60th ANNIVERSARY OF COUNCIL INTERKOSMOS

POSTERS

2026 – 60th Interkosmos Council Anniversary

Council for International Cooperation in the Exploration and Use of Outer Space under the USSR Academy of Sciences – Interkosmos.

In fact, it was the first and in many ways unique project aimed at developing international cooperation in space research and exploration.

The Council founded on May 30, 1966 paved a way to the eponymous program for international cooperation (1967). In total, ten countries have joined it: Bulgaria, Vietnam, Hungary, the German Democratic Republic, Cuba, Mongolia, Poland, Romania, Czechoslovakia, the Soviet Union. Indeed, representatives of other States, such as France and Sweden, also participated in the program.

The Council was tasked to establish mechanisms for international cooperation based on the principles of transparency, as well as to provide partner countries with opportunities to conduct scientific research in outer space at global level and participate in manned flight missions.

The Interkosmos program gave rise to an unprecedentedly wide range of joint research, observations, and experiments using more than a hundred spacecraft and numerous unique instruments developed in the Member States. A great variety of joint projects such as a unified system for receiving and processing telemetry information have been created.

Cosmonauts from more than ten countries took part in scientific missions on manned spacecraft and orbital stations. As part of the program, scientists developed tools for studying the Moon, Mars, Venus and Halley's Comet, contributing to the exploration of the bodies of the Solar system. Obtained scientific results have been highly welcomed by the world academic community. State Parties to the Interkosmos program have gained significant intellectual, scientific and technical experience in fundamental space research.

Nowadays, the Council remains one of the best examples of how the development of space exploration programs enhance international cooperation, which facilitate further discoveries in the exploration of the Universe for the benefit of all mankind.

ИКИ
ИНСТИТУТ
КОСМИЧЕСКИХ
ИССЛЕДОВАНИЙ
РАН

RUSSIAN STATE ARCHIVE
OF SCIENTIFIC-TECHNICAL
DOCUMENTATION

Our special thanks to Russian State Archive of Scientific and Engineering Documentation (RGANTD) for the photos and detailed descriptions. Unless stated otherwise in the description, photos and images are provided by RGANTD

Earth is the cradle of humanity, but one cannot live in a cradle forever.

K.E. Tsiolkovsky

Photo: Roscosmos, I. Timoshenko

АКАДЕМИЯ НАУК СССР

INTERKOSMOS

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

FATHERS OF THE SOVIET SPACE PROGRAMME

Sergey Pavlovich Korolev

Mstislav Vsevolodovich Keldysh

"It would be timely to consider establishing in the USSR of the Institute for interplanetary communications and space research, as well as setting up a scientific and technical journal for interplanetary flights and space research.

This would greatly facilitate the resolution of issues that are now inevitably arising in large quantities and will continue to arise in this field of science and technology.

Perhaps, it would be reasonable to provide participation of socialist countries in the foundation of this Interplanetary Institute similar to the Institute for the Peaceful Use of Atomic Energy located in the city of Dubna. Such an Institute could coordinate international cooperation and facilitate scientific and technical consultations."

– from a letter by Sergei Pavlovich Korolev to Mstislav Vsevolodovich Keldysh in relation to the upcoming 2nd session of the UN Committee on the Peaceful Uses of Outer Space, March, 1960

Academicians M.V. Keldysh and S.P. Korolev at a ceremonial event in the Kremlin, 1963

Head of the Space design and construction bureau Sergey Korolev and Academician Mstislav Keldysh at the 20th Congress of the Communist Party of the Soviet Union, 1956

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

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АКАДЕМИЯ НАУК СССР

INTERKOSMOS

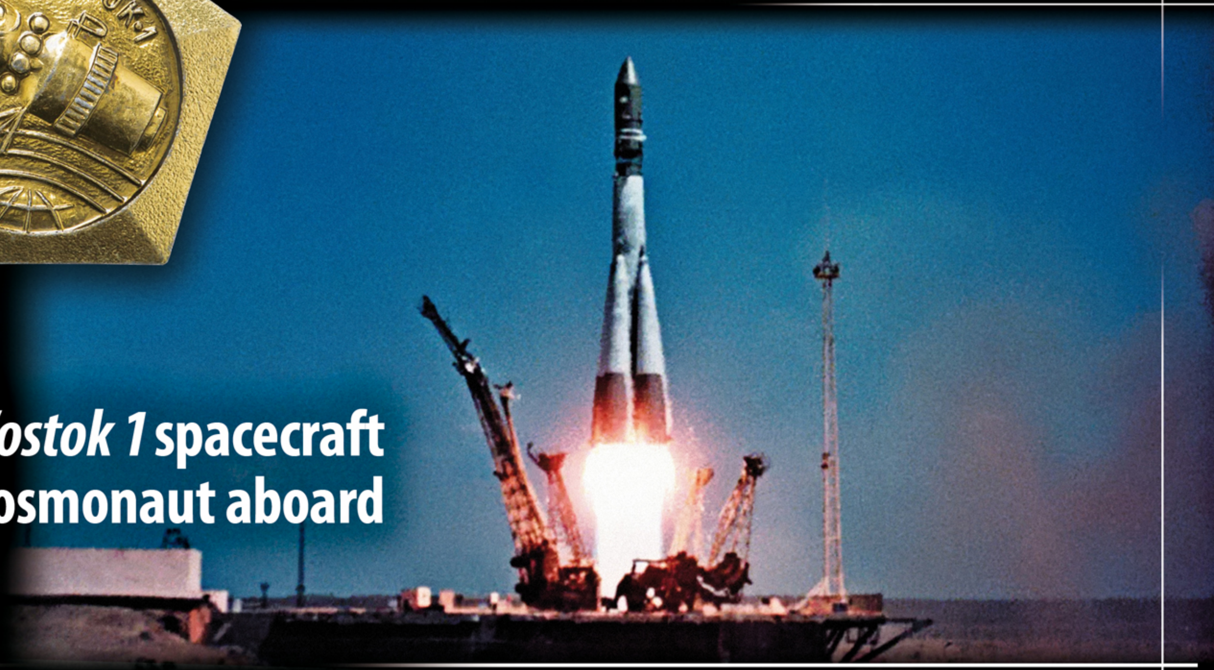
THE FIRST COSMONAUT OF THE EARTH

АКАДЕМИЯ НАУК СССР

"I would like to take part in
a flight on a spaceship with
a group of young cosmonauts
from different nationalities —
Russians, Indians, Americans.
This would be a peaceful scientific spaceship.
Let's strive together to make this dream come true.
After all, isn't our Earth such a spaceship that is rushing
through the expanses of the Universe?
This ship belongs to all of us, to all peoples, and its crew
should live in peace and friendship."

– from Yuri Gagarin's speech to Indian youth

Y.A. Gagarin in the bus on the way to the launch pad with *Vostok* rocket launcher, Baikonur, 12 April 1961



***Vostok* rocket launch with *Vostok 1* spacecraft and the first cosmonaut aboard**

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

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INTERKOSMOS

LEADERS OF THE INTERKOSMOS PROGRAM

"To carry out test flight programs, scientists from socialist countries designed numerous instruments and devices that proved their efficiency in outer space. Many of them are still in use.

In total, international crews conducted about 120 scientific experiments in the field of space biology and medicine, space quality materials, physical characteristics of outer space, the Earth's atmosphere and surface. The information obtained is being processed, analyzed and in some cases already being used to solve burning "terrestrial" issues."

– Chairman of the Interkosmos Council V.A. Kotelnikov.
Excerpt from the article, 1981

Boris Nikolayevich Petrov

11.III.1913 – 23.VIII.1980
Scientist in the field of automatic control, engineer.
Academician of the USSR Academy of Sciences, Hero of Socialist Labour.
The Lenin and the USSR State Prizes winner.
Chairman of the Interkosmos Council from 1966 to 1980.

Vladimir Aleksandrovich Kotelnikov

6.IX.1908 – 11.II.2005
Soviet and Russian scientist in the fields of radio physics, radio engineering, electronics, computer science, radio astronomy, and cryptography.
Academician of the USSR Academy of Sciences / Russian Academy of Sciences, Vice-President of the USSR Academy of Sciences. Twice Hero of Socialist Labour.
4th recipient of the Order "For Merit to the Fatherland," 1st class.
Chairman of the Interkosmos Council from 1981 to 1992.
Deputy Chairman of the Russian Academy of Sciences Space Council,
Chairman of the section for International Cooperation from 1992 – 2001.

INTERKOSMOS

INTERCOSMOS SERIES SATELLITES

“The crystal-clear air of the cosmodrome literally trembled. The night was starry, frosty, 28 degrees below zero. The taiga – that endless expanse of birch and fir – was calm. White, brightly illuminated rocket launcher soared high into the sky with the satellite placed under its protective pointed capsule and a huge red inscription 'Interkosmos' on its 35-meter body.

We awaited the launch in a special bunker, because the vibrations and noise during the launch are unthinkable. Exactly at 1:00 a.m., a loud explosion shook the launch pad.

Flames flared under the powerful two-stage rocket launcher, and it took off – at first very slowly, as if leaning over its red-hot nozzles, and then in a matter of moments turned into a small point of light. That was an indescribable show of a night launch amidst the boundless snowy expanses of the taiga! Holding up our breath, we watched this and clenched our hands in anticipation of a successful launch, but the tension did not go away. The next few hours, until the moment we learn whether our device is working in orbit, would be the longest in our lives.

– memoirs of Bulgarian scientist Stefan Chapkanov, engineer Tania Ivanova, and technician Georgi Karamishev, 2007, about the launch of the Interkosmos-8 satellite on a Kosmos-2 launcher on November 30, 1972

***Kosmos-2* launcher for *Interkosmos* series satellites in the assembly and test building of the Plesetsk Cosmodrome**

INTERKOSMOS

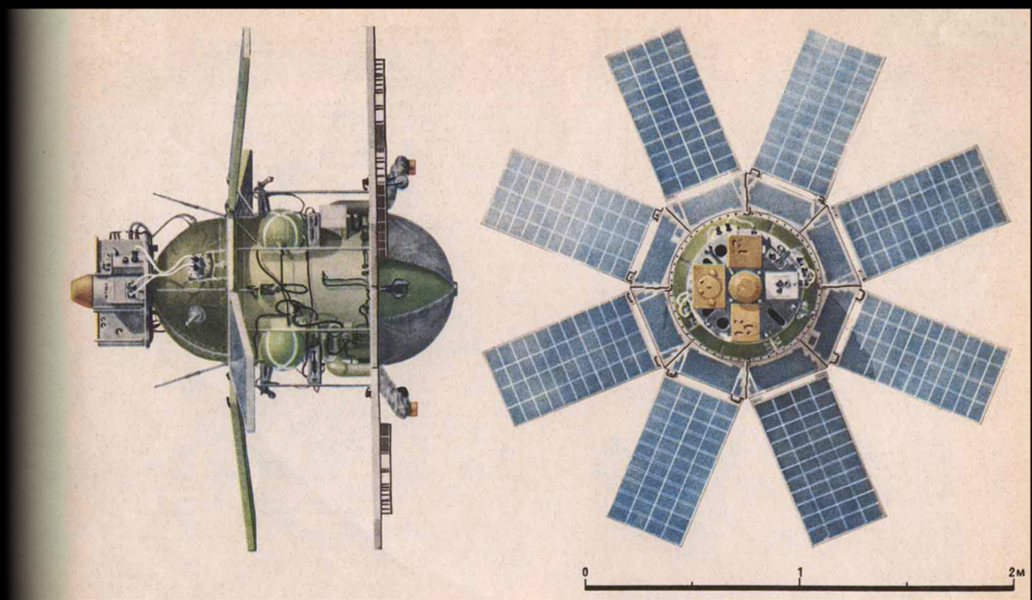
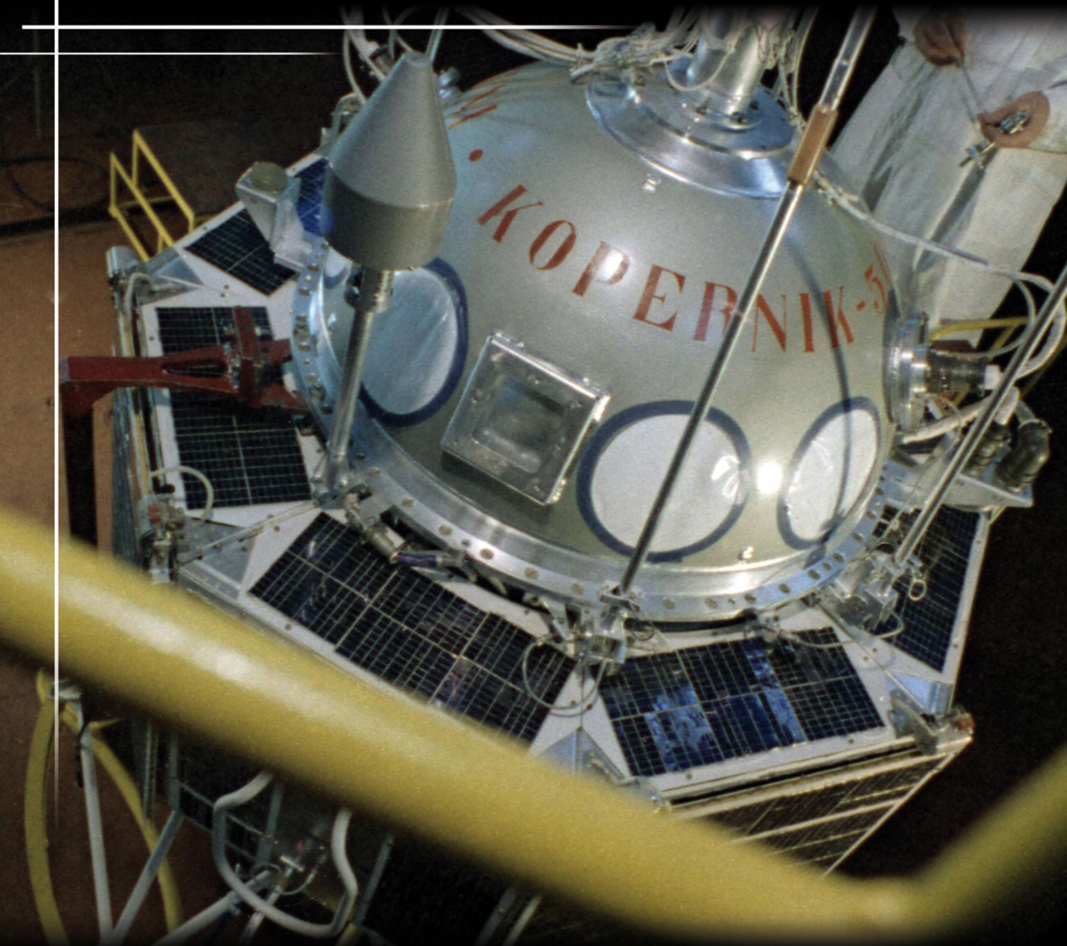


