

companies (the military programme permitting), but so far none seems to have taken advantage. Lorries for export to hot and humid regions might well benefit from a programme of tests in the hangar, and costs of the order of £30 per hour for heating and humidity are quoted.

Although the establishment comes under the direction of the Ministry of Technology, its function is still a military one. It is responsible for the trials of new aircraft and aircraft equipments before they go into squadron service. One of the station's facilities is, however, to be used for the Concorde programme. This is an old Canberra bomber, converted for use as a tanker. By spraying water from specially designed nozzles, it can simulate aircraft icing conditions. The Canberra can carry some 900 gallons of water, using tanks fitted on the bomb bay, and a converted fuel tank. When sprayed behind the aircraft, this produces a cloud into which the aircraft under test is flown. Again, this is a very much cheaper method of testing than waiting for the right conditions to occur naturally, which, as the staff at Boscombe point out, happens only when it is least wanted.

ROYAL SOCIETY

The Year of the Move

"THE most important event was an evening reception on November 21, 1967, when the society was honoured by the presence of its patron, Her Majesty the Queen, who formally declared open the society's new home at 6 Carlton House Terrace." So begins the Royal Society's report of council for the year ending September 30, 1968. But apart from removing to the heart of clubland the society has during the year increasingly involved itself in current problems of science education; the Dainton disease, the failure of industry and schools to attract scientists and technologists which was revealed in the Swann Report, and the problems of postgraduate education. The recent discussion meeting on "The Swing from Science in Schools" was a success, unlike the generally uninspired series of reports of sub-committees inquiring into postgraduate training. The last of these reports, on engineering and earth sciences, is promised this year.

During the year the society has initiated discussions on the introduction of metric units, given evidence to the Dainton Committee on a National Library, and agreed to increase the emphasis of its own library on the history of science, especially that in Britain. The society is, for example, investigating ways of preserving the papers of fellows.

In the expeditionary field the society is on the verge of achieving its aim of setting up a permanent research station on Aldabra island (see page 947) and it has contributed to the International Biological Programme through its expeditions in Uganda and New Guinea, as well as numerous projects in Britain. The society has also jointly sponsored, with the Royal Geographical Society, an expedition to the Mato Grosso, and with its counterpart in New Zealand has arranged an expedition in the New Zealand ship Endeavour to mark the bicentenary of Cook's first circumnavigation.

The European Exchange Scheme, in its second year, is flourishing. Eleven West European countries have now agreed to put up matching money totalling

£72,656 so the society can ask the British Government for that amount to finance overseas scientists in Britain. With this Government money and grants from the Ford and Wates Foundations and Pergamon Press, the society awarded 90 fellowships (53 from Britain to Western Europe and 37 from Western Europe to Britain) and 50 study visits. In addition the society made 37 exchanges with academies of science in Eastern Europe.

Parliamentary grants administered by the society in 1967-68 totalled £657,000, including £43,250 for rent and management of Carlton House Terrace. In the current year the society has a considerably larger budget, £802,000, most of the increase being for its International Fellowship Scheme and for furthering international relations.

CONSTRUCTION

Better Concrete

It is estimated that some £130 to £150 million is going to be spent on elevated roads in Britain in the 1970s. Structures such as the Hammersmith Flyover, the Mancunian Way and the Western Avenue Extension are therefore going to become increasingly common features of the urban environment. The design of elevated roads, however, poses several problems—they have, for example, to be supported on a very small ground area, and they must be capable of being constructed on a very restricted site. These and other problems associated with the design of elevated roads are being tackled by the Design Research Department



The addition of skid resistant texture to an existing concrete road.

of the Cement and Concrete Association's Research and Development Division at Wexham Springs near Slough. A comprehensive research programme lasting three years is now in progress at the laboratories with support from the Construction Industry Research and Information Association. Some of this work and other research on bridge design was demonstrated at an open day held last week at Wexham Springs. Work being done in two other divisions of the research station was also on display. The Construction Research Department deals with the construction process itself and its significance in relation to the properties of