

COMECON

Space relations

The Comecon countries' joint space programme includes a manned mission planned for next year. Vera Rich describes preparations

THIS year, which marks the twentieth anniversary of the first Soviet satellite Sputnik 1, is also the tenth anniversary of the joint Comecon 'Interkosmos' programme. To date, the achievements of Interkosmos have amounted to the launching of 16 orbital probes and four high-altitude rockets. Last year, however, a major new development was announced: the Soviet manned space programme would be extended to include cosmonauts from the other member countries of Comecon.

The first trainees, said to be from Poland, East Germany, and Czechoslovakia, arrived early this year at the 'Star City' training centre near Baikonur, and candidates from other Comecon countries are joining them during the course of the year. As the first manned Interkosmos mission is planned for 1978, the training programme is clearly a considerably abridged version of the normal Soviet five-year course, and it is therefore not surprising that from the start it has been stressed that each joint mission will be captained by a Soviet cosmonaut.

The prospect of a fellow-citizen in orbit has done much to rekindle interest in space research throughout the Comecon bloc. A recent exhibition in Warsaw of Soviet scientific achievements included a special 'Kosmos-77' pavilion which, in the course of five weeks, attracted more than 1.2 million visitors. The Soviet 'Cosmonautics Day' festival—the anniversary of Gagarin's flight—fell during this exhibition and was celebrated with fitting honours, including a visit from Professor Roald Z. Sagadiev, Director of the Institute of Space Research of the Academy of Sciences of the USSR, and cosmonaut-pilot Viktor V. Gorbatko, captain of the recent Soyuz 24 mission.

The participation in the not-too-distant future of a Polish cosmonaut in a joint mission might well have been expected to form a major theme of the speeches on this occasion. However, Professor Stefan Piotrowski, Head of the Committee for the Investigation and Peaceful Uses of Space of the Polish Academy of Science, chose to concentrate on the special 'Kopernik 500' Interkosmos launch of April 1973, "the most important Polish space experiment to date", for which, in

honour of the Copernicus quincentenary, "almost all the apparatus and scientific programme" was produced by a Polish team. From the Soviet side, Professor Sagadiev spoke largely of such future prospects as deep-space probes to the outer regions of the solar system, orbital laboratories, and satellite monitoring of weather, crop prospects and pollution. The proposed launching order of the Comecon cosmonauts remains a closely guarded secret.

This is, of course, in accordance with Soviet practice which normally never permits the disclosure of details of a mission in advance. There is undoubtedly unofficial rivalry between the Comecon countries as to whose cosmonaut will blast off first, and a minor set-back in training or a last-minute indisposition leading to a change in order might lead to undesirable tensions and ill-feeling between the countries concerned.

It is noteworthy, however, that the three countries whose representatives arrived first at the training centre are those which have been most closely concerned with the unmanned Interkosmos probes, providing instrumentation and experiments for the satellites. East Germany, in fact, not only supplies electronics and telemetry systems for the Interkosmos satellites, but also in September 1976 provided a special 'multispectrum' camera for the Soviet Soyuz 22 mission.

The final goal of the Comecon bloc is total economic integration, and although the current five-year plans are temporarily playing down this aim, concentrating rather on a short-term (15–20 years) drive towards integration in certain significant areas, one of these chosen fields is instrumentation. The selection of East German, Czechoslovak or Polish equipment for Interkosmos satellites is an outcome of this policy. Since, under the complicated financial arrangements involved, it is the supplying countries who pay for the R&D, the planners might feel that priority given to the cosmonauts from these countries would be a graceful compliment to their considerable effort and outlay. It would also be a way of stilling the rumours of discontent that the other Comecon members are paying the lion's share of grandiose projects initiated by the Soviet Union and for which the Soviet Union gains the acclaim.

It should be remembered, however, that in spite of special satellite tracking ships, the Soviet Union relies heavily on ground bases in the Come-

con countries. Because of their geographical location the two least-developed members—Cuba and Mongolia—are particularly important in this respect; indeed, Cuba joined the Comecon 'Intersputnik' communications systems when the latter was first set up in November 1971, eight months before becoming a member of Comecon itself. Under the Intersputnik agreement ground stations are owned and operated by the countries in which they are sited. Although as developing countries Mongolia and Cuba are said to receive the necessary Intersputnik facilities from the Soviet Union free of charge (unlike the European members of Comecon which must bear the cost themselves), the value of the Havana and Ulan-Bator tracking bases to the Soviet space programme is not expressible in roubles, and the inclusion of Cuban and Mongolian cosmonauts in the training programme reflects a genuine contribution made by these countries and is not simply a tribute to the principle of the 'friendship of nations'.

Although the joint teams of the Interkosmos manned missions will presumably carry out the now routine geophysical and astrophysical observations, medical checks and, possibly, experiments on the effect of weightlessness on physical and chemical processes such as crystal growth, it seems unlikely that the non-Soviet cosmonauts will contribute any special knowledge or expertise which their Soviet counterparts could not have provided. Rather is it a grand exercise in public relations, to demonstrate the fraternal cooperation of the Socialist countries—and to provide for those countries a greater involvement in the Interkosmos programme than equipment on board a Soviet-built satellite or a tracking station on their soil. □

Sorry, for copyright reasons some images on this page may not be available online

Inspecting Interkosmos 10