solar activity on the weather, stressing that "the rational approach to long range weather forecasting should take into account the whole totality of the perturbing factors and their variation in time". A working council to consider the problem of solar effects has been set up to work in collaboration with the Principal Geophysical Observatory (on long range forecasting) and the Hydrometeorological Centre (on short range forecasting). As part of the programme D'yakov is to prepare his own long range forecasts for 1973-74 "by way of experiment" and to submit them to the Hydrometeorological Service appraisal". The working council also consider it "suitable" to transfer the Gornaya Shoriya "helio-meteorological station" to the jurisdiction of the Soviet Academy of Sciences or the Hydrometeorological Service.

**REACTORS** 

## **European Neutrons**

BRITAIN has bought a one-third share in the Franco-German high flux reactor at Grenoble for £10 million. British participation in the reactor project comes after negotiations conducted by the Science Research Council on behalf of the government, which has provided the SRC with the necessary funds to participate in the scheme. The SRC will spend almost £2 million a year in running expenses and a further £1 million a year for ten years in capital.

The agreement, which took effect on January 1, provides that the SRC will have one-third representation on the Steering Committee, the Scientific Council and the Audit Board of the Institut Max von Laue-Paul Langevin (ILL) where the reactor is situated, and provides that the director of the ILL will be alternately German or British. British scientists will have a fair share of scientific posts at the institute, and preference will be given to British companies in the placing of some of the contracts for future work.

The SRC began negotiations with the French and Germans in August last year, following a decision by the British government not to build a high flux reactor in Britain (see Nature, 239, 60; 1972). The SRC Committee for Neutron Beam Research originally decided that Britain would benefit more by building its own reactor at a cost of £22 million than by joining France and Germany at Grenoble, but the government turned down the council's request for funds. The cost of the new arrangements will be only half that of a solely British reactor, but British scientists will have to be content with only one-third of the experimental time that they would otherwise have had.

The United Kingdom Atomic Energy

Authority said this week that some of its long term neutron beam experiments will be transferred to Grenoble, possibly this month, but a spokesman pointed out that the Grenoble reactor—which went critical in August last year—does not have the irradiation facilities envisaged in the proposals for the British reactor. "There is therefore a growing need to find alternative irradiation facilities."

One of the alternatives could be the construction of another high flux reactor by the three countries, but this time in Britain as provided for by a clause in the SRC's agreement.

COMPUTERS

## Watching a Watchdog

THE Civil Service Department has created a Computer Agency Council to advise on the development of government data processing, and "to define areas where action is required by the Central Computer Agency . . . to promote the efficient application of processing systems in government departments".

This is the latest step in a rationalization of the previously complex machinery involved in the purchase of computers for use in government departments. Until the Central Computer Agency was set up in April last year, a few months after a recommendation by the Select Committee on Science and Technology (see Nature, 236, 254; 1972), the responsibility for this was shared between the Civil Service Department, the Department of Trade and Industry and the Stationery Office. But now some 600 civil servants, under the direction of Mr Stephen Spain, carry out the same functions within the Civil

## **New Year Honours List**

In the Honours List announced this week, D. A. K. Black, Professor of Medicine at the University of Manchester; Professor Theodore Crawford, Director of Pathological Services at St George's Hospital and Medical School; Eric Eastwood, Director of Research, General Electric Company Ltd; and F. G. Young, Professor of Biochemistry at the University of Cambridge, were made Knights Bachelor. Professor Herman Bondi, Chief Scientific Adviser to the Ministry of Defence, and Professor Claus Moser, director, Central Statistical Office, Cabinet Office, were made Knights Commander of the British Empire; and Miss Kathleen Kenyon a Dame Commander of the British Empire.

Service Department itself. (Of these, about 300 work at the agency's Central Computer Bureau at Norwich, which provides a computing service for those government departments that require it, about twenty-five are responsible for policy planning, and the remainder are concerned with purchasing, contracts and so on.)

At the end of 1971, 213 computers were installed within government departments—45 per cent of them for scientific purposes—and the present rate of government expenditure on computing facilities is about £35 million a year.

The new Computer Agency Council will initially have twelve members and the chairman will be Mr Kenneth Baker, Parliamentary Secretary at the Civil Service Department. Seven of the members, including Mr Spain, represent government departments, and the other five are drawn from non-government bodies which have experience of the use of computers. Among them are Sir Brian Flowers, chairman of the Science Research Council, and Mr C. P. Williamson of British Petroleum. Civil Service Department says that, through the council, it hopes to be able to benefit more fully from expertise in the private sector. The council is expected to have its first meeting later this month.

SOVIET SCIENCE

## **Interkosmos Programme**

from our Soviet Correspondent

The launch on December 1 of the latest COMECON satellite, Interkosmos-8, carrying ionosphere research experiments provided by Bulgaria, East Germany, Czechoslovakia and the Soviet Union, was the occasion for a special interview in *Pravda* (December 2, 1972) with Academician Boris Petrov of the Soviet Academy of Sciences on the whole purpose and future of Interkosmos. Academician Petrov is a leading figure in both the Soviet and the Interkosmos space programmes.

According to Academician Petrov, the chief aim of the Interkosmos programme is to gather information on the solar and galactic flux, cosmic rays and micrometeorites. The investigations have, so far, covered the active regions of the ultraviolet and X-spectra (Interkosmos 1, 4, 7), low-energy cosmic rays (Interkosmos 3 and 5), and ionosphere and magnetosphere processes.

Interkosmos-8 is continuing the ionosphere investigations of Interkosmos-2, but in contrast to its predecessor it is investigating the magnetic poles and the aurora. It is hoped that this will enable the connexion between geophysical and geomagnetic processes to be traced more clearly.