After the Austro-Hungarian Monarchy and the Russian Empire collapsed and new independent states started to develop, they founded their own mapping services. The national authority - the Main Geodetic Administration of Ukraine was established on March 10, 1918 at the Ministry of War of Peoples Republic of Ukraine.

The Statute of the Main Geodetic Administration was developed but did not get the approval. As a result of its modification the Statute of the Corps of Ukrainian Geodesists was developed and approved on November 2, 1918.

The foundation of the State Mapping Service of Ukraine took place in a very complicated political, economic and military environment. During its very short period of activity only a few maps were republished in 1918 (“The Special Map of Ukraine”, “The Road Map of Ukraine and the Adjacent Countries”, “The Map of Ukraine and of Parts of Adjacent Countries”, map of Kyiv with suburbs.

But further historical developments in Ukraine did not allow for the realization of the plans for the national mapping service organization.

Before the First World War a part of Ukrainian territory belonged to the Russian Empire and another part of it – to the Austro-Hungarian Empire. Topographic maps created by the military topographic services of Russia, Austro-Hungary and Germany covered the territory of Ukraine. Topographic maps coverage of Ukrainian territory to the west of the river Dnipro (the Dnieper) was better than the coverage of the territory to the east of it. Military interests of Russia and Austro-Hungary could explain that. The events of the First World War, and thereupon the events of the Revolution, the break-down of the Russian Empire and the Habsburg Empire, the Ukrainian national liberation movements have changed the political map of Ukraine then.

The drive towards independence and the integration of Ukrainian lands was the main reason of the revival of Ukraine as a state. The new period in the development of Ukrainian society began. The Peoples Republic of Ukraine (PRU) was declared on November 20, 1917 and on January 22, 1918 Ukraine was declared the independent and sovereign state. On April 29, 1918 Hetman Petro Skoropadskyy took power and the official name of the state was changed to the Ukrainian State. After the Hetman’s abdication on December 14, 1918 the Directory has restored the legality of the Constitution of the PRU. On January 22, 1919 the Act of the Unification of the Western Ukrainian Peoples Republic (founded on November 9, 1918) and the PRU was adopted.

After the declaration of the independent and sovereign PRU the necessity arose to make a decision at the state level concerning the mechanism of cartographic and geodetic services to satisfy the needs of the state.

The process of organization and development of these services in different states has two common features in our opinion. One of them is that the main task of the mapping services is ensuring of the country’s defense needs, that is why their formation took place as a military mapping services. The other common feature is that all young states while founding their own mapping services tend to have copy the corresponding structure of the former metropolis. By analogy with the Military Geographic Institute in Vienna the Military Geographic Institute was founded in Warsaw in March 1919 (since spring 1921 it was called the Military Institute Geographical). It became the main institution of Polish Military Cartographic Service. The head of the Service was at the same time the Director of the Institute. In the similar way the Military Topographic Institute was founded in 1918 in Prague. The curious fact is that the Military Topographic Service of Austro-Hungary supplied Polish and Czech services with the materials of topographic survey of the corresponding territories.

Taking this into account, no wonder that the Russian Corps of Military Surveyors, the organization that carried out the main topographic and geodetic tasks in tsarist Russia, was taken as an example for the Mapping Service of Ukraine. At the beginning of 20th century the territory of Ukraine was covered by the outdated “Special 10-versts-scale Map of the

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1 hetman – the head of Cossack troops
European Russia” by Strel’byts’kyi at the scale of 1:420 00 and by the 3-versts-scale Military Topographic Map of the European Russia at the scale of 1:126 000. The western part of Ukraine beginning with the line Kyiv – the Dnipro mouth was mapped at the scale 1:84 000 (2-versts map), 1:42 000 (1-versts map) and 1:21 000 (½-versts map).

Besides the Corp of Military Surveyors some civil institutions carried out the topographic and geodetic works in Russia in the second half of 19th – the beginning of 20th century. The first of them was the Land-Surveying Administration that had conducted a survey of changes, which occurred due to the Land Reform of 1861 and Stolypin’s reorganization of land resources. The Migration Office made a survey along with triangulation in Siberia and the Far East. The Mining Administration carried out small-scale topographic and geodetic works in the areas of minerals exploration and extraction. For example, Professor Baumann did the triangulation of the Donets’k Coal Basin for geological surveys. Other departments having conducted geodetic-topographic works that deserve to be mentioned here, were the Hydrologic Administration, the Ministry of Transport, the Ministry of State Property, the Forestry Ministry etc.

