

EUREF Activity in Ukraine

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International Cooperation in the Area of GPS Technology Implementation

Ukrainian Mapping Authority started to take part in EUREF activity since 1994. In a year 1995, during UKRREF-95 campaign 15 GPS stations were observed. Unfortunately, the GPS campaign was not finished in the way as it was planned. In the year 1996, to finalize the campaign the observation for 4 GPS were repeated. Ukrainian Institute for Geodetic and Cartographic Research processes the observation data.

Ukrainian organizations in a following years have been taking part in other projects such as a SAGET and CERGOP (Lviv and Uzgorod stations), SELF etc.

In 1998 the EUVN campaign was successfully performed and 4 station as Simeiz, Mykolaiv, Kiev, Uzgorod were observed. The processing center processed the results of observation. In a year 1998 Ukraine took part in Moldavian GPS campaign. The campaign was successfully finished and the observation data was processed. The sketch of observed station is showed in a figure 1.

Legal Aspects of Geodetic and Cartographic Activity

The geodetic and cartographic activity in Ukraine is regulated by the Law of Ukraine "About Geodetic And Cartographic Activity" – adopted by Verchovna Rada (Parliament) of Ukraine and signed by the President of Ukraine 23.11.1998. The main task of this legal act is to establish the legal basis and regulations for topographic, geodetic and cartographic activity in Ukraine.

The Law nominates a special central body of a state executive power in the sphere (area) of topographic, geodetic and cartographic activity. Nowadays it is a Ministry of Environment and Natural Resources (Department of Geodesy, Cartography and Cadastre).

Other legislation and legal acts in the sphere of geodetic and cartographic activity are:

- Civil Code of Ukraine
- Land Code of Ukraine (1993)
- Legal and technical acts and regulations of responsible state body (Instruction about conditions and rules for surveying, mapping and licensing of this activity, Regulation about the Copyright in Cartography, Rules

for use and dissemination of cartographic information, etc.)

According to the Law the "Topo-geodetic and cartographic activity – is a scientific, production (business), administrative and other activity of juridical and physical persons directed on studying of the Earth parameters, creation of state astronomical, geodetic and gravimetric networks of Ukraine, geoinformation systems, topographic and cadastral maps (charts)"

State cartographic and geodetic fund of Ukraine established by the Law is considered as the whole complex of topographic, geodetic and cartographic material (data) irrespective of its type, place of creation and ownership which are (located) on the territory of Ukraine. The topographic, geodetic and cartographic activity is a subject for licensing and all the work in this area must be registered in duly established order. The topographic, geodetic and cartographic work is divided for two main categories - national topographic, geodetic and cartographic works and topographic, geodetic and cartographic works for special purposes. The Geodetic Inspection as a special department to supervise and control a geodetic activity is established.

Public administration bodies in the area topo-geodetic and cartographic activity are:

- Cabinet of Ministers of Ukraine
- Special State Authority in a sphere of this activity
- Ministry of Defense of Ukraine
- other bodies of state executive power according to the law

According to the decision of the Cabinet of Ministers of Ukraine from December, 1999 WGS-84 is recognized as official coordinate system for Ukraine.

Use of GPS Technology and Plans of its Implementation Review

The GPS technology is widely used in Ukraine for:

- control networks (state and local) establishment
- geodynamic projects
- international projects and programs
- aerial photo geodetic control
- monitoring of big constructions
- cars and tracks monitoring (experiments)

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The review of some planned activities:

- 1999: is finalized the adjustment of fundamental GPS network, linked to the permanent GPS stations;
- 1999: GPS campaign with Moldovian NMA (sites to observe - Simeis, Kiev, Uzgorod, Mykolaiv) is realized
- 2000: to repeat the observation for 15 points of fundamental GPS network is planned
- 1999-2000: project to link traditional state geodetic network to fundamental GPS network points (108 points) is a progress;
- 2000: is planned to establish more 2-3 permanent GPS stations and to finalize the airports surveying according to ICAO rules

Final Remarks

- legal frame for geodetic activity is developed
- there is some progress in GPS technology implementation
- there is the understanding of the need of WGS-84 introduction
- the review of geodetic data availability regulation is expected.

