

also said that it intends to reschedule the satellite deal when funds are available.

According to Representative Donald Fugua, chairman of the House of Representatives Science and Technology Committee, who headed the delegation to Peking, China has decided that it will have to cut out about half of its ambitious construction plans in science and technology — including plans for a new steel mill to have been built outside Shanghai. But Chinese officials have stressed that other activities, such as scientific exchanges and research programmes will not be affected.

David Dickson

Soviet space research

Signs of strain

The planned Franco-Soviet mission to Halley's comet in 1986 turns out to involve a substantial cutback for the planned joint mission to Venus in 1984. This development, first indicated last summer, was finally confirmed two weeks ago in Paris. Two of the original four Venus probes have now been assigned to Halley, so that the French have had to abandon plans for a large balloon which would have analysed the atmosphere of Venus. Although the reduced Venus mission could still have accommodated a smaller balloon, the consequent problems of high-temperature electronics could not be solved in time.

According to M. Hubert Curien, president of the Centre National d'Etudes Spatiales, the French side has few regrets. The new programme, he said, is "very full and very attractive". Nevertheless, the final announcement of the scaled-down Venus mission was a reminder that the resources of the Soviet space programme, though vast, are not infinite. It came only a few days after *Pravda* had published two long articles of no great topicality clearly intended to present the Soviet space effort in a favourable light.

One dealt with the detection of iron in the lunar regolith samples recorded by the Luna-16 probe in 1970 and one with the seventieth anniversary of the birth of the late Mstyslav Keldysh, whom Khrushchev brought out of the field of military rocketry to lead the academic space programme.

The question of the scale of Soviet space research will arise this week, when the twenty-sixth congress of the Communist party of the Soviet Union will be required to approve the basic guidelines for the next Five-Year Plan. As with the two previous plans, these will include a commitment to space exploration "in the interests of the national economy". This is an empty formula for deep-space research, although satellite photography is playing an increasing part in a number of aspects of Soviet planning, from fish-spotting to geological surveying. The costs of the programme are, however, never published.

Hints that Soviet space spending may be

subject to increasing financial constraints have, however, been dropped in recent months. There seem to be no further plans for Comecon participation in manned flights after Mongolia and Romania have put a cosmonaut in orbit. Soviet planners have so far failed to respond to Bulgarian hints that, as their cosmonaut, Georgi Ivanov, failed to complete his mission (his Soyuz transport craft could not link up with the Salyut station), Bulgaria should be allowed another turn, especially in its 1,300th year of statehood. Instead, Bulgaria has been promised two unmanned probes instead of the original one.

The Soviet commitment to Comecon participation in space research nevertheless continues. A new scientific cooperation programme with Poland, announced last month, put special emphasis on space research. Poland, the homeland of Copernicus, may have a special place in Soviet space planning but the Soviet Union's contribution to Comecon collaboration is substantial. It pays the total cost of the launching and ground control. The participating Comecon partner simply has to pay for its own apparatus and the associated data processing — a privilege also extended to the French.

Vera Rich

Science and government

Lords look now

The House of Lords Select Committee on Science and Technology has taken the unusual step of making a public appeal for opinions on the subject of its latest inquiry — science and government. The inquiry's chairman will be Lord Sheffield. Lord Todd, who is thought to have instigated the inquiry, and who was expected to take the chair, seems to have stepped down in the belief that his strong views can be better aired from the body of the committee.

Central to the inquiry will be the need for a chief scientific adviser to the government and the success of the Rothschild customer-contractor principle. The chief scientific adviser's post was abandoned in 1974 after the Rothschild report recommended that individual government departments should take more responsibility for seeking advice and commissioning research. The system of departmental chief scientists that resulted was intended to enable government departments (the "customers") to commission research within the research councils (the "contractors") with money transferred to them from research council budgets.

Although the principle has worked well in some departments, it has been disastrous in others. The Department of Health and Social Security has acknowledged that it cannot place contracts for biomedical research, while the Ministry of Agriculture, Fisheries and Food is considering a proposal to abolish the post of departmental chief scientist as part of its changing

relationship with the Agricultural Research Council (*Nature* 1/8 January, p.2).

The committee started taking oral evidence yesterday (25 February) from Sir Ian Bancroft, head of the home civil service. Next on the list are Lord Trend, former Secretary to the Cabinet and author of the 1964 report on the organization of civil science, and Sir Hermann Bondi, chairman of the Natural Environment Research Council and a former chief scientist at the Ministry of Defence and Department of Energy. Those wishing to submit evidence should write to the Clerk of the Select Committee on Science and Technology, Committee Office, House of Lords, London SW1 by 31 March 1981.

Judy Redfearn

Questions to answer

A Machinery of government

(1) Should scientific advice and/or research procurement be a distinct function of government separate from the existing departmental structure?

(2) How successful is the system of departmental chief scientists in procuring advice, managing research and influencing policy?

(3) How well supported are ministers when judging scientific priorities in decision making, particularly if government departments are not in agreement?

(4) How far is the scientific advice sought by government geared to supporting predetermined objectives?

B Finance

(1) How satisfactory is the division of financial responsibility between the research councils (as a group) and government departments funding research on the customer-contractor principle?

(2) Is any research which could be of real value to government being neglected for lack of identified customers or because it is peripheral to the interest of several customers; if so, what changes could rectify this?

(3) Are any changes in research budgets desirable?

C Machinery of science

(1) How adequate are the channels of communication from the scientific community to government, and vice versa?

(2) Is there satisfactory contact between those administering science in higher education, industry, the research councils and government?

(3) How could statutory procedures for consultation by government in scientific matters be improved?

(4) Are existing sources of advice adequate to ensure that the United Kingdom gains all it can from EEC and international research programmes?

D Scientific manpower

What manpower constraints are there on the provision of scientific advice to government?