



Activities of the Public Union “Ukrainian Society of Geodesy and Cartography” in the pre-war period and during the war

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**USGC ACTIVITIES
IN THE PRE-WAR PERIOD**

According to the charter, the Public Union “Ukrainian Society of Geodesy and Cartography” carries out the following types of work:

- Organizational activity
- Scientific and technical activity
- International activity
- Publishing activity
- Protection of professional interests of the industry
- Rewarding of important events

ORGANIZATIONAL ACTIVITY



The USGC was founded 32 years ago in 1991 as a voluntary public organization in the field of geodesy and cartography of Ukraine and is the largest in the field.

USGC has state registration, its legal charter and statutory documentation, seal, bank accounts and legal address, its own flag-standard, office, websites (including in social networks), necessary office paraphernalia, publishes its own specialized scientific and technical journal, monographs, theses of reports, etc. It has introduced honorary professional awards to reward the best members of the USGC and industry specialists, holds congresses and international conferences, effectively cooperates with government institutions of the country, participates in law-making work.



ORGANIZATIONAL ACTIVITY



USGC Presidium meeting working moments

ORGANIZATIONAL ACTIVITY

The results of the USGC activities are systematically published of the journal “Modern Achievements of Geodetic Science and Industry” and other publications. The most important and interesting events in the work of the USGC Presidium and the life of the Society were periodically posted on our websites **utgk.org.ua** and **zgt.com.ua** and in social networks (Facebook, etc.).

The most important areas of work were :

- promotion of scientific and technical progress in the field;
- increasing the prestige and professional protection of the topographic, geodetic and cartographic industry of the country, participation in law-making activities, development of new state standards, regulatory documents;
- increase in the number of the USGC members;
- support and active protection of professional rights and interests of members and organizations of the USGC;
- protection of interests and development promotion of geodetic and cartographic science and education;
- organization, holding and support of scientific and technical conferences, congresses, symposiums in Ukraine and abroad.

ORGANIZATIONAL ACTIVITY

- support for the publication of specialized scientific and technical journals, monographs, textbooks and other publications;
- nomination of the best projects and professional publications, important scientific developments for the State Prize and various competitions and grants;
- stimulation of professional activity in the industry by introducing incentive awards, rewarding of important events, honoring individual employees and teams;
- expansion of the USGC international activities at the professional and public levels.

The USGC Presidium pays considerable attention to the growth of the Society ranks. The President and members of the Presidium permanently highlighted the results and advantages of the Society activities in Ukrainian and foreign specialist publications, in the mass media, in speeches at conferences, meetings, and gatherings. So, the new members of the USGC became teachers of specialized departments of universities from Chernivtsi, Ivano-Frankivsk, Poltava, Kharkiv, Lutsk, Rivne, Uzhgorod, Lviv, Odesa, Uman, Ternopil. Ltd: “ELNAV”, “NGC”, “CARTOGRAPHY”, “DEMETRA-5”, “ECCOM”, “ABRIS DG”, “GEONIX COMPANY”, PRIVATE ENTERPRISE “MATEK” etc.

SCIENTIFIC AND TECHNICAL ACTIVITIES



Experimental works at the scientific geodetic polygon

SCIENTIFIC AND TECHNICAL ACTIVITIES

The USGC Presidium contributed and continues to contribute to scientific and technical progress in the field of geodesy, cartography and cadastre, creating conditions for effective creative work and scientific research, supporting the conduct of scientific expeditions, organization and holding of scientific conferences.

Thus, with the support of the Western Geodetic Society Board of Ukraine in Lviv region near Yavoriv, a reference scientific geodetic polygon is constantly operating, where scientific expeditions are conducted, and two metrological facilities have state certification and are used for metrological verification of GNSS receivers, electronic total stations and other measuring equipment.

SCIENTIFIC AND TECHNICAL ACTIVITIES

For 26 years, the USGC has been organizing and conducting the annual traditional ISTC “GEOFORUM”, which is one of the largest scientific forums in Ukraine. This ISTC is organized by the USGC with the support of Lviv Polytechnic University, the National Ground Forces Academy, a number of ministries and agencies.