Image of the *Interkosmos-1* satellite in the magazine “Technology for the Youth”, 1979
Artist: M.Petrovsky

INTERKOSMOS – KOPERNIK-500

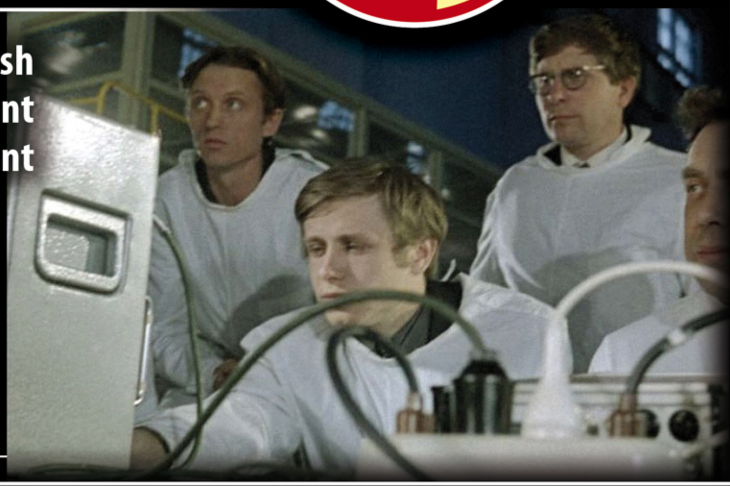


''**A**fter the COSPAR meeting in Warsaw, the international space research developed even more. In 1966 the Soviet Union proposed to the so-called 'socialist countries' the program for cooperation under the name INTERKOSMOS. This political decision opened the way to space for several small countries, including Mongolia and Cuba. Of course Poland became also the partner of INTERKOSMOS. Thanks to this program several INTERKOSMOS satellites were launched enabling the scientists from smaller countries to put experiments on the boards of space probes and satellites. In Poland we were proud in particular of the mission *Kopernik-500* (*Interkosmos-9*), the solar radio-waves experiment devoted to the 500th anniversary of the birth of Nicolaus Copernicus. The project was led by Jan Hanasz from the Astronomical Institute of the Polish Academy of Sciences in Torun and Dr. V. Aksionov from the Institute of Radioelectronics in Moscow.''

– Janusz Bronisław Zieliński, Professor, Deputy Director for Science of the Space Research Centre of the Polish Academy of Sciences (1976–1986). Memoirs, 2007

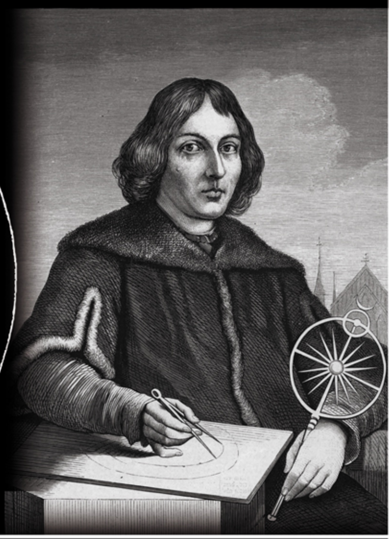
General view of the *Interkosmos–Kopernik-500* satellite. Launched on April 19, 1973

INTERKOSMOS

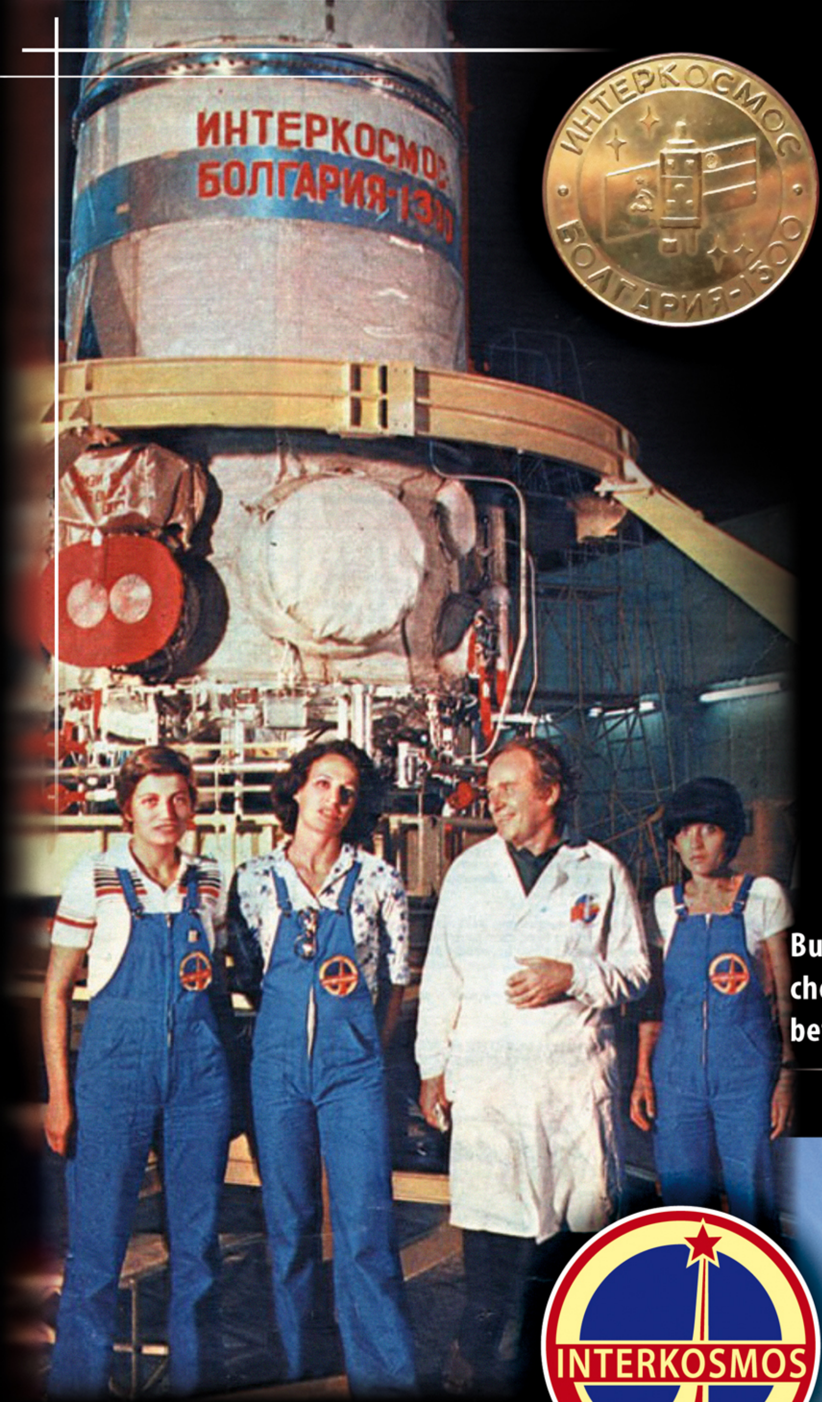


Participants of the Soviet-Polish *Interkosmos–Kopernik-500* experiment near the set of scientific equipment

Heliocentric system of Nicolaus Copernicus



INTERKOSMOS-22-BULGARIA-1300



АКАДЕМИЯ НАУК СССР

"**O**ne of the most significant scientific achievements of Bulgaria in the field of outer space research was the *Bulgaria-1300* program, implemented in 1981 to commemorate the 1300th anniversary of our State. Two man-made satellites were launched into the Earth's orbit. The first satellite, IK-B-1300, was fully equipped with a set of Bulgarian scientific equipment to conduct research in space physics. Besides this satellite, launched into an orbit of about 900 km altitude, the research program also implied the use of our scientific instruments for remote sensing of the Earth installed on the second satellite, *Meteor-Priroda*, in a lower orbit of 600 km. Both scientific payloads worked for more than three years, processing data together with information from other Earth satellites and obtaining new scientific findings and knowledge. Even the American *Dynamics Explorer* mission, which was in outer space in the same time, did not have such a complete set of instruments to measure physical parameters as the one installed on our IK-B-1300."

– memoirs of Bulgarian scientist Stefan Chapkanov, engineer Tania Ivanova, and technician Georgi Karamishev, 2007

Bulgarian and Soviet specialists checking the satellite's readiness on the test stand before shipment to the cosmodrome

INTERKOSMOS

Preparation for the launch of the IK-B-1300 satellite on a *Vostok-2M* launcher in August 1981 at the Plesetsk Cosmodrome

Unveiling of the monument to the *Interkosmos-Bulgaria-1300* satellite, April 30, 2025 in Stara Zagora, Bulgaria

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

Cosmonauts of *Soyuz-28*, *Soyuz-30*, *Soyuz-31* international crews Z. Jankowski, O. Pelčák, V. Remek, M. Hermaszewski, S. Jähn, E. Köllner during training sessions to improve filming and picturing skills, 1977

"We need outer space, humanity needs it not for the sake of records, although outer space heroes, as one can admit, do set such records in the line of duty. Ultimately, it is a daily life that benefits from outer space discoveries."

– General Secretary of the Central Committee of the Communist Party of the Soviet Union L.I. Brezhnev

АКАДЕМИЯ НАУК СССР

INTERKOSMOS

Candidates to cosmonauts:
E. Köllner, Z. Jankowski, V. Remek, M. Hermaszewski, S. Jähn, O. Pelčák during fighter jet flight training briefing, 1977

In 1976, the USSR invited the INTERKOSMOS program participating countries to join its manned flight missions. Initially, this proposal was accepted by Bulgaria, Hungary, the GDR, Cuba, Mongolia, Poland, Romania, and Czechoslovakia. Representatives of the GDR, Czechoslovakia, and Poland formed the first group of candidates to become cosmonauts.

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

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“It is precisely in our daily life where new space technologies will be highly demanded in the near future. Certainly, business expects a quick profit, while states are engaged in global projects taking on greater risks that business cannot afford. But the benefit of a particular space project should not be measured by financial gains only.”

– the first Czechoslovak/Czech cosmonaut Vladimír Remek.
Launch on the Soyuz-28 spacecraft, March 2, 1978. Interview from 2017

Prime crew of the *Soyuz-28* spacecraft
A.A. Gubarev and V. Remek

Photo: Y.A. Gagarin Cosmonaut Training Center, 1978

Backup crew
N.N. Rukavishnikov and O. Pelčák

"**O**f course, I often saw my homeland from airplanes, but this was something completely different. I covered a huge area with only one glance. The whole country. Poland seemed small from here, but beautiful… I do not agree that the process of geographical discoveries and colonization is over. What about other discoveries that await us in the oceans, in the mountains? What about the Soviet strategy of colonization and more complete development of Siberia, and international expeditions to Antarctica and Greenland? Outer space is infinite. And just as there are no limits to its exploration, so there are none on Earth. Unifed efforts of various states in space research and organizing joint space flights is an inevitable and beneficial process. This is both psychologically and politically justified: humanity must be united."

- the first Polish cosmonaut Mirosław Hermaszewski.
Mission to the Salyut-6 space station, launch on the Soyuz-30 spacecraft, June 27, 1978

INTERKOSMOS

Soviet-Polish crew of *Soyuz-30* P.I. Klimuk and M. Hermaszewski. Star City, 1978
Photo: Gagarin Cosmonaut Training Center Archive / Roscosmos

P.I. Klimuk and M. Hermaszewski at launch pad at Baikonur cosmodrome before the launch on June 27, 1978
Photo: Gagarin Cosmonaut Training Center Archive / Roscosmos

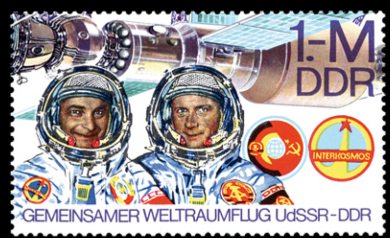
АКАДЕМИЯ НАУК СССР

ИКИ
ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

"Outer space belongs to everyone and should serve all humanity.
In particular, orbital stations are well suited to facilitate monitoring the biological resources of the World Ocean, pollution of the atmosphere, and purity of natural water reservoirs. In fact, the environmental protection is hardly feasible without close cooperation between nations – since state borders are drawn by people, not by Nature.
We must do the most to allow future generations to enjoy the Earth's generous gifts and admire its beauty."

– the first German cosmonaut Sigmund Jähn.
Launch on the Soyuz-31 spacecraft, August 26, 1978

V.F. Bykovsky, A.S. Ivanchenkov, V.V. Kovalyonok and S. Jähn aboard the *Salyut-6* Soviet orbital station, 1978



Cosmonauts V.F. Bykovsky and S. Jähn put their autographs on the descent module of the *Soyuz-29* spacecraft after landing, September 3, 1978

"One can definitely say that humanity is experiencing a new space revolution. Exploration of Outer Space is leading to new sensations, to the creation of a new spiritual world and new ideas about life, opening up a qualitatively new field of modern culture.
Breaking the chain of Earth's gravity has further unleashed the human spirit no more limited in its development by Earth's conditions.
There appears a feeling that human has turned to be a citizen of the Universe."

