Current Position
(December 2003)

Efforts to Establish Slovak National Infrastructure for the Use of GNSS

Matej Klobušiak, Katarina Leitmannova

Geodetic and Cartographic Institute Bratislava
Chlumeckého 4
Bratislava
SLOVAKIA
Overview 1990-2001:

- The first purposeful utilization of GPS technology was proposed in two Conceptions of development of geodetic control:
  - 1990 – 1994 1st Conception
  - 1995 – 2000 2nd Conception
- In 2000 done 1st try of using EC’s financial support for network of PS GPS
- 2001-2005 3rd Conception, there was explicitly expressed an effort to build the network of GPS permanent stations
Overview 2001-2003:

- 2001 – 1st UN/USA Regional Workshop on GNSS – positive impact on awareness of multifunctional utilization of GNSS
  - Formulation of the own strategy for multipurpose implementation of GNSS based on geodetic infrastructure SPGS(SKPOS)
  - Formulation of Need of the establishment of the implementation working group for GNSS on the governmental level
  - Establishment of the Expert Group SK-GNSS of the corporation SAGI (non-governmental level)
  - Effort to amend the law on geodesy and cartography,
- 2002 – project EUPOS, establishment ISC EUPOS
  - Development of the national project SPGS
- From 1 November 2003 - amended the law on geodesy and cartography – obligation to establish and operate SPGS,
Overview:

- During the year 2003 was developed and by the European Commission adopted the sectoral PHARE project „Land Administration and Cadastral Infrastructure“, 
  - Project purpose: Improving Land Administration based on spatial and cadastral data, including GNSS, public access to the Land administration and cadastral data, whose part is also the SPGS management and operation.
- In November 2003 was signed the Financial memorandum
- Looking for the best financing mechanism for communication channel
New Strategy Pillars
of Production and Provision of GI

Decision Making in Real Time
Disaster Management
Monitoring, Emergency, Rescue Systems

METAINFORMATION

SDI

SPG(S/KPOS)

ICS GCC
SPGS(SKPOS)

SKPOS - mm
SKPOS - cm
SKPOS - dm
Distribution of the RS SKPOS

Average distance
RS ≤ 70 km
Organizational Structure of the GNSS Service in Slovakia

SK-Committee for Implementation of the GNSS

National Coordination Board

Control Centre

Data Centre

Service Centre

Analytic Centre

MDPT SR

MŽP SR

MP SR

MV SR

SAGI

GI

ÚGKK SR

SPGS(SKPOS)

EUPOS

EPN

IGS

IGGOS

Scientific and special teams
Survey of the GNSS End-users (Questionnaire)

- Who are the potential end-users?
- What are their accuracy requirements?
- In which areas are they working?
- Do they need the real time positioning?
Required areas of GNSS utilization

- Geodesy and Cartography: 63%
- Agriculture: 9%
- Transport: 11%
- Aviation/Photogrammetry: 7%
- Safety/Emergency: 2%
- Meteorology: 2%
- Geology/Geophysics: 4%
- Assistance GPS service: 2%

Total: 100%
Requirements on horizontal accuracy

Conclusion: accuracy of e.g. EGNOS is not sufficient for the majority of the respondents
Recommendations and next steps

- UN is asked for call appeal for the utilization and implementation of the GNSS to the national governments.
- UN is asked for financial support of the draft of EUPOS project harmonisation, standardisation and utilization (experts meetings, workshops, ...).
- UN is asked for support in long and medium-term trainings of the technical staff.
Thank you for your attention.

e-mail : klobusiak@gku.sk
        leitmannova@gku.sk

Tel. ++421 2 43334822