PERGAMON

Acta Astronautica 61 (2007) 1093–1106

ACTA ASTRONAUTICA

www.elsevier.com/locate/actaastro

The famous son of Ukrainian people V.I. Voznyuk who has provided launch of all ballistic missiles of the cosmodrome Kapustin Yar

V.F. Prisniakov[a,*], V.P. Platonov[b]

[a] *Institute Geotechnical Mechanics, National Academy Science of Ukraine, Dnipropetrovsk, Ukraine*
[b] *Publishing house "Prospect", Dnipropetrovsk, Ukraine*

Received 15 February 2006; accepted 11 December 2006
Available online 21 May 2007

Abstract

The history of the life of V.I. Voznyuk is a history of the phenomenon of the Soviet rocket progress when the engineers with experience of launch of military rocket of small radius of action were testing the ballistic missiles. The remarkable and little-known destiny of Voznuk is the history of the Soviet rocket technology experts who had a severe practical schooling of command by the military forces of the first combat missiles "Katucha" during the grim military years (including the grandiose fight in Stalingrad) and then they have continued to launch the ballistic missiles. V.I. Voznyuk worked as the chief of the first Soviet cosmodrome Kapustin Yar for almost 30 years—since the most difficult moment of its organization. He organized a launch of the first Soviet ballistic missiles R-1, R-2, R-5M of S. Korolev. This report is about the outstanding achievement of the organizing ability of V.I. Voznyuk—about the launch of a missile with a nuclear warhead in 1956. V.I. Voznyuk closes a unique chain in the world of outstanding figures of space-rocket technology who were born or lived in Ukraine from designers of missile up to the organizers of its manufacture and now up to the organizers of the tests of rockets—J. Aizenberg, V. Budnik, O. Baclanov, V. Dogujiev, M. Galasj, N. Gerasuta, V. Gluschko, B. Gubanov, A. Gudimenko, I. Ivanov, G. Kesunjko, B. Konoplev, S. Korolev, V. Kovtunenko, V. Kukuschkin, O. Makarov, A. Nedaivoda, M. Reshetniyov, Yu. Semenov, V. Sergeev, Yu. Smetanin, V. Tchelomey, D. Torchiy, V. Utkin and M. Yangel.

1. Introduction

The name of the chief of the Kapustin Yar (Kap-Yar) rocket test range of Vasiliy Ivanovich Voznyuk (1907–1976) is known poorly on the one hand owing to his superprivacy, and on the other hand, because of incomprehension by the Western world of the significance of this post owing to the essential difference of conditions in the maintenance of tests of rockets in the East and in the West.

The history of world reaction motion is not defined in full measure by a history of the space science, by biographies of pioneers of rocket technology, or of its main designers. The success of real astronautics depends on two things—manufacture of rockets and their tests. In recent years the historical science has begun to investigate about the life of the outstanding organizers of manufacture of missiles, of directors of factories; so a history of the main testers, the history of work or proving grounds of space technology, is practically unknown. The world knows the outstanding designers of the Soviet rockets of S. Korolev, M. Yangel, V. Utkin but very few people know, that their successes and realization of the conceived projects depended on the maintenance of technology of launch of the rocket

* Corresponding author.
E-mail addresses: kprisn@a-teleport.com (V.F. Prisniakov), Platonov4@yandex.ru, ultra@mail.dnepr.net (V.P. Platonov).

0094-5765/$ - see front matter © 2007 Elsevier Ltd. All rights reserved.
doi:10.1016/j.actaastro.2006.12.039

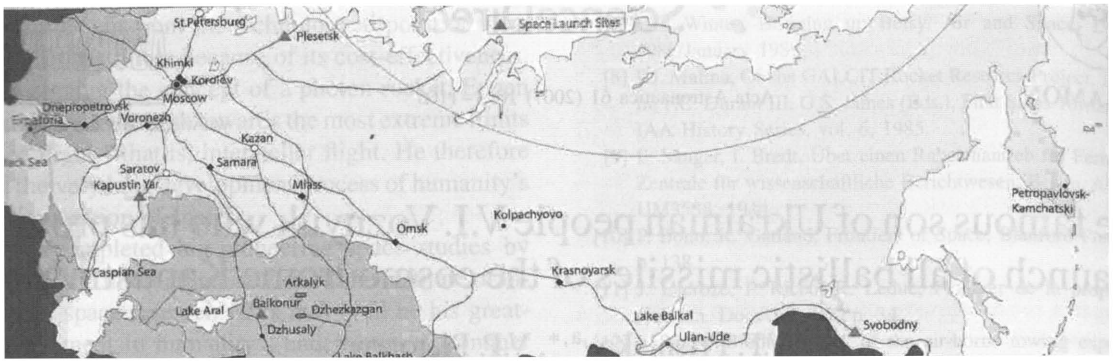

Fig. 1. The space-rocket centers of the former USSR.

range. Therefore, we have paid attention to the name of the chief of the Kapustin Yar rocket test range of Vasiliy Ivanovich Voznyuk as the outstanding organizer of tests for the most part of the Soviet ballistic missiles for the first three generations.