– the first Bulgarian cosmonaut Georgi Ivanov.
Launch on the Soyuz-33 spacecraft, April 10,1979

АКАДЕМИЯ НАУК СССР

G.I. Ivanov, cosmonaut and research scientist, member of *Soyuz-33* crew

INTERKOSMOS

1988

Cosmonauts V.P. Savinykh, A.P. Aleksandrov and A.Y. Solovyov aboard the *Mir* space station, 1988

***Sokol-K* spacesuits of Bulgarian cosmonauts G.Ivanov and A.Aleksandrov**

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

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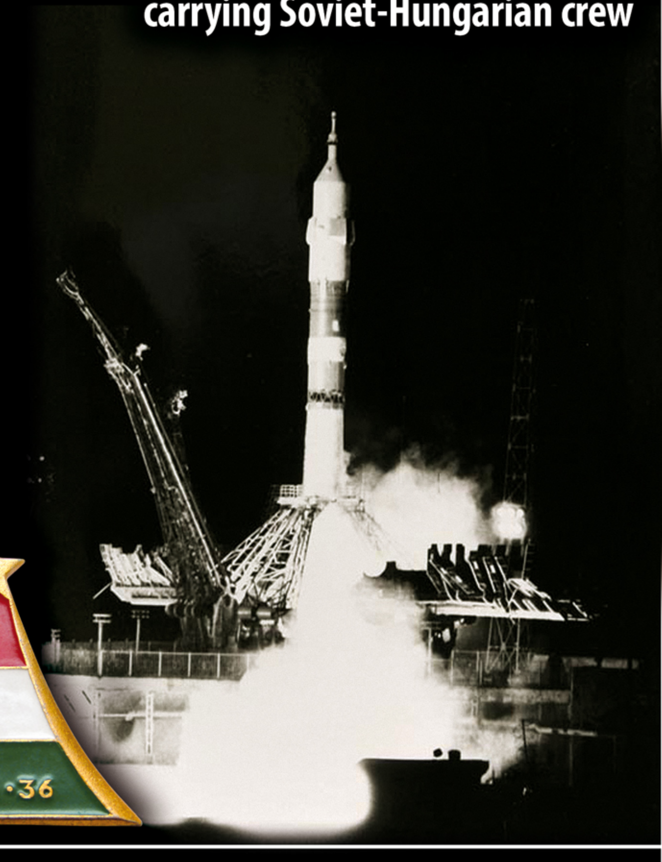
"Setting off on the flight, I mainly dreamed of seeing Hungary from space, of seeing the sunrise and sunset. I saw all that, admired the beauty of the starry sky of the space night, the mountain ranges of South America, the deserts of Africa, and the red sand-clouds over India."

– the first Hungarian cosmonaut Bertalan Farkas.

Mission to the Salyut-6 space station, launch on the Soyuz-36 spacecraft, May 26, 1980

Soyuz-36 international crew: cosmonauts B.Farkas and V.N. Kubasov. Star City, 1980

Soyuz-36 crew during training at Salyut-6 orbital station simulator at the Y.A.Gagarin Cosmonaut Training Center, 1979



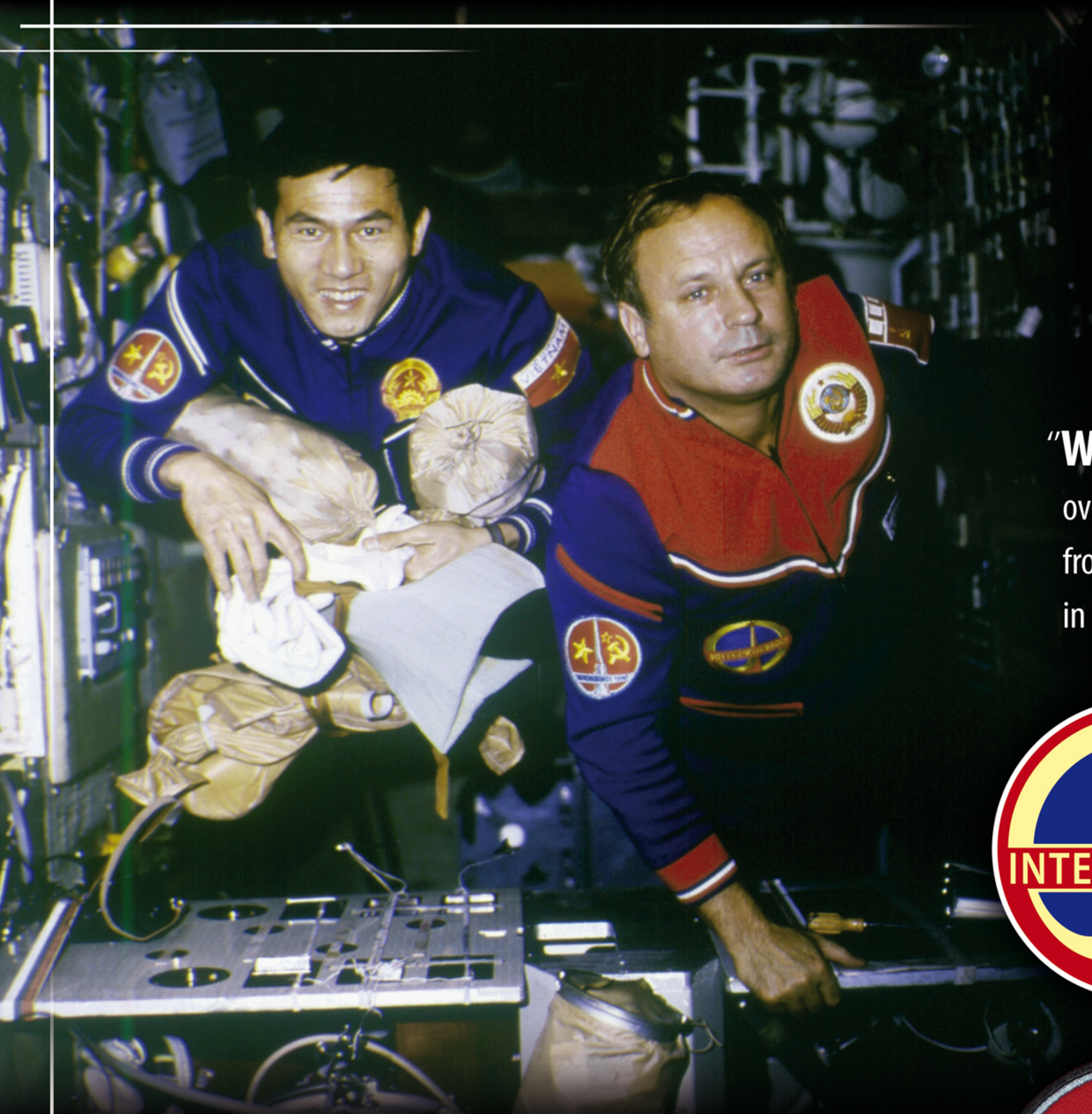
***Soyuz-U* rocket launcher lifts off with *Soyuz-36* spacecraft carrying Soviet-Hungarian crew**

"Our homeland is immensely beautiful!
I wish all peoples to live in peace, happiness, and equality.
I wish children to see always clear sky, never clouded by the smoke of a fire of war."

– the first Vietnamese cosmonaut Phạm Tuân.
Launch on the Soyuz-37 spacecraft, July 23, 1980

"We have every reason to believe that all achievements in science which Vietnam has gained over the past 20 years are associated to cooperation with and assistance received in this field from the Soviet Union and other socialist countries. Without this, the participation of the SRV in today's outer space research program would not have been possible."

– President of the National Center for Scientific Research,
Chairman of the Vietnamese Interkosmos Committee Trần Đại Nghĩa, 1980



International Soviet-Vietnamese crew of the *Soyuz-37* spacecraft, cosmonauts Phạm Tuân and V.V. Gorbatko aboard the *Salyut-6* orbital station, 1980

Backup crew of the *Soyuz-37* spacecraft Bùi Thanh Liêm and V.F. Bykovsky at the instructor's console at the Y.A.Gagarin Cosmonaut Training Center, 1979

"The friendship between our peoples has deep historical roots. At one time, the work of thousands of Soviet specialists helped the «revolutionary island» to enhance its scientific and technological development.
Thousands of Cuban students graduated from Soviet universities and got high-quality professional education. The contribution of Soviet engineers and agricultural experts also played a significant role in Cuba's industrial development. Today, there are strong prospects for further strengthening our cooperation. The fate of Yuri Gagarin had a huge impact on me. He has always been my idol and always will be. Everyone has difficult periods in their lives. When this happens to me, I remember the smile known to the whole world."

- the first Cuban cosmonaut Arnaldo Tamayo Méndez.
Mission to the Salyut-6 space station, launch on the Soyuz-38 spacecraft, September 18, 1980

Soviet-Cuban crew of *Soyuz-38* spacecraft, Y.V. Romanenko and A. Tamayo Méndez. Star City, 1980

Cosmonauts Y.V. Romanenko and A. Tamayo Méndez in the training room of Gagarin Cosmonaut Training Center, 1979

"The hemisphere of the Universe glittered with myriads of stars. Looking at the unblinking, like frozen diamonds, stars I imagined that to someone down at the Earth, gazing at the night sky, our ship might appear as a brilliant, never-falling star.

Perhaps at that moment, in the village of Khailast, my father, mother, younger brothers and sisters, having stepped out of the yurt, are searching the dark sky for our starship and saying to themselves: "Happy journey and happy return to Earth, Ragcha!"

And I am proud that I am now flying, surfing outer space amidst the 88 constellations visible to a human eye. Yuri Alekseyevich was right saying that this moment gives you an incomparable happiness. And how one can neither rejoice nor admire the power and genius of the human mind?!"

– the first Mongolian cosmonaut Jügderdemidiin Gürragchaa. Launch on the Soyuz-39 spacecraft, March 22, 1981

J. Gürragchaa and V.A. Dzhanibekov as part of the Soviet-Mongolian crew of the *Soyuz-39* spacecraft in the *Salyut* space station simulator, 1981

Pre-flight maritime training of the Soviet-Mongolian *Soyuz-39* crew
In the photo: J. Gürragchaa and B.V. Volynov

"I believe we would have advanced much further in the exploration of outer space if all the resources currently spent on armaments had been used for peaceful purposes. I think that by now, large orbital factories would have been already operating in orbits, processing precisely those substances with tiny quantities of which experiments are currently conducted in space. Most likely enormous orbital mirrors would have been assembled long time ago, directing solar energy to those regions of the Earth which lack it. All of this is not only about money, but also about the immense intellectual efforts that are now being spent on entirely different purposes."

– the first Romanian cosmonaut Dumitru Prunariu.

Mission to the Salyut-6 space station, launch on the Soyuz-40 spacecraft, May 14, 1981

АКАДЕМИЯ НАУК СССР

Soviet-Romanian crew of *Soyuz-40*.
Cosmonauts L.I. Popov and D.D. Prunariu heading toward Launch Pad №1 at the Baikonur Cosmodrome

Soyuz-U rocket launcher with the _Soyuz-40_ spacecraft before the launch at the Baikonur Cosmodrome

Soyuz-40 crew near the monument to Yuri Gagarin in Star City

INTERKOSMOS

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"**A**ll three factors vital to the success of the scientific mission proved to be favorable. The quality of preparation for the scientific experiments, many of which were conducted in orbit for the first time, was high. Technical capabilities, meaning the adaptability of the orbital station for unique scientific experiments, can also be highly graded. And finally... both the quantity and quality of the materials shipped down to Earth and delivered in the descent module give hope that the expedition will yield important results.

The main impressions that I will forever retain from two remarkable years of life and work in the Soviet Union come down to one thing. All the Soviet people I met – are simple, hospitable, and dedicated to their work. Open-heartedness and patience on the path to the goal – this is, in my opinion, a characteristic trait of the Russians. In outer space, I felt the unity of the crew, and it was a brilliant reflection of the friendship between our peoples. I believe that participation in this joint experiment will enable France to very quickly pass through those stages in space exploration that have taken other countries many years."

– the first French cosmonaut Jean-Loup Chrétien. Launch of the Soyuz T-6 spacecraft, June 24, 1982

АКАДЕМИЯ НАУК СССР

A.S.Ivanchenkov, V.A.Dzhanibekov and J.-L.Chrétien as part of the Soviet-French crew of the *Soyuz T-6* spacecraft before the flight to the *Salyut-7* space station, 1982

INTERKOSMOS

J.-L.Chrétien puts his autograph on the descent module of the *Soyuz T-6* spacecraft after landing, July 2, 1982

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"When you have the [national] tricolour on your arms, your performance goes beyond your potential. It's like having a purpose higher than yourself, and when you have that purpose, things become a lot easier."

"When you go into the space, the first thing you do when you look out from the window is to look for your country. You say, 'yes, it's quite like what the Geography books have said'. After seeing it over and over again when you shift your focus, you look at the neighbouring countries and then you start realising from up there that boundaries are not visible – that they are man-made, and then you start developing that global outlook."

– the first Indian cosmonaut Rakesh Sharma. Launch on the Soyuz T-11 spacecraft, April 3, 1984

Soviet-Indian crew of the *Soyuz T-11* spacecraft: G.M. Strekalov, R. Sharma and Y.A. Malyshev

I. Gandhi, R. Gandhi, P.S. Kutakhov, G.T. Beregovoy and others in the *Salyut* space station simulator at the Y.A. Gagarin Cosmonaut Training Center, 1983

ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН
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"Through the efforts of human civilization, and first and foremost of our great and tested friend, the Soviet Union, our people, our country have been lifted to a cosmic height.
Let us, with the help of the world community, continuing our Jirga* traditions, rise above the bloodshed of brothers, and together create peace."

– the first Afghan cosmonaut Abdul Ahad Mohmand.
Launch on the Soyuz-TM6 spacecraft, August 29, 1988

*Jirga, literally 'circle', is a council of the wisest and the most experienced people meeting to solve the questions of vital importance

Afghan cosmonaut Abdul Ahad Mohmand during his flight aboard the *Mir* space station, 1988

International Soviet-Afghan crew of the *Soyuz-TM6* spacecraft, cosmonauts V.A. Lyakhov, V.V. Polyakov, and A. Ahad Mohmand during water-landing training

"I want to say "thank you" to all the scientists, designers and technicians – my contemporaries. It was them who made possible human operations abroad such a huge station in outer space. There is something unique about it. Something really remarkable."

