

INTERNATIONAL SCIENTIFIC-TECHNICAL CONFERENCE "GEOFORUM 2018"

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The annual XIXIII International Scientific and Technical Conference (ISTC) "Geoforum 2018" took place from April 18 to 20, 2018 in Lviv-Bryukhovychi. Traditionally, this conference was dedicated to the anniversary of the professional holiday of the workers of geology, geodesy and cartography of Ukraine.

Information about the conference was posted on the website of the Western Geodesy Society: <http://zgt.com.ua/> and also distributed through specialized scientific and technical publications: "Modern achievements of geodesy science and production", "GEODETA" (Poland), GIM (the Netherlands) The "Geoforum 2018" invitations were sent in advance to various regions of Ukraine and many countries of Europe and the world.

The ISTC Organizing Committee was headed by: Academician of the National Academy of Sciences of Ukraine, Director of the Main Astronomical Observatory of the National Academy of Sciences of Ukraine Yaroslav Yatskiv, President of the Ukrainian Society for Geodesy and Cartography (SS "UTGK") Dr.Sc. Igor Trevoy and acting Oleksandr Kolotilin, Head of the State Service of Ukraine for Geodesy, Cartography and Cadastre, and the members of the Organizing Committee included well-known scientists and specialists from different countries.

The main organizer of the ISTC "Geoforum 2018" was the Western Geodetic Society of UTGC with the assistance of the Ministry of Education and Science and the National University "Lviv Polytechnic", the Ministry of Defense and the Academy of Ground Forces, other ministries, departments and enterprises of the sphere of geodesy, cartography and cadastre of Ukraine. The main sponsors of the conference were known companies Leica Geosystems and Topcon, represented by their representatives in Ukraine, respectively, the Navigational-geodesic center (Kharkiv) and the research and production firm TNT-TPI (Dnipro).

The conference was attended by scientists, teachers, employees of enterprises and organizations

of the sphere of geodesy, cartography and cadastre of Ukraine and related industries. Among them there were officials, heads of enterprises, scientific and educational institutions, almost 10 professors, over 30 candidates of sciences, many graduate students and students from different regions of Ukraine, Germany, Poland, Moldova, Latvia, Armenia, and the Czech Republic.

Until the beginning of the ISTC, another (35) issue of the professional collection of scientific works of the Western Geodesic Society "Modern achievements of geodesic science and production" and a collection of abstracts and the program of the conference was published. Each participant has received this magazine, theses and program along with the conference hall and other informational materials.

The conference was opened by the Honored Education Worker of Ukraine, President of the "UTGK", Doctor of Technical Sciences, prof. Ihor Trevoho The flag-standard of the Society was introduced. Greeting the participants of the ISTC "Geoforum 2018": on behalf of the Lviv Polytechnic National University the laureate of the State Prize in Science and Technology, director of the Institute of Geodesy Dr. Sci., Prof. Kornilyi Tretyak, on behalf of the Land Forces Academy. Hetman Petra Sagaidachnogo zast. Colonel Oleksiy Krasnyuk, Chief of Science, on behalf of the Society of Polish Surveyors (SGP), former SGP President Mr. Krzysztof Cisec, on behalf of the personnel of the Geodesy, Cartography and Cadastre of Armenia, Vice-Rector of the Yerevan Agrarian University, Dr.Sc. Paruyr Efendiyan, on behalf of the State Service of Ukraine for Geodesy, Cartography and Cadastre Director of the Research Institute of Geodesy and Cartography prof., D.Sc. Yuri Karpinsky. Congratulations were also made by TOPCON representatives Luca Pasquini and Andzej Jaroszewicz.

On the occasion of the professional holiday the awarding of famous specialists from Ukraine and abroad was held. Honorary Award for Merits in Geodesy and Cartography II degrees were awarded: Director of the Geokart-International Company Lucian Petlyukh (Rzeszow, Poland), Vice-President

of SGP, Doctor, Professor Andrzej Pahuta (Warsaw, Poland), Member Dr. Volodymyr Stodnikov, Presidium of the UTGC (Odessa). Honorary honors "For merits in geodesy and cartography" III degree were awarded: Vice-rector of the Armenian Agrarian University, doctor, professor Paruyr Efendiyani (Yerevan, Armenia), director of "Jurmaks Service" Yuriy Ivashchuk (Lviv). Some of the best workers in the sphere of geodesy and cartography of Ukraine and foreign specialists were marked with valuable gifts and certificates of UTGC.