A remarkable feature of the work of test rocket ranges is transformation of a "dead" structure into a "alive" rocket. Therefore maintenance of test rocket range includes various divisions—refueling by components of fuel, management of flight and start, a starting complex, factories on manufacture of liquid oxygen, nitrogen, helium; system of tracking flight, transportation of rockets and a payload, its installation on a rocket before launch, power supply of all systems of test rocket range, computer center; and maintenance of the life of the service staff. The size of territory of rocket range totals the hundreds of km^2, the service staff numbers of the tens of thousands of persons which include armies usually, equal armies of the small country. Therefore the rocket range can exceed both on territory and on the population the average European state (Fig. 1). The first "president" of such rocket-testing state under the name KapYar was Vasiliy Ivanovich Voznyuk. V.I. Voznyuk was born in 1907 in the city of Gajsine of Vinnitsa area, near Zhitomir where S.P. Korolev was born. They not only come from the same part of Ukraine, but they are of the same age: S. Korolev was born on December 31, the future chief of rocket range V.I. Voznyuk was born on the first day of the new year.

At the time of developing a rocket technic in the USSR V.I. Voznyuk went near to S.P. Korolev: Korolev supervised over the development of rockets, and Voznyuk provided their tests. Both of them had abrupt, explosive characters. Both were born into families of intellectuals: parents of Korolev edified, mother of V. Voznyuk taught the Ukrainian language and literature at a school for seven years, afterwards she passed on to theatre where her husband worked as an actor. The common work developed the friendship between Korolev and Voznyuk and it promoted an establishment between them of especially confidential relationship.

2. "Godfather" of Baikonur

In the beginning of the 50th year it became clear that the Kapustin Yar State central rocket test range (SCRTR) could not provide the full test of the future intercontinental rockets which S.P. Korolev started to project. Therefore, administration addressed Voznyuk with the request to find a place for new proving ground which should be more essentially and multifunctional, rather than SCRTR Kapustin Yar. The government organized a State commission with the head from the general-lieutenant of artillery V. Voznyuk—for the search of a place for the new range. Members of the commission studied maps of many areas of the country, travelled for over thousand kilometers, carried out the reconnaissance of the planned places, and suggested some probable variants of an arrangement for a new rocket range. Such a place became now the world famous Baikonur—the Research proving ground No. 5 located 200 km to the south of the Aral sea. The main technical advantage of this place was the greatest affinity to equator in conditions of geography of the USSR, which allowed to use the speed of rotation of the Earth at start-up of rockets. In addition to the technical standards another important requirement was also carried out: a possible loss to the national economy was minimized by not using the fertile grounds, and unlimited open spaces of semideserts, the saline soils which have not been populated with people for space. It is significant that there was a trunk-railway Moscow—Tashkent, the river

Sir-Dariya. But these advantages had also disadvantages: a climate sharply continental with temperature from +45 °C up to −40 °C with penetrating winds and often with dusty storms. To this the absence of a local labour and local building materials was added, there were no highways and air stations. And still in the beginning of June, 1955 the new organizational structure—the Scientific Research Institute N5 was created and named as "the Cosmodrome Baikonur" in April 1961 after the first flight of the person into space. Here the natural growth of the career Voznyuk did an unexpected zigzag: instead of accepting the offer to become the new head of the much greater cosmodrome rather than the Kapustin Yar, by right, but Voznuk refused from the alluring proposal, despite the persuasions from S.P. Korolev and by the marshal of artillery M. Nedelin. Probably, here not always the clear Slavic soul, the mentality of the Ukrainian which has created the green home of an Ukrainian with gardens and the Ukrainian cosiness with long years of service in KapYar had played the role. Probably, the third offer for Voznyuk for the last 15 years to hold the key post connected to the operation of rockets has played an important role. The first offer proceeded personally from I. Stalin in connection with an assignment of Voznuk by the chief of staff of the Operative group of Guards mortar ("Katucha") of the General Headquarters (OGGM GH). The second offer was with the approval of I. Stalin also because it has been connected to the task to create the first USSR rocket range in Kapustin Yar on Volga. And consequently the third offer was possible for Voznyuk by an "excess" for his already vital forces.

Fig. 2. The chief of the Kapustin Yar rocket test range V. Voznyuk, 1946.

