

employed by a public body would find themselves working for a private firm. The institution cautiously welcomes the bill as a whole but is continuing to negotiate with the government about some of its smaller provisions.

AIRBUSES

Veto Keeps Options Open

THE British government's decision to tighten the purse strings by refusing to inject a large sum of money into either the European Airbus or its rival, the BAC 3-11, makes the British civil aircraft market especially attractive to foreign salesmen. But the decision also gives the government considerable room to manoeuvre in its deliberations over the future of the Concorde project, and it will have wide-ranging implications for Rolls-Royce, whose future is by no means assured by the £42 million shot in the arm which it received recently from the government and the Bank of England.

Faced with a very difficult choice between the A-300B European Airbus and the BAC 3-11 (see *Nature*, 228, 496; 1970), the government spent nearly two months deliberating before it turned its back on a large share in the business of manufacturing wide bodied civil aircraft. The BAC 3-11, on which the British Aircraft Company has already spent some £3 million, will die from lack of funds, and British European Airways, one of Europe's largest potential customers for the airbus, will have a choice between the Lockheed TriStar, the A-300B and the McDonnell Douglas Airbus.

Rolls-Royce will now be hoping that BEA will plump for the Lockheed TriStar and its RB 211-22 engines. Having lost the opportunity for selling a follow-up version of the RB 211-22 in the BAC 3-11, and with no share in the European Airbus or the McDonnell Douglas DC-10, Rolls-Royce will be looking for a long sales run with the TriStar to recoup some of the huge investment which the company and the taxpayer have sunk into the RB 211-22. BEA was known to be strongly in favour of the BAC 3-11, with the TriStar as its second choice, and it is therefore unlikely that the airline will take the DC-10. But, on the other hand, the A-300B involves substantial British participation from the Hawker Siddeley Aircraft Company, which decided to stay in the project when the British government pulled out in 1968. The airline is therefore being pulled both ways by British interests.

In making the decision not to support either airbus, the government was keeping one eye on the development of Concorde. The rapidly increasing costs of Concorde—now running at £825 million for the prototypes alone—will leave little money available for other civil aircraft, and a decision in favour of the BAC 3-11 would inevitably have made cancellation of the Concorde project more likely. Such a decision would, of course, be a singularly bad card to play while negotiations for Britain's entry into the Common Market are taking place. To help to quell such fears, however, Mr Frederick Corfield, Minister for Aviation Supply, told members of the House of Commons that he has been discussing with other governments more European participation in the manufacture of aero engines, and that he hopes such cooperation can be extended to the rest of the aviation industry.

MEGALITHS

Breton Origin for Tombs

from our Archaeology Correspondent

New radiocarbon determinations for megalithic tombs in Brittany substantiate the very early dating for these stone monuments and suggest that these tombs are the oldest in Europe. The unexpected possibility of a Breton origin for the custom of burial in megalithic tombs in Britain and even in the rest of north-western Europe must now be taken seriously.

The impressive megalithic collective tombs of western Europe have always seemed an astonishing achievement, somehow beyond the capabilities which could be ascribed to neolithic man. The very early carbon-14 dates produced by the French radiocarbon laboratories for the megalithic tombs of Brittany, setting them before any such tombs dated elsewhere, have been regarded suspiciously by prehistorians. For although the pros and cons of a West European rather than an East Mediterranean origin for the megaliths has long been argued, Iberia at the southern extent of their distribution and Denmark at the north have seemed the most likely regions for the development of megalithic architecture.

The very early dates in Brittany for what seemed the most sophisticated of these monuments, the corbelled passage graves, have also been doubted. The impressive burial chamber in these graves is reached by a long underground passage, and is roofed by a false vault of drystone construction. Examples of this building technique are seen in the tombs of Spain and Portugal, in Ireland (New Grange, Knowth) and in Scotland (Maes Howe) as well as in Brittany. A Breton example, Ile Carn, was dated in 1959 by the Groningen radiocarbon laboratory to 3280 BC, and other Breton megalithic tombs were dated by the French laboratories to about 3500-3000 BC. These determinations were too early for most archaeologists to accept. Unfortunately, one or two dates were more than a millennium higher—there is a determination of 6850 BC for a stone cist grave at St Michel. The necessity of explaining these as the consequence of the prehistoric use of bog oak did little to increase confidence.

Since 1959, however, further dates in the time range 3500 to 3000 BC have been accumulating, and radiocarbon determinations by Delibras, Guillier and Labeyrie (*Radiocarbon*, 12, 421; 1970) give 3390 BC for the principal chamber at Ile Carn, and 3440 and 2890 BC for adjacent dolmens. These dates substantiate fully the previous early dates for Ile Carn and for other Breton tombs.

At present there are few carbon-14 dates for Iberia—conventionally the most favoured area for the origins of the European megaliths—and, in any case, the custom of collective burial in megalithic chambers may have developed independently in different parts of Europe. Yet, for the British Isles at least, these Breton dates may have considerable significance because the British neolithic farming economy was undoubtedly brought across the English Channel during the fourth millennium BC.

It has been considered that the unchambered long barrows found in England were a component of the first neolithic communities, with megalithic chamber tombs a later development. Recently, it has been