

NEWS IN BRIEF

ESA chooses Hipparcos

THE Scientific Programme Committee of the European Space Agency decided last week to fund the astrometry mission Hipparcos as the next ESA mission after Exosat which is to be launched in 1981. Designed to improve the measurements of stellar positions by two orders of magnitude, the satellite will be launched by Ariane in mid-1986, and placed in a geostationary orbit for its lifetime of two and a half years. The total estimated cost of the project is 139.3 MAU (\$185 million).

Hipparcos was the Programme Committee's final choice in spite of a recommendation by the Scientific Advisory Committee to fund a dual mission consisting of experiments to measure the Earth's magnetospheric tail and a deep space flyby of Halley's comet. By a vote of 10 votes for and one abstention, the 11 member committee, consisting of delegates from each ESA country, decided to overturn the Scientific Advisory Committee's recommendation.

No evidence found of link between saccharin and cancer

No evidence of a positive link between the consumption of saccharin and an increased incidence of bladder cancer has been revealed by either of two studies whose results were published last week. One was carried out by Harvard University's School of Public Health and the other by the American Health Foundation.

The scientists who carried out the study, which involved surveys of the dietary habits of 592 and 367 bladder cancer patients respectively, point out that these results have two possible implications. Either saccharin does not cause cancer; or that its effects are too small to be identified by such studies.

However, writing in the *New England Journal of Medicine*, Dr Robert Hoover, director of a separate study carried out by the National Cancer Institute, states that "the evidence is that little, if any, current bladder cancer is due to the consumption of artificial sweeteners at the doses and in the manner in which sweeteners were commonly consumed in the past."

The Harvard study, reported in last week's issue of the journal, came to the conclusion that artificial sweeteners posed "little or no excess risk of cancer of the lower urinary tract", although pointing out that, since the latency period for cancer due to exposure to toxic chemicals can be 30 to 50 years, it will be some time before definite conclusions can be reached.

The Food and Drug Administration has proposed a ban on the use of saccharin following evidence that it can cause tumours when administered to animals at

high doses. However, the ban was held up by Congress in 1977 until further information about saccharin's effect became known.

Academy report attacked on solar energy predictions

A RECENT report published after four years of study by the Committee on Nuclear and Alternative Energy Systems of the National Academy of Sciences has been attacked for severely over-estimating the costs of developing solar energy as a major source of power — and hence over-stating the need to develop nuclear and coal technologies.

In its report, prepared for the Department of Energy at a cost of \$3 million and subject to some bitter internal disputes, the committee states its conclusion that solar energy "will probably not contribute much more than 5% to energy supply" in the US before the end of the century, at least not without massive government intervention to penalise the use of non-renewable fuels.

This conclusion, however, is being strongly contested by environmentalists, who last year persuaded the Carter administration to commit itself to policies for supporting solar energy research and development designed to meet 20% of the nation's energy needs by the year 2000.

In a letter to the *New York Times*, Gus Speth, chairman of the White House's Council on Environmental Policy, says that as far as he has been able to discover, the committee's estimate that the cost of reaching the administration's target was a prohibitive \$3,000 billion was the result of a "back-of-the-envelope calculation", based on assumptions such as all capital equipment being constructed at today's prices.

Reworking the calculation with declining prices predicted by the committee's Solar Resources Group reduced the cost by a factor of almost three, he said.

A spokesperson for the academy said last week that a reply to the CEQ's charges was being prepared and would be submitted to the *Times* for publication.

Canada appoints new science minister

JOHN ROBERTS, cabinet minister responsible for cultural affairs in Canada's last Liberal government, has been appointed Minister of State for Science and Technology in the new cabinet announced last week by Prime Minister Pierre Trudeau after the Liberal Party's success in the general election.

Roberts will also carry the portfolio of Minister of the Environment. This has disappointed officials in scientific and

professional societies who had hoped that the new government would, like its Conservative predecessor, appoint a minister with sole responsibility for science and technology.

However the Liberal Party has indicated that it intends to make the creation of a strong research and development effort in Canada one of its top economic priorities. An outspoken economic nationalist, Mr Herb Gray, who has been appointed Minister of Industry, Trade and Commerce, said last week that Canada's "disturbingly low level" of R&D expenditure was connected with the high level of foreign control of Canadian industry. Canada's Foreign Investment Review Agency, created in 1974 at Gray's suggestion, will have its mandate extended to investigate the R&D performance of such companies.

Livermore safety report criticised

OFFICIAL reports of "minimal damage" at the Livermore nuclear weapons laboratory from two earthquakes last January were criticised severely last week. Two structural engineers, John Rutherford and Gary Gray inspected the plutonium building where up to 300 lbs of plutonium are stored and described the damage as "severe". A wall had moved during the tremors (the largest of which measured 5.5 on the Richter scale) and it was in danger of collapse.

Friends of the Earth claimed that a big earthquake of the order of 6.5 on the Richter scale could cause a fire which would burn the plutonium causing it to disperse over a wide area in a radioactive cloud.

Dr John Gofman, of the University of California, and a former director of the laboratory, called the Livermore laboratory "a public health hazard". "There is a conceivable possibility of fire and the plutonium burning thus becoming airborne dust. To say, as the officials have, that nobody would be killed is nonsense", he said.

Sakharov vote avoided

THE Russian Academy of Sciences has avoided putting to the vote the expulsion of Dr Andrei Sakharov from its ranks. Two corresponding members of the Academy had proposed a vote but last week were persuaded to withdraw their proposal. Had a vote been forced, it would have taken place in secret and required a two thirds majority to succeed. There is only one precedent for the expulsion of a member of the Academy, and that was of someone whose original election was based much more on political grounds than on genuine scientific achievement.