4. "Father" of the Kapustin Yar rocket test range

On May 13, 1946 the Council of Ministers of the USSR had released the Decision on the creation of Special committee on jet technics in which it was recommended to determine a site for the State central rocket test range. A team of artillery and missile experts under the command of the lieutenant-general V.I. Voznyuk engaged in large-scale activity to select the location for a future launch site. Based on the team's recommendations, a construction site was chosen near the village of Kapustin Yar in Astrakhansky region (the lower Volga river). On June 10, 1946 the order about assignment of the general-lieutenant of artillery V. Voznyuk as the chief SCRTR had been signed (Fig. 2). The importance of this task was supported with the delivery of the special mandate with the signature of I. Stalin. The 39-years general-lieutenant accepted the new assignment with enthusiasm: his ardent, temperamental nature was demanding active actions constantly, and how such an opportunity has come—to participate in the new perspective business with the test of missiles. The service of general Voznyuk in the creation of the first rocket range as a powerful research and educational center is exclusive.

The ballistic missile assembled from the parts of Germany's V-2 blasted off from here on October 18, 1947 (Figs. 3, 11) [1]. The first fully national R-1 was launched on September 17, 1948 (Figs. 4, 12). What followed was R-2, R-1V (Fig. 13) with animals, R-5, R-5M (the first one to carry a nuclear warhead) and R-11, R-12 (Fig. 5).

A special implication of the Kapustin Yar rocket test range is in the working of on rockets of M. Yangel who used new components of fuel and demanded essential expansion of activity of services of the cosmodrome. Multiplex launchings of Dnipropetrovsk rockets P-12 and P-14 were carried out with the active participation of V. Voznyuk (Figs. 5, 6 , 14). Progressively developed in 1948–1956 by increasing the number of launch pads and of facilities the Kapustin Yar rocket test range was also launching combat missiles along with geophysical and meteorological rockets designed to study the upper atmosphere under the programs of the Academy of Science.

Important activities of the Kapustin Yar was mass preparation of the military for service of system of launch of missiles on fighting positions. Practically all officers of rocket armies have passed through a schooling of V. Voznyuk in the Kapustin Yar. V. Voznyuk

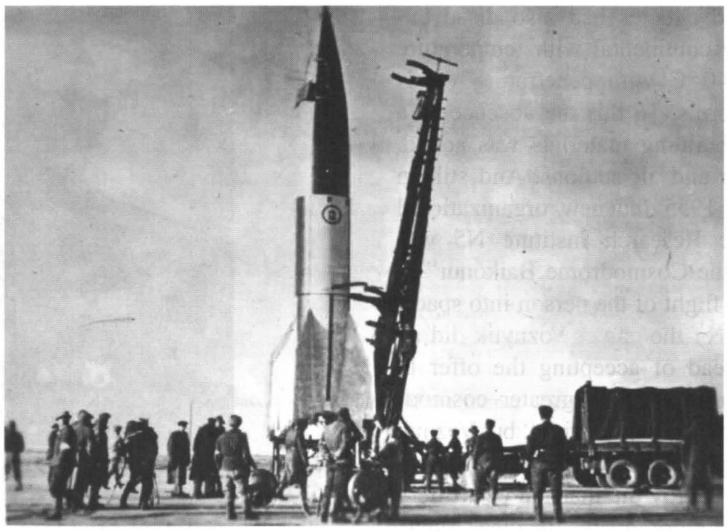

Fig. 3. The Kapustin Yar rocket test range: 1947—preparation for launch of the first rocket.

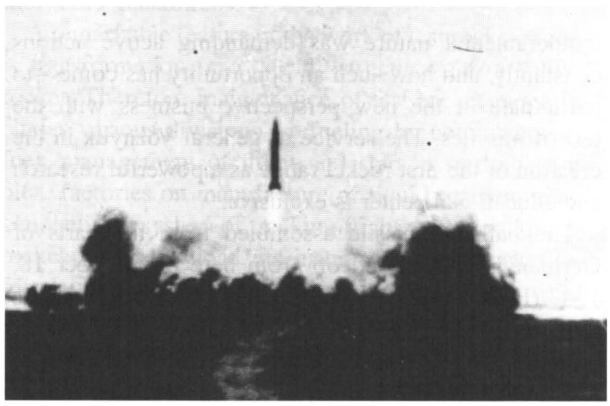

Fig. 4. The launch of missiles: from left to right R-1, R-12, Intercosmos on base of missile R-14.

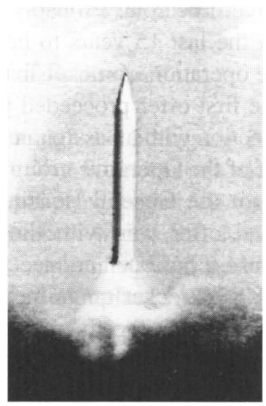

Fig. 5. The launch of missiles: from left to right R-1, R-12, Intercosmos on base of missile R-14.