– the first Austrian cosmonaut Franz Viehböck.

Mission to the Mir space station, launch on the Soyuz TM-13 spacecraft, October 2, 1991

During this very final manned flight mission of the Soviet space era the Austrian *Austromir* research mission was conducted. It included various types of experiments: in medicine, technology, and material science. Particular attention was given to the Austrian electronic system *Datamir* testing exercises. In addition to that a MKF-6MA camera equipped with a multichannel spectrometer was used for the Earth remote sensing.

F. Viehböck (Austria), A.A. Volkov, and T.O. Aubakirov as members of the Soviet-Austrian *Soyuz TM-13* crew before the flight, 1991

Image of Vienna captured by the MKF-6MA multispectral camera from aboard the *Mir* space station

F. Viehböck' training in a simulator module for the flight to the orbital *Mir* space station

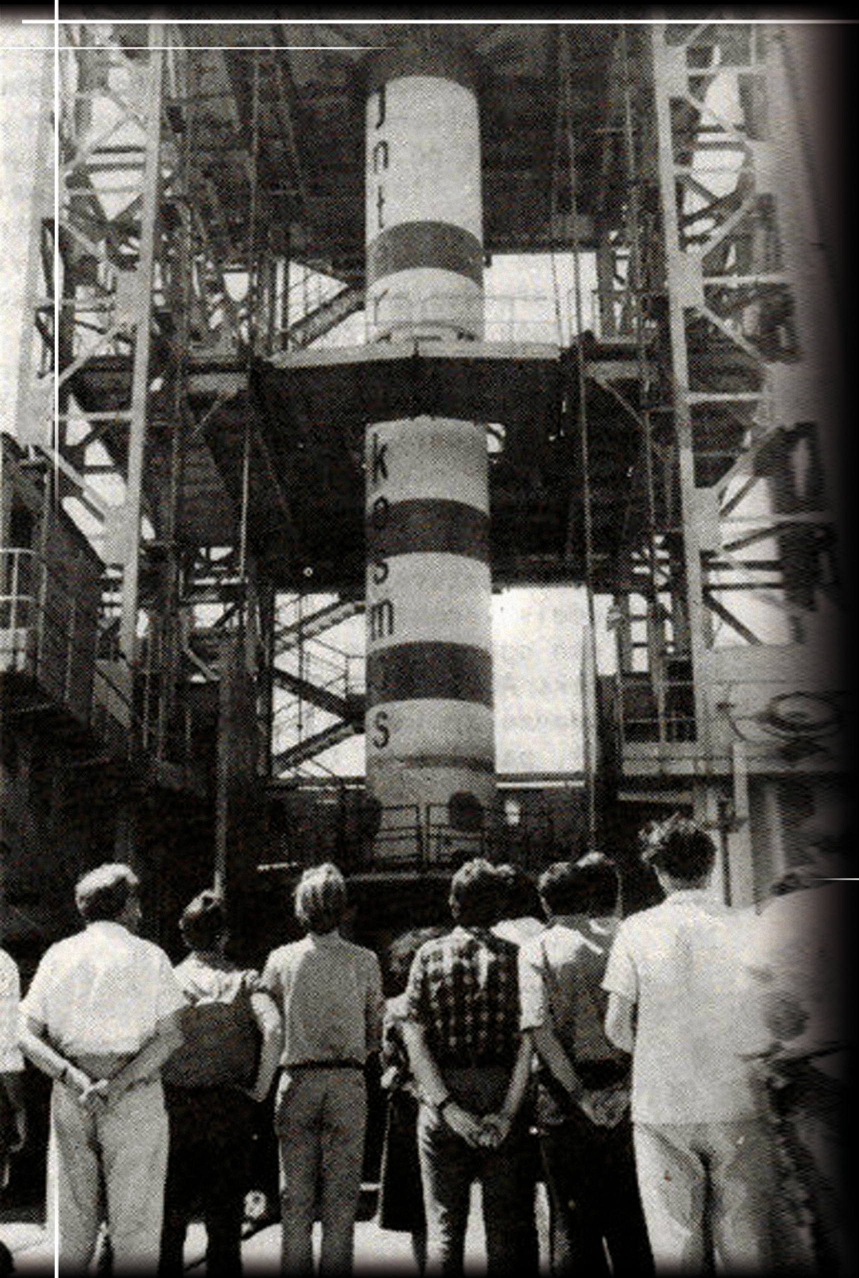
Photo: BMBWK, Vienna.

Based on materials from www.austromir.at

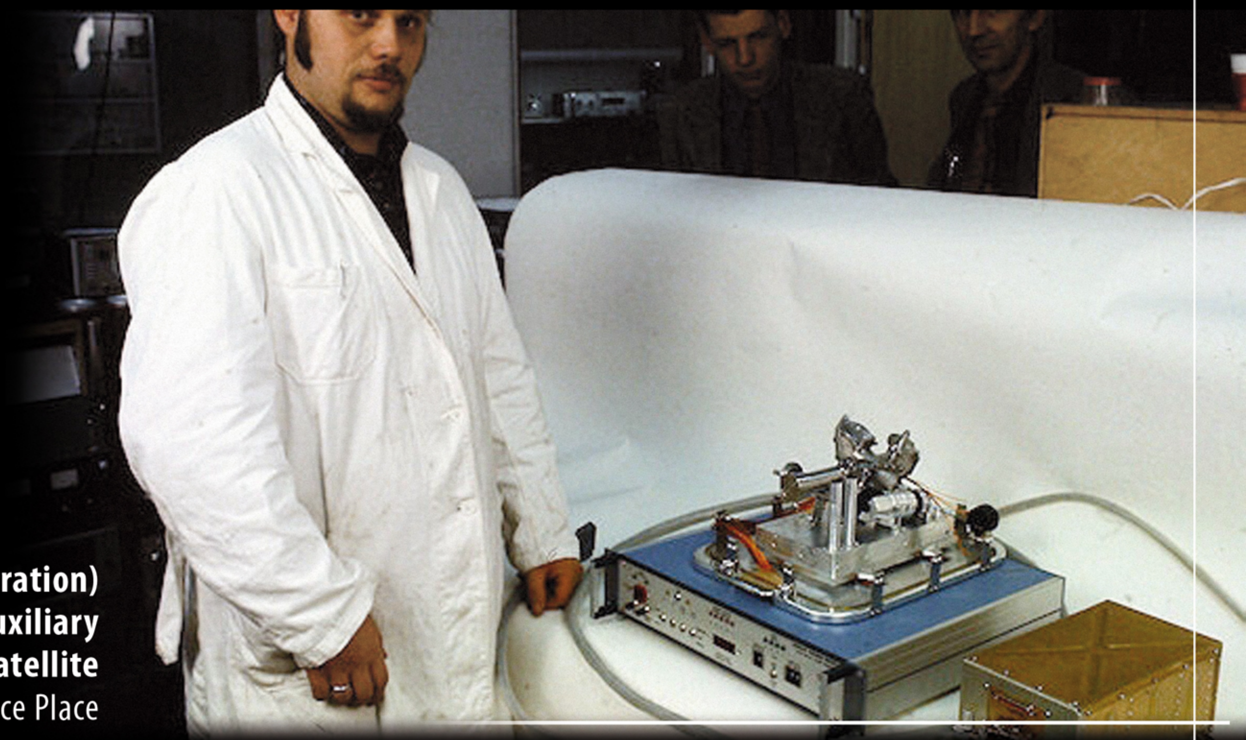
SWEDEN IN INTERKOSMOS

''The campaigns were very nice, and the Russians were very social and friendly. They often invited us to parties, although their cooking did not always satisfy the Swedish taste.
The Russians were very fond of fishing and spent a lot of time fishing from the ice when they had some hours off. They were in fact very skilled fishermen, and they introduced a small blinker called 'mormyschka' among the local population. This jig is nowadays the most popular jig for ice fishing in Kiruna!''

– Stefan Zenker, space engineer at Swedish Space Corporation (Stockholm).
Memoirs of 1990's about the series of Soviet-Swedish balloon experiments under the SAMBO project in the 1970's

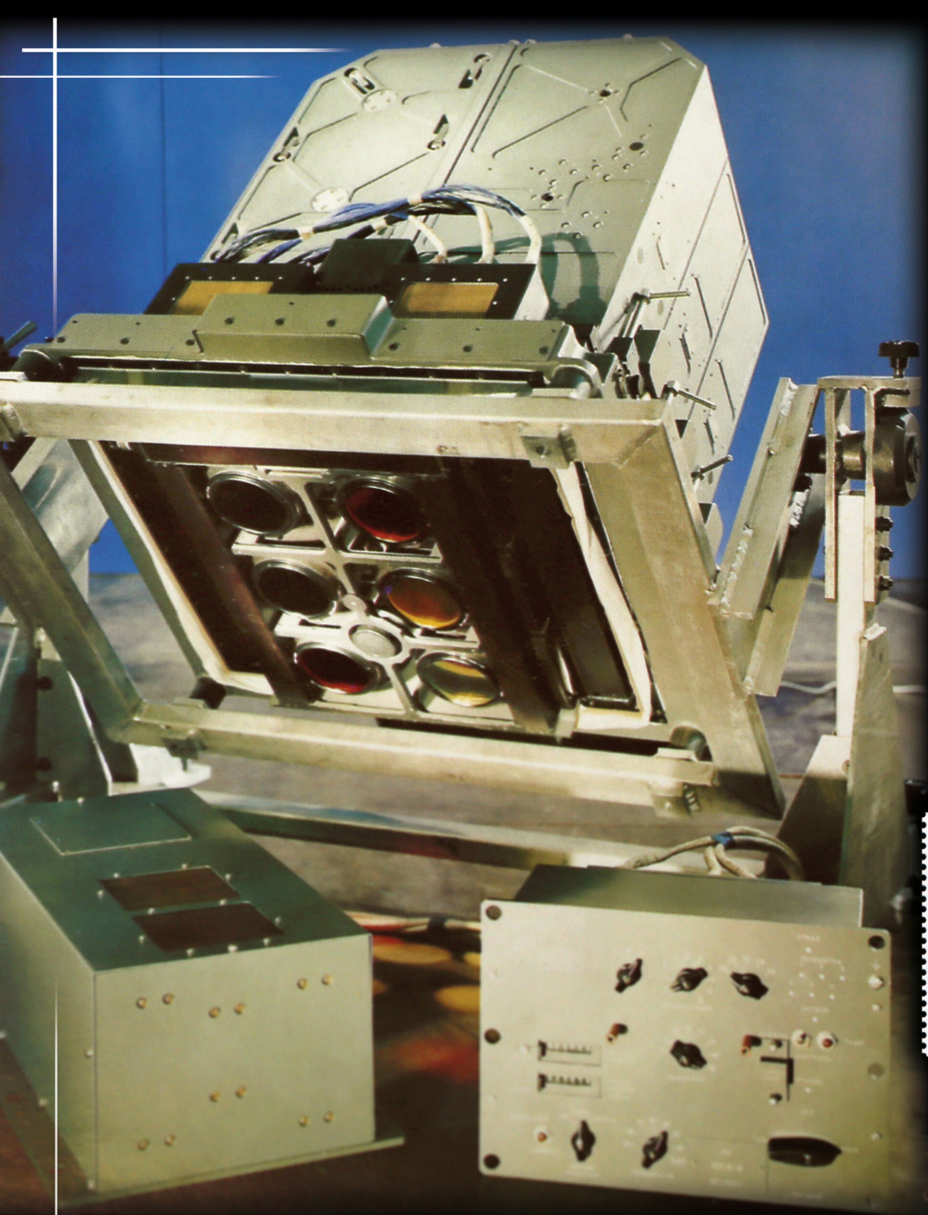


Swedish and Soviet specialists in front of the *Kosmos-3M* rocket launcher
Photo: Sven's Space Place



Lars Stenmark (Swedish Space Corporation) with a spectrometer, encoder, and auxiliary equipment for the *Interkosmos-16* satellite
Photo: Sven's Space Place

Multispectral Space Camera MKF-6 (GDR)

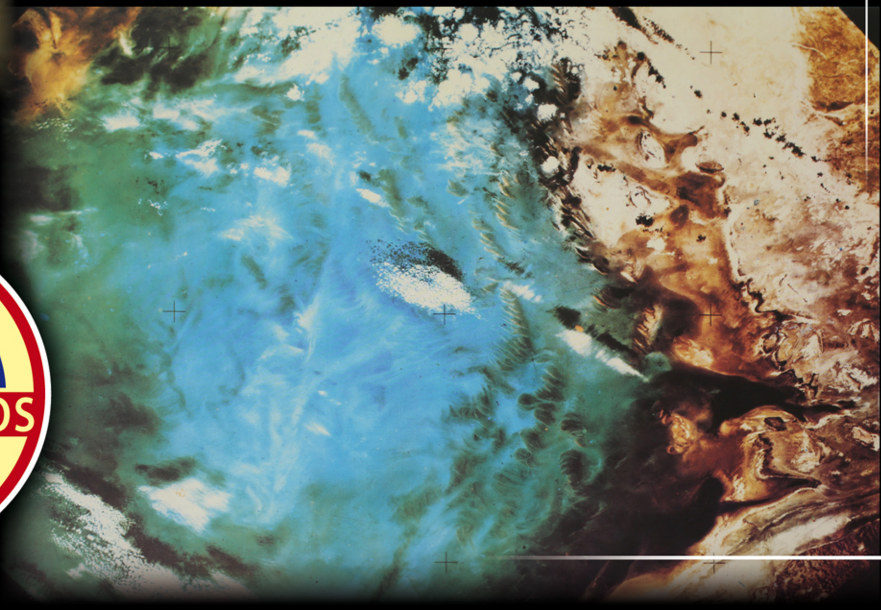


"Every instrument of this kind <...> is in its own way a material embodiment of advanced scientific ideas, the ingenuity of designers and experimentalists seeking answers to fundamental questions of natural science...
The inviolability of our friendship, strengthening over decades on Earth, has now been showcased in outer space. We are deeply satisfied that, with the help of partners from the USSR Academy of Sciences, we managed, during the development of the comprehensive program of scientific experiments for the GDR cosmonaut, to contribute to the success of the joint venture."

