UNITED NATIONS OFFICE AT VIENNA OFFICE FOR OUTER SPACE AFFAIRS

UN/USA International Meeting on Use and Applications of GNSS 13-17 December 2004, Vienna, Austria



EUPOS - PROGRESS REPORT 2004

Georgi Milev (BG), Gerd Rosenthal (DE), Keranka Vassileva (BG)

- 1. GENERAL
- 2. STRATEGY FOR REALISATION OF EUPOS
 - 2.1. Assessment of the actual situation
 - 2.1.1. Preconditions
 - 2.1.2. Existing peculiarities in different countries
 - 2.1.3. Evaluation
 - 2.2. Directions of development
 - 2.2.1. Realisation of the common project *EUPOS*
 - 2.2.2. Specific realisations
 - 2.2.3. Realisation in different countries

3. STATUS OF *EUPOS* DEVELOPMENT

- 3.1. Directions and activities
- 3.2. Concrete actions
 - 3.2.1. Preparation of the common Project and actions on its promotion
 - 3.2.2. Specific project '<u>Eu</u>ropean <u>Pos</u>itioning Determination System InterRegional Co-operation (*EUPOS* IRC)'
- 3.3. Realisation in different countries
- 3.4. Events and decisions
- 3.5. Popularization of *EUPOS*

4. CONCLUSION

1. GENERAL

- **Development of the system continues in the main aspects**
- **Established strategy for general development of the system**
- ***** Overview of the status of project development
- ***** Main results and suggestions

2. STRATEGY FOR REALISATION OF *EUPOS*

2.1. Assessment of the actual situation

2.1.1. Preconditions

- positive
- ***** Functioning organisational structure established: SC, workshops, conferences, resolutions
- **Accepted uniform standards, technologies, common project conception for CEE**
- **❖** New development of DGNSS and possibilities for their integration
- **❖** International support and co-operation: EU, ESA, OOSA, EUREF, EUROGEGRAPHICS, GALILEO, private institutions
- **Understanding in different countries**
- **Availability of realised projects or pilot and other projects in process of realisation**

- <u>negative</u>

- **❖** No interest or meet with resistance by international institutions in some envisaged countries
- **❖** Lack of finances at this stage for entire realisation of the project and limited possibilities for realisation of parts of it
- **❖** Delay with realisation of the project or parts of it and the successful use of GNSS by other providers of satellite information for nongeogetic users − they already use special solutions for their own tasks, interests of private companies in selling company-dependent solutions, the *EUPOS* countries are jeopardised, that simultaneously different DGNSS reference station systems become established for different applications and that these systems would be incompatible, etc.

2.1.2. Existing peculiarities in different countries

- **❖** Powerful or weak governmental geodetic organisations in different countries
- **❖** No interest by the authorities
- **❖** Different financial and technical possibilities and approaches of realisation
- **Different level of development of the infrastructures**
- **Readiness and possibilities for cooperation by the mobile operators, radio,**Internet
- **Competition and resistance**
- ***** Interest from private investors.

2.1.3. Evaluation

- ***** Good preconditions
- ***** The strategy should be precise and the negative aspects to be overcome
- ***** Further active development

2.2. Directions of development

2.2.1. Realisation of the common project *EUPOS*

- **❖** Further development and coordination of the SC works and activities, providing of financial possibilities − OOSA, others?
- **❖** Providing of financial possibilities for entire *EUPOS* project realisation EU, ESA, GALILEO, UNO possibility and advisability
- **Dissemination of the Project**

2.2.2. Specific realisations

- **Projects for realisation of** *EUPOS* **in different areas**
- **❖** Programs INTERREG III, etc.
- Partners
- Pilot projects

2.2.3. Realisation in different countries

- **Ensure the appropriate climate and preconditions**
- **❖** In case of need to be created new structures
- **❖** Approaches to find finances governmental, institutional, private investments, projects; for example World Bank, jointly; problems
- **Strategy for realisation**
- **Realisation of pilot projects.**

3. STATUS OF EUPOS DEVELOPMENT

3.1. Directions and activities

During the time between the last UN/USA International Workshop on Use and Applications of GNSS, December 2003 in Vienna and the present Meeting the EUPOS activities concern the system development, common, specific and pilot projects, popularization and others. Several events - meetings and workshops have been held.