deserves special respect and recognition for being the specialist of rocket technology and he was not only a worthy chief of the rocket range, but also a genuine master of a brain-child. He made it all, so that tester lived humanly, in modern city with parks and parkways, with shops and dining rooms, with kindergartens and libraries, with cinemas and schools, with stadiums and pools.[1] The Kapustin Yar SCRTR did not remain without an affair after the dislocation of the center of tests to Baikonur, the new generation of rocket complexes. More and more complex new elaborations of rocket complexes and space carriers of M. Yangel, V. Chelomey, V. Makeev, A. Nadiradze, M. Reshetnev were continuously being tested by launching from pads of Kapustin Yar. Steppe Kapustin Yar singed by a rocket flame heard a bark of the first little dog, which was continuing its way to the stratosphere and was opening a way toward the manned missions in Space. First Dnipropetrovsk carriers "Cosmos" and "Interkosmos" have started off from the Kapustin Yar cosmodrome, the first space vehicles were created on the coast of Dniper, in far India (Ariabhata, 1975 and Bhaskara, 1979), in other countries (Sneg-3, France, 1977; ABRIXAS, Germany and MegSat, Italy, 1999), from where they have been launched into orbits [1] (Figs. 7–10) [2–5] (Figs. 11–14).

[1] It is not absolutely clear for capitalist countries, but in the USSR these questions were being adjusted not by money, but by deficiency of the goods and materials.

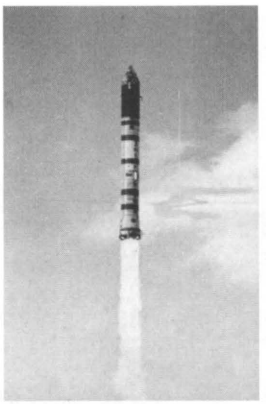

Fig. 6. The launch of missiles: from left to right R-1, R-12, Intercosmos on base of missile R-14.

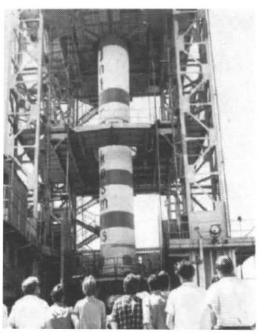

Fig. 7. From left to right: Missile on firing table. Assembly of satellite. About 1000 satellites was launching from the Kapustin Yar: "Kosmos" and "soviet-french" satellite "Oreol-1".

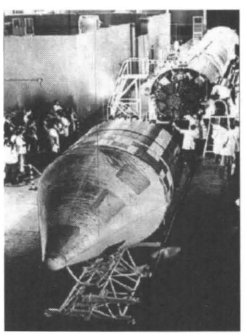

Fig. 8. From left to right: Missile on firing table. Assembly of satellite. About 1000 satellites was launching from the Kapustin Yar: "Kosmos" and "soviet-french" satellite "Oreol-1".

"So who such V.I. Voznuk, what was his professional preparation, why personally I. Stalin but him in charge of the major rocket tasks?

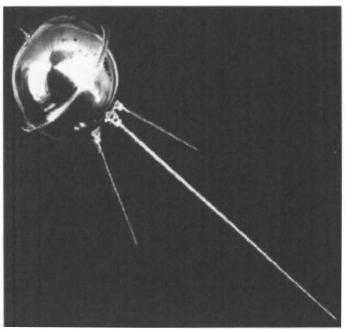

Fig. 9. From left to right: Missile on firing table. Assembly of satellite. About 1000 satellites was launching from the Kapustin Yar: "Kosmos" and "soviet-french" satellite "Oreol-1".

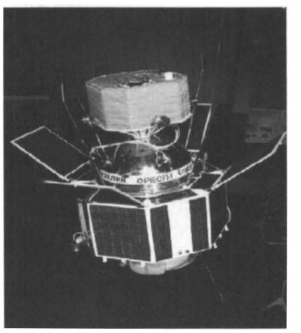

Fig. 10. From left to right: Missile on firing table. Assembly of satellite. About 1000 satellites was launching from the Kapustin Yar: "Kosmos" and "soviet-french" satellite "Oreol-1".

4. The childhood, adolescence, studies

Voznyuk family left Gajsine, near Zhitomir, soon after the birth of Vasyi and he travelled along all Ukraine, and visited many cities of Russia with his parents—actors. His father was Ivan Vasiljevija Voznjuk (Fig. 20) pseudonym Voznyakov (died in 1951), mother was Barbarian Fedorovna Voznyuk-Borozna (1882–1967, May 18). In a playbill of a comedy "Vanity" in 1918 shows all Voznyuks—father, mother and their absolutely young son executing roles (Figs. 15–17, 19); earning also as the prompter of the Ukrainian folk theatre in Kharkov additionally. He knew by heart a lot of plays, vaudevilles and operettas. When young Voznuk had arrived at Mariupol with the theatre he fell ill for the sea. He was taken by a sailor on a steamship of coastal navigation. After several months of navigation he understood that he would not become the captain. He tried to enter in a sea-worthy school, but his education (a grammar school of baroness Vitte in Kharkov, Fig. 18) for this purpose was not sufficient.

Fig. 11. 1947: Participants of launch of the first ballistic missile, among which are S. Korolev, Voskresensky, N. Pilugin, V. Kuznezov.