During the conference there was a presentation of the geodesic literature of the Lvivska Polytechnic Publishing House, products of a number of companies and organizations. A large exhibition of geodetic techniques and technologies from leading Ukrainian companies. Among them were TNT-TPI (Dnipro), NGC (Kharkiv), Y.P.S. (Kharkiv), System Solutions (Kyiv), ENSELCO and others. Note that Leica Geosystems has made a two-hour presentation of new technologies.

The scientific program of the conference began with a plenary meeting, which was presented with six reports, and began with the analysis of the operation of the UTGC SS in 2017 in the presentation of the President of the SS "UTGC" prof. I.Trevoi The co-author of this report was also B. Chetverikov and O. Rudik. The next report "Modern Geoinformation Technologies from Leica Geosystems" was devoted to new developments of the well-known geodesy company. It was presented by Alexander Gorb. Subsequent reports concerned various aspects of geodetic, photogrammetric and cartographic activity. They were represented by prof. Y.Karpinsky (Topographic Mapping in the National Geospatial Data Infrastructure), doctoral student I.Kolb (New ways of displaying information about buildings and structures on large-scale orthophotomaps). About the 25-year-old way of activity of the Lviv Polytechnic Publishing House, which contributed significantly to the popularization of the map-geodesic industry, was made by its director, Mr. I.Parubyak. Presided at this meeting prof. Igor Trevoy and professor Cornelius Tretyak.

The next day there were five sections, on which in general about 70 reports were heard.

In the section "Geodesy, geodynamics, monitoring" under the chairmanship of prof. A presentation of scientific developments in the field of theoretical and applied issues of geodesy (L.Perovich, S.Savchuk, O.Tadeev, I.Tsyupak), satellite technologies (C .Savchuk, A.Fedorchuk,

A.Menko), atmospheric influence on satellite and geodetic measurements (A. Khoptar), geodynamic processes and monitoring (L.Nazarevich, T.Korlyatovich).

In the section "Photogrammetry, Cartography, GIS" (under the chairmanship of Prof. H. Burshtinskaya and Prof.V.Glotova) a significant part of the reports was presented on the problems of geoinformation provision of territories (A. Tselsm, V.Parsova, H. Burshtynska, S. Tretyak, O.Melnik), the application of scanning methods for solving various problems (H.Marousazh, O.Voyanarovsky), the use of unmanned aerial vehicles (V.Glotov and others, Z.Kusik), cartographic modeling of territories (Y.Paryichuk, N. Lazorenko-Hevel).

In the program section "Engineering geodesy and geodetic monitoring in construction" were heard reports on regulatory and legal provision of engineering and geodetic works in Ukraine (K. Burak), geodetic support in engineering and construction practice (O. Zayats, A.Vivat, Ye V.Rypets'kyi, V.Mihailyshyn, R.Demyanenko).

In the section "Cadastral and Land Management" under the chairmanship of D.Sc., Prof., Velty Persovoy, D.Sc., prof. Paruyra Efendiyani and Ph.D., prof. L.Perovich were heard reports on the conceptual foundations of the organization of land use (V.Parsova, V.Trisnyuk), on problematic issues of establishing (restoration) of boundaries of land plots, certain aspects of determining the areas and arranging land plots (V. Ryabchii, O. Buganenko).

The sectional session "Military Geodetic and GIS Technologies" was chaired by D. T. ..., Prof. Volodymyr Korolev, who set a benchmark for the work of the participants in this section. These benchmarks were successfully highlighted in their reports: Y. Paschuk ("Methods of synthesis and optimization of the structure of the airborne navigation and control unit of a tactical unmanned aerial vehicle"); V.Maksymchuk ("Magnetic inclination and its temporal changes in the territory of the West of Ukraine"); O.Pashtnetnik ("Software and Mathematical Support of the Geoinformation Subsystem of the Automated Control System for the Tactical Division of the Land Forces of the Armed Forces of Ukraine"); Y. Zaets ("Justification of the structure and exact requirements for the system of whole distribution in the mechanized (tank) unit based on navigation and geospatial information"); I.Petliuk ("Model of construction and determination of parameters of the reconnaissance panorama of the

ground situation"); Y.Salnik ("The use of aerostat type aircrafts by the Intelligence Unit of the Army units").