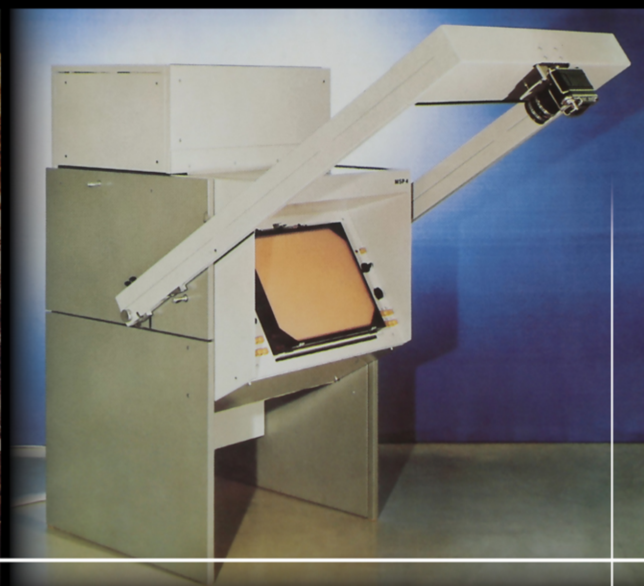
– General Secretary of the Academy of Sciences of the GDR, Chairman of the National Interkosmos Coordinating Committee Klaus Grote, 1981

Multispectral Aerial Camera MKF-6 developed by Carl Zeiss Jena, GDR. Used during the *Soyuz-22* spacecraft flight. Modifications were used on the *Salyut-6*, *Salyut-7*, and *Mir* orbital stations

MKF-6 synthesized image of the Caspian Sea



Multichannel Synthesizing Projector for processing MKF-6 images. Developed at the Space Research Institute of the USSR Academy of Sciences



INTERKOSMOS

ИКИ
ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

Unified Telemetry System and Observation Equipment

SBG Astrogeodetic Camera
(SBG – Satelliten Beobachtungs Gerät)
manufactured by Carl Zeiss Jena, GDR

In 1968, representatives of several socialist countries collectively proposed to design within the framework of the *Interkosmos* program telemetry systems for transmitting scientific data from satellites during joint experiments.

This idea gave way to the joint Unified Telemetry System, or UTMS.

Engineers and scientists from Hungary, Czechoslovakia, Poland, the GDR, and the Soviet Union participated in its development. By early 1976, technological and flight sets of UTMS equipment were made.

Flight tests of the UTMS were successfully accomplished after the launch of the *Interkosmos-15* satellite in 1976.

The participating countries of the *Interkosmos* program also conducted joint experiments on optical satellite observation. These experiments used AFU-75 and VAU photo cameras produced by the USSR and the SBG satellite photo camera developed by the GDR.

To improve the accuracy of geodetic and geodynamic research, specialists from Czechoslovakia, the Soviet Union, Poland, Hungary, and the GDR constructed a laser satellite rangefinder. It could determine the distance to a satellite with an accuracy of 5 m at ranges up to 3,000 km.

Pertinent equipment was installed in Riga (Latvia), Borowiec (Poland), Helwan (Egypt), Patacamaya (Bolivia), Kavalur (India), and Santiago de Cuba (Cuba).

One of the UTMS antennas
at Special Design Bureau IKI in Tarusa
Photo: IKI, 1979

AFU-75 Camera

GREENHOUSE “SVET” (Bulgaria)

“In 1983, in Kecskemét, Hungary, Bulgarian scientists officially joined the research project “Search for ways and means to use plants and animals in the outer space environment”, led by the Institute of Biomedical Problems in Moscow. They were entrusted with a critically important research object – higher plants, which can provide nutrition and purify the air breathed by cosmonauts.

The first automated space greenhouse (SVET) was developed to make long-term plant studies under microgravity conditions. It was installed as standard equipment in the *Kristall* module docked to the *Mir* space station on 10 June 1990.

By 2000, eight multi-month experiments (a total of 680 days) with different plant species had been conducted in the greenhouse within several international research programs. Unique results were obtained proving that microgravity is not an obstacle to plants’ cultivation and can be fully utilized to produce biologically active substances for crews during their future long-lasting missions.”

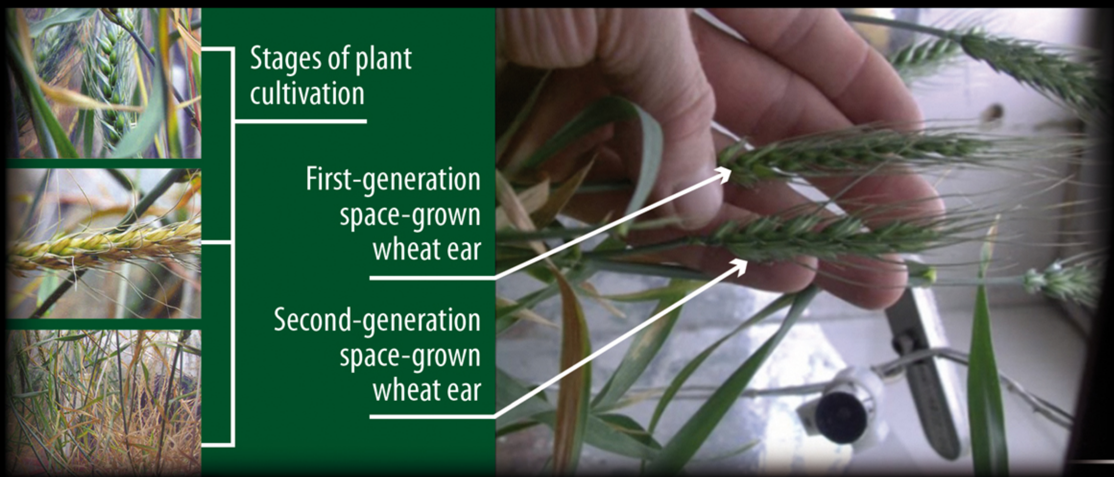
– Tania Ivanova, researcher at the Space Research and Technology Institute of the Bulgarian Academy of Sciences and one of the developers of the greenhouse. Excerpt from the article, 2013

American astronaut and biochemist Shannon Lucid aboard the *Mir* space station near the Soviet–Bulgarian greenhouse SVET
Photo: NASA, 1996

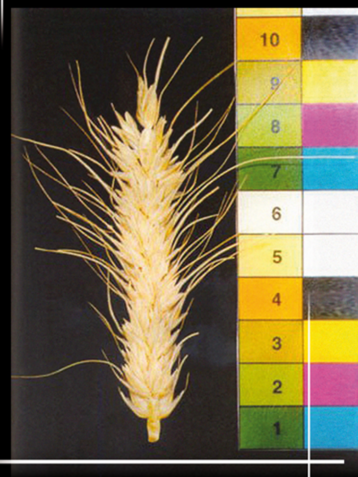
INTERKOSMOS

The SVET greenhouse, designed for plant cultivation experiments, was developed within the framework of the INTERKOSMOS program by specialists from the Institute of Biomedical Problems of the USSR, Ministry of Health, in cooperation with the Space Research and Technology Institute of the Bulgarian Academy of Sciences. The facility functioned in the *Kristall* module of the *Mir* space station from 1990 to 2000

Cosmonaut Sergei Avdeyev demonstrates wheat ears of the *Apogee* variety belonging to the first and second “space-grown” generations cultivated in the SVET greenhouse aboard the *Mir* space station, May 1999



Size of the cultivated wheat ear (measurement in cm)



ИКИ
ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

IBMP

АКАДЕМИЯ НАУК СССР

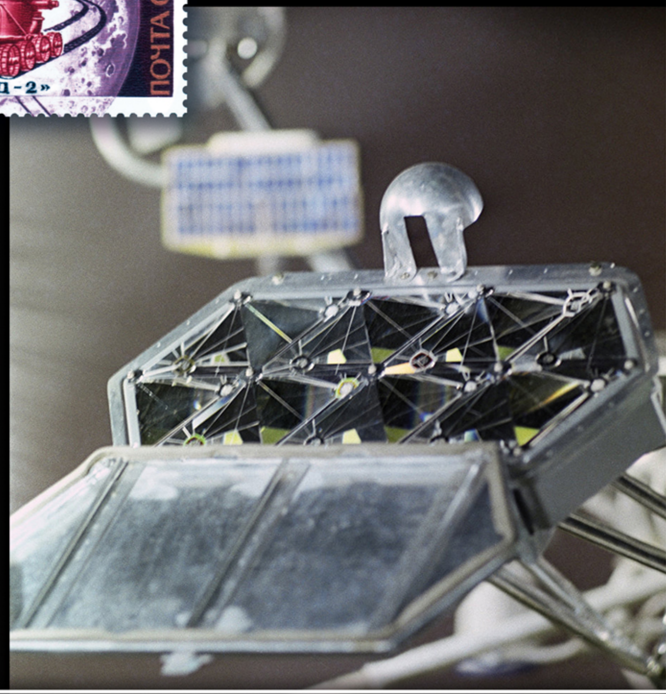
LASER CORNER-CUBE REFLECTORS (France)

"With emotion, I remember the lunch offered to our Soviet hosts by the French ambassador. After the coffee, Keldysh took my arm and expressed in perfect French his desire to involve us not only in the exploration of the Moon, but also in the study of the life on Mars. As I have written in one of my books, the portrait of Peter the Great, given by the tsar himself, one of the few relics of our Representation in St.-Petersburg, in front of which I listened enthralled these confidences, reminded me that in this country which I visited for the first time, tradition dictates to force Nature. It is difficult to relive today the sensation of exotic which filled us in full 'cold war' as we discovered this immense, unknown and mysterious Soviet Union crowned by its successes in space."

– Jacques Blamont, Professor Emeritus at University of Paris VI, advisor to the President of the National Centre for Space Studies (France). Memoirs published in 2007 about events of 1966

Automated self-propelled vehicle *Lunokhod-1* (general view)

INTERKOSMOS



Corner-cube reflectors for laser ranging of the Moon installed on the *Lunokhod-1* and *Lunokhod-2* Moon rovers

АКАДЕМИЯ НАУК СССР

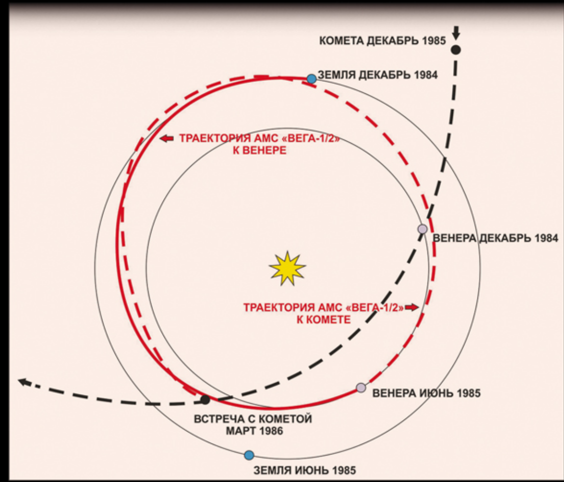
ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

RUSSIAN STATE ARCHIVE OF SCIENTIFIC-TECHNICAL DOCUMENTATION

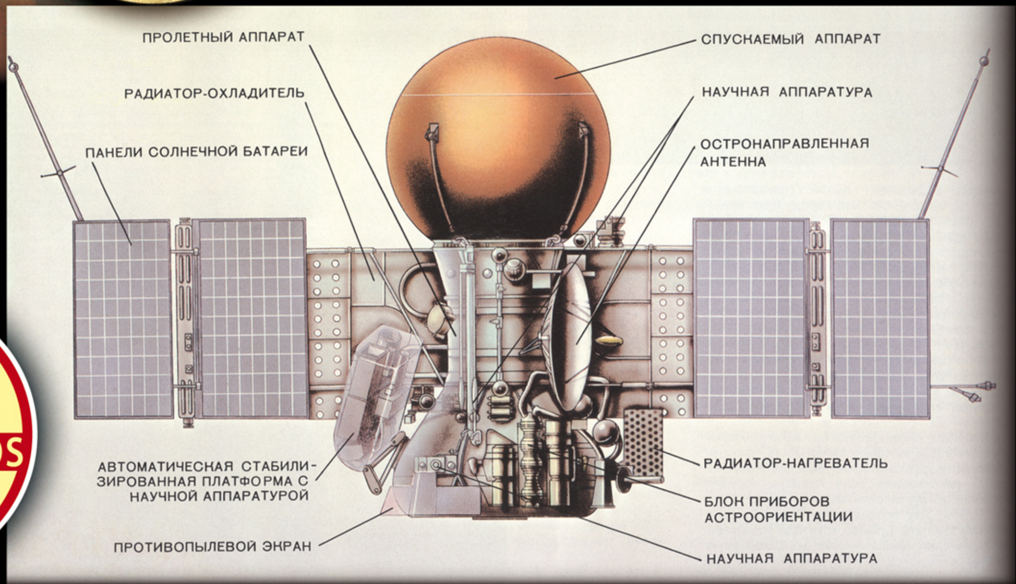
Automatic Interplanetary Stations VEGA planet Venus – Halley's Comet

Vega spacecraft in the integration and testing facility at the cosmodrome, 1984

Scientists from the USSR, France, Hungary, Bulgaria, Austria, the FRG, the GDR, Poland, Czechoslovakia, and the United States participated in the development of the scientific payload for the VEGA mission. Balloon probes to study the atmosphere of Venus were developed in the USSR.



Flight scheme of the *Vega* spacecraft



External configuration of the *Vega-1* / *Vega-2* spacecraft

Replica of the balloon probe of the VEGA program spacecraft (*Vega-1/2*) and a descent module of *Venera/Vega* series at the exhibition in the IKI

Photo: P.S. Shubin

INTERKOSMOS

ИКИ
ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

АКАДЕМИЯ НАУК СССР

BALLOON PROBES. Ground-Based Radio Tracking Network

Under the VEGA program, two balloon probes were delivered into the atmosphere of Venus on 11 and 15 June 1985. These probes were so far the only and ever deployed in the atmosphere of another planet. After the balloons were inflated and ballast was released, the probes stabilized at an altitude of about 54 km and began drifting along the latitude.

