Под колпаком у Мюллера

Вечерний Харьков
Сегодня - День национального радио

Маршал войск связи Иван ПЕРЕСЫПКИН утверждал:
«ЧТОБЫ ВЫВЕДАТЬ СЕКРЕТЫ ПЕРВОГО В СССР РАДИОЛОКАТОРА, СОЗДАННОГО В ХАРЬКОВЕ, АДОЛЬФ ГИТЛЕР ЛИЧНО НАПРАВИЛ ЛУЧШИХ СЫШИКОВ СТРАНЫ»

Сперва небольшое отступление... В первые послевоенные дни, когда враги и оккупанты вынуждены были отступать, героический Харьков был освобожден партизанами, а их успехи были оценены высоким правительством.

С 1939 по 1944 год он одновременно занимался военной и гражданской службой, а в 1944 году вновь вернулся на работу в военное ведомство. В 1944 году он был назначен начальником Главной радиоразведки в Харькове.

После войны Иван Пересыпкин продолжил свою работу в радиоразведке, участвуя в создании и развитии радиопеленгаторов и радиолокаторов.

Эта специфическая область радиолокации была создана в цензурных условиях. Война с Гитлером требовала не только военных, но и учёных, которые могли работать над созданием радиолокационных систем.

Вечерний Харьков, 16 апреля 2000 года, страница 4

Виталий Артеменко

Vitaly Artemenko, “Watched by Muller”
Newspaper “Vecherny Kharkov” (Evening Kharkov), no 128 (8189), 16.11.2000, page 4
Laboratory, professor organized the study of the physical processes in spark-gap oscillators and attracted to these studies not only his colleagues, but also undergraduate students. After 1923, D. A. Rozhanskiy never broke off relations with his Kharkiv University colleagues and students. Abram Slutskin, Rozhanskiy's student who became later Academician, recalled: "In the then modest conditions of the physics laboratory, professor organized the study of the physical processes in spark-gap oscillators and attracted to these studies not only his colleagues, but also undergraduate students."

Further research in this area was held in the Department of Electromagnetic Oscillations of the brand-new Ukrainian Institute of Physics and Technology (UIPT), under scientific leadership, since 1930, of A. A. Slutskin. On the basis of its theoretical works, UIPT designed several magnetrons in the range of 20 to 80 cm with various output powers that were supplied to all interested in them organizations in the USSR. Since March 1937, UIPT started complex works on the design of magnetrons on the basis of its theoretical works, which led to the development of a magnetron at the 7 cm wave length. In fact, it was the heart of the [future] radar, because its power was thousand times higher than of all of the existing devices. A paper on this fundamental investigations, which led to the development of a magnetron at the 7 cm wave length, was published in 1925 by A. A. Slutskin and D. S. Steinberg. The paper became a real break-through in that scarcely studied area of science and evoked a large resonance in scientific community.

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The scientific father of the designers of radar (both in Kharkiv and later in Leningrad) was Professor Dmitry A. Rozhanskiy. Unfortunately, today the name of one of the founders of modern radio physics and radio engineering is not widely known. He started his scientific career in 1904 in Petersburg under the direction of the inventor of radio Alexander Popov. In 1911 Rozhanskiy was elected a professor of the Physics Department of the Kharkiv University, where he had been working until 1921. It should be said that over all his life (he worked in Nizhny Novgorod after 1921 and in Leningrad after 1923) D. A. Rozhanskiy never broke off relations with his Kharkiv University colleagues and students. Abram Slutskin, Rozhanskiy's student who became later Academician, recalled: "In the then modest conditions of the physics laboratory, professor organized the study of the physical processes in spark-gap oscillators and attracted to these studies not only his colleagues, but also undergraduate students."

The Marshal of Communication Forces Ivan Peresypkin stated: “In order to find out the secrets of the first USSR radar, which was developed in Kharkiv, Adolph Hitler personally sent his best spies”.

At first, a small introduction is needed. In the first post-war decades the author of this article was not only a military aircraft blind-landing-gear operator, but also a history commission chairman at the Kharkiv branch of [the USSR] Scientific and Technical Society of Radio Engineering, Electronics and Communications. He used to participate in the similar commission meetings at the Society Headquarters in Moscow, chaired by Ivan T. Peresypkin until 1978.