3.2. Concrete actions

3.2.1. Preparation of the common Project and actions on its promotion

The realisation of the system is expressed in preparation of a common project of *EUPOS*. It consists of:

- **Project structure,**
- Organisation,
- ***** Locating of the reference stations,
- ***** Approval of relevant common standards,
- **❖** Financial planning,
- **Reports to international symposia, conferences and workshops.**

The common project has been discussed in our previous reports in Vienna.

3.2.2. Specific project -'<u>European Positioning Determination System – InterRegional Co-operation (EUPOS – IRC)</u>'

The *EUPOS* – IRC is promoted by the EU Community Initiative Programme INTERREG III C.

- Consultation and discussion on the project *EUPOS* IRC (umbrella project) in the INTERREG III C East office in Vienna on August 12th, 2004. The final project application was submitted on November 19, 2004.
- Concise information
 - 12 partners from 9 countries, that are participating in *EUPOS*
 - Duration of the project: April 2005 June 2007
 - Project budget:

INTERREG III C budget: National financing (third countries):	1.1 Mio 0.3 Mio

Problems to be resolved in the operation:

- ***** to provide a platform for a long-term and sustainable interregional co-operation concerning geo-information and satellite positioning applications,
- ***** to promote the co-operation between regional development bodies and technical geodesy experts
- ***** to contribute to the interregional development in several sectors
- ***** to support know-how transfer,
- ***** to set up competence centres for geo-information and satellite positioning,
- ***** to promote the implementation of a wide range of geo-information applications for several sectors of regional development,
- ***** to support information exchange,
- ***** to provide training to specialists and regional development bodies,
- ***** to prepare and attract necessary investments

3.3. Realisation in different countries

- **Realisation of elements of the system and common project**
- **Realisation of pilot projects (Sofia, Riga, Moscow and others)**

3.4. Events and decisions

The following *EUPOS* events have been held:

- **❖** 5th *EUPOS* ISC Conference in Bratislava, Slovak Republic, 18-19.06, 2004 all countries involved in *EUPOS* named a representative for the ISC, accepted name for the umbrella project: "*EUPOS* IRC − *EUPOS* InterRegional Co-operation"
- ❖ Workshop on the EUPOS IRC project application in Berlin, 24-26 September 2004 - application named 'European Position Determination System – InterRegional Co-operation' (EUPOS – IRC) passed on to the European Union promotional programme INTERREG III C East by twelve EUPOS partners from nine Central and Eastern European states with the aim to install a EUPOS umbrella project
- **❖** 6th *EUPOS* ISC Conference, Sofia, Bulgaria, 01-02.11.2004 − strategy for further realisation of the project, accepted proposal for establishment of working group on site quality, integrity and interference monitoring at OOSA. Detailed information about the results from the Conference has been sent to the Director of the OOSA
- **❖** Workshop for Decision-Makers on *EUPOS* multifunctional GNSS reference station system for Europe, Berlin, Germany, 06-07.12.2004 − to increase the awareness of decision-makers about the advantages of the system.

3.5. Popularization of EUPOS

The *EUPOS* system and project have been presented at different events – at international and national level: INTERGEO-EST, Belgrade; 1st EGU Assembly, Nice; FIG Working weeks, Athens; EUREF Symposium, Bratislava; Workshop for Decision-Makers, Berlin and others.

It is intended the system to be presented more detailed e.g. at INTERGEO-EST, Zagreb, 2005 and at other future events.

4. CONCLUSION

- **❖** Needs of active further work and enforced development of the System, common, specific and pilot projects
- **❖** Improvement of the project standards, technical and organisational base
- **Looking for ways of realisation of** *EUPOS* **in all above given and eventually in new aspects**
- **The realisation of the project is socially useful, relevant and necessary.**