# **Review of the Coordination Tasks** within the EUREF Permanent GPS Network (EPN)

C. BRUYNINX<sup>1</sup>

# 1. Introduction

Since its start in 1995, the activities within the EUREF Permanent Network (EPN) are coordinated and guided by the EUREF Technical Working Group (EUREF TWG). The permanent network was coordinated by a dedicated the network coordinator. With the growth of the network and the tasks involved, the EPN coordination tasks need to be redistributed.

# 2. Proposed coordination components

The redistribution proposes that the EPN will consist, in addition to the three network components (stations, data centres and analysis centres), of

- an EPN Central Bureau
- an EPN Coordination Group
- EPN Special Projects

## 2.1 Coordination Group

The tasks of the EPN Coordination Group are to

- coordinate all activities related to the network
- propose policy to the EUREF Technical Working Group
- control general activities of the network
- propose and coordinate new projects

The Coordination Group (CG) of the EUREF permanent network consists of

- the network coordinator
- the data flow coordinator
- the data analysis coordinator
- special project liaisons
- one representative of the EUREF TWG

The CG will meet at least once a year. Members make a minimal commitment for a period of 4 years.

### 2.2 Central Bureau

The Central Bureau (CB) of the EUREF permanent network is responsible for the day-to-day general management of the EUREF network consistent with the directives, policies and priorities set up by the EUREF TWG. The network coordinator is responsible for the management of the Central Bureau. The institute hosting the EPN Central Bureau (and network coordinator) makes a minimal commitment for a period of 4 years.

### 2.3 Special Projects

Special Projects are set up by the Coordination Group for a minimal period of 4 years in order to introduce new applications into the EUREF network or study special aspects of the permanent network. After the first 4-years term, the CG will decide to maintain the Special Project or to include it into the routine EUREF Permanent Network applications and products.

# **Responsibilities**

# 3.1 Central Bureau/EUREF Permanent Network coordinator

The Network Coordinator is, as head of the EUREF Permanent Network Central Bureau (EPN CB), responsible for the general management of the EUREF Permanent network, and

- maintains the EPN CB and performs a long-term coordination role to ensure that EUREF participants contribute to the service in a consistent and continuous manner and adhere to EUREF standards
- verifies that the EPN CB receives all information about sites, centres, networks, data flow, data holdings, product generation, product availability, and addresses. Makes this information available to the user community.
- instruct new sites/centres about EUREF/IGS standards and coordinate their introduction in the network
- coordinates the topology of the network: stations to be included/excluded, allocation of stations to data and to analysis centres.
- coordinates the flow of information towards the International GPS Service (IGS) and other organisations.
- interfaces with the IGS to assure the compatibility of IGS and EUREF and the collaboration in projects of common interest
- preserves harmonisation of standards between EUREF and the IGS
- coordinates between the EUREF special projects

<sup>&</sup>lt;sup>1</sup> Carine Bruyninx, Royal Observatory of Belgium, Av. Circulaire 3, B - 1180 Bruxelles, Belgium; Fax +32 - 2 - 3 74 98 22, Tel. +32 - 2 - 3 73 02 11, E-mail c.bruyninx@.oma.be

- organises reports, workshops and meetings dealing with different aspects of the permanent network
- reports to the EUREF Technical Working Group and prepares, in collaboration with all participating agencies, a yearly report.
- distributes documents required for the satisfactory planning and day-to-day operation of the service, including standards, guidelines and specifications

### 3.2 Data Flow Coordinator

- assists operational centres / stations with the organisation of the data flow and the data quality check
- coordinates activities between operational centres and data centres
- provides to the data centres the necessary guidelines and procedures to monitor data availability and data quality
- monitors the routine data flow through the network, identifies problem areas and takes the necessary actions wherever necessary
- organises the data flow for new stations (in collaboration with the EPNCB)
- organises and monitors the data flow related to applications which need a different data availability (faster turnaround of higher sampling rate) taking into account existing EUREF standards and structures and this in collaboration with the members of the Executive Board.
- organises alternate data flows

#### 3.3 Analysis Coordinator

- assists the analysis centres
- combines the products of the analysis centres and generates a verified unique EUREF product (station coordinates in SINEX format)
- monitors the analysis centres solutions and take whatever actions are necessary to ensure the routine generation of consistent subnetwork solutions
- supervises the generation, updates and distribution of processing strategies
- monitors the flow of the products towards the IGS
- coordinates the generation of a yearly Regional Network Analysis Centre (RNAAC) report to the IGS
- produces yearly a multi-year network solution for the IERS
- reports station irregularities that show up at the combination level to the Network Coordinator
- appoints investigators for special problems related to deviating results

#### 3.4 Special Project Liaison

- Is responsible for the coordination of the activities related to this Special Project (SP)
- issues the necessary "Calls for Participation" to organise the participation of the three EUREF network components (Stations, data centres and analysis centres) to the SP. Submits the results of the "Call for Participation" to the Coordination Group and proposes an action plan.
- develops procedures and takes the necessary actions for the three network components to participate in the Special Project.
- takes to necessary steps to generate a unique and validated EUREF Product.