

# SERC cuts deep to balance the books

- Research grants suffer in 1991–92
- Budget boost needed to save large projects

## London

THE Science and Engineering Research Council (SERC) last week laid bare the measures it says are necessary to keep within a budget that will be outstripped by inflation. The cuts run deep through each of SERC's four research boards, threatening up to ten per cent of their programmes, and can only be lessened if the government increases its planned spending on the research councils in 1992–93. "The coming financial year is already a closed book", SERC chairman Sir Mark Richmond said last week, announcing the cuts.

Savage cuts in the spending of the Astronomy and Planetary and Science (APS) and Nuclear Physics Boards had been widely feared.

Nuclear structure research, expected to bear the brunt of the cuts in nuclear physics, has been given a stay of execution (see below), but several APS projects are shelved. No money can be released for an Anglo-German gravity wave observatory project (see *Nature* 344, 693; 1990), or for the Polar Cap Radar — a ground-based system to study the interaction between the solar wind and the upper atmosphere. The number of British remote-sensing instruments due to fly in the late 1990s on the US and European orbiting polar platforms, which will provide vital data to monitor global climate change, is reduced.

SERC has also delayed until two years from now any British spending on a project to build two 8-m optical telescopes

with the United States and Canada.

APS support for space astronomy has fared rather better. SERC has no money for Lyman-FUSE, a far-ultraviolet astronomy collaboration with the United States and Canada due for launch in 1997, but the threatened withdrawal from Spectrum-X, an X-ray astronomy mission led by the Soviet Union and planned for launch in 1993 has not materialized. SERC's official line is that "no decision can yet be made". In effect, however, this means the project will continue. Unlike most projects on SERC's provisional hit-list, work on Spectrum-X is at an advanced stage, with half of the £7 million contribution from the United Kingdom already committed.

In any case, SERC is under pressure not to jeopardize Spectrum-X, which falls under a valued Anglo-Soviet agreement to cooperate in science.

SERC's Engineering Board, which spends mostly on small research grants, will be forced to bear "sharp cutbacks" in its support for information technology, engineering design, and the application of computers to engineering. But a new clean technology initiative (see *Nature* 346, 691; 1990) has been spared.

The Science Board, which supports a range of work from animal behaviour to molecular physics, has dropped plans to collaborate in a European laser facility (see *Nature* 346, 503; 1990). Richmond said last week that some of Britain's partners in the project were also having second thoughts. But there is no decision yet on the future for the two neutron sources used by British scientists — the pulsed ISIS source at SERC's Rutherford Appleton Laboratory and the continuous source at the Institute Laue-Langevin (ILL) in Grenoble, to which SERC contributes £8.5 million a year. SERC has launched a review to assess the United Kingdom's need for neutrons, which will report in October 1991. Although Richmond maintains that SERC cannot afford both ISIS and ILL, he said last week that a decision to pull out of one facility is unlikely before 1994–95. Until then, the Science Board's spending on studentships and grants must bear the strain.

Reductions in studentships and grants must also account for most of the savings needed to balance SERC's books in 1991–92 — little will be saved from the cuts in large projects this year. Richmond said he expected to award only 85 per cent of the usual number of new studentships and 50 per cent of the new grants in the coming year.

British scientists hope that many of the large projects targeted in the announced cuts will be reinstated at a later date, if the government can be persuaded to boost the 1992–93 science budget.

Peter Aldhous

## Nuclear structure physics in limbo

### London

THE SERC funding squeeze has left British nuclear structure physicists beneath the sword of Damocles. Last week, SERC announced it would find £10 million to run the Daresbury tandem accelerator through 1991 and 1992, but threatened to close the facility after that if there are no extra funds in the 1992–93 science budget. However unsatisfactory, the prospect of the tandem's closure after 1992 is better than many nuclear physicists had feared: leaked SERC Nuclear Physics Board (NPB) documents had indicated the facility could close in April this year. SERC chairman Sir Mark Richmond said last week that immediate closure "was never in our minds".

The Daresbury tandem is vital to nuclear physics in Britain, says John Sharpey-Schafer, a nuclear structure physicist at the University of Liverpool. By forcing nuclei to collide, it creates transient 'superdeformed nuclei' and allows physicists to probe the mysteries of nuclear structure. Without Daresbury, British nuclear structure research would wither, with the UK community left as "scientific gypsies" dependent on access to European equipment, Sharpey-Schafer says.

Indeed, SERC's NPB would prefer to cut spending elsewhere. When asked to trim its budget by ten per cent, the NPB had put as its first priority reducing the £60 million UK subscription to CERN, the European particle physics centre in

Geneva, which consumes two-thirds of the NPB's annual budget.

But Richmond repeated last week that renegotiating the UK subscription is not possible, although he did say SERC will press for those of Switzerland and France to be increased. (Those two countries benefit economically through jobs and contracts provided by CERN.) This would have the indirect effect of reducing the British contribution, but Richmond warned that no "rapid outcome" is likely — the potential savings will not influence the Daresbury decision.

Some see the threat to close Daresbury — and thus effectively shut down nuclear structure research in Britain — as a clever gamble on SERC's part.

The government may be more likely to boost the 1992–93 science budget to save a whole area of research than to avert a more even-handed package of cuts. NPB chairman Sandy Donnachie, from the University of Manchester, believes there is a better than 50 per cent chance of the government finding money to prevent the tandem's closure.

Richmond denied last week that he is gambling with the future of UK nuclear structure physics. But SERC has not put aside the £5 million needed to meet salary commitments and redundancy payments if the Daresbury tandem is shut down after 1992. The money may have to come from research grant spending, Richmond said.

Peter Aldhous