

## POST APOLLO

**ESRO Joins in**

THE ESRO council last week decided to authorise the establishment of a "special project" to develop a sortie laboratory that will fly with the NASA space shuttle in the 1980s.

The estimated cost of the sortie laboratory is between \$250 million and \$300 million and so far Germany, Italy, Belgium and Spain have agreed to participate. It is expected that other countries will signify their intentions to join now that the decision to participate has been taken.

ESRO is at present instituting a series of studies on the design of the sortie laboratory which are expected to be completed by the end of 1973. The organization intends to carry on the special project through the final design stage to the development stage and it is provisionally planned to deliver a flight unit to NASA in 1979.

The sortie laboratory will consist of two parts one of which will be a pressurized capsule that will accommodate up to six people and the other an unpressurized unit that will be suitable for conducting experiments for up to 30 days in space. The laboratory will be carried into orbit by a shuttle orbiter and will remain attached to the shuttle during its entire time in space. At the end of each mission the orbiter will land at the launch site and the laboratory will then be removed and prepared for the next mission.

As yet Britain has not decided whether to join her ESRO partners in this scheme. A spokesman for the Department of Trade and Industry said this week that the possibilities were being actively considered but that no decision should be expected in the near future.

ESRO's decision to join the post Apollo programme comes more than eighteen months after the original offer was made.

## WATER RESOURCES

**A Watered-down Bill**

TEN regional water authorities and a National Water Council are to be set up under the government's Water Bill published last week (HMSO, £0.63).

The bill will bring a long overdue rationalization to the 29 river authorities, 160 water undertakings and 1,300 sewerage authorities that currently make up the water services in England and Wales.

There were few major changes in the bill's clauses from the proposals first circulated by the Department of the Environment in December 1971, but the local authorities, which had resented losing their control of sewerage

functions and water supply to the new RWAs, are thrown a sop in that they will have a majority of the seats on each authority. As a result the consumers' councils that were part of the original proposals and were intended to represent the views of the local authorities and other interests, have been dropped.

The National Water Council remains all that the Water Resources Board and its allies have feared it would be. The council is to be purely advisory, without a strong staff of its own.

Pressure on parliamentary time has resulted in the British Waterways Board, which is responsible for canals in Britain, receiving a reprieve, but one which may well be withdrawn later. Legislation to tighten up pollution control has also been dropped for the same reason, although the government promises to make amends when it introduces its wide ranging environmental bill which will also cover noise, air and waste pollution.

As a gesture towards conservation the Natural Environment Research Council is to be made responsible for informing the regional water authorities of any sites of special interest within their jurisdiction which may not be nature reserves but which may be affected by the authorities' activities.

## UNIVERSITIES

**Better than Evens**

A MARKED increase in the number of students applying for university places to read medicine and a drastic decline in the numbers of students wanting to read mathematics, physics, chemistry and some engineering subjects are reported in the tenth report of the Universities Central Council on Admissions published last week.

**Table 1** Comparison of Number of Candidates Applying for University Places in 1971 and 1972

Subject	Number of applicants		Number admitted*
	1971	1972	
Medicine	8,971	11,177	2,955
Mathematics	6,041	5,451	3,687
Physics	3,017	2,807	2,280
Chemistry	3,405	2,857	2,466
Engineering and Technology (total)	17,644	16,859	9,035

\*Admitted through UCCA only. Some Scottish universities do not participate fully in the UCCA scheme.

The increase in the prospective medical students from 8,971 in 1971 to 11,177 in 1972 is the more striking because the total number of British applicants for places in all departments fell from 114,968 to 113,966. But the total number of applicants increased

## POLLUTION

**Cleaner Air**

ALTHOUGH Lancashire, Cheshire and the High Peak District of Derbyshire are among the most polluted areas in Britain, the average concentrations of smoke and sulphur dioxide in the atmosphere have decreased by 55 per cent and 40 per cent respectively during the past decade (*National Survey of Air Pollution, 1961-71*, HMSO, £3.50).

The average concentration of smoke and sulphur dioxide in the north-west during the 1968-69 and 1969-70 winters was 143 and 178 micrograms per cubic metre respectively, in urban areas. In the industrial part of South Wales, however, only three sites out of twenty-six had smoke levels greater than 50 micrograms per cubic metre and only two sites showed the sulphur dioxide level to be greater than 100 micrograms per cubic metre. But in the south-western part of Britain, Wiltshire, Gloucestershire, Dorset, Somerset, Devon, Cornwall and the Scilly Isles the comparable levels of smoke and sulphur dioxide were 13 and 39 micrograms per cubic metre respectively.

The surprisingly low figures for South Wales are due to the low volatile matter and low sulphur content of the coal mined in this area.

slightly because the number of overseas candidates for places increased from 9,016 in 1971 to 10,393 last year. Of this total, the eighty-one institutions which participate in the UCCA scheme admitted 60,510 students.

Although there were almost two applicants for every university place last October 2,744 places were left unfilled. Of these vacancies, 1,400 were in engineering and technology, and more than 600 in the sciences, but there were also more than 840 vacancies left in the Arts. On the positive side, medicine, dentistry and health departments accepted 224 more students than they had planned to take, so that 5,397 students started courses in these subjects.

UCCA handled 21,585 students in its clearing scheme once A-level results were known, and the council managed to find places for more than 6,500 of these. But 8,682 students were not referred to a university either because their A-level grades were not good enough or for some other reasons.

Even though on the face of it it seems that there were almost two applicants for every university place, UCCA stresses that the situation is in fact better, for between 15 and 20 per cent of the applicants did not have the minimum examination qualifications required by any university and 13 per cent of the applicants were applying for the second or even third or fourth times.