Fig. 12. The Kapustin Yar, from right to left: S. Korolev, S. Vetoschkin, marshal Yakovlev, general D. Ustinov, ? ,V. Kuznezov, ?.

In 1925, he entered the 1st Leningrad artillery school which he finished by N3 in the list of progress [2] (Figs. 19, 20).

5. Military service in Dnipropetrovsk

The place for military service after finishing the Leningrad artillery school Voznyuk chose the Dnipropetrovsk' 30th artillery regiment where he climbed all steps of growth—a way from the commander of a platoon up to the commander of a regiment (Figs. 21, 22). V.I. Voznuk's destiny connected him to the city of Dnipropetrovsk besides where he began his career as the military commander and rose to heights of military art. Better recollections of Voznyuk are connected with the city of Dnipropetrovsk. Here he got to

Fig. 13. The Kapustin Yar: left to right: V.I.Voznyuk, S.I. Vetoschkin, S.P. Korolev, ?.

Fig. 14. The Kapustin Yar: the chief of the Kapustin Yar rocket test range V. Voznyuk is on the command point of launch of missile.

Fig. 15. Vasia Voznyuk.

Fig. 16. Vasia Voznyuk.

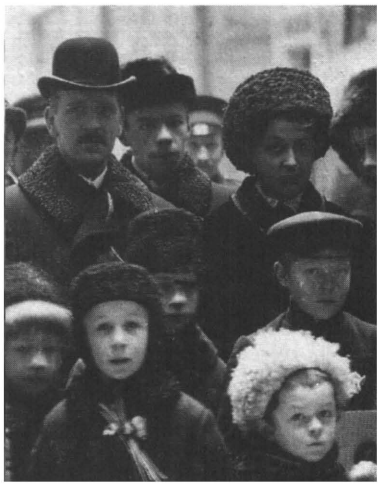

Fig. 17. Kharkov 1918: Vasia Voznyuk among actors of the Ukrainian folk theatre.

know his future wife Marta Yakovlevna Danilchenko (daughter of the fitter of metal works) and true companion for life (Figs. 23–25). In Dnipropetrovsk his sons, the future officers Ivan and Vladislav, were born. Destiny enabled him to thank this city for in October 1943 he liberated it [3].

6. The second world war—the commander of "Katucha"

V.I. Voznyuk comprehended the science to win a war. Dramatic events of the first months of war are well known by all, and in 1941 Voznyuk received the first order. Though not interested in awards, he knew it meant recognition of services rendered. And already in

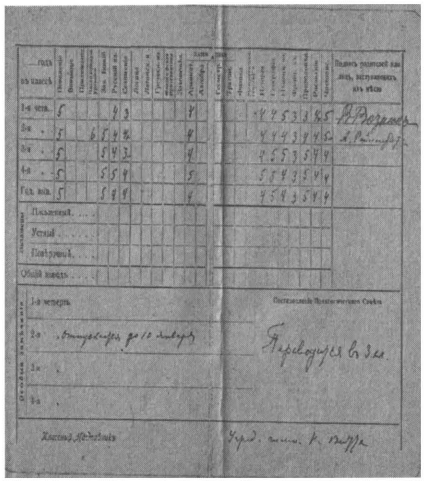

Fig. 18. The sheet of progress of the high-school student of Vasia Voznyuk.

Fig. 20. Vasia with the father.

Fig. 19. The playbill with names of actors Voznyuks.

Fig. 21. V. Voznyuk in Dnipropetrovsk, 1929–1937.

the first months of war V.I. Voznyuk was awarded three orders of the Red Banner. The leaders of the army paid attention to Voznuk. He was summoned to Moscow on a reception hosted for I. Stalin and was entrusted the most terrible confidential weapon of those times—jet mortar "Katucha". "Jet universities" of Voznuk was passed within several days (Figs. 26–29). Voznuk faced war on many fronts, but his judgements especially distinguished at an encirclement and route of the army Pauljusa under Stalingrad, at force a river Dnipro, at the liberation of Dnipropetrovsk, of Zaporozhye, of Krivoi Rog (Fig. 30). Military skill in the application of a new kind of armament was improving, detailed knowledge of work with rocket technology was being perfected under the management of Voznyuk. So, during the time of Stalingrad fight, for the first time the massed fire "Katucha" was applied by repeated volleys. 7 volleys from 183 easy jet installations "BM-8" and "BM-13" and from 80 heavy "BM-30" and "BM-31" were continuously given. After such a tornado of fire the dazed prisoners appeared still before the infantry.

The thunder of "Katucha" of Voznyuk has stopped in the middle of April, 1945 in Vienna. Voznyuk sought a decision to entrust storm to his guardsmen of Berlin, but was refused. So war for his Group ended in Austria in April, 1945 (Figs. 31 and 32).

