NATIONAL REPORT OF CROATIA

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New official geodetic datum

- The Government of the Republic of Croatia, made at its meeting on August the 4th 2004 the Decree on establishing new official geodetic datum and map projections of the Republic of Croatia
- New official geodetic datum and plane map projection will be implemented into the official use gradually until January the 1st 2010
- State Geodetic Administration is entrusted with the task of developing a program for implementing new official geodetic datum and map projections into the official use



New official geodetic datum

Horizontal datum

European Terrestrial Reference System 1989,0 (ETRS89) – official inalterable and time independent positional reference coordinate system for the Republic of Croatia

Croatian Terrestial Reference System – Epoch 1995,55 (HTRS96)

Vertical datum

Geoid surface, defined on the basis of the mean sea level at five tide gauges, is defined as the reference surface used for computations of heights in the Republic of Croatia

Croatian Vertical Reference System – Epoch 1971,5 (HVRS71)

Gravimetric datum

International Gravity Standardization Network 1971 (IGSN71)

Croatian Gravimetric Reference System 2003 (HGRS03) – determined at 42 points of the basic gravimetric network

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The database system of geodetic points

- project which included development and establishment of <u>central geodetic point</u> <u>database</u>
- data are stored in Oracle Database System in combination with ESRI ArcGIS software in order to performe connection with the Register of Spatial Units Database and digital maps 1 : 25 000



Within the project four different applications for data managing were made:

Application for input and updating data (Intranet Application),

Application for export and import of a large amount of data,

Application for publishing and distribution of data (ArcGIS Application),

Application for publishing and distribution of data through Web portal (Internet Application).

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WEB SHOP



Re-observation of EUREF and CRODYN sites

- EUREF 1994 GPS Campaign in order to connect **Croatian and Slovenian networks to the EUREF-89** reference network
- CROREF (1995,1996) GPS campaigns carried out for establishing national reference GPS network
- CRODYN (1994) project for establishing a reference frame for the investigation of geodynamics in the area of the Adriatic Sea
- CRODYN GPS sites were observed also in 1996 and 1998

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Future activities on this field:

- re-observation of EUREF sites SGA
- State Geodetic Administration and Faculty of Geodesy in cooperation with Department of Geosciences University of Arizona plan to organize CRODYN GPS campaign
- GPS Campaigns > September 2005



CROPOS – Croatian Positioning System

- purpose of the project is to build a system of reference stations of the Republic of Croatia CROPOS (<u>CRO</u>atian <u>PO</u>sitioning <u>System</u>)
- feasibility study for a permanent GNSS network CROPOS proved the implementation of CROPOS to be a cost-effective intervention for the implementation of ILAS that will speed up the process of land reform
- comprises 30 reference stations and 1 control station
- approximation of ± 2.5 m \rightarrow precision level of ± 0.01 m to ± 0.03 m to for each positioning
- SGA responsible for implementation and follow up of CROPOS system, contracts supervision and system monitoring

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