The Society is also a co-organizer of the following ISTC: “GeoTech Zakarpattya” (Uzhhorod), “Geospace” (Kyiv), Conferences in Odessa and others.

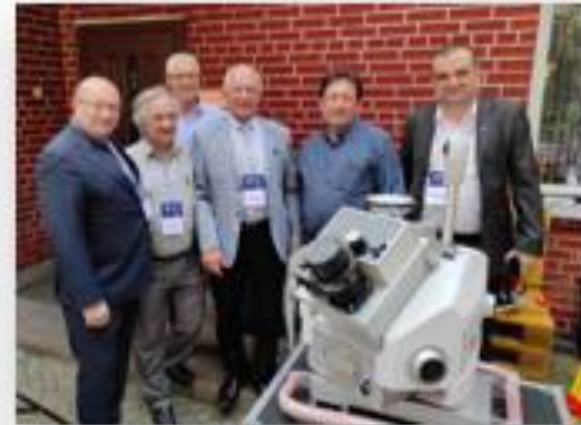


*At the GEOFORUM
conference*





Fragments of the ISTC “GEOFORUM”



INTERNATIONAL ACTIVITY

The USGC Presidium constantly expands international cooperation with foreign public organizations and unions (SGP - Poland, DVW - Germany, CSGK - Czech Republic, STGK - Slovakia, Austria, Latvia, Moldova, Bulgaria, Armenia, Turkey and other countries) with scientific, educational and industrial institutions, commissions, editorial boards of specialized journals (GIM, Coordinates, Geodeta and others).

Since the nineties, the USGC has been a member of the world federation of surveyors - FIG, with which there is constant cooperation (the President and Vice-President of FIG participated in the work of the ISTC GEOFORUM). The USGC Presidium supported the aspirations of the SGP in holding the next FIG congress in Poland, which took place in September 2022 in Warsaw.

USGC and the Society of Surveyors of Poland (SGP) actively cooperate. The delegation of our Society was invited to the 39th Congress of SGP (Olsztyn, 30.06-02.07.2017) and to the jubilee conference “100 years of SGP” (Warsaw, 29-30.01.2019). At the SGP congress, the President of USGC was awarded the title of “Honorary Member of SGP”. A number of Ukrainian scientists who are members of the Society have been elected to the editorial boards of Polish scientific geodetic journals, and the President of the SGP J. Wało is a member of the Scientific Organizing Committee of the GEOFORUM Scientific Research Center and the editorial board of the journal “Modern Achievements of Geodetic Science and Industry”.