7. Universities of V.I. Voznyuk

The beginning of rocket activity of Voznyuk can be linked with his acquaintance with German rocket technology in structure of the special group in Germany. The stay in postwar Germanium during a commission on analysis of trophy missiles became a huge school for V.I. Voznyuk, and his universities. Voznuk was familiarized with a long-range guided missile V-2, with anti-aircraft missiles—Vasserfale, Reintohter, Chmeterling, and with the documentation on test methods of ballistic missiles.

The task of the commission was the full restoration of the engineering specifications and samples of rocket technology, restoration of laboratories and stands with all the equipments and devices, mastering the secrets of the design of rockets, its test methods, "know-how" and assembly of rockets.

7.1. What did our specialists see after arrival? [6]

Based on the testimony of direct participant V.S. Budnik [7]: "In Penemunde we have seen ruins of

Fig. 22. V. Voznyuk in Dnipropetrovsk, 1929–1937.

Fig. 23. 1944: The general-lieutenant of artillery V. Voznyuk with sons Ivan (on the right) and Vladislav.

Fig. 24. V. Voznyuk with mother Varvara (in center), wife Marta and sons Ivan and Vladislav.

Fig. 25. The Kapustin Yar: with wife Marta in own garden which has been brought up in desert.

Fig. 26. Fire of "Katucha's".

Fig. 27. Fire of "Katucha's".

exploratory center and ground-level plant for production of rockets V-2, partially extant underground hangars with ready units for usage in rockets, the broken down launchers V-1 and V-2".

Fig. 28. Fire of "Katucha's".

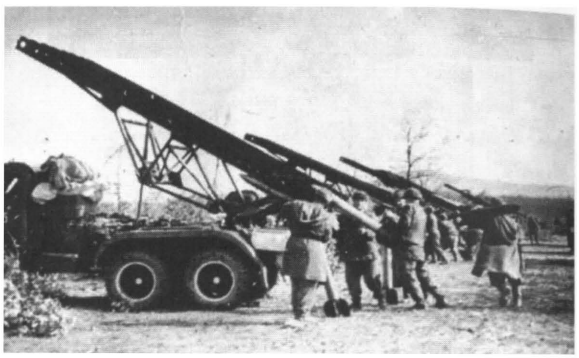

Fig. 29. Fire of "Katucha's".

Fig. 30. With the commander Southern Western front the general N. Vatutin.

7.2. *What did soviet specialists obtain?*

At first, it was possible to see rockets, ones which were used in practice, by the naked eye, to estimate the general level reached. It reflected not only the psychological nature, but also created reliance of work. *Secondly*, the collected materials were taken as a basis of creation under the management of S.P. Korolev to provide an album with delineations of general views of

Fig. 31. 1946: Officers of parts of mortar "Katucha" which will by testers of rockets in the future.

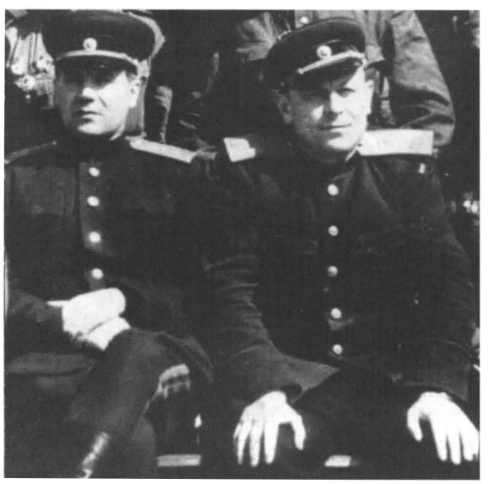

Fig. 32. V. Voznyuk with mareshal M. Nedelin, 1945, Konstanz.

layouts and tables of the characteristics. *Thirdly*, 10 rockets V-2 were collected. *Fourthly*, the majority of the documentation on tests and test stands were reconstructed.

In Germany the special brigade for development (SBD), preparations and start-up of rockets V-2 were created on the basis of experts who launched missiles "Katucha" during those military years.

Here Voznyuk slows down: he had a special attachment to mortar men, as a matter of fact, all war for him has been connected with "Katucha". Voznjuk knew well the commander of SBD general major A.F. Tveretskiy, now they worked together on the rocket range. Here, in "branch of Tveretskiy", it became clear: rockets were not "Katucha", they were incommensurably more complex than jet installations.

8. The first launch of nuclear missile P-5M in the world

The Soviet seal trumpeted usually about selflessness of our nuclear and rocket experts who forged "a shield and a sword" of the USSR in difficult conditions. We had "difficulties in the foreground" always, and then we had "business". In February, 1956 the XXth Congress of the CPSU was taking place in Moscow. The surprising thing is that the Minister of Defence of the USSR marshal G.K. Zhukov alternately was appearing in presidium and disappeared suddenly. The credentials committee noted the absence of delegates of congress of minister of the defensive industry D. Ustinov, of marshal M. Nedelin and of chief SCRTR V. Voznyuk. Such an act of nonattendance observed was unprecedented: congress is the supreme forum of a party, and nothing should be more important than the congress of anything. Main experts of rocket technology of the country were absent in connection with the special force majeure circumstances about which the first persons of a party and the country, inclusive of the Minister of Defence G.K. Zhukov only knew. He was supervising a course of events in "branch of Voznyuk" and was reporting to the first secretary of a Central Committee about preparing a gift to the congress constantly. On the Kapustin Yar rocket test range the most critical mode of operation was reigning. Only few people knew about

