

# VIZURA

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## New Decree on Aerial Photography

On the basis of the article 126 of the Law on Defence (National Gazette No. 33/2002, 58/2002, 76/2007 and 153/2009), the Government of the Republic of Croatia passed a new Decree on Aerial Photography (Decree) at its meeting on 21. November 2012. By its being published in the National Gazette No. 130/2012, the provisions of the new Decree started to be applied, and the Decree on Aerial Photography (National Gazette No. 116/03) is no longer effective.

The new Decree was made because of the technological changes in aerial photography (digital camera), as well as because of including new institutions in the procedure of approval issuance. The essential novelties of the Decree relate to the following: application of digital technology in aerial photography, improvement of the protection of photographic material and protected objects, the procedure providing safe taking of photographic material abroad, defining of procedures for obtaining the approval for taking photographs in border areas, the necessity to use aircrafts that must be certified in accordance with the regulation defining air traffic in the Republic of Croatia and the necessity of mutual procedures to be performed by the State Geodetic Administration and the Croatian Agency for Civil Aviation in the process of issuing the approval for taking photographs to the foreign operator.

The Decree was made by the employees of the State Geodetic Administration in collaboration with the Ministry of Defence, and coordinated with the professional opinions obtained from the individual ministries and agencies.

Davorka Brkić, Ivan Landek

## QKEN Plenary meeting, Zagreb

In the organisation of the State Geodetic Administration (SGA), Department for Geoinformation Systems and the working group Quality Network Exchange Network (QKEN) from EuroGeographics, *EuroGeographics Quality KEN plenary meeting* was held from 28. - 29. November, 2012 in the premises of the Central Office of SGA. The State Geodetic Administration was represented at the workshop by Tomislav Ciceli, Ivan Grubić and Leonardo Patalen.



Group Works: Aggregation of Data Quality Results.

The workshop was run by Mr. Jonathan Holmes, Ordnance Survey (Great Britain) and Mrs. Christina Wasstrom, Lantmäteriet (Sweden), and there were also 11 participants from various member countries of Eurogeographics present apart from three employees of the State Geodetic Administration. QKEN working group consists of 36 active members from 26 countries. The mission and the goals are the following: to establish a network of experts in the field of quality, support to the strategy of EuroGeographic related to the interoperability of European data, exchange of experience among the members and promotion of experience about the quality.

*Quality Network Exchange Network (QKEN)* has been active for many years. The working group organises two meetings annually, two coordinations and two webinars work on the maintenance of the quality of EuroGeographics products, it publishes „benchmarking“ reports and promotes the web exchange of knowledge in the field of quality. The Employees of the Independent Division for Quality Control and Supervision made the presentation about the work and tasks of that Division. After the presentation, the problems and mistakes occurring during the production were discussed, as well as those related to the procedures of quality control. The workshop was very useful also in the sense of exchanging the experiences about the quality control procedures related to data and products used in various state cartographic organisations. All participants of the workshop agreed with the issues related to the quality of spatial data and products presuming clearly described and defined product standard, i.e. to the updated and meaningful product specifications. The quality control procedures are thus simplified and accelerated. The meeting was completed with the plan of future activities of Q-KEN working group. More information about EuroGeographics Q-KEN working group can be found on web page: <http://www.eurogeographics.org/content/expert-groups-0/>.

Ivan Grubić, Tomislav Ciceli

# Renewal of the Reference network of the Republic of Croatia

The fundamental GNSS network of the Republic of Croatia consists also of 78 permanent reference geodetic points, i.e. I. order trigonometric points along with CROPOS permanent stations, because it is necessary to check regularly the changes occurring as the result of geodynamic phenomena, as well as the state reference coordinate system HTRS96. These points need therefore to be protected from destruction and deterioration, because they have to be usable and reliable for the performance of further measurements, which requires their control, maintenance and renewal.

The State Geodetic Administration has been carrying out since 2006 a systematic renewal of permanent point, and until the end of 2012, there were altogether 46 of the total of 78 I. order reference points renewed. Since the I. order trigonometric points are located mostly at higher terrain levels, as e.g. mountain peaks, their renewal is more difficult, i.e. it requires the transport of material to the distant and inaccessible locations. This year, the renewal was carried out at 3 reference geodetic points: TT 294 Svilaja (H = 1509 m), TT 301 Prapatnica (H = 739 m) located at the mountain peak hard to reach, and TT 209 Observatory Hvar (H = 244 m) the fortress Napoleon of the Observatory on Hvar. In this way, their stability was recovered and their durability provided for a longer period of time.