From 1939 till 1944, he [I.T.P.] supervised both civil and military communications, and during the whole war he provided the faultless communications of the “Stavka” [military headquarters] of the Supreme C-in-C Iosif Stalin with the forces of battlefield armies. He was doing his job well. Besides of many high awards, in 1944 (aged 40) he became promoted to the rank of Marshal of Communication Forces [Signal Corps]. In his four published books, Ivan Peresypkin restored in documents his work in the hard wartime and wrote with warmth about many heroic deals of the hundreds of communications troops. He had failed to write his fifth book about the use of military engineering, although he had collected a lot of material for it. It was in 1975 that Ivan Peresypkin showed me a photocopy of a German intelligence report about the start of the Kharkiv radar trials and said candidly:

“In order to find out the secrets of the first USSR radar, which was developed in Kharkiv, Adolph Hitler personally sent his best spies. Do you see this handwriting at the top? This is a personal order of the Fuhrer and the date: 25 April 1938. You should search in the archives, this is a rewarding topic”.

I followed his advice at once, all the more because then I was very much interested in radar. This specific branch of the radio science is considered to be the "second sight" of mankind. At any time and in any weather conditions it can detect, identify and determine the coordinates of aircraft and other targets. A considerable contribution to its development in the USSR and in the whole world was done by the Kharkiv scientists. So what was bothering the German spies?

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Lt-General M. M. Lobanov, one of the organizers of the radar research in Leningrad, assessed this development: "It was a great success of the young research team of UIPT. In comparison to the "Burya" and "B-2" experimental radio finders developed in Leningrad, "Zenith" had advantages in the detection range (70 km) and in the possibility to determine all three coordinates that are necessary for the anti-aircraft gun shooting. It met all basic requirements and was of great interest."

[The interest was] not only in this country but also for the spies of the whole world. In the very first months of the war this radar was moved to Mytishchi and used in the air defense of Moscow. It performed a lot better than an English one that was positioned nearby. And later in 1941, the Kharkiv team of A. Y. Usikov, I. D. Truten, I. M. Vigdorchik, A. A. Chubakov, and A. P. Maydanov moved from Kharkiv to Bukhara. There, headed by A. A. Slutskin, they developed the radar "Rubin," which served at the Arctic front near Murmansk.

All four years the radar stations helped the Soviet flak to fight effectively with the enemy aircraft. In the post-war years (especially with the coming of jet aircraft), there emerged the task of development of a complex of airfield radar, radio navigation, and other systems that could be managed from one control point. In 1956 the first aircraft blind landing system "Materik" appeared. But this is a totally different story.
Comments and corrections to the newspaper article of V. Artemenko:

1. The German intelligence that could be involved into spying for the tests of Zenit should be the SD, political intelligence branch of the SS. This is because the Abwehr (German military intelligence) was prohibited to conduct intelligence “in the Eastern territories,” i.e. in the USSR.

2. A. S. Popov was not the inventor of the radio although he was a Russian radio pioneer. At the time of publication of Marconi’s patent on the radio communication, i.e. transmission and reception of radio waves using resonant circuits, Popov published a report on his elementary experiments with radio detection of thunderstorms.

3. D. A. Rozhanskiy suggested to A. A. Slutskin to investigate the behavior of electrons in magnetic field during his visit to Kharkiv in 1924. The first paper on the electromagnetic waves obtained from such a device was published by A. A. Slutskin and D. S. Steinberg in 1926. This was not related to the waves as short as 7 cm – the only one mentioning of the waves of this length obtained by A. A. Slutskin is met in the much later memoirs of I. D. Truten, a student of A. A. Slutskin in the 1930’s and his staff member later on. The words about a “thousand times larger power than of the existing devices” is entirely wrong in the context of 1925. Kilowatt-level split-anode magnetrons were developed by A.A. Slutskin much later, after 1935. Contrary to what is stated, the paper published in 1926 remained completely unnoticed to the science community outside of the USSR.

4. A. A. Slutskin was on the initial stuff of UIPT as head of LEMO already in 1929.

5. This sentence of the memoirs of Gen. M. M. Lobanov is presented incorrectly. In the Russian-language original, the range of “70 km” is absent. According to Lobanov, in 1938 the range of reliable detection of aircraft by Zenit was found to be only 3 km, although by 1940 it was improved to 55 km. The main advantage was the ability to determine all three coordinates of a target.

6. Remark of the author on the better performance of Zenit in comparison to unidentified English radar is not supported by any documents or evidences of Zenit team members.

7. The team of radar developers in Bukhara in 1942-1944 was headed by A. Y. Usikov because A. A. Slutskin had to stay in Alma-Ata with the UIPT administration.