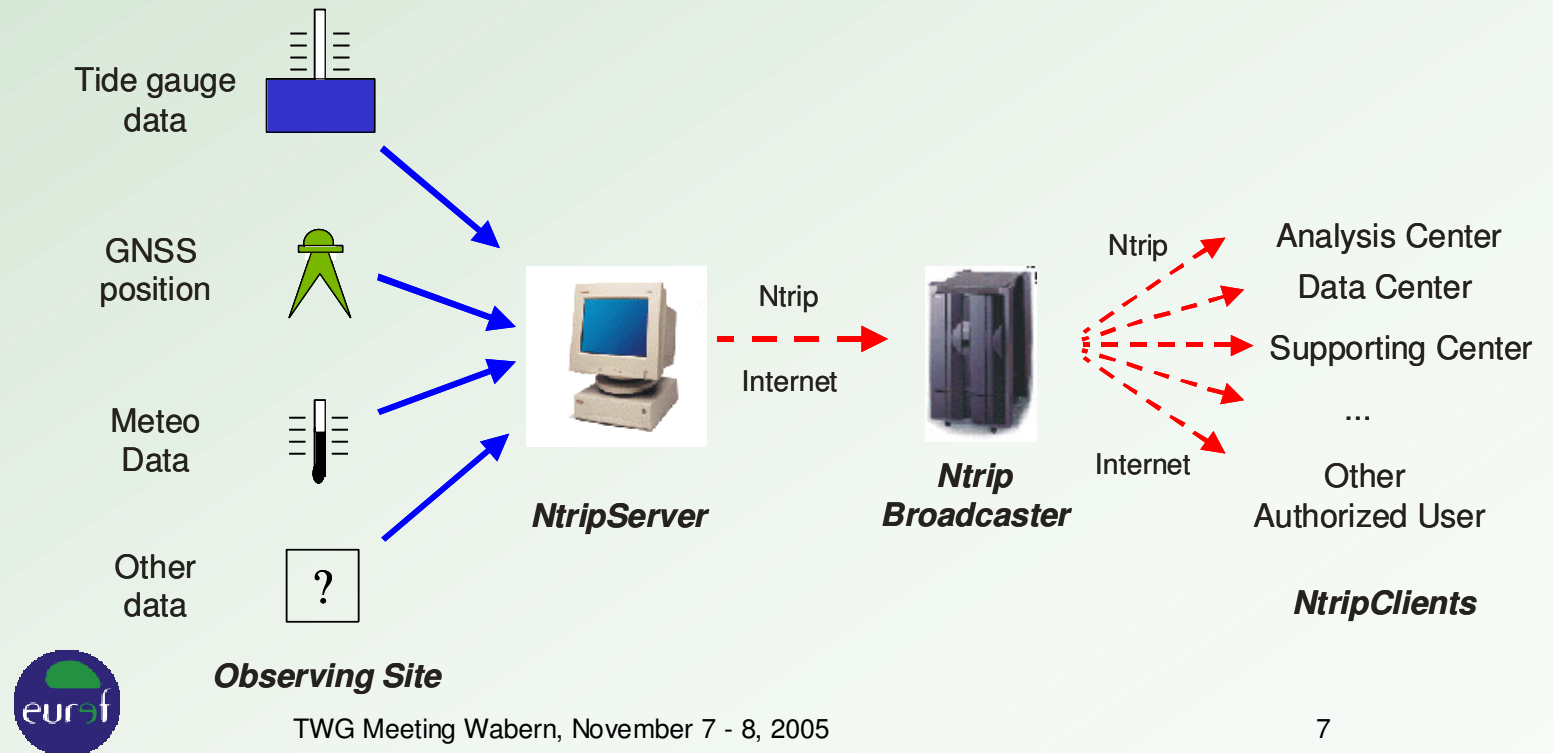


*EUREF proposes furthermore its participation in the ESEAS by delivering for the EUVN tide gauge stations:*

- *Description of the EUVN station*
- *Height solution*
- *Tide gauge solution*

# ESEAS 2005 Workshop (1/2)

- Venue and Date: Split, Croatia, 5 – 8 October 2005
- Presentation from EUREF entitled „Continuous Services and New Products from EUREF“
  - Update of EPN station map
  - First test of daily EPN sub-network combination
  - High-rate (1 Hz) GPS data analysis after Sumatra-Andaman earthquake (Söhne/Schwan)
  - EUREF-IP Project for real-time transfer of tide gauge observations





## ESEAS 2005 Workshop (2/2)

- ESEAS is interested in „daily solutions“ from EPN (only 2 of 8 ESEAS analysis centres confirmed operation after ESEAS-RI project so far)
- ESEAS defined the „TGINEX Version 1.0“ format to exchange tide gauge observations.
- Representatives of ESEAS has been invited to attend the EPN LAC workshop in 2006. Richard Bingley (chair of ESEAS Technical Committee) expressed his interest to send a representative and to give a presentation at the LAC workshop.
- ESEAS is interested in NTRIP for transportation of tide gauge observations (first contact to Begona Perez, Spain)
- The establishment of the reference frame with respect to the geo-centre is an important aspect for ESEAS



# Summary

- Waiting for decision on proposal as supporting centre
- EUREF may actively contribute to the ESEAS reference frame in future
- EUREF-IP technology (NTRIP) may be used for transportation of tide gauge observations
- Discussion of „geo-centre motion“ at the next LAC workshop

**Thank you!**