By the order of the Ukrainian Military Secretariat (No 30 from November 24, 1917) the Kyiv Survey Administration of the Military Topographic Department of the Russian Armed Forces was subordinated to this very Secretariat. At the same time the Cartographic Division of the Staff of the South-Eastern Front was subordinated to the Head of Survey. The major user of cartographic production at that time was the Army and that is why the Main Geodetic Administration was created under the Military Ministry on the basis of the reorganization of the Kiev Military Survey as the national institution. Its functions were: to conduct cartographic works in the Army, to survey, to make maps and supply them to the Army and to military institutions, to meet the needs in topographic, geodetic and cartographic materials. Comet-General Mykola Medzvitsky (1868-19??), who after the Bourgeois Revolution (February of 1917) had been the Head of the Kyiv Military Survey, and before, during 1911-1917 in the rank of a Major-General Medzvitsky had been the Director of the Military Topographic College in Petersburg, became the head of the Main Geodetic Administration.

The exact date of the Main Geodetic Administration foundation was not known. As a result of a research into the history of mapping of Ukrainian territory at the Central State Archive of the Supreme Bodies of State Power and Administration some previously unknown facts were found in regards to the history of the Ukrainian State Mapping Service. The letter of the Head of the Main Geodetic Administration (No 1707 from September 14, 1918) to the Ministry of Foreign Affairs contains the date of the initiation of the Administration under the Military Ministry – March 10, 1918. The above-mentioned fact gives us the ground to state that March 10, 1918 is the date of the foundation of State Mapping Service of Ukraine. The Main Geodetic Administration was located in Kyiv on Bul’var-Kudriavyjka (now – Vorovs’kyi) Street, No 18. The storehouse of topographic maps was situated in the same building.

We know that during the period of Het’manate (after April 19, 1918) the Main Geodetic Administration, headed by Comet-General Mykola Medzvitsky as the Chief of its General Staff, its triangulator-in-chief being Sergeant-Major Petro Yemelyanov, consisted of three departments: two geodetic, headed by Sergeant-Major Sensiv and Colonel Yuriy Sergyuk, and one cartographic, headed by Sergeant-Major Klym Brazhky.

The author also discovered the Draft Statute of the Main Geodetic Administration bearing a date May 20, 1918 at the depositaries of the Central State Archive of the Supreme Bodies of State Power and Administration.

The main task of the Administration was to supply the Army with the necessary maps in accordance with the schedule elaborated by the Head of the General Staff. Among other tasks were: to carry out astronomic, triangulation, geodetic, cartographic and photogrammetric works, to participate in research works on road building, in the state and territorial demarcation, in geological research and geophysical experiments, to conduct metrological research and timer service, to publish specialized maps at different scales, to publish atlases and maps for different needs of the state.

The Draft Statute of the Main Geodetic Administration provided for the considerable improvement of the organizational structure of the Administration. The staff of the Administration was to include scientists-geodesists, geodesists, military officials and civilian employees. All scientists-geodesists and geodesists of the Administration constituted the Independent Corps of Ukrainian Geodesists. The Russian Corps of Military Surveyors was chosen as the prototype for the Ukrainian Mapping Service, but unlike it the Main Geodetic Administration was planned as the national authority and not only a military institution.

The Draft Statute was sent to other ministries and state bodies for approval. But due to some unknown reasons it was not approved. After it was revised, the Statute of the Corps of Ukrainian Geodesists was supplemented, but very few changes were made to it. It was given the additional task of supplying the Navy with nautical charts.

The Central Board of the Corps of Ukrainian Geodesists was called the Main Geodetic Board (MGB). All geodetic and cartographic activity was under the supervision of the Head of the Corps of Ukrainian Geodesists (at the same time he occupied the position of the Director of the Main Geodetic Board). The Head of the CUG was an active member of the War Council and the Geodetic Council of the State Geodetic Institute of the Ukrainian Academy of Science.
MGB was divided into the Department of the Head of CUG, the Geodetic Department, the Department of Triangulation and the Cartographic Department. The organizational structure of the Main Geodetic Board is shown in Figure 1.

The Corps of Ukrainian Geodesists as well as the Main Geodetic Administration had been intended and established as national bodies. All operating plans and the calculations for their implementation were developed by the Head of CUG depending on the needs of Military Ministry, ministries of Transport, Education, Trade and Industry, the Ministry of the Interior and the Foreign Office. Then they were studied by the Geodetic Council and approved by the War Council. Works were financed in accordance to the estimates of the ministries, which made orders. One of the main tasks of the CUG, which was not provided for by Statute of the Main Geodetic Administration, was also to supply maps for Navy in accordance to the schedule of Navy Ministry.

Some changes in the previous Statute concerned the members of the Geodetic Council and the demands to the personnel of the CUG.