INTERNATIONAL ACTIVITY



Fragments of international cooperation

INTERNATIONAL ACTIVITY



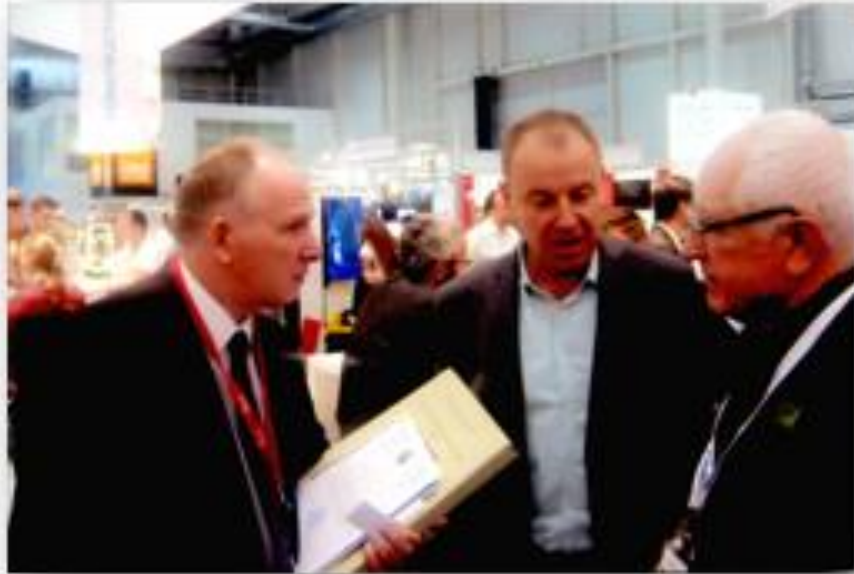
Fragments of international cooperation

INTERNATIONAL ACTIVITY

Every year, the delegation of the USGC takes part in the largest world congress INTERGEO in Germany, where you can familiarize yourself with new achievements in geodesy, photogrammetry, GIS; see modern digital devices, UAVs, measuring complexes, geodetic monitoring systems, software, etc.; establish important business contacts to find partners for international cooperation in the scientific, educational and public spheres.

Thanks to the efforts of the USGC, the participation of Ukrainian specialists in the congress has increased in recent years to 100 or more people.

INTERNATIONAL ACTIVITY



Fragments INTERGEO

PROTECTION OF PROFESSIONAL INTERESTS OF THE INDUSTRY

Another one of the main directions of the Society work. The USGC Presidium constantly protected and protects the professional interests of the country geodetic industry, geodetic and cartographic science and education, enterprises and individual employees and permanently participates in law-making and regulatory activities in the field of geodesy, cartography and cadastre of Ukraine.

Members of the USGC Presidium together with the President systematically speak in the mass media, on websites and social networks, and appeal to government structures and the National Security and Defense Council to protect the professional interests of the industry. In recent years, special attention has been directed to the formation of laws of Ukraine No. 2194, “On the infrastructure of geospatial data”, “Topographic, geodetic and cartographic activities”, to the development of new normative documents, state standards, etc. As a result, a separate geodetic qualification commission appeared, the creation of a self-governing organization of certified geodetic engineers is being completed, the development of new instructions for large-scale topographic surveying is being completed, the Society has joined the Public Council under the State Geocadastre, active and constructive cooperation with the State Geocadastre is underway

The USGC Presidium appealed to the Ministry of Education and Science of Ukraine on important issues of protection of geodetic and cartographic education and science and is making efforts to ensure that enterprises and branches of the industry are headed by professional specialists.

PUBLISHING ACTIVITY

The USGC publishes the professional scientific journal “Modern Achievements of Geodetic Science and Industry” (Lviv). Chief editor is prof. I. Trevoho. Two issues are published a year. Materials in the journal can be printed in five languages. The editorial board is international. Timely publication of the journal creates conditions for speeding up the defense of dissertations.

Since 2016, the USGC has been publishing the materials of the reports of the ISTC “GEOFORUM”. In 2020, the monograph “ISTC GEOFORUM – a space for new ideas and developments” was published to the 25th anniversary of the Conference).



REWARDING OF IMPORTANT EVENTS

Every year, the USGC celebrates the professional holiday of workers of geology, geodesy and cartography of Ukraine, which is always accompanied by the celebration and awarding of the best teams and workers. In connection with the FIG establishment of the World Surveyor's Day, which falls on 21 of March, the Presidium of the USGC addressed to the President of Ukraine with a letter about the postponement of the professional holiday from the first Sunday of April to 21 of March. Our appeal was supported, as reported by the President's Office. We expect that next year on 21 of March we will celebrate the professional holiday “Surveyor Day of Ukraine”.

Other important (anniversary) events in the life of the industry, organizations and individual employees are celebrated. Information about this events are usually published in the USGC journal, mass media, and social networks.

To stimulate professional activity in the USGC, 8 professional awards and jubilee badges were introduced for important events (Society congresses, ISTC “GEOFORUM”, etc.). In 2020 a new award was introduced - the “Medal named after Prof. A.D. Motorny”, badges “25 years of GEOFORUM ISTC”, IV Congress of USGC. Next year will begin work on a new honorary award “Medal named after Prof. M.K. Myhal”.

REWARDING OF IMPORTANT EVENTS



*Awarding of the General Secretary CLGE
(Vasile Chiriac)*



*Awarding the Board member of the WGS
(Ivan Shot)*



*Awarding the American astronaut
of Ukrainian origin
Heidi-Maria Stefanyshyn-Piper*



*Awarding of a member of the National Academy
of Sciences of Ukraine (Valentin Maksymchuk)*

USGC ACTIVITIES DURING THE WAR

During the active phase of the war caused by Russian aggression, starting from February 24, 2022, the USGC is trying to work in full-time mode and perform all areas of activity prescribed in the Union charter.