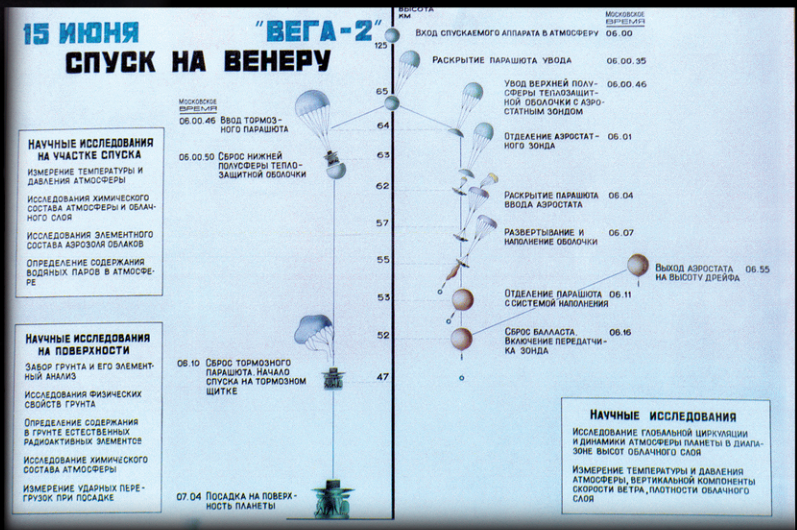
Data transmission from the probes continued for approximately 46 hours.

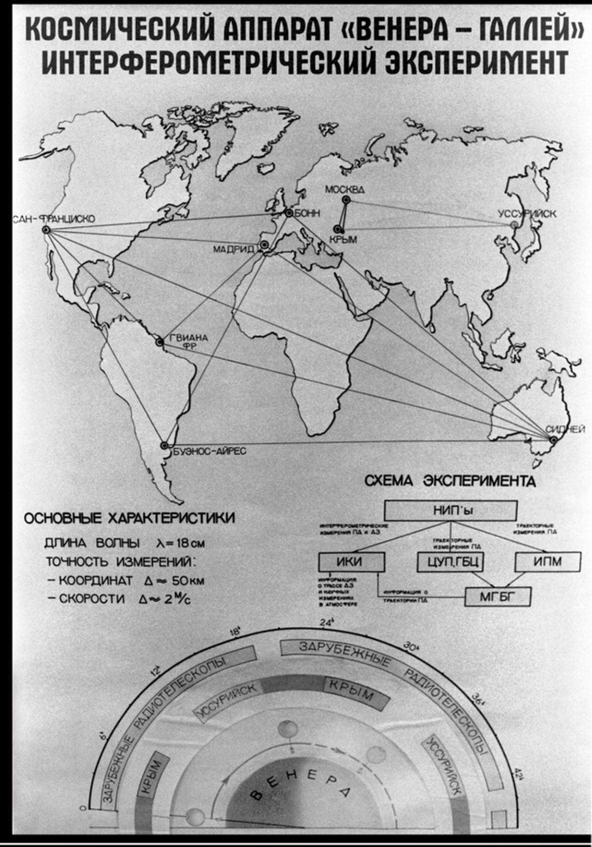
To precisely track their movement, two tracking networks were established: a Soviet network coordinated by the Space Research Institute of the Academy of Sciences of the USSR and an international network. They included radio telescopes located in the USSR, the United States, Spain, Australia, Brazil, South Africa, Canada, Sweden, and French Guiana.

The probes traveled a total distance of more than 11,000 km. Due to the diffusion of helium through the balloons' shells, they gradually descended by approximately 500 meters. However, when the probes entered the sunlit side of Venus, solar heating of the ballons resulted in regaining altitude. The final loss of communication is believed to be caused by two coinciding events: after about 46 hours, the probes' electrical power reserves were exhausted, and approximately at the same time the probes moved beyond the horizon relative to the Earth.

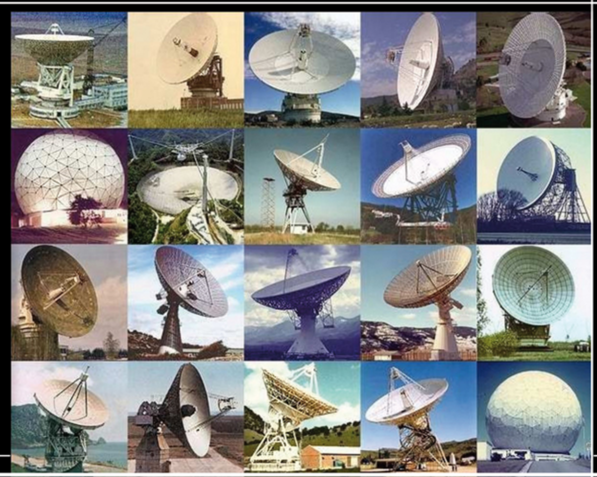
Vega Balloon Probe in the Atmosphere of Venus
Illustration: Mark Maxwell

Descent scheme of *Vega-2* lander and the balloon probe to the surface of Venus





Map diagram of the interferometric experiment of the project *Venus – Halley's Comet*



Radio telescopes involved in receiving signals from the balloon probes of the VEGA program
Collage: Don P. Mitchell

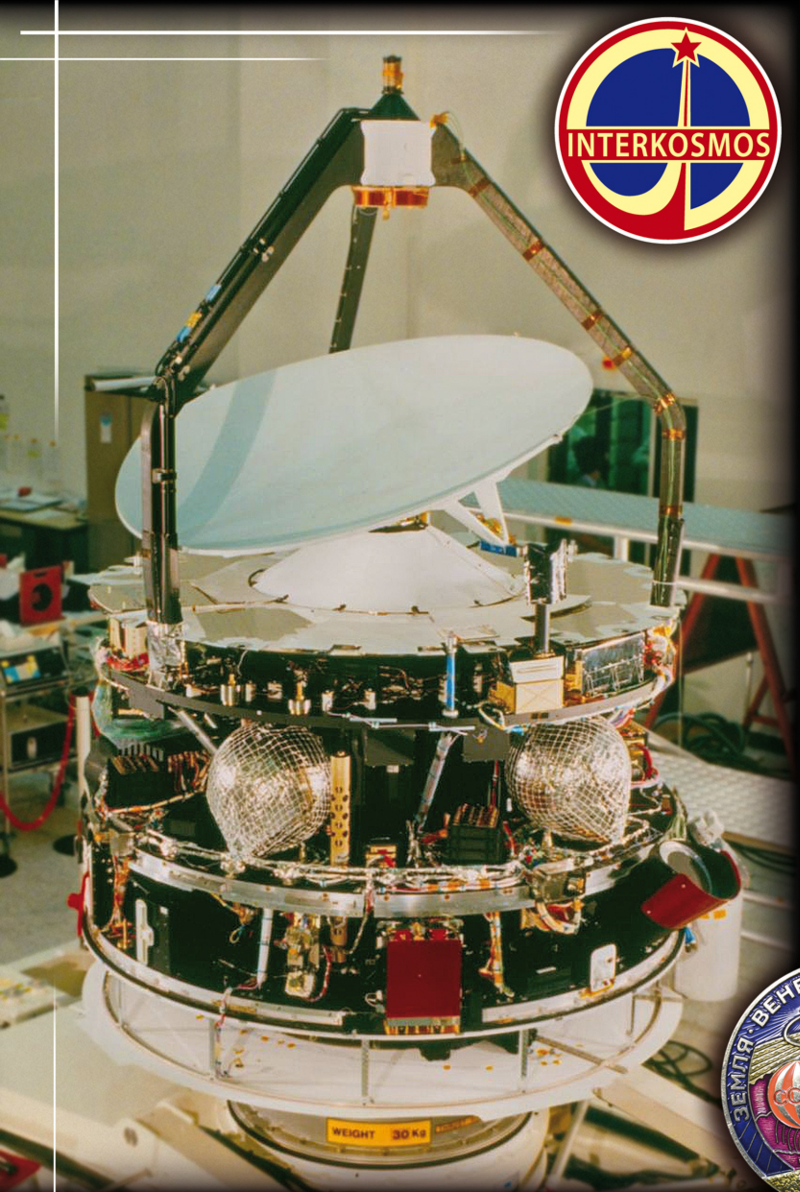
International Project PATHFINDER

To coordinate research within the VEGA program, the Inter-Agency Consultative Group for Space Science (IACG) was established. The group brought together scientists from the USSR, Europe, Japan, and the United States.

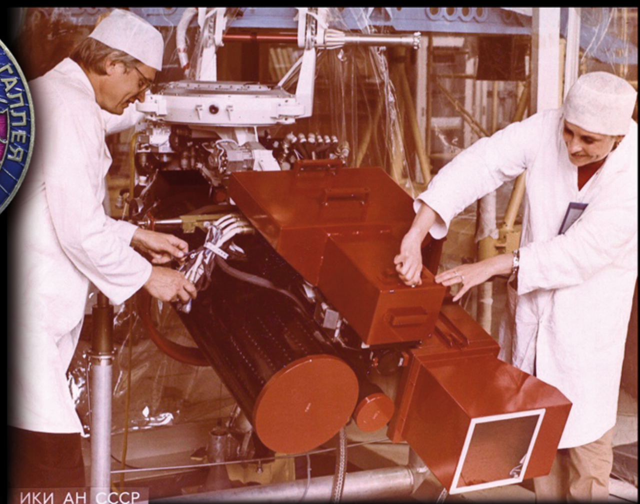
During their flight, *Vega-1* and *Vega-2* were measuring the Halley's Comet's trajectory up to the moment of the closest approach during flyby on 6 and 9 March 1986. These results were used in the international project *Pathfinder* to support the following flyby of the European mission *Giotto*. Thanks to the *Pathfinder* project, on 14 March 1986 *Giotto* successfully approached Halley's Comet at a distance of a mere 596 km.

"I would like to note that the information provided by the Soviet probes will be useful not only from a scientific point of view. Depending on the situation that *Vega* encounters in space – since it will be the first to meet the comet – the *Giotto* and *Planet A* projects' designers will be able to adjust the trajectories of their probes.
This is very important for everyone: the more precisely the plans of scientists from different countries are implemented, the more scientific information will reach our Earth. By comparing these data, we will be able to learn much more about the structure and characteristics of comets."

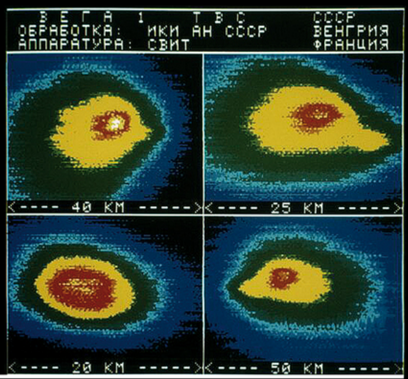
– René Pellat, Professor, National Centre for Space Studies (France)



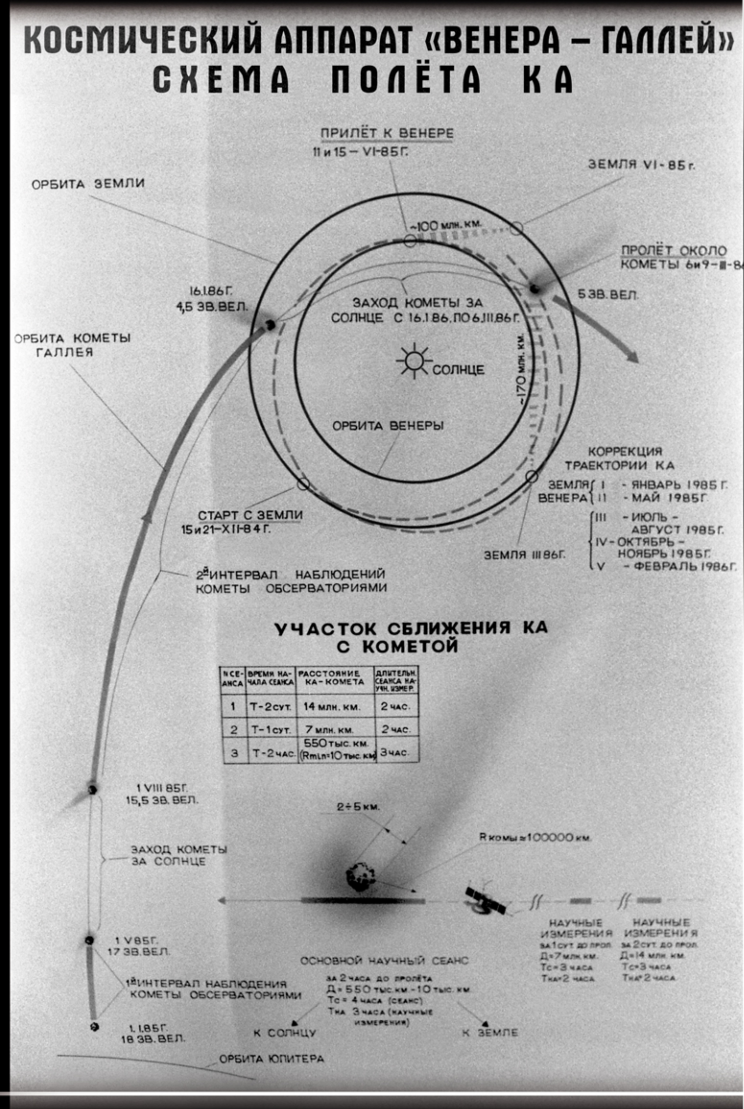
Automated Interplanetary Spacecraft *Giotto* of the European Space Agency
Photo: ESA



Russian and French Technical Directors of the VEGA program Boris S. Novikov and Josette Runaveau during tests of steerable platform of the *Vega* spacecraft at the IKI of the Academy of Sciences of the USSR
Photo: IKI



