

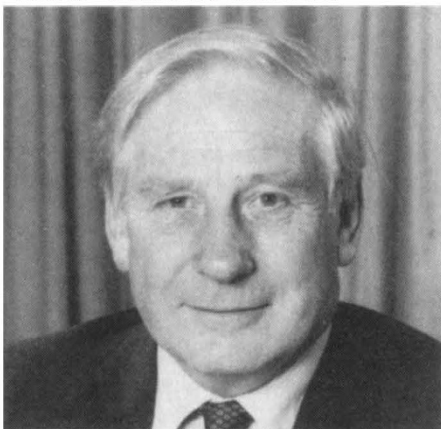
Canadian budgets cut

Sacrificing all for space effort*Washington*

CANADIAN science, already troubled by an uncertain financial future, took another body blow when the National Research Council (NRC) said recently that it would trim \$20.5 million from its \$400 million budget for the fiscal year starting next April. Particularly painful to those affected is that much of the money being trimmed from basic research efforts is being ploughed into the Canadian space programme, in particular for Canadian participation in the US space station.

The government makes no bones about the fact that some research projects will have to be curtailed or eliminated to support the space effort. In the next five years, NRC expects to realize an additional \$125 million for its space station activities, but in the short term it has had to find \$14.6 million for space activities from its existing budget.

Ralph Nicholls, a space scientist at York University, Ontario, and chairman of the Canadian advisory committee for scientific uses of the space station, says it is unfair to blame NRC for implementing government science policy. Nicholls says Canadian space scientists have also been hurt by the government's decision to eliminate the rocket and balloon programme, and now Canadian scientists find themselves in the same boat as their counterparts in the United States, who are having to wait for space shuttle flights to resume before their scientific projects can start again.

New chairman for vice-chancellors

Sir Mark Richmond to CVCP.

PROFESSOR Sir Mark Richmond, vice-chancellor of the University of Manchester, will become chairman of the UK Committee of Vice-Chancellors and Principals in July 1987 in succession to Mr Maurice Shock, vice-chancellor of the University of Leicester. □

Although the cuts fell relatively evenly among the major divisions of NRC — biological sciences, chemistry, electrical engineering, astrophysics, construction research, mechanical engineering, aeronautics and physics — perhaps no area feels the cuts more keenly than radioastronomy. Canada has two major radioastronomy facilities; the Dominion Radio Astrophysical Observatory at Penticton, British Columbia, and the Algonquin Radio Observatory at Algonquin Park, Ontario. Both are under the control of the Herzberg Institute of Astrophysics, itself supported by NRC.

Institute director Donald Morton says there were plans to refurbish the Algonquin Park observatory to let it operate at shorter wavelengths. But when it became clear that the necessary \$10 million would not be forthcoming, and the institute's budget was being trimmed by \$1.1 million, attention focused on the viability of Algonquin Park. Although Morton insists no decision about the observatory's future will be made until next spring, he admits that prospects are not good.

Paul Wesson, a radioastronomer from the University of Waterloo, believes a decision to close the Algonquin Park Observatory would make Canada a "non-competitor" in international radioastronomy. Even without the refurbishment, the observatory is the largest steerable antenna in North America devoted solely to radioastronomy. The planned improvement would allow the telescope to operate in the 1.5–4 mm range, making it the second largest millimetre-wavelength observatory in the world.

Wesson worries that because radioastronomy does not provide readily appreciated benefits to society, it is particularly vulnerable to future cutbacks.

Optical astronomy has also been hurt by the NRC budget adjustment. Sidney van den Bergh last month resigned as director of the Dominion Astrophysical Observatory in Victoria when the latest round of cuts was announced. He says the Victoria observatory has shut down one of its three telescopes, mothballed its optical shop and cut its support personnel to the absolute minimum.

Also struggling is TRIUMF (the Tri-University Meson Facility) in Vancouver, British Columbia. Last spring, NRC informed TRIUMF that its annual operating budget of \$28.1 million would be cut by \$4 million. Half that money was restored when it became apparent that TRIUMF would default on international contractual obligations without additional funds, but a \$24 million budget is likely for the next fiscal year.

Earlier this year, the three Canadian

Accord renewed*Washington*

AFTER a five-year hiatus, Canada and the Soviet Union have signed an agreement to resume mutual academic, scientific and cultural exchanges. Canada suspended official exchanges in 1981 following the Soviet intrusion into Afghanistan. The new agreement takes effect at the start of next year, and will run until the end of 1988.

The Canadian move comes on the heels of a similar exchange agreement signed this past summer by the United States and the Soviet Union (see *Nature* 322, 491; 1986). Anton Yurkovich of the Ministry of External Affairs says Canada was the last member of the North Atlantic Treaty Organization to renew basic exchange agreements with the Soviet Union among those that suspended them after the arrival of Soviet troops in Afghanistan.

Yurkovich says the decision to renew formal contacts is not tied to any specific political change, but rather that "the time was ripe to get back to talk again". The Ministry of External Affairs has obtained budget authority for up to 27 individuals for academic and scientific exchanges, and is negotiating with the Association of Universities and Colleges of Canada to administer the programme.

The major beneficiaries will probably be Canadian Slavonic scholars who have been denied access to Soviet library and archive material. Assured access to archival material was also keenly sought by the United States in its accord. Joseph Palca

granting councils announced a unique scheme to encourage industry contributions to scientific research by matching private funds with government money (see *Nature* 320,102; 1986). Industry's willingness to participate in the scheme has yet to be demonstrated, however.

The Canadian Minister of State for Science and Technology, Frank Oberle, has promised to produce a national science and technology policy. With no firm timetable for its completion, many policy changes may be in place before the minister's plan is presented to parliament.

For those in government science posts both in and out of Ottawa, morale has plummeted. Many fear the current cuts are merely forerunners of larger cuts in the years to come, as the government shifts responsibility for basic research to universities and industry.

The furore created by NRC's cutbacks has prompted Oberle to form an independent panel that spokesman Dave Dale says will review the "whole overall macro picture" of NRC's role in Canadian science. Trying to sound optimistic, one NRC official said that although the council may be "more than slightly hurt, it is not mortally wounded".

Joseph Palca