At the legislative level, the members of the USGC take part in the finalization of laws and regulatory documentation, such as:

- Procedure for topographic surveying for scales 1:500-1:5000.
- Law of Ukraine “On topographical, geodetic and cartographic activities”.
- Procedure for receipt, record keeping, storage and use of materials of the State Cartographic and Geodetic Fund of Ukraine.

In the educational sphere, the USGC Presidium turned to the Minister of Education and Science of Ukraine and the Prime Minister of Ukraine with a proposal to introduce a mandatory course “Topography” in the training of specialists of all specialties at the bachelor's level.

In April 2023, it was possible to hold another GEOFORUM offline conference, which was attended by more than 180 specialists from various regions of Ukraine, as well from Germany and the Baltic countries.

TECHNICAL ASSISTANCE FOR MILITARY TOPOGRAPHY SERVICES OF THE ARMED FORCES OF UKRAINE

During the Russian occupation of parts of the Kyiv and Chernihiv regions, the technical capabilities for the publication of cartographic products by the Military Topographic and Geodetic Service of Ukraine were destroyed by military shells. The USGC quickly began to help military surveyors in the purchase of new equipment outside of Ukraine.

We are very grateful to all the national geodetic organizations of the neighboring countries who contributed to the financial assistance and purchase of the necessary equipment. Special thanks to the Polish Society of Surveyors SGP and its president Prof. Janusz Walo, who formed a hub on the territory of Poland before sending the equipment to Ukraine.

OPERATIONAL UPDATE OF TOPOGRAPHIC MAPS FOR MILITARY TOPOGRAPHIC SERVICE OF THE ARMED FORCES OF UKRAINE

The members of the USGC took an active part in the working group on the operational update of topographic maps of scales 1:50000 and 1:25000 for the military, which was formed by the State GeoCadaster of Ukraine and the Military Topographic Service of Ukraine from specialists from different regions of the country.

Special thanks to the CLGE Presidium and national organizations for the funds that made it possible to partially support the cartographers who worked on the updates.



MILITARY TRAINING

Since the beginning of the active phase of hostilities caused by Russian aggression, members of the USGC have taken an active part in training military personnel in the basics of military topography, as well as in the training of military UAV operators.