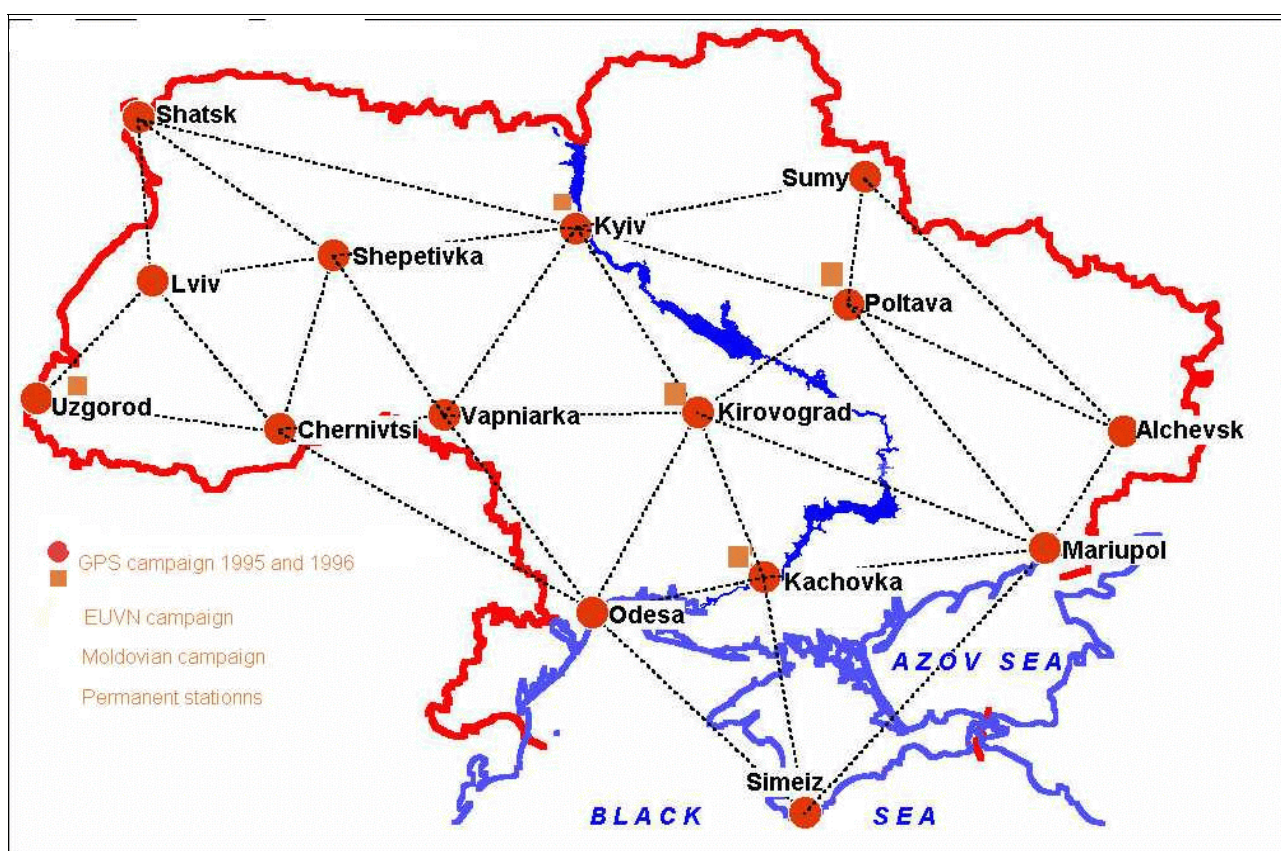


Figure 1.