

Gramm-Rudman Act

Automatic cuts threatened

Washington

WASHINGTON bureaucrats are slowly waking up to the uncomfortable realities of the Gramm-Rudman deficit reduction act approved by Congress at the end of last year. A comparatively modest 4.3 per cent across-the-board cut in non-defence spending for the current fiscal year will, barring some extraordinary legislative contortions, take effect on 1 March, together with a 4.9 per cent cut in defence spending, the saving will be \$11,700 million. But that is only a foretaste of the act's potential to wreak havoc. In order to avoid much larger cuts in future, totalling more than \$60,000 million in 1987, Congress is steeling itself for some uncharacteristic self-discipline.

The Gramm-Rudman Act seeks to eliminate the federal budget deficit, which was to amount to \$220,000 million this year, in five equal annual steps. If the President and Congress can agree each year on a budget that meets that year's target, all well and good. If not, the act mandates "sequestrations" to bring the deficit into line with the target. Defence spending has to carry half of the cuts, and there are exemptions for social security and welfare programmes.

The legislation has fundamentally changed the nature of the political game in Washington. Before, interest groups within the government could try to use their influence to secure their desired level of funding without much fear of adverse consequences. Now, they are having to learn that failure to agree would take the matter out of their hands. The first taste of serious deficit cutting will come next month when President Reagan delivers to Congress his proposed budget for 1987, which will attempt to meet Gramm-Rudman's \$144,000 million deficit target and so avoid automatic cuts.

Dr John McTague, acting director of the White House's Office of Science and Technology Policy, was nevertheless taking an optimistic view last week of the prospects for research. McTague pointed out that this year's 4.3 per cent "cut" was on a base already 7 per cent above last year's. As for future years, McTague said basic research had always been one of President Reagan's top priorities and observed that "we have a remarkably consistent President". McTague justified the President's decision to exempt the Strategic Defense Initiative (SDI) from cuts this year on the grounds that SDI "serves a different purpose" from other research.

National Science Foundation (NSF) officials are similarly cheerful, with good reason. The President's 1987 budget request includes a healthy 9 per cent increase for the foundation over last year's

total of \$1,524 million, which is likely to cause envy among less fortunate agencies. NSF is praying that Congress will manage to pass a budget that avoids the need for Gramm-Rudman's across-the-board cuts next year, which could at a stroke change a 9 per cent increase to an estimated 10 per cent decrease. Erich Bloch, NSF's director, last week termed the automatic cuts provision an "unintelligent" approach to budget planning.

The National Aeronautics and Space Administration (NASA) is in a much less comfortable position. This year's 4.3 per cent cut could lead to lay-offs and even the postponement of shuttle missions unless Congress passes legislation allowing NASA to transfer funds between its four main accounts, research, flight operations, salaries and facilities.

Looking to the future, the brunt of the savings being sought will fall on the space station, leading to a delay of 2-3 years for the project. NASA officials do not deny reports that despite an original 1987 budget request of \$580 million, the Office of Management and Budget is unwilling to countenance anything above \$100 million.

The National Institutes of Health (NIH) are as yet undecided about how they will cope with this year's cut. But it seems likely that they will try to avoid cutting back on numbers of grants, and instead reduce the size of the cheques.

Each of the various institutes will have to reduce its budget by 4.3 per cent in total, but directors will have discretion to redistribute funds within their own budgets to minimize disruption. NIH officials seem not to have thought seriously about what they would do if faced with large cutbacks next year; NIH usually end up with far more than the administration requests anyway.

Non-nuclear research at the Department of Energy (DoE) will be hit hard, with cuts in 1987 of more than 50 per cent from this year's total of \$700 million.

The Department of Agriculture says it will not have much difficulty in achieving 4.3 per cent cuts in the Agricultural Research Service this year, and that savings from vacant posts will probably account for many of them. But if across-the-board cuts are required in 1987 the results will be "too horrible to contemplate".

Many officials and congressional staff admit privately to doubts about whether Gramm-Rudman can survive for long: the savings sought are unprecedented in recent history. But while it may at some point be struck down on constitutional grounds, or simply eroded away by exemptions until it becomes meaningless, in the short term its effects will be real enough.

Tim Beardsley

Genetic engineering

Frost damage tests blocked

Washington

A NEW set of regulatory hurdles is impeding plans by Applied Genetic Sciences (AGS) of Oakland, California, to release bacteria, genetically altered to protect strawberry plants from frost damage, into the environment.

The problem now lies with the local government in Monterey County, California, where AGS plans to conduct its field trial. Sam Karas, chairman of the Monterey County Board of Supervisors, says residents are unhappy that the first trial is being conducted in a densely populated region. Local citizens are also upset at having no say in the matter. The board is seeking ways to block the trial until local concerns can be dealt with.

In addition, the Monterey Bay Unified Air Pollution Control District wants to see a detailed environmental impact statement before allowing the test to proceed, and has threatened legal action to block the trial if the information is not forthcoming.

The local furore has taken AGS by surprise. Despite the difficulty in obtaining federal approval, Douglas Sarojak, AGS director of product development and marketing, maintains that his company "did not realize the sensitivity to the issue". He adds, "We're scientists, not public relations experts."

AGS won an experimental use permit for its new strain of *Pseudomonas syringae* from the Environmental Protection Agency (EPA) on 14 November after a long struggle (see *Nature* 318, 96; 1985). The genetically altered bacteria lack a segment of the genome coding for an ice-nucleation protein responsible for frost damage to plants. The new strain will protect plants for competing with wild-type bacteria for positions on leaves.

The local controversy has taken on an international flavour. Karas reports that members of the board of supervisors have received telegrams from members of the Green Party in the West German Parliament as well as from members of the European Parliament urging them to oppose the tests. The board plans to hold a public hearing on 27 January to give all sides a chance to air their views.

Even if AGS receives permission from the local authorities, it may still not be able to proceed. The Foundation on Economic Trends in Washington led by Jeremy Rifkin has a suit pending in federal court seeking to overrule EPA approval of the experimental use permit for *P. syringae*, and Rifkin has gone to court to seek a temporary restraining order to prevent the field trial from starting before the lawsuit is settled.

Joseph Palca