Venus – Halley spacecraft. Flight scheme



ИКИ
ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

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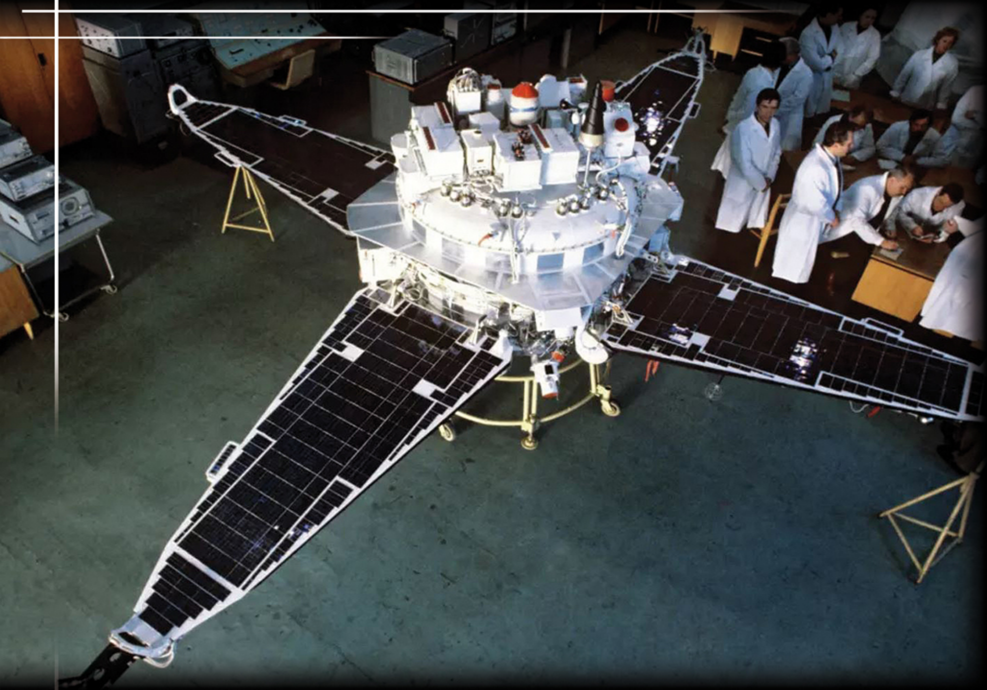
International Project INTERSHOCK

In the very first space missions whose orbits extended beyond 100,000 km from the surface of the Earth an unexpected phenomenon was discovered: a shock wave separating the solar wind from the Earth's magnetosphere.

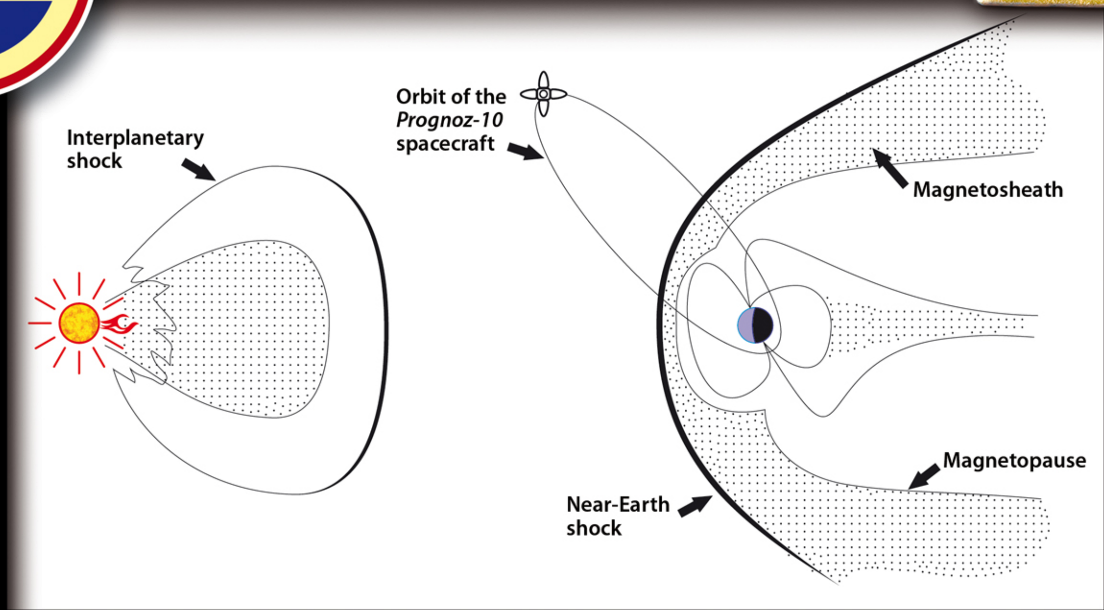
This phenomenon became a subject of great interest to the global scientific community, and within the framework of the *Interkosmos* program, the INTERSHOCK project was developed, implemented using the *Prognoz-10* satellite launched on April 26, 1985.

Scientists from the USSR, Czechoslovakia, the GDR, Poland, Hungary, and Bulgaria joined the project. One of the main features of the research conducted under the INTERSHOCK project was its comprehensive scope. Through the joint efforts of Soviet and Czechoslovak specialists, unique diagnostic equipment was developed to record all major phenomena near and within the shock front. The INTERSHOCK project was followed by the more complex INTERBALL project, implemented in the second half of the 1990s.

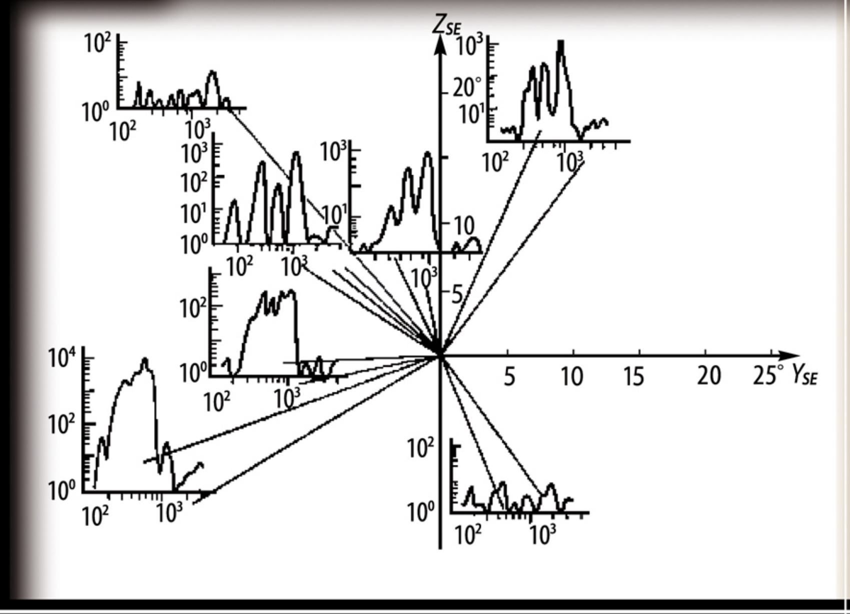


Automatic station *Prognoz-10* of the INTERSHOCK project during testing at the Lavochkin Scientific and Production Association facility Photo: RIA Novosti

General scheme of solar-terrestrial connections



Energy spectra of the ion flux observed in different directions immediately behind the shock front



Integrated testing of the *Interball-2* spacecraft
at the Lavochkin Scientific and Production Association, 1996

INTERBALL International Project

The international INTERBALL project consisted of two pairs of spacecraft: Soviet *Prognoz*-type satellites and Czechoslovak *Magion*-type subsatellites designed to conduct simultaneous observations of plasma processes in different regions of the Earth's magnetosphere and in the solar wind.

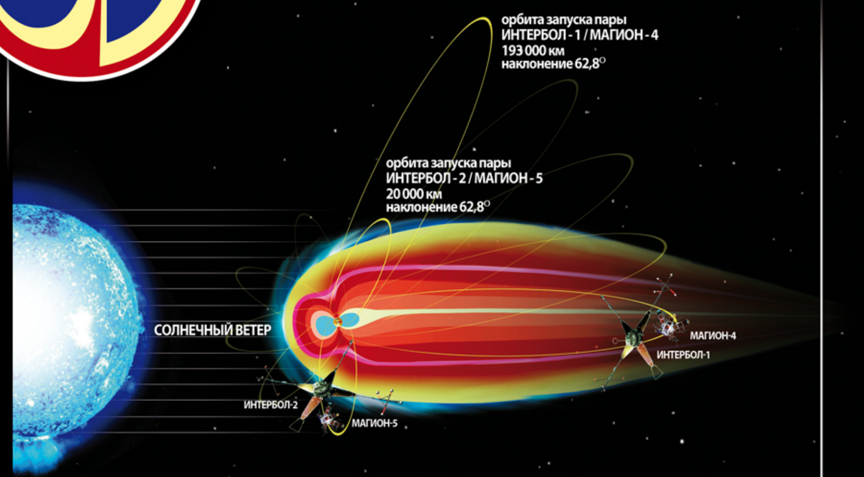
Each pair operated in its own orbit: *Interball-1* and *Magion-4* (the *Tail Probe*) followed an orbit with an apogee of up to 200,000 km, while *Interball-2* and *Magion-5* (the *Auroral Probe*) operated in an orbit with an apogee of up to 20,000 km.

Thanks to this configuration, scientists could study cause-and-effect relations in the "solar wind – magnetosphere – ionosphere" system. INTERBALL was one of the first multi-satellite projects in the history of space research.

Scientific institutes from many European countries, as well as from the United States, Canada, and Cuba, participated in the project. Spacecraft of the INTERBALL program remained operational for more than five years. Based on the collected data, over 500 scientific papers were published, and the scientific community continues to use these data.

Czechoslovak subsatellite
Magion-4 during testing

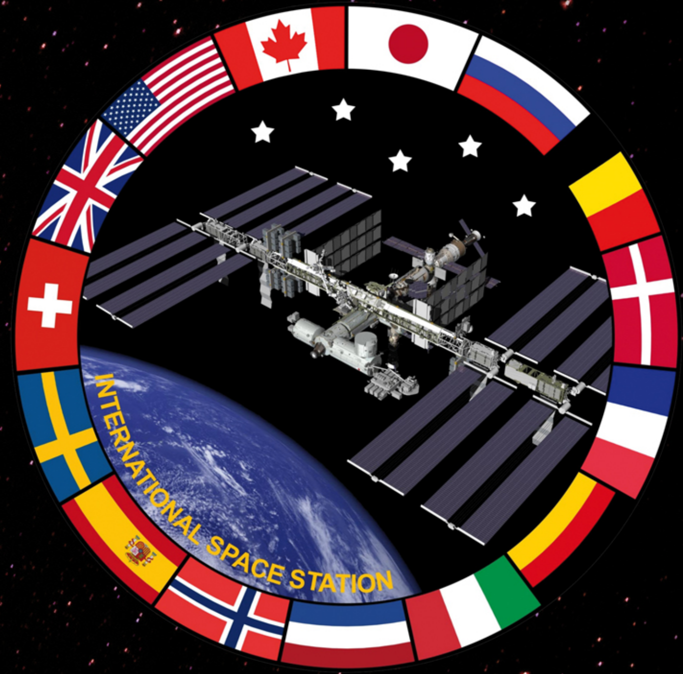
Orbits of the INTERBALL project spacecraft
Image: A.N.Zakharov, IKI

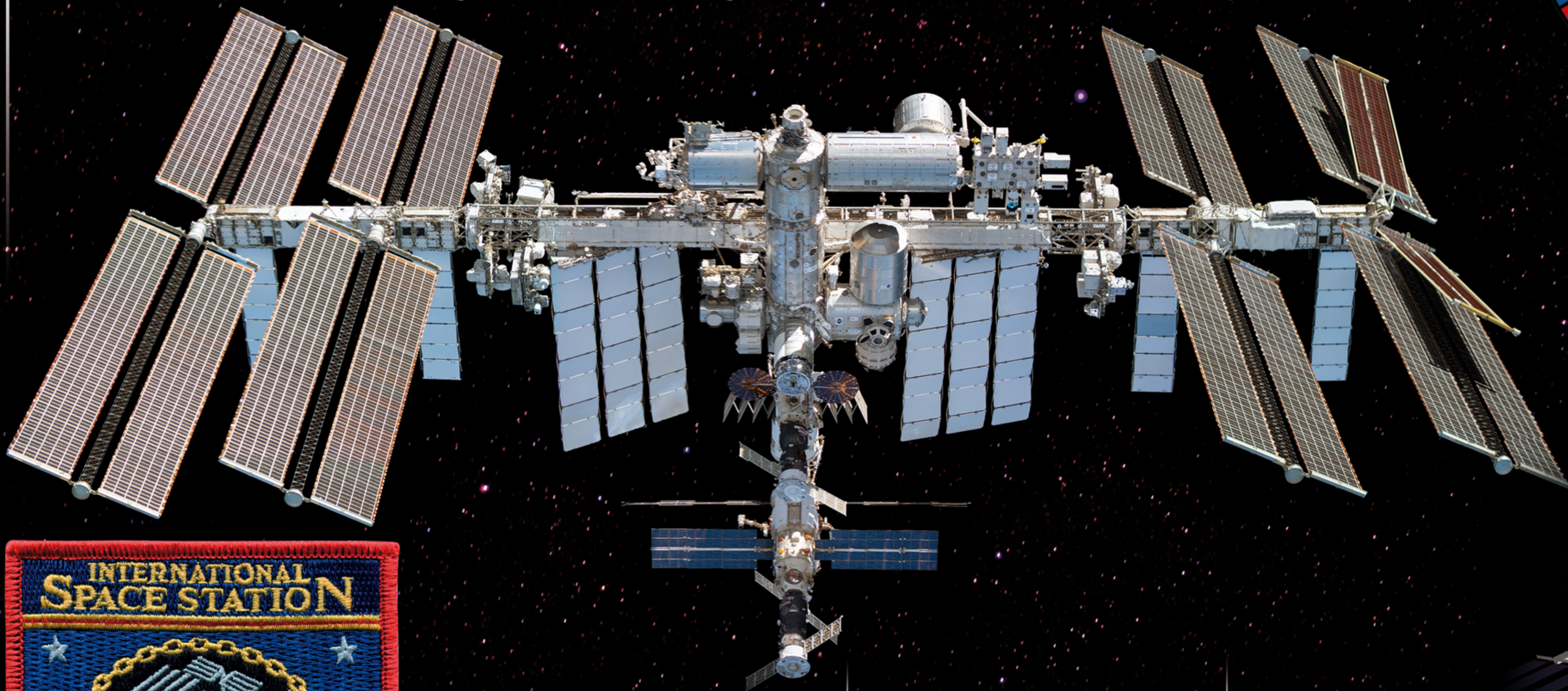


THE INTERNATIONAL SPACE STATION

"The object of this Agreement is to establish a long-term international cooperative framework among the Partners, on the basis of genuine partnership, for the detailed design, development, operation, and utilization of a permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law. The civil international Space Station will enhance the scientific, technological, and commercial use of outer space."