On the basis of the Statute of the CUG its staff vacancies were filled. The statute was studied and approved by the War Council. The Statute of the GUG and its personnel files were forwarded for the approval to the meeting of the Financial Commission at the Department of the State Treasury, which took place on October 30, – November 2, 1918. The Statute and the personnel files were approved, but the Financial Commission considerably reduced the number of units and main experts – triangulators (senior, junior, and their assistants), geodesists (senior, junior, assistants), cartographers (senior, junior, assistants), and craftsmen. Register No 347 contains the minutes of the Financial Commission meeting of October 30, – November 2, 1918, where we find the individual opinion of the Director of the Main Geodetic Board. He considered the reduction of the positions inexpedient. General Mykola Medzvits’kyi grounded his opinion by the necessity to carry out a great scale of mapping. Taking into account that the state was experiencing economic difficulties, the Director of MGB considered that it was necessary to have not less than 108 geodesy experts for the reconnaissance of the 3-vertst topographic map of the territory of Ukraine. The basic data for this map were obtained by semi-instrumental survey in 1860s, and the new surveys were conducted only for a small part of Ukraine. All original data of this survey were kept in St Petersburg and Mykola Medzvits’kyi was not sure that it was be possible to return them to Ukraine. Other important issues were the works on the delimitation of the state borders, cartographic works for the ministries, working out a map of Ukraine at the scale 1:1 000 000. The Director of the MGB asked to approve the staff of the Main Board as consisting of 18 Heads of units, 25 senior and 50 junior geodesists. Mykola Medzvits’kyi explained the need to include to the staff more experts from the point of view of the complexity of their training in future. There were only 500 experts in geodesy in former Russia and technical training took not less than three years and was very expensive. That was why it would give more advantages to the Ukrainian state to co-opt as much as possible trained geodesists to the staff before they were offered jobs at the corresponding institutions of other parts of the former Russian Empire. Because of that the Director of the MGB included to the staff nearly as many different experts, as could be found in Ukraine at that time. The War Council in the presence of a representative member of the State Control Board considered his arguments reasonable, and the staff composition of 18 Heads of units, 36 senior and 72 junior geodesists was adopted.

During the short period of its activity the Cartographic Department had only managed to prepare a few new editions of the maps (in 1918), which had been published by the Military Topographic Department of Russian General Staff earlier.

On the basis of The Special Map of the European Russia by Strel’byts’kyi in April-May, 1918 The Special Map of Ukraine at the same scale (1:420 000) was published. Only the name and the output data were changed. It was planned to publish the map on 54 sheets. Each sheet had its own numeration. The map was monochromatic. Unlike Strel’byts’kyi’s map the new map showed neither the relief, nor the forests. 18 sheets of The Special Map and also 8 sheets with typed in by red paint German names of geographical features (settlements, hydrographic objects) are preserved in the Volodymyr Vernads’kyi National Library of Ukraine of the Academy of Science of Ukraine. This edition of The Special Map of Ukraine was obviously published for German troops.
Figure 1. The structure of the Main Geodetic Board according to the Statute of the Corps of Ukrainian Geodesists.
The monochromatic Road Map of Ukraine and the Adjacent Countries at the scale 1:1 050 000 (25 verst in an inch) was published in two variants consisting of 2 and 6 sheets on the basis of The Road Map of the European Russia. In April 1918 The Map of Ukraine and Parts of the Adjacent Countries at the scale 1:2 520 000 was ready. The Map of Kyiv with the Suburbs at the scale 1:21 000 was reprinted on 6 sheets (as in 1897).

The urgent task of updating the out-of-date Russian topographic map at the scale 1:126 000 was put before the Corps of Ukrainian Geodesists. The works on the development of the Map of Ukraine at the scale 1:1 000 000 started.

Besides this the Geodetic Faculty at the Kyiv Polytechnic Institute was organized.

But further historical events in Ukraine did not allow the realization of the plans for the National Mapping Service organizational development in 1918.

References:

2. Correspondence with the Ministry of Foreign Affairs// Central State Archive of the Supreme Bodies of State Power and Administration. File 42. – P. 62
Biography

Rostyslav Ivanovych Sossa, Doctor of Geographic Sciences, was born in 1956 in the village Dubrova of Ternopil Region, Ukraine. In 1979 he graduated from the Geography Faculty of Kyiv State University and began to work at the Scientific and Editorial Mapping Enterprise (Kyiv) of the Main Administration of Geodesy and Cartography of the USSR first as an engineer-cartographer, then – an editor, and the editor-in-chief.

In 1991-1994 he worked as the Director of the small-scale enterprise Mapa Ltd.. From 1994 he works as the Director of the State Scientific and Production Enterprise Kartographia (Kyiv).

He is the author and the editor of a number of cartographic works. Among them are: tourist maps (The Ukrainian Carpathian Mts –1987, L’viv – 1989), educational wall maps on geography of Ukraine (1990), atlas Ukrainians. Eastern Diaspora (1992,1993), and educational atlases for the territory of Ukraine.

He is the author of more than 60 scientific works, including the monograph The History of Mapping of Ukraine from the Ancient Time till the Present Day (2000), bibliographic indexes Cartographic Works Published by the State and Production Enterprise Kartographia (1945-2000), (2001) and Cartographic Works Representing the Territory of Ukraine (1945-2000), (2000). His scientific research deals with the issues of the development and foundation of the national cartography and the history of mapping in Ukraine.

In 2003 for his contribution to the Cartographic Science and industry he was awarded the State Order For the Merit.