Renewed trigonometric points in 2012: TT 294 Svilaja, TT 301 Prapatnica and TT 209 Observatory Hvar

Margareta Premužić

## 3rd regional training within the frame of INSPIRATION project

The third regional training within the frame of the INSPIRATION project was held on 04. and 05. December 2012 in Bečići, Montenegro. The last regional training within the frame of the mentioned project was held with the intention to teach the participants about the implementation of INSPIRE directive through the experience of EU member countries, as well as of the countries from the region. The workshop was opened by Ms. Mirjana Ljumović, a deputy director of the Real Estate Administration of Montenegro, the organisation that hosted the conference.



The training started with the presentation about the interaction of EU institutions in preparing and implementation of the law. It was followed by the presentations about the experiences of Croatia and Macedonia in preparing the law on spatial data infrastructure that transform the INSPIRE Directive. There were also the lectures held about the licensing as a key link between the technical and legal aspect of directive implementation. The most important provisions of the *Public Sector Information* Directive were presented that although related to public information and to INSPIRE itself, are not limited only to spatial data. Then, the lectures were held about the organisational aspects of spatial data infrastructure that presented the organisational structure and business models of Slovenia and Germany.

On the second day of the conference, the lecture was held about the *Unified Modelling Language* that needs to be known for the understanding of

INSPIRE data specifications and modelling. SGA was presented at the training by Marjana Zelić, Ivan Rožić and Aida Čustović. The training was concluded by an interactive session providing the possibility to ask questions and receive the answers, and to point out the largest challenges, as well as possible opportunities for the development and improvement of the entire system noticed by all participants.

Aida Čustović, Ivan Rožić

## Public presentation of new surveys, Department for Real Estate Cadastre Nova Gradiška

In the last ten years, new surveys have been completed, the cadastre and land registry for four cadastral municipalities with altogether 4526 ha updated, in the area covered by the Department for Real Estate Cadastre Nova Gradiška.

At the moment, the public presentation of data is being prepared related to the new survey of the municipality Rešetari. The survey includes 2126 ha of land with 3951 parcels. The public presentation was opened at the beginning of September 2012. After about six hundred parcels have been exhibited, the response of interested parties is getting larger and larger, because the possibilities of the procedure being carried out have been recognized. It is expected from the new data that the cadastral plans made on the basis of surveying the real situation in the field shall trigger the submission of applications for the issuance of the decision about the built object for the purpose of legalization of illegally constructed objects. At the territory of the municipalities Cernik and Nova Kapela, the SGA signed in September 2011 two new contracts about the performance of cadastral surveys. The contracts were signed for the parts of cadastral municipalities Baničevac and Podvrško, i.e. cadastral municipalities Batrina and Nova Kapela. The mentioned cadastral municipalities will be ready for the presentation during the year 2013. It can be seen from the above stated that the Commission for presentation in Nova Gradiška will be rather busy in the years to come and will not be back soon in the Office in Nova Gradiška.

Hrvoje Bednarik

# 1st national workshop within the scope of the project INSPIRATION

The first national INSPIRE workshop was held in Zagreb on 21. and 22. November in the premises of the Ministry of Physical Planning and Construction and organised within the frame of the project *INSPIRATION - Spatial Data Infrastructure in the Western Balkans* and State Geodetic Administration.



The workshop was opened by the deputy director of the State Geodetic Administration, MSc Blaženka Mičević who pointed out the importance of the spatial data infrastructure and commented the new Law on National Spatial Data Infrastructure that is to be soon presented to the Government of the Republic of Croatia. The moderator of the workshop was Dr. Fritz Kroiss who is also the head of the INSPIRATION project.

Except the goals and results of INSPIRATION project, the participant also had the opportunity to hear about the experiences collected in the implementation of the INSPIRE Directive in the EU member countries, Slovakia and Austria, but also about the current situation in the establishment of NSDI in the Republic of Croatia. There were also the experiences of the following institutions presented: City of Zagreb, the State Institute for Nature Protection, Croatian Railways, Croatian Hydrographic Institute and State Geodetic Administration that started with the activities related to the harmonization of data within their competence with the INSPIRE demands.



Open Data Strategy was a special topic at the workshop, as well as the licensing of spatial data within the frame of INSPIRE. The basic principles of *Public Sector Information Directive* were presented as well. In a special session, the participants were acquainted with the Law on NSDI that presents the transformation of INSPIRE Directive, the overview of the national metadata profile, as well as the principles of the cooperation and data distribution specified by the Agreement about mutual usage.

