

## 50-th anniversary of Russian SSS

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### 1. Introduction

In the world only two states have Space Surveillance Systems (SSS): US and Russia. The work on creation of the Russian and American (SSS) started at the beginning of the 60-s. These systems are unique. Titanic labor of the great number of people was put into them. 50 years has passed from that time. Initial documents related to the Russian SSS:

- On the 5-th of November 1962 the Central Committee of the Soviet Union Communist Party and Council of Ministers of Soviet Union issued a resolution to found the Russian Space Surveillance Agency.
- On the 12-th of December 1962 the Research Institute 45 founded the Space Surveillance Board with 7 departments. Colonel Evgeniy Mikhailovich Oshanin was appointed as a chief.

Many of the beginners of this work are not alive now. The author was a witness and a participant of Russian SSS creation since 1963. I conceive my task in recounting about some people, which have played an important part in SSS development.

### 2. Pavel E. Elyasberg, Nickolay P. Buslenko, Mikhail D. Kislik



P. E. Elyasberg (1914 - 1988) N. P. Buslenko (1922 - 1975) M.D. Kislik (1922 - 1995)

These three men stood at the sources of the SSS creation. The idea of creation of the Russian SSS, its development, and the first steps of its practical introduction is connected exactly with these names.

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They were participants in the Great Patriotic war (1941-1945) and survived it. They all are Great Russian modern scientists. Besides that they were servicemen.

These are some of their works:

- \* Introduction into the Artificial Space Satellites Flight Theory (P.E. Elyasberg, a monograph, 1965).
- \* The Method of Statistical Tests (N.P. Buslenko, a monograph, 1961).
- \* Motion of an Artificial Satellite in the Normal Gravitation Field of the Earth (M.D. Kislick., an article, 1960).

Pavel E. Elyasberg was a more experienced specialist in space mechanics. He solved problems on these themes on launching the first Soviet satellites.

At that time Mikhail D. Kiskick was a subordinate and, to a certain extent, a learner of Pavel E. Elyasberg.

Nickolay P. Buslenko was engaged in more general strategic and tactical problems.

They all were acquainted with each other; their families were on friendly terms. The external factor that incited their reflections in a necessary direction was, surely, launching of the first American satellites (1958), and creation of the US Space Detection and Tracking System (1960). The idea of the creation of the Russian SSS was worked out during their informal meetings.

As a result, at the beginning of the 60-s a resolution was taken on financing these works and on the creation of the special collective for solving the decreed problem. Nickolay P. Buslenko and Mikhail D. Kiskick were the first leaders of this collective.

### 3. Other leaders in the 60's



Ivan. M. Pencshukov

(1920 - 2011)

First chief of the Research Institute 45



Evgeny M. Oshanin

(1921 – 1997)

First chief of Space Surveillance Board



Alexander D. Kurlanov

(1924 -      )

Next chief of Space Surveillance Board



Vladimir I. Mudrov

(1926 - 2007)

Chief of department on  
the catalog maintenance problem



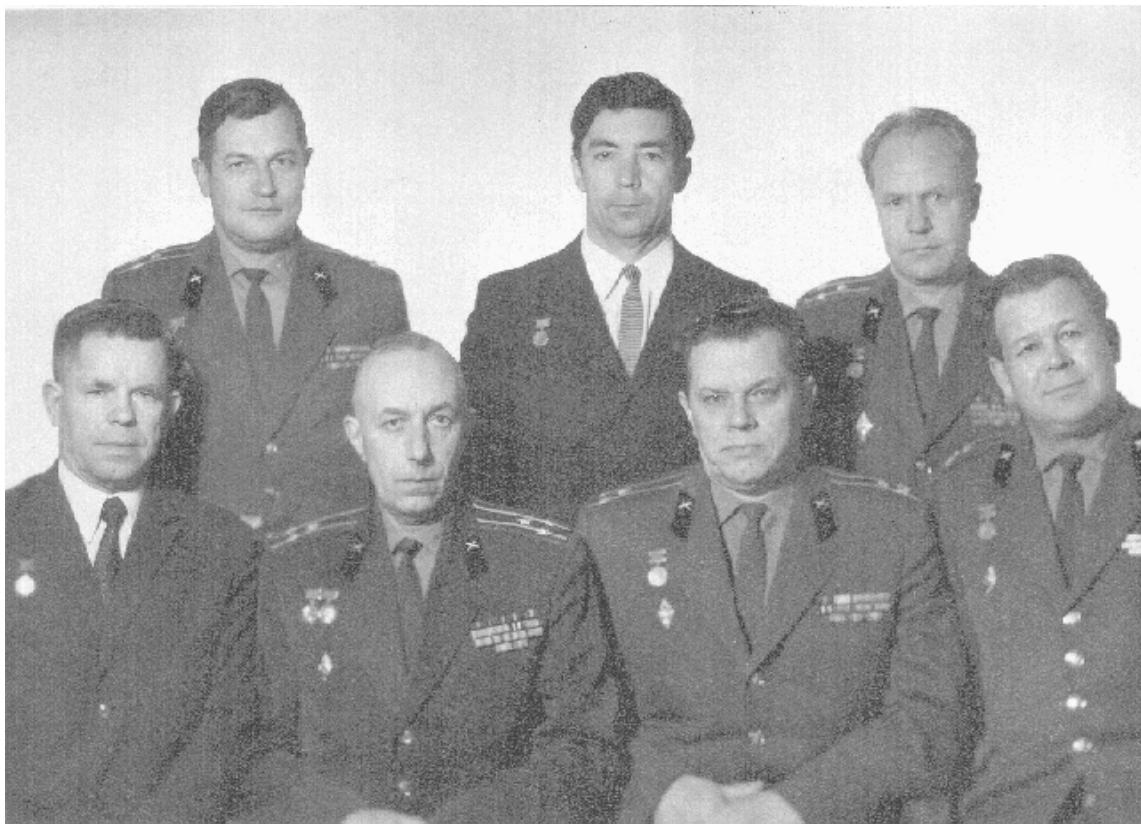
Yuriy P. Gorokhov

(1925 -       )

Chief of department on the motion  
model and output information problems

#### 4. First version of Russian SSS (1969)

Important work was carried out. Its first results were summed up at the end of the 60-s and the beginning of 70-s. The group of specialists was rewarded with a high government award. (See picture).



The lower row:

Alexey V. Krylov, Michail D. Kislik, Alexander D. Kurlanov, Zachar Z. Shwetsov.

The upper row:

Vladimir I. Mudrov, Andrey I. Nazarenko, Boris N. Ananyin;

## **5. Some conclusions and lessons of history**

- \* In the 60-s we succeeded in creating quite a modern SSS and laid down the foundations of its further development.
- \* The high qualification of the organizers of the work and that of the enlisted specialists was of a decisive importance in ensuring the fast and qualitative solution of the raised problem.
- \* The stability of the collective specialists, who were working on solving the problem, and the efficient organization of their interactive were the bases of the successful realization of the great long-term projects.

I treat my teachers and colleagues with great respect and gratitude. Cooperation with them was very fruitful and unforgettable.

## **6. Reference**

Yu.V. Votintzev. Unknown Troops of Disappeared Super-State. Military-historical Journal, 1993, № 8, 9, 10, 11.