

THE right of the government of the host country to an international conference to refuse entry visas to foreign delegates has long been a vexed one. The Tbilisi conference on artificial intelligence (September 2-8) produced an interesting variation on this problem: the right of the government of the host country to refuse to admit its own nationals.

The problem in this case was that of Jewish refusnik scientists, still living within the Soviet Union but dismissed from their academic posts while awaiting a visa for Israel. Although the Soviet scientific hosts of the conference were quite willing to admit them, the KGB was totally opposed to this and considered their wish to attend as being a "provocation". The international organising committee, however, made strong representations that, should these scientists be refused permission to attend, there would be forceful protests and resulting adverse publicity. Consequently, for fear of a withdrawal by the USA and other Western delegations, and as a result of last minute meetings in Moscow, the authorities decided to permit Dr Aleksandr Lerner to travel from Moscow to attend the conference. He was escorted to Tbilisi by the same KGB officer who had formally told him he could not go and welcomed by the head of the Cybernetics Institute of the Georgian Academy of Sciences, Dr V. V. Chavchanidze, who had himself photographed pinning on Lerner's conference badge. Although subjected to a certain amount of official surveillance throughout the conference, Lerner was able to circulate freely among the delegates and take part in

a panel session "Cybernetics, Mathematics and Artificial Intelligence".

Less fortunate were the Gold'dshtein brothers, Isai and Grigori. Being residents of Tbilisi, they did not have the initial difficulties of travel permits and hotel registrations; nevertheless, after meeting with newly arrived delegates and talking with them on scientific

Soviet diary

from Vera Rich

topics and also on the difficulties of life as a refusnik, they were called in by the KGB and warned to stay away from the area of the conference building, unless they had had an official invitation from the conference committee. It was not until Saturday, September 6, the penultimate working day of the conference, that Elizaveta Bykova, the wife of Isai and herself a physicist, managed to convey this message to the committee. After a long and forceful meeting between the conference committee and the Georgian hosts, a compromise was reached by which Dr Chavchanidze undertook to invite them for the remainder of the conference on his own personal initiative—a singular example of moral courage.

This reluctance to admit the refusniks seems to be related to the attitude to Israeli scientists. No scientists resident in Israel were allowed to attend, and one Israeli, Dr Y. Yakimovsky, at present working in the USA, received a promise of a visa far too late for him to attend. Nevertheless, two other

Israelis from the USA, Judah Pearl and Meir Weinstein, were permitted to attend, so that the Soviet authorities fulfilled at least the letter of the unofficial working agreement on international conferences—that although individual delegates may be refused entry, no national delegation will be excluded *in toto*.

● The Presidium of the Supreme Soviet of the USSR has announced that "The Order of Friendship of Nations" has been awarded, individually, to each of the Academies of Science of the Union Republics of the USSR, namely, to the Ukrainian, Byelorussian, Uzbek, Kazakh, Georgian, Azeri, Lithuanian, Moldavian, Latvian, Kirgiz, Tadjik, Armenian, Turkmenian, and Estonian Academies, "for service in the development of Soviet science, economics, and culture, and in the training of highly qualified scientific cadres". One Republic only is not so honoured—the Russian Federated Republic, which has no academy of its own.

● Reconstruction work has begun at the highest botanical garden in the world, at Khorog in Tadjikistan. The garden, at a site in the High Pamirs some 2000 m above sea-level ("above the clouds") is extensively used for field work on the introduction and acclimatisation of plants in extremal conditions. The plants, received on a basis of a regular exchange of seed with 30 Soviet and 36 foreign botanical gardens, therefore include not only and the Hindu Kush, but also more high-altitude flora from the Himalayas plebeian species, including several strains of potatoes, and that mainstay of agricultural planning of the Khrushchev era—maize.

THERE are indications that the new head of the Soviet space establishment, Academician Roald Sagdeyev, has wider interests in space cooperation than costly "spectaculars". Space scientists of the West first made his acquaintance at this summer's COSPAR Symposium in Bulgaria (COSPAR is shorthand for the ICSU Committee for Space Research, the principal international scientific—as opposed to technological—meeting ground). The impression he made was fresh and favourable: he is youngish, full of ideas, and expresses them in excellent English. This is not quite the image projected by his long-surviving predecessor, Academician Blagdonravov—a loveable octogenarian if ever there was one—who died earlier this year.

Sagdeyev's actual post as head of the USSR Institute of Space Research in Moscow puts him in a key position to monitor international developments at

Plans for space

from Angela Croome

least in the physical sciences. Soviet development of ideas for experiments must surely have seemed to stagnate since the 1950s; sputniks were becoming not only relatively smaller but stupider. At the COSPAR meeting, Sagdeyev was not only responsive to the idea of international cooperation in certain fields but showed particular interest in getting involved in X-ray astronomy projects.

On the organisational front, the initiative seems to have passed from the USA (at least temporarily). The formation of the European Space Agency (ESA) as a matching body to NASA has thrown into prominence the lack of a learned body in Europe, comparable with the Space Sciences Board of the US National Academy of Sciences, to give informed but inde-

pendent opinions on the long term objectives of space research. A European Space Sciences Board has now been formed under the formal auspices of the European Science Foundation with Sir Harrie Massey as chairman.

It acts as a clearing house for research ideas in conjunction with the US Academy of Sciences' Board and looks ahead to acting as a joint negotiating body for the West for broad cooperative programmes with the Soviet Union on a range of topics better pursued on a synoptic or systematic basis than from discrete and occasional national spacecraft. The idea of an international space observatory seems particularly to recommend itself to Sagdeyev and his institute colleagues at present. The European Space Sciences Board holds its next meeting—the third—in London in the middle of September, and expects to clarify some of these possibilities. □