

change of information and ideas in cancer research and to maintain close contacts between all branches of cancer research. It is estimated that the annual working cost of the council will amount to about £20,000 and this will be raised by private subscription from various interested individuals and organizations in the United Kingdom through a specially appointed finance committee.

According to Dr Graham Bennette, honorary secretary of the council, the setting up of the council was sponsored by the British Association for Cancer Research (BACR) which is one of the two organizations represented on the International Union Against Cancer (UICC), now covering seventy countries. Centred in Geneva, the UICC undertakes work which could not be met by individual countries. National subscriptions for membership of the UICC are computed on a *pro rata* basis in relation to the annual contributions to the World Health Organization made by the different countries. Until 1966, when this rate of subscription was introduced in the revised constitution of the UICC in order to meet greatly expanded programmes of work, the whole burden of finding an appropriate subscription for Britain fell on two major research and fund-raising organizations—the British Empire Cancer Campaign for Research, and the Imperial Cancer Research Fund. These two bodies, among others, participated in a British National Committee on Cancer which was disbanded in 1966. Neither organization was able to afford the new rates.

Because this meant that Britain was no longer represented, the BACR applied for membership in order to re-establish official contact between the UK and the rest of the world. The BACR could only contribute about \$300, however, which is the amount recommended for a "minor emergent nation". Considering that Britain plays a leading part in cancer research, this was obviously a ridiculously small sum, and the situation if allowed to continue would probably have led to a severe weakening of the international position of the United Kingdom in cancer work. This is the main reason why the British Cancer Council was formed—to restore Britain's position and to co-ordinate cancer work both nationally and internationally.

The centre in Harley Street is not yet properly staffed, and committees are still being formed. Although funds are not yet sufficient, Dr Bennette hopes that the centre will have a library in due course. Commenting on the new council, Professor E. Boyland of the Chester Beatty Research Institute said that its formation was essential; some British organization was necessary to unite cancer research workers and other interested bodies so that they can have a voice in international affairs.

Dr F. J. C. Roe of the same research institute is also in favour of the new council, but suggests that it may be some time before it serves a useful purpose. Its value should increase in the next five years, he adds, as information passes between workers in the laboratory and those concerned with cancer treatment in practice; at present there is the danger that cancer workers can be a little remote. Although the humanizing aspect of the council in shifting the centre of interest in cancer work towards the clinical side is to some extent good, major advances in this field must come from research itself.

Perhaps the real benefit of the council will only become fully apparent when younger people with their modern concepts become involved with the organization. The only unfortunate aspect of the new venture is the fact that the British Empire Cancer Campaign for Research and the Imperial Cancer Research Fund have decided not to join. It is hoped that they will reconsider their decision, because at present it makes the council rather ineffective, and furthermore indicates a certain degree of shortsightedness on their part.

Deeper Diving

THE Royal Navy's deep diving abilities are to be increased by the refit of HMS Reclaim, its deep diving research ship. Last week divers from Reclaim succeeded in locating and recovering parts of the Aer Lingus Viscount which crashed into the sea off Eire in March.

At present the Navy's operational deep diving activities are restricted by the limitation of its depot ship. Reclaim's equipment can handle operational dives at sea down to 300 feet and in 1965 a series of working dives at 600 feet were carried out from Reclaim by naval divers in the Mediterranean, but it was not a comfortable experience. Reclaim's diving bell, in which the men return from the bottom, is limited to 300 feet equivalent pressure, so that it has literally to be hung at the appropriate depth if intermediate decompression stops are called for. As total decompression from 600 feet takes about 3 days, this is hardly a practical proposition, particularly in rough weather. The present object is a firm operational capability for working dives at a minimum depth of 600 feet. This brings almost the whole of Britain's continental shelf within the Navy's diving range (90 per cent of the continental shelf lies at 600 feet or less). The requirement laid down by the Royal Navy's chief scientist calls for newly designed static and submersible chambers for Reclaim. Greater pressure range in the submersible element of the system will enable the divers to be rapidly brought up from any working depth to complete decompression in the static chamber aboard in comparative comfort—the present living facilities are primitive. The Admiralty Experimental Diving Unit (AEDU) which supervises work on the Navy's diving equipment is "aiming for something approaching civilized dwelling arrangements" in the new chambers.

Specifications for Reclaim's new facilities have yet to be drawn up. The AEDU, however, has just moved into a new building costing £100,000 at HMS Vernon, Portsmouth (opened May 31), from the temporary accommodation it has occupied since 1946. The move is seen as a hopeful sign, reflecting the importance attached by both the Government and the Ministry of Defence to modern diving technology. The Navy has been waiting for several years for a decision to replace Reclaim so that it could go ahead with its operational deep diving programme. Its Deep Trials Unit ashore was re-equipped some years ago to carry out simulated dives to 1,000 feet.