– from the Agreement… concerning cooperation on the civil international Space Station





5 space agencies,
15 Partner States,
>100 participating countries

System of agreements
and mechanisms
to operate the program

2 segments.
Redunancy of the
main systems

ISS Expedition One Crew Members. Cosmonauts S. K. Krikalev, Y. P. Gidzenko, astronaut W. M. Shepherd (Photo: NASA, 2000)

RUSSIAN-BELARUSIAN FLIGHT TO THE ISS AND COOPERATION IN THE SPACE SCIENCE

"In the coming years, we will launch the most advanced satellite in the world into space, which we are developing together with the Russians. That is, from this height, we will be able to see a matchbox on Earth, and distinguish any image on it. These are high technologies, the highest!"

– the President of the Republic of Belarus A. G. Lukashenko

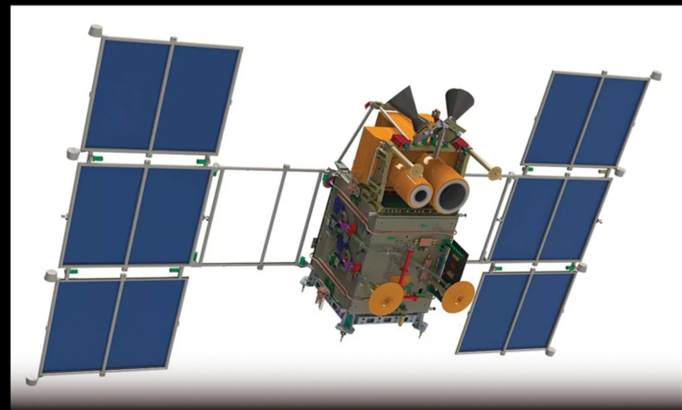
НАЦЫЯНАЛЬНАЯ АКАДЭМІЯ НАВУК БЕЛАРУСІ

Российская Академия Наук

The first Belarusian woman cosmonaut Maryna Vasileuskaya, spaceflight participant of *Soyuz MS-25* crew. Launch on March 23, 2024

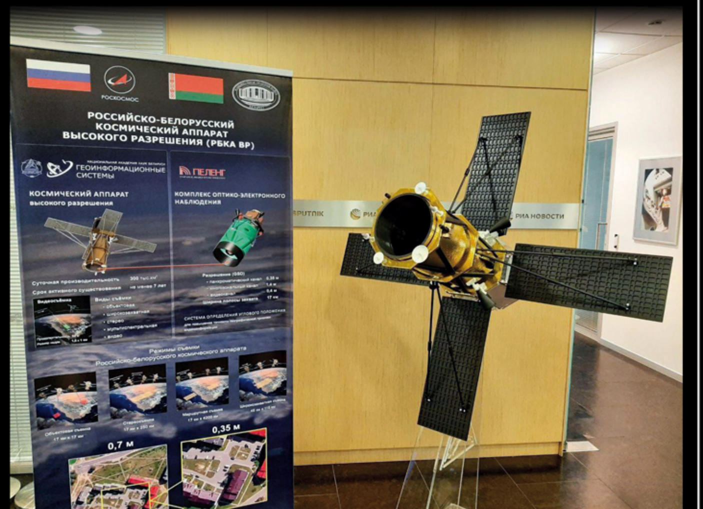
Ceremonial flag raising by *Soyuz MS-25* crew the day before the launch of the spaceship at Baikonur.

Photo: Y.A. Gagarin Cosmonaut Training Center



Belarusian spacecraft for Earth remote sensing (BelKA)

Russian-Belarusian high-resolution spacecraft (RBKA-VR)

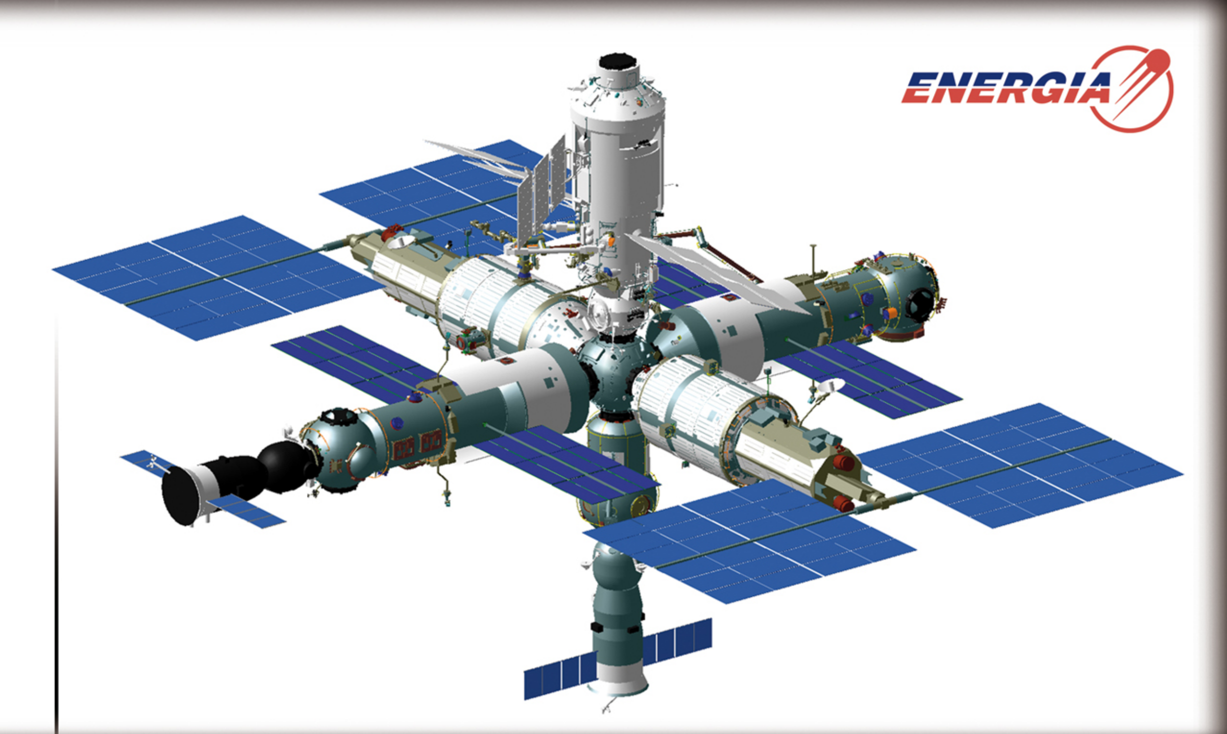


ИКИ ИНСТИТУТ КОСМИЧЕСКИХ ИССЛЕДОВАНИЙ РАН

ROSCOSMOS

RUSSIAN ORBITAL STATION (ROS)

Russian Orbital Station ROS will ensure the continuation and development of manned flight programs in Earth's orbit, including for the implementation of fundamental and applied scientific research, and the development of international cooperation programs in the field of research and use of outer space for peaceful purposes.



ROS orbital complex, complete configuration

3D graphic model, December 2025, RSC Energia

ROSCOSMOS

Российская Академия Наук

INTERNATIONAL COOPERATION IN THE FIELD OF SPACE

BRICS

''**W**e recognize the importance of international cooperation for the peaceful exploration and use of outer space and reiterate our commitment to reducing existing asymmetries in space capabilities among BRICS countries. We recognize that strengthening the exchange of data, expertise and best practices in space activities constitutes an important element in advancing ongoing cooperation between our space agencies and fostering sustainable progress.''

– from BRICS Leaders Declaration "Strengthening Global South Cooperation for a More Inclusive and Sustainable Governance", Rio de Janeiro, Brazil, 6 July 2025

''**L**eaders of the delegations supported strengthening cooperation in applying outer space technology to address the economic, social, and ecological issues of member states, and explored dialogue on establishing a future regional cooperation mechanism in the field of space based on the priorities of each country.''

– from the Joint Communiqué of the 24th Meeting of the Council of Heads of Government of the SCO Member States

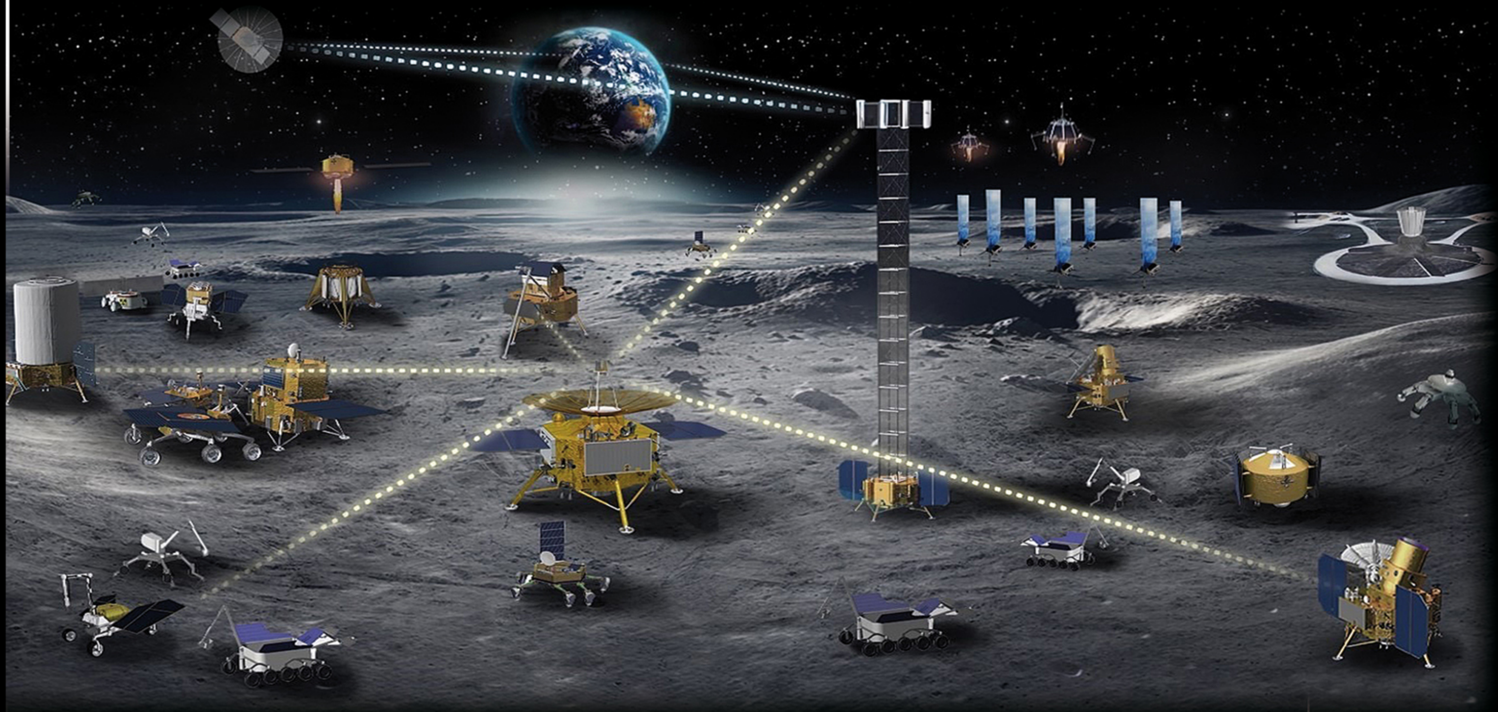
Interstate Council for Outer Space to foster cooperation between CIS Member States in the field of exploration and utilization of the outer space for peaceful purposes.

Российская Академия Наук

ИКИ
ИНСТИТУТ
КОСМИЧЕСКИХ
ИССЛЕДОВАНИЙ
РАН

INTERNATIONAL LUNAR RESEARCH STATION

International Lunar Research Station (ILRS) is a complex experimental research facilities to be constructed with a possible attraction of partners on the surface and/or in orbit of the Moon.



Signing of the Memorandum between RAS and CNSA on cooperation in the field of studies of extraterrestrial matter

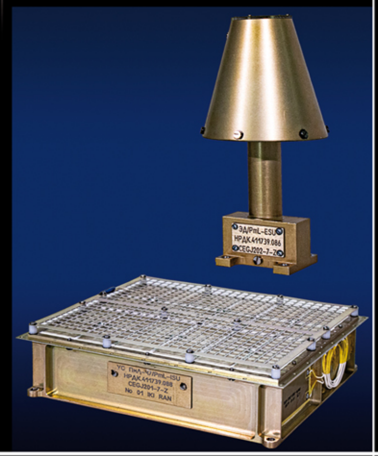
ILRS is being designed for multi-discipline and multi-purpose scientific research activities, including:

- exploration and use of the Moon;
- moon-based observation;
- fundamental research experiments and technology verification.

ILRS is being constructed with the capability of long-term unmanned operation with the prospect of subsequent human presence.

Studies of the lunar samples brought back by the *Chang'E-5* mission at IKI

PmL-Ch7 Dust Monitor — part of the *Chang'E-7* scientific payload



ROSCOSMOS

CNSA

PROGRAMME FOR MULTILATERAL INTERNATIONAL COOPERATION IN THE EXPLORATION AND USE OF OUTER SPACE

Image in the background generated with AI assistance