

New defence science chief offers cash to UK universities

UNIVERSITY and polytechnic scientists should become more closely involved in helping to determine strategies for defence research, according to Professor Ron Mason, the newly-appointed chief scientist to the UK Ministry of Defence.

Even five years ago, such a statement would have generated hostility from university colleagues and students alike. Both were concerned—for different reasons—with intrusions into the “purity” of research. Yet when Professor Mason’s appointment was announced at a meeting last week at the University of Sussex, where he has been professor of chemistry since 1971, even a student representative present greeted it, he says, with applause.

With the continued squeeze on university funding, and a growing acceptance of department-sponsored research, Professor Mason claims that there now exists a “more relaxed view” in universities about accepting military funds than a few years ago.

As chief scientific adviser—considered by many to be the highest position that any British scientist can hold in government—one of his main tasks will be to act as an interface with the scientific community. And the new atmosphere should, he feels, make this easier to achieve.

“One of the first things I want to engage in is a discussion on the relative balance of intermural and extramural research, and personally I would like to see a substantial increase, so broadening the base of expertise and advice,” Professor Mason said this week.

He emphatically rejects the notion canvassed by the Campaign for Nuclear Disarmament and others that university scientists should refuse to carry out military research on principle. A scientist’s responsibility should be to produce first-rate research in pursuit of aims determined by the conventional political processes.

“The proviso, of course, is that all research carried out on Ministry of Defence contracts should ultimately be publishable in the normal way; as a university man, I would be worried if an academic institution accepted any restrictions on publication.” Professor Mason has himself in the past received funds from the Microbiological Research Establishment at Porton Down in support of certain aspects of his work on ion transportation across cell



Ron Mason: “a more relaxed view” on military research

membranes, and feels no qualms at having done so.

“Another reason for wanting closer contact with scientists in universities and polytechnics is to open up discussions about long-term trends in defence research. And since these involve a mix of the scientific and technological with economic and political factors, a broad interdisciplinary discussion of objectives is required for which the ministry research establishments are not equipped.”

Professor Mason is no stranger to the world of science and technology policy, having been a member of the Science Research Council from 1971 to 1975, and chairman of its science committee for three years. He has also been a member of the requirements board of the Department of Industry since 1973.

One area in need of investigation in his new job is, he says, the systematic under-recruitment of scientists and engineers by the Ministry of Defence that has taken place in recent years.

“Whether a reluctance to take up a career in military research is due to the unattractiveness of Civil Service salaries in general, or of this type of work in particular, is at present unclear. But it might be a good idea for me to go out to talk to people in universities to help find the reasons for this situation.”

Professor Mason admits to being slightly “bewildered and overwhelmed” by the scope of his new job, which he takes up on 1 March, 1978 on a three-year secondment from the university.

He is convinced that the key to its success, at least in developing links between the scientific community and the defence establishment, lies in opening up discussion about military research; but whether closer liaison is acceptable to either party remains to be seen.

David Dickson

Soviet beams over Sweden?

Is the Soviet Union developing a charged-particle anti-satellite weapon? Reports earlier this year listed evidence that tests of such a weapon had been carried out at a research facility near the Soviet city of Semipalatinsk, and described the debate raging between the US Air Force, convinced that the tests were being carried out, and the more skeptical CIA. A Swedish scientist has now published some findings that will add to the speculation.

Dr Lars Erik de Geer of the National Defence Research Institute detected traces of radionuclides neptunium-239 and molybdenum-99 in the atmosphere over southern Sweden on five occasions during the first half of 1976. The same atmospheric samples also contained small amounts of fission products iodine-131 and barium-140. On the first two occasions—in late February, and March—the prevailing winds had been from the east during each period of three days when the nuclides had arrived. On the other three occasions—in April, May and June—the winds had blown from the east on at least two days in each week during which the nuclides came. Dr de Geer thus postulates that “the material arrived in Sweden by way of southern Finland or western USSR and the Baltic Sea”.

What could have caused such activity? The short answer is: no known source. The amounts of neptunium and molybdenum detected are compatible with the ratios found in debris that circulates for a few weeks after the explosion of a nuclear bomb. But, as Dr de Geer points out, if these nuclides resulted from some fission process, it is strange that other short-lived fission products (such as tellurium-132) were not also detected. Neither is the composition of the samples consistent with discharge from an ordinary nuclear power reactor. He wonders whether some laboratory experiment involving fresh fission products could have been responsible; but a check on research laboratories in Sweden, Denmark and Finland showed that no such work was in progress during the period in question. The