The interactive sessions offering the possibility to ask questions and receive the answers were organised at the workshop, which made it possible for the people who will be included into the implementation of INSPIRE Directive, as well as into the business processes and models of their organisations to get acquainted. Thus, the conditions for further communication and collaboration were provided. The workshop was concluded with the discussion in which the questions and concerns of the workshop participants were discussed. The material of the workshop is

available on web pages of the project: [www.inspiration-westernbalkans.eu](http://www.inspiration-westernbalkans.eu), as well as on the web pages of NSDI: [www.nipp.hr](http://www.nipp.hr).

Aida Čustović, Petra Sajko-Hlušička, Tomislav Ciceli

## System of Digital Archives in the State Geodetic Administration

Vizura No. 39. of 1. May 2010 and Vizura No. 57. of 1. January 2012 brought up the presentation of newly reconstructed premises of the Unit for Archives and Data Conversion and partly reconstructed premises of the Central Archives in the SGA.



The system of digital archives (hereinafter referred to as: SDA) is defined in the following legal and subordinate documents: Law on State Survey and Real Estate Cadastre, Regulations about keeping the documents and data of state survey and real estate cadastre, Strategy of digital archives for SGA, Implementation plan of SDA, Terminology, Human resources of CDC, Metadata, Pilot locations - final report, Access rights and licenses, Scanning priorities, Technical demands, Scanning parameters and record format, Manual for the preparation of analogous sources for scanning in Regional cadastral offices, Manual for metadata input in Regional cadastral offices and Manual for education of new employees in CKP. Investing a lot of contribution in the preparation and creation of individual documents and using one's own experience in everyday work of cadastral offices, it was intended to simplify the existing sequence of using the archive documents and to enable the access to scanned documents. During the recent years, it has been done by the colleagues whom I would like to thank hereby for their contribution: RCO Split Drago Butorac, Emil Pesenti, RCO Rijeka Irena Benasić, SU Ljiljana Štefulić, Vlado Sršan,

Saša Cvitković, RCO Vinkovci Ivica Ivšić, Terezija Pavelić and Ines Sukić Majstorović. I hope that our further collaboration will remain at the same level, regardless of wherever we may go in our future lives.

Referring to the advantage provided by SDA (quick access to information, user satisfaction, removing the archive material from office premises, keeping the documents in analogous form, preserving cultural and historical heritage, increasing the efficiency etc.) and to the current situation, we can say that it consists of five basic part Metadata (*data about data* are divided into 3 groups - General metadata, Fundamental metadata and Professional metadata), Centres for data conversion [in order to convert the analogous documents into digital form the Centres for data conversion have been established in Glina, Split i Vinkovci], Production lines (defined by group of people, equipment, processes and CDC locations: CDC Glina 2 production lines, CDC Split 1 production line and CDC Vinkovci 1 production line), SDA browser (after completing the quality control, all scanned documents are automatically moved to the data centre of SGA, and they are visible to all users by means of the SDA browser in the State Geodetic Administration, there are **281104** documents available in SDA at the moment) and Central archives (now in the process of development). It should be pointed out at the end, that the System of Digital Archives is also one of the priorities of the Government of the Republic of Croatia related to the development of efficient state administration that will be able to meet the needs of the citizens and economy, and contribute to the general development of the Republic of Croatia.

Damir Šantek, Ljiljana Štefulić

## Aldo Sošić, doctoral thesis



Aldo Sošić defended on 15. November 2012 at the Fakulteta za gradbeništvo in geodezijo Univerze in Ljubljana his doctoral thesis titled *Cartography of Istria with Special Attention to Cartographic Expression*. His mentor was Doc. Dr. Dušan Petrović with the co mentor Prof. Dr. Janez Roje. Apart from his mentor and co mentor, the members of the Committee for defence and evaluation of the doctoral thesis were also Prof. Dr. Matjaž Mikoš, the dean of UL FGG (president of the Committee), Prof. Dr. Sc. Anton Preson, Doc. Dr. Valentina Brečko Gruber, Univerza na Primorskem, Fakulteta za humanistične študije, Odelek za geografijo, and Prof. Dr. Sc. Stanislav Frangeš from the Faculty of Geodesy University of Zagreb. Public defence of the doctoral thesis was held in Slovenian.

Aldo Sošić was born on 18. November 1955 in Pula. He finished junior high school in Rovinj in 1974 and was then enrolled at the study programme of geodesy at the Faculty of Geodesy, University of Zagreb. He graduated in 1980 with the diploma thesis titled *Presentation of Water Bodies on Topographic Maps*. After the graduation, he was employed in the Office for cadastral and geodetic works in the municipality Rovinj, as an associate - geodesist. He worked at that position until 1991 as he was

appointed a head of the Cadastral Office in Rovinj remaining at that position until 1. August 2012. After that, he was appointed an advisor in the Department for Cadastre Rovinj.

