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TITLE: Eighteen Days In Space

SUBJECT: Interview with Academician A.A. Blaganravov concerning the Soyuz-9 flight

[A.A. Blaganravov is the Chairman of the USSR Academy of Sciences of the Commission for Investigation and Utilization of Outer Space]

After stating a number of reasons why man should participate in the conquest of space, Blaganravov remarks: "Apparently, as space flights become longer a necessity will appear to create artificial gravity on board spacecraft." ^{At} ~~For the~~ present, cosmonauts go through long training periods on earth, carry out definite sets of physical exercises in flight, ^{and follow} ~~conform to~~ the required schedule of work and rest in space. All of this enables them to withstand weightlessness and, after the flight is completed, to readjust to terrestrial conditions more rapidly.

The primary purpose of the Soyuz-9 flight was to study near-earth space and to determine the feasibility of using orbital space stations in the interests of national economy.

Biological experiments on the Soyuz-9 studied reproduction and development of insects, peculiarities of cell division ⁱⁿ Chlorella, sporogenesis in flowering plants, and growth of bacterial cultures in liquid media.

The most important part of the flight was the broad program of biomedical investigations to study the effects of prolonged space flight on the human organism. In these studies special attention was devoted to measures for maintaining and retaining a good functional condition of the organism and a high work capacity.

One of the experiments for investigating dynamic human functions, regarded as an element of the control system, was studied by means of a cybernetic device. In the course of this experiment carried out by the flight engineer,

Sevast'yanov, the exactness with which he was able to carry out commands issued by the cybernetic device was tested. Similar experiments were conducted during pre-flight training and during the early part of the space flight. A comparison of the results will make it possible to evaluate the combined effect of space flight factors on human operational ability.

The preliminary results of the Soyuz-9 flight already indicate that man ^{can, not} ~~cannot~~ only stay for a long period of time in weightlessness, but that he can actively work and carry out scientific and technical experiments in space. There can be little doubt that man will continue to study space ever more profoundly. In future flights, qualified specialists will carry out investigations of processes which take place on Earth and will learn reasons underlying phenomena which we do not at the present understand. In the not too distant future we will witness new space flights which will have an ever greater effect on the life of humanity on earth.