The methodology of deep diving has now become of urgent concern to various civil and scientific interests. Apart from the oil companies' interests in the North Sea, the NERC recently announced a plan to survey

the whole continental shelf round Britain and is considering a powered submersible for underwater geology. The Navy undoubtedly leads in actual experience, and its new programme should stimulate progress elsewhere. The emphasis on practical operations rather than depth records is encouraging. Diving ships and equipment are very expensive and it would be sensible if some sharing of national facilities and know-how could be achieved. An effective mechanism for collaboration does not yet exist. For two years there has been a continuing dialogue between the Navy, industrial representatives, the Ministry of Technology and the Ministry of Defence, but nothing very much has come of it—and the Department of Education and Science, the government department responsible for NERC, has not been involved.

Aerodynamics at NPL

THIS week the National Physical Laboratory at Teddington has been holding its open days and it is particularly pleased with the work it does in the engineering sciences. The laboratory has an industrial aerodynamics section concentrating on the effects of air or water flow on structures. It was the industrial aerodynamics section, for instance, which tested the design of the suspension bridges over the Forth and the Severn, and the Post Office towers in London and Birmingham. For work of this kind, the section has six wind tunnels for testing various kinds of model which for many purposes have to represent not only the appearance of the actual structure but its elastic and dynamic behaviour as well.

Recently, the section has worked on the design of what is to be the tallest chimney in Britain, an 850 feet stack for the power station at Drax in Yorkshire. Tall chimneys, it seems, tend to oscillate in the wind, but at right-angles to the wind direction. The oscillations are damped by fitting some kind of sleeve around the top of the chimney; the exact shape of the sleeve has to be determined by wind tunnel tests. The suspension bridge is another structure well known to be susceptible to wind induced oscillations, not only when the bridge is completed but also during construction, when its dynamic properties may differ appreciably from those of the finished structure. Present practice is to test the behaviour not only of the final bridge but also of the various stages in its construction, as was done for the Severn bridge by the aerodynamics section at the National Physical Laboratory.

One of the demonstrations in the wind tunnels at the NPL is a model of the Wye extension to the Severn bridge. As the Wye extension is a comparatively simple structure, it was not felt necessary to test the design in a wind tunnel before construction. The finished bridge in fact has now been found to oscillate to some extent in the wind. This has been seized upon by the aerodynamics section as an opportunity for evaluating their testing procedures. Only structures which show sufficiently small oscillations in wind tunnel tests are ever built, and consequently aerodynamicists are not certain how close are the more severe oscillations measured in model tests to the oscillations which would occur in real structures. The section is now testing the model of the Wye extensions, and says that the oscillations could in fact have been predicted accurately before construction.

Parliament in Britain

by our Parliamentary Correspondent

Irish Sea

THE Minister of Power, Mr Ray Gunter, announced that another area of the continental shelf beneath the Irish Sea had been designated under Section 1(7) of the Continental Shelf Act. This was so that he could be kept informed of the progress of investigations by holders of exploration licences. The Natural Environment Research Council was drilling a test borehole and undertaking a seismic survey, which would show whether the Irish Sea merited further exploration. (Written answer, June 14.)

Metrication

MR ROBERT MELLISH, Minister of Public Building and Works, was more explicit on the subject of metrication than other members of the Government have so far been. From January 1 next year, most new projects entering the design stage would be carried out in the metric system, and Mr Mellish said that he had appointed a senior professional officer as metrication officer. His ministry was issuing a series of booklets intended to help designers in the changeover, and he had set up a working party within the ministry to look into aspects of the change not directly the concern of the British Standards Institution. Mr Mellish said that he would ensure that a Metrication Board would be set up as quickly as possible, in consultation with the Minister of Technology. (Oral answer, June 17.)

Multi-story Buildings

MR ANTHONY GREENWOOD, Minister of Housing and Local Government, reported that approval had been given for the construction in England and Wales of some twenty-nine dwellings built by the system of construction which had been used in the collapsed block of flats at Canning Town in London. He said that he hoped to have the report into the Canning Town collapse as soon as possible, but was unwilling to do anything which might prejudice the findings of the tribunal. (Oral answer, June 18.)

Non-proliferation

MR FRED MULLEY, Minister of State at the Foreign Office, made a statement about the non-proliferation treaty. The General Assembly of the United Nations, he said, had by an overwhelming majority approved a resolution commending the draft treaty. The Government believed the treaty to be the most important and substantial measure of disarmament and arms control that had yet been achieved, and that it was the first step in achieving the end of the nuclear arms race. The United States, the USSR and Britain had put forward security assurances, which envisaged immediate Security Council action in the event of a nuclear threat or nuclear aggression against a non-nuclear country. The countries not supporting the treaty were Albania, Cuba, Tanzania and Zambia. Twenty-one countries, including France, had abstained. (Statement, June 19.)

German Measles

MR EDWARD SHORT said that the recent survey by the Medical Research Council into the effectiveness of measles vaccine had not included consideration of German measles, an unrelated illness. The council was therefore organizing a separate series of trials for German measles vaccines. (Oral answer, June 20.)