In 1982 he became a court appointed expert in geodesy in the Municipal Court in Rovinj, and in 1990 he was appointed by the County Court in Pula the first official court appointed expert in geodesy in our county. In the County Court in Pula he was mentor to many candidates for court appointed experts in geodesy in the period between 1996 and 2003. In 1984/85 he was admitted at the postgraduate studies at the Faculty of Geodesy, University of Zagreb - study programme of cartography, and completed it in 1986/87. During the studies, he worked on the examination of accuracy of the State Base Map sheets for the territory of the municipality Rovinj and on the comparative examination of the forms of individual toponyms on the maps in various scales and the maps made in various historical periods.

He completed his Masters studies in 1996 at the Faculty of Geodesy University of Zagreb with the thesis *Cartographers of Istria*, mentor Prof. Dr. Sc. Nedjeljko Frančula. He published several works in the field of cartography and cadastre. He made a few orientation plans of Rovinj for tourist prospects, and as a co-author, he made a Riviera map and the town plan of the town Rovinj. He has reviewed several maps of Istria in the period from 1990 until today. As a member of the Croatian delegation, he participated in 1995 at the XII. international conference in Prague *Old Austrian Cadastre*. He hosted the same conference in 2003 in Rovinj, and participated at such conference in 2009 again in Vukovar. In 1997, he participated at the First Croatian Congress on Cadastre with his work *Land Development and Harmonization of Records*, and in 1997 in Portorož at the 30th Geodetic Days of Zveze geodetev of Slovenia with his work *Cartographic Records about the Real Estates in Istria*.

For the Week of Archives in 1999 and for the 180th Anniversary of Land Cadastre in Istria, he organised the exhibition *Cadastral Plans in the State Archives in Pazin* from 26.04. - 30.06.1999. He initiated the placement of the sculpture for the 45. parallel on the Istrian<sup>“V”</sup>. He is the author of the exhibition about the development of cadastre and geodesy in Istria that was organised within the scope of the exhibition *Istria-different views* in Vienna in 2002. He participates actively in social and professional work. At the Assembly of Geodesists of the Istarska County in Pazin on 6.11.1993, he was elected a president of the Association and remained at this position in two mandates, and now he is the vice president in second mandate of the Association of Geodesists of Istarska County.

At the first Assembly of the Croatian Geodetic Society (HGD) held in Zagreb on 8. April 1994, he was elected as a member of the Supervisory Board, and at the third Assembly of HGD held in Split on 13. April 1996, he was elected a vice president of HGD. In 1997, he established a geodetic periodical of Istria *Istarski geodet* and became its first chief editor. At the sixth Assembly of HGD held in Pula on 19. May 2000, he was elected again a vice president of HGD, and at the eighth Assembly of HGD held in Šibenik in 2004, he was elected a president of the Supervisory Board of HGD, as well as a spokesman of HGD. At the Assembly of HGD on 15. October 2008 he was elected a vice president of HGD and remained at this position until November 2012. At the Assembly of HGD in 2011 in Mali Lošinj he received honours by the Croatian Geodetic Society for the promotion of the Society and geodetic profession in Croatia. He participated actively at four congresses on cadastre as presenter, organiser or head of single sessions. In 2004, he became a collaborator at the project of *Istrian Encyclopedia*. In the first edition of the mentioned encyclopaedia he published the texts on geodesy, cadastre and cartography for the area of Istria.

The dissertation *Cartography of Istria with Special Emphasis on Cartographic Expression* was written in Slovenian, on 173 pages, format A4, including 10 tables, 40 figures, it contains the acknowledgement, the abstract in English and the references with 132 titles. The work is divided in the following chapters: introduction, historical development of the Istrian Peninsula, the overview of previous research, Istria in Antique and Mediaeval cartography, map graphics in large scale from the 15. and 18. Centuries, cadastral survey in the scale of 1: 2880, topographic survey in the scale of 1: 28 800, special topographic map in the scale of 1: 144.000, Istrian coastal area and territorial water on charts and conclusion. The work emphasises the research procedure in cartographic expression on the examples of cartographic processing of only one region, i.e. the cartography of Istria from the oldest times until today. The analysis of the reliability and the contents of observed maps show the growth of quality and quantity map information, i.e. how much the maps of Istria have contributed to the development of one of the basic media of distributing spatial information. For each observed map, the list of terms was made in Italian, Croatian and Slovenian, as well as a cartographic legend. In order to determine the reliability of maps, the method of transforming a square network and the method of trigonometric control were applied for the purpose of checking the reliability and accuracy. It was concluded that the maps are that the obtained spatial image is only similar to natural image in the most general sense of the distribution of geographic features, and the internal relationships between individual geobjects are distorted and inaccurate.

