

news in brief



Before the launch: checking out the probes that have now surveyed Venus's atmosphere.

Exploration of Venus: Ten spacecraft—six American and four Russian—are exploring Venus this month. One spacecraft, the US Pioneer Venus I, went into orbit on 4 December and is expected to be operational for at least a year. Five other US probes for exploring the Venusian atmosphere penetrated the atmosphere on 9 December and transmitted data during their hour-long descent to the surface. They were not expected to survive the crash landing, though one continued to radio information back to Earth for an hour after reaching the surface. The probes contain instruments to measure density, pressure, wind speeds, heat flow and atmospheric composition.

Meanwhile, towards the end of December, two Soviet spacecraft will “fly-by” Venus, and each is expected to release a lander. These landers are intended to survive for a short period on the surface of the planet and take photographs of their landing site. The instruments on the Soviet probes will need to withstand the extreme conditions on Venus: atmospheric pressures 100 times that on Earth, high concentrations of sulphuric acid in the air and temperatures of nearly 500 °C.

“Anti-intellectualism” hits US basic research: Federally-supported basic research in the US is feeling the edge of a definite anti-intellectualism in some sectors of American public opinion, according to Dr Richard Atkinson, director of the National Science Foundation, in a speech at the University of Indiana. He added, however, that, in supporting those who attacked esoteric-sounding research programmes, the public seemed to be demanding some assurance that Government-supported activities were connected with real human concerns and problems. “The scientific community will be far more likely to gain acceptance by dealing with these concerns in a patient and serious way than by reacting in an ill-tempered or patronising fashion.”

Dr Atkinson, whose agency received a budget cut in Congressional committees that reduced the growth of its basic research to below the level of inflation, said that the importance of basic science to the economy was now being recognised in China after the Gang of Four's hostility to scientists and scholars. “The Chinese experience should be a sobering reminder to all of us, scientists and non-scientists alike, that intellectual creativity is every bit as significant as a measure of a society as military strength or economic output,” he said. “It seems somewhat paradoxical to me that the present Chinese leadership has grasped this lesson so thoroughly at a time when American opinion seems increasingly uncertain of the value of basic research and scholarship.”

European control of genetic manipulation: Guido Brunner, EEC Commissioner for science and technology, has suggested that the Community should formulate rules to cover the experimental and industrial use of genetic manipulation. All such work would have to be notified to the national authorities of the member countries, he said. At the moment, Britain is the only one which requires notification, but others are planning to introduce legislation. A spokesman said the Commission was only at the stage of talking about the proposals, and it is not known if it intends to set up a committee similar to Britain's Genetic Manipulation Advisory Group.

Government calls for cut-backs in animal experiments: Scientists in Britain are being urged by the government to restrict the use of living animals in experiments. In a letter to all scientists in the country licensed to carry out experiments on living animals, the government says the experiments should be “limited to the minimum compatible with the pursuit of legitimate scientific ends”. The letter stresses the importance of finding alternative methods of conducting scientific experiments, such as tissue culture or computer modelling. Scientists are asked to take “every reasonable step to confirm, before using living animals, that their investigations cannot be done by any alternative means”.

The government hopes scientists will be encouraged to develop new alternative techniques. But, Dr C. Stratmann, scientific consultant to the Fund for Replacement of Animals in Medical Experiments (FRAME), said: “We are concerned that little funds are available specifically to find alternatives.” Over the last ten years, FRAME has built up a library of information and literature on alternatives. Dr Stratmann urged scientists to contact FRAME if they wish to find out about alternatives.

The number of experiments on animals has remained fairly constant over the past eight years—at about 5.5 million experiments a year, according to government statistics on animal experiments published last Thursday. Over half of the experiments were carried out for commercial reasons such as drug and cosmetic testing.

Inquiry into extension of Natural History Museum: The government has called for a public inquiry into the Natural History Museum's plans to build a new wing known as the East Infill Block. The plan has aroused public interest because it involves demolishing part of the original Waterhouse building, which is listed as of historical interest. Although an inquiry is not required by law, the government wants everyone concerned to have a chance to put their case.

Pesticides in the diet: The average British diet still contains unacceptably high levels of Dieldrin, a pesticide used against woodworm, according to the latest report of the Government Chemist. Although the level of Dieldrin in the diet is less than half the Acceptable Daily Intake recommended by the World Health Organisation, it has not declined in recent years, despite increased restrictions on its agricultural use. Dieldrin is one of the most poisonous organochlorine pesticides, especially as it is not metabolised by the body.

The persistence of Dieldrin in the diet suggests that it may come from a non-agricultural origin. In an isolated incident earlier this year, 4,000 chickens died in East Anglia after eating litter containing wood chips treated with Dieldrin. Government chemists, therefore, began an inquiry into whether some cattle feeds made from dried poultry litter could be a source of Dieldrin in milk.