HELP TO UKRAINIAN SURVEYORS AND THEIR TO FAMILIES IN UKRAINE AND ABROAD

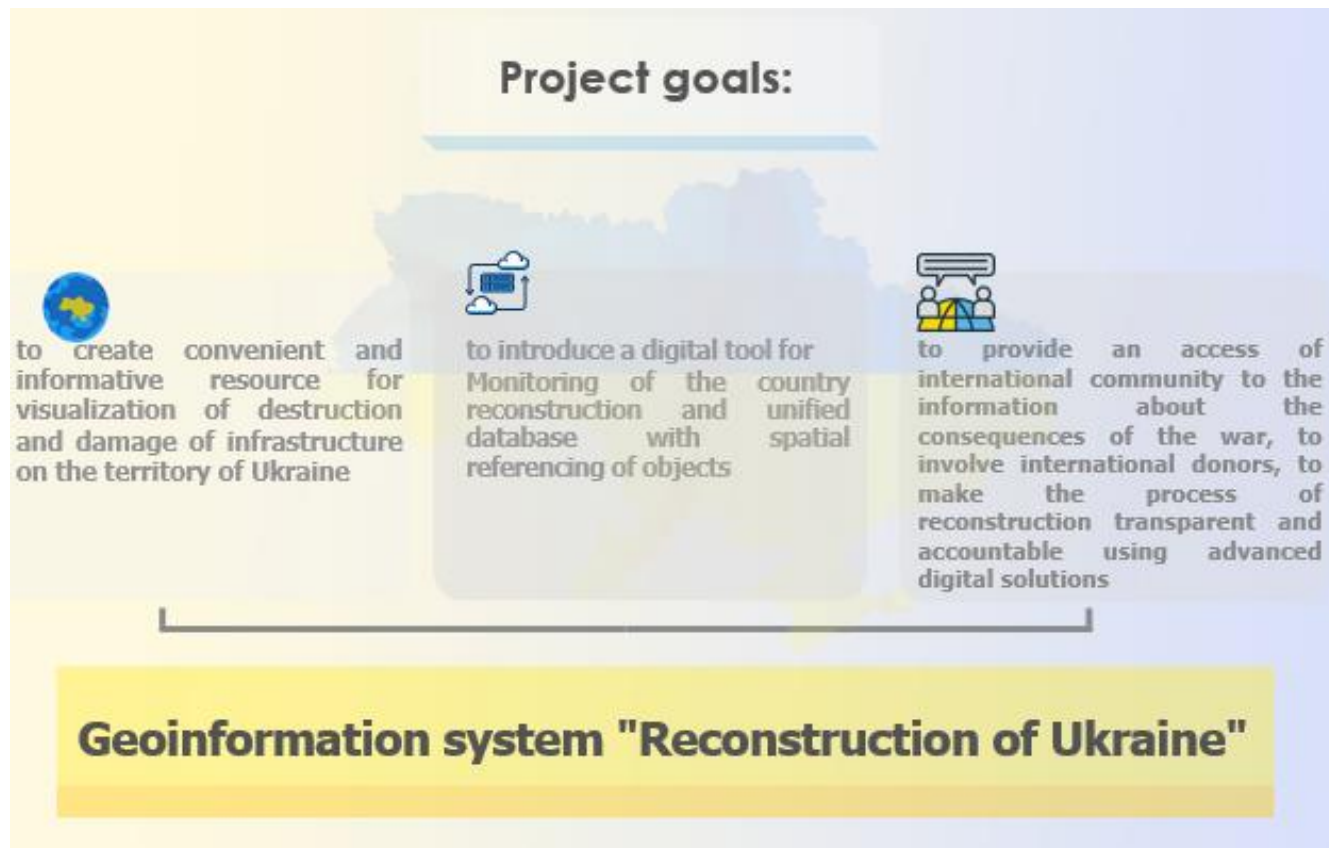
CLGE made a great contribution in cooperation with USGC in supporting surveyors and their families who suffered by the hostilities on the territory of Ukraine. To the injured who applied for help were provided a financial support.

We are very grateful to the CLGE, national organizations and Jean-Yves Pirlot personally for creating an international center to help surveyors and their families who find themselves as refugees abroad. The USGC Presidium informed all surveyors, who needed help and verified their personal data after appeals.

GEOPORTAL “RECONSTRUCTION OF UKRAINE”

Members of the USGC, together with the All-Ukrainian Aero-Geodetic Association, are engaged in the creation of geoportal “Reconstruction of Ukraine”.

The portal will contain statistical and analytical data on the assessment of destruction due to hostilities based on data from space photography and aerial photography from UAVs.



Assessment of damages

Property types	Number of items, units 11.07.22
Housing*	121 thousand units
Private houses	107.7 thousand units
Apartment buildings	13.1 thousand units
Infrastructure*	
Roads	23.9 thousand km
Civilian airports	19 units
Railway stations and rolling stock	-
Industry and business services	388 units
Agri sector and land resources	-
Social services	56 units
Vehicles*	123.1 thousand units
Cars	105.2 thousand units
Public transport	17.3 thousand units
Education	2061
Education institutions	1371
Kindergartens	690
Commerce	2926
Shopping malls	23
Energy	-
Oil depots	28
Health care	779
Utilities	-
Culture, religion, sport and tourism	735
Cultural facilities	527
Religious buildings	36
Sports facilities	95
Tourists facilities	49
Youth centers	28
Administrative buildings	511
Digital infrastructure	726
Financial sector	-



Data published by the Kyiv School of Economics

*The specified property types of damages are not exhaustive in the following sectors.

*Thank you for your
attention!*