the existence of a platform 4-B, and all units knew that they were engaged. All workers were literally living on this platform. Any contact with inhabitants other than of military station was strictly forbidden. It had full autonomy, a zone of a special regime. Two persons only had unobstructed pass onto the platform: S. Korolev and V. Voznyuk. Before the launch the chairman of the state commission P.M. Zernov (the first nuclear bomb was created under his supervision in Arzamas-16) had assembled the members of the state commission and informed, that a launch of "a nuclear rocket" was being prepared. The decision of the top management to arrange the date for the launch of the nuclear missile to the congress was the next "significant event" irritating S. Korolev. He liked to do "Business", instead of "to arrange of date"... To tell the truth, not everything depended on Korolev, and he was forced to make what they demanded. In such a position he was; and Voznyuk was busy mating a head part with a nuclear charge that had passed by the strictly developed ritual. A rocket was being taken to the launch. When all preparation to go in shelter the command was sounded unexpectedly: the launch had to be postponed because of the meteorological conditions of the area of the falling head part. Two days all of them waited for the weather, but on February 2, 1956 a command was given to launch. The launch of the missile passed without remarks. Soon the positive telephone report with the acknowledgement of achievement by the launching of a rocket from a preset area and explosion of the nuclear warhead sounded from the area of falling of a head part. Certainly, rocket firing with a nuclear warhead represents a big risk, because a launch of missile that could breakdown is not such a rarity. This time everything turned out all right and XX congress of the CPSU received the grandiose "gift". But not always similar artificial "difficulties" can come to an end so successfully. What is about it—the supreme trust with rocket technology or is it nuclear adventurism? But it remains the fact, that the start-up was successful and it became a gift to XX congress of the CPSU.

9. Arrival N. Khrouschev to Kapustin Yar

N.S. Khrouschev decided to arrive in Kapustin Yar in 1958. Successors of "count Potyomkin" were preparing for the arrival of the "main rocket expert of USSR". They were coming out with new instructions—to recolour, remake, reasphalt (Fig. 33). In August, 1958 V. Voznyuk had a heart attack from a senseless overstrain. In Kapustin Yar N.S. Khrouschev was staying for three days (Fig. 34). On the first day of the launch of

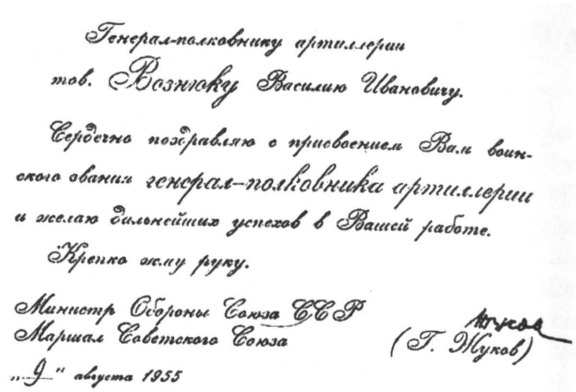
Генерал-полковнику артиллерии
тов. Вознюку Василию Ивановичу.
Сердечно поздравляю с присвоением Вам воинского звания генерал-полковника артиллерии и желаю дальнейших успехов в Вашей работе.
Крепко жму руку.
Министр Обороны Союза ССР
Маршал Советского Союза
(Г. Жуков)
"9" августа 1955

Fig. 33. Marshal G. Zhukov being congratulated.

Fig. 34. 1958: The Kapustin Yar: Secretary of KP L. Brejnev, chief of VPK L. Smirnov, Minister of Defence R. Malinovsky, D. Ustinov, N. Kshrouchev, Main marshal V. Krilov, Deputy-Minister A. Grechko.

tactical, operationally tactical and strategic rockets of average range were rendered, for the second day an army of Antiaircraft defense was showing their skills: the antiaircraft guided missiles were shooting off air targets; for the third day the display of the newest planes armed with rockets "air—air" took place. Results of the visit as the exercising of influence on the geopolitics what N.S. Khrouschev developed in the USSR: "Neither aircraft carriers, nor bombers are necessary for us. Bombers would not reach America because they will get damaged, and the ships would sink. We have a sole exit—to develop rocket—nuclear weapon! The missile is our shield and a sword!" But the Soviet system demanded the superhuman efforts (Fig. 35). Voznyuk worked for 12–16 h per day despite the heart attack. And his heart could not sustain the stress. On September 13,

Fig. 35. With Minister of Defence A. Grechko.

Fig. 36. V. Voznyuk sharing one of his many jokes.

