

ACTIVITIES ABOARD SOVIET-VIETNAMESE SPACEFLIGHT CONTINUE

Space Material Studies

LD281120 Moscow TASS in English 1102 GMT 28 Jul 80

[Text] Moscow, July 28, TASS--A TASS special correspondent reports from the Flight Control Centre:

An international crew including Leonid Popov, Valery Ryumin, Viktor Gorbatko and Pham Tuan have been working in near-earth orbit for the fourth day now. After the breakfast and checkup of the on-board systems of the research complex the cosmonauts were continuing preplanned joint work.

In accordance with the programme of space material studies, Viktor Gorbatko and Pham Tuan are continuing the Soviet-Vietnamese Imitator and Halong experiments. The former is designed to determine the temperature profile in the electrical heating chamber of the Kristal plant and the latter is being carried out with the aim of growing in conditions of weightlessness a monocrystal of the semiconductor material gallium phosphide.

The crew of the visiting expedition have carried out the Illuminator experiment for the qualitative evaluation of the changes in the optical properties of the windows of the Salyut-6 station, which functioned for a long time in conditions of outer space. The experiment has been done by means of the Spectr-15 equipment designed and manufactured by Bulgarian specialists. The cosmonauts also carried out research into the characteristics of the atmosphere through spectrometry of solar light and photography of the sun in its different altitudes over the horizon.

According to the data of telemetric information and reports of the cosmonauts, the on-board systems and research equipment of the orbital complex are functioning normally. The cosmonauts feel well.

Medical Experiments, Environmental Studies

LD291340 Moscow TASS in English 1240 GMT 29 Jul 80

[Text] Moscow, July 29, TASS--The TASS special correspondent reports from the Flight Control Centre: From 8 a.m. to 23 p.m. Moscow time--this is the duration of the work day onboard the orbital scientific research complex Salyut-6--Soyuz-36--Soyuz-37.

Today's program includes medical-biological and geophysical experiments, filming each other's activities, physical exercises and a TV session.

Immediately following their awakening, the cosmonauts performed a number of medical experiments. Leonid Popov and Valery Ryumin measured the body mass on space scales and assessed the condition of individual groups of muscles which handle an insignificant amount of physical effort in the spaceflight. Viktor Gorbatko and Pham Tuan used an instrument called Pneumatest to perform an experiment to study the parameters of breathing and the capacity of the lungs. The cosmonauts are also scheduled to carry out a comprehensive study of the cardiovascular system while performing physical exercises on a cycling ergometer.

A prominent place in today's activities of the international crew is assigned to the study of natural resources of the earth and the study of environment. Using a multi-zone photographic equipment MKF-6M, the cosmonauts photographed sections of the earth's surface indicated by specialists and registered in the on-board log the results of their observations.

Viktor Gorbatko and Pham Tuan have carried out another set of experiments including Polarization, Terminator and Atmosphere within the framework of studies of the earth's atmosphere. As usual, Leonid Popov and Valery Ryumin are helping their friends in the work, carrying out the necessary dynamic operations having to do with orientation and stabilization of the orbital complex.

On board, biological experiments are also being carried out. The cosmonauts maintain the necessary conditions in the installations with plants, registering their development and growth.

The state of health of Leonid Popov, Valeriy Ryumin, Viktor Gorbatko and Pham Tuan is good.

The program of joint research activities in the orbit around earth is being implemented successfully.

BRIEFS

KAZAKH TELESCOPES--The development of a new branch in Kazakhstan's science, astrophysics, will be accelerated by new telescopes with mirrors of 1, 1.5 and 2.6 meters diameter. A site has already been selected for them in the north Tyan-Shan mountains, located at an altitude of 2,300 meters above sea level. The first telescope for the astrophysical institute was built by GDR opticians, and the other two will be delivered by the domestic industry. [Alma-Ata Domestic Service in Russian 1508 GMT 23 Jul 80 AU]

PACIFIC OCEAN EXPEDITION--An expedition of Soviet scientists departed today for the Pacific Ocean on the scientific vessel Akademik Shirshov of the Far Eastern Hydrometeorological Institute from Zolotoy Rog Bay in Vladivostok. During the 3-month expedition, Soviet scientists will for the first time conduct complex research on the effects of the ocean's heat efficiency on the atmosphere. The expedition will use the latest apparatus in ocean research for the first time. With the aid of a (?system) of probes, it hopes to obtain a more complete profile of the ocean strata and a better understanding of the ocean structure, which will facilitate a determination of the ocean's heat efficiency. It is believed that such complex research expeditions of even the Kuroshio current will permit scientists to provide a prognosis on fish migration and to pinpoint fishing areas. If the data obtained by the expedition help improve weather forecasting in the Far East, it will be a great achievement for the national economy. In the future, Soviet scientists intend to participate in joint ventures with specialists from the democratic camp. This work is expected to be of great interest to Japanese and American scientists because the data gathered will form a basis for their own research in this field. [Vladivostok Domestic Service in Russian 0930 GMT 18 Jul 80 SK]