The conference "Geoforum 2018" as a school of young scientists was useful. They had the opportunity to present their scientific achievements directly in the main sections, as well as to study logically and consistently submit research materials. Participants of the conference had an opportunity to get acquainted with modern devices and technologies from the leading instrument-making companies Topcon, Leica Geosystems and others. Participated in thematic excursions in Lviv, Zhovkva, at the Scientific Geodetic Survey in Yavoriv district of Lviv region.

The decision XIII International Scientific and Technical Conference (ISTC) Geoforum-2018

The ISTC took place from April 17 to April 19, 2018 in Lviv-Briukhovychy-Yavorov. The conference was attended by scientists, teachers, post-graduate students and students, industrialists, military experts who represented almost all regions of Ukraine and countries such as Germany, Poland, Latvia, Moldova, Armenia, Czech Republic. After hearing and discussing about 70 reports (of which 9 were in the plenary, the rest - in 5 sections) and about 40 reports of the stands, ISTC adopted the following resolution

To apply to the State Service of Ukraine for Geodesy, Cartography and Cadastre:

- complete consideration of the new edition of the Law of Ukraine "On topographic and geodetic and cartographic activity" and submit it to the Verkhovna Rada of Ukraine;
- develop / update priority regulations (guidelines, guidelines, etc.) in the field of topographical and geodetic and cartographic activity;
- lay the technical and regulatory framework for the functioning of networks of active reference GNSS stations in Ukraine;
- improve the regulatory framework for land management and cadastre.
- practice wider use of open source software and geospatial data bases to create cadastral systems.

To apply to the Ministry of Education and Science of Ukraine with proposals:

- To prevent the spraying of specialties and qualitative training of specialists, introduce a new

(old) branch of knowledge "Geodesy, cartography and land management" with a classical division in the specialty: geodesy (space and engineering), cartography, land management and cadastre, land and real estate valuation, geoinformation systems and technology, photogrammetry and remote sensing.

To apply to the Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine with proposals:

- To accelerate the introduction of new DBNs for geodetic works in construction.

Contact the Ministry of Defense of Ukraine with proposals:

- to intensify scientific research and research in the fields
 - a) information and geoinformation systems, topogeodesic and navigational support of the Land Forces of the Armed Forces of Ukraine;
 - b) the joint use of unmanned aerial vehicles (UAVs) with appropriate GIS in the interests of the Land Forces of the Armed Forces of Ukraine;
- To implement a set of measures to attract the Hetman Petra Sagaidachnyi to the Scientific and Technical Cooperation of the representatives of the National Defense University of Ukraine named after Ivan Chernyakhovsky by the Ground Forces Scientific Center of the National Academy of Ground Forces.

Taking into account the high level and interest of the MNTK "Geoforum", it is considered necessary to continue the practice of holding such conferences. The next ISTC "Geoforum 2019" will be held April 10-12, 2019.

Provide information about the conference to foreign participants for distribution in mass media (Internet sites, magazines, collections, etc.).

The decision of the ISTC "Geoforum 2018" to publish, send to the Administration of the President of Ukraine, the Cabinet of Ministers of Ukraine, the Ministry of Education and Science of Ukraine, the Ministry of Defense of Ukraine, the State Service of Ukraine for Geodesy, Cartography and Cadastre, Military-topographical Office of the Armed Forces, scientific, educational, project and production organizations and all conference participants.

International Scientific Conference "Geoforum 2018"

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The review of current state and prospects of development of surveying, mapping and cadastral

work in Ukraine according to the International scientific conference "Geoforum 2018", held April

17-19, 2018 in Lviv- Bryukhovychi.



Opening of "Geoforum-2018"



With a welcome speech the director of the Institute of Geodesy prof. Kornilyy Tretyak (Lviv)



The ex-president of the SGP, Krzysztof Cisec, speaks with greetings to the conference participants (Zheshuv, Poland)



Participants of the conference are welcomed by representatives of TOPCON company Luca Pasquini (Italy) and Andzej Jaroszewicz (Poland)



Award "For merits in geodesy and cartography" was awarded by D.Sc., prof. Paruyr Efendiyan (Yerevan, Armenia)



Participants of ISTC "Geoforum-2018"



At the plenary session doctoral candidate of the Institute of Geodesy reports Igor Kolb (Lviv)



Military section



At the plenary session the director of the SRIGC, Doctor of Technical Sciences, professor Yury Karpinsky (Kiev)



Director of Navigational and Geodesic Center Alexander Gorb (Kharkiv) reports at the Leica Geosystems Workshop