Fig. 37. Rest behind a chess board.

Fig. 38. The general-colonel V. Voznyuk.

1976, his main "engine", not having fulfilled a full terrestrial resource, suddenly stopped. Leader among the first missile experts became by fortune a history. In our memory he has remained a cheerful Ukrainian (Figs. 36–38).

10. Conclusion

The report on the chief of the Kapustin Yar State central rocket test range V.I. Voznyuk closes a unique chain in the world of outstanding figures of space-rocket technology who were born or lived in Ukraine from designers of missile to the organizers of its manufacturing and now up to the organizer of the tests of rockets—J. Aizenberg, V. Budnik, O. Baclanov, V. Dogujiev, M. Galasj, N. Gerasuta, V. Gluschko, B. Gubanov, A. Gudimen-ko, I. Ivanov, G. Kesunjko, B. Konoplev, S. Korolev, V. Kovtunenko, V. Kukuschkin, O. Maka-rov A. Nedaivoda, M. Reshetniyov, Yu. Seme-nov, V. Sergeev, Yu. Smetanin, V. Tchelomey, D. Torchiy, V. Utkin and M. Yangel.

11. Chronology of life V.I. Voznyuk

V.I. Voznyuk was born in the city of Gajsin, Vinnitsa region. Ukraine on 1907, January 1. During 1916–1920 he attended the grammar school of baroness N. Vitte, Kharkov. In 1921 he was taken by a sailor of the coastal vessel when he arrived at Mariupol. During April 1923 – June 1925 he was the prompter, and the assembler worker of a theatre at Kharkov. He was a student of the first artillery school in Leningrad during 1925–1929. He held many posts—the-junior lieutenant, the commander of a platoon, the assistant to the chief to a staff, the acting commander of the 30th artillery regiment, Dnipropetrovsk during 1929–1937. In 1937, he was a correspondence student at the Academy of Frunze, Moscow. In March–October 1938, he was the chief of a school of regiment, Dnipropetrovsk. During October 1938–June 1941, he was a teacher of the artillery specialized school, the assistant of the chief of an educational department, the commander of a battalion, Penza. In June–September 1941, he became the chief of staff of 7th anti-tank brigades and the chief of an Operative Department of 13 armies, working front. In September 1941–March 1942, he became the chief of a staff of operative group of Guards mortars, working front. On September 13, 1941, he was given a reception by I. Stalin. On September 23, 1941, the first volley of "Katucha" was performed under Dikanjka, the Poltava area, working front. During March 1942–August 1944, he was the chief of the staff, the commander of the Operative group of Guards mortars of the Rate of Supreme commander in chief (OGGM RSC), working front. On December 7, 1942, he was decreed by I. Stalin about the assignment of a rank of the general—major. On September 25, 1943, he was decreed by I. Stalin about the assignment of a rank of the lieutinant general. During 1942–1944 he participated in the Stalingrad fight at force near the river Dnipro at the liberation of Dnipropetrovsk of Zaporozhye of Krivoi Rog, working front. During August 1944–June 1946 he was the assistant the commander of artillery of the third Ukrainian fronts. In April 1945, war ended in Konstanz, Austria, working front. On May 13, 1946, a Special committee created on jet arms led by G. Malenkov, with the instruction to choose another place and structure for the SCRTR. On May 15, 1946, he departed to Moscow from Konstanz (Austria). On June 10, 1946, V. Voznyuk received the order about assignment from chief of SCRTR. In 1946 he visited Germany with the purpose of acquainting himself with rocket arms. On June 23, 1947, "Kapustin Yar" was legalized as the SCRTR. On June 18, 1947, the first launch of V-2 from SCRTR was made. On August 9, 1955, he received the decree about assignment of a rank as the colonel-general. In February 1956, A rocket was first launched with a nuclear warhead. In June 1961, he was the Hero of Socialist work. In 1973 V.I. Voznyuk resigned. V.I. Voznyuk passed away on 13 September 1976.

References

[1] S.P. Umansky, Launch Vehicles. Launch Sites. Edited by Yu.N. Koptev. RESTART Publishing House, Moscow, 2003, 232pp.
[2] V.P. Platonov, A fiery trace, Zoria, 19.11.78.
[3] V.P. Platonov, Baikonur: range, the cosmodrome, city. Zerkalo nedeli, No. 549, 4.06.05.
[4] V.P. Platonov, A thunder and lightings of general Voznjuk. Zerkalo nedeli, 18.05.96.
[5] V.P. Platonov, "Katucha" was going out on coast. Policy, No. 48.
[6] V. Prisniakov, V.S. Budnik is the person who has laid the groundwork of design bureau "Yuj-noe". Rap. IAC-03-IAA.2.1.05 of 54th International Astronomical Congress, Bremen, Germany, September 29–October 3, 2003.
[7] V.S. Budnik, From attack aeroplane IL-2 up to space rockets, Memory, Dnipropetrovsk, DSU, 1993, 44pp.