

Since Salyut 4, the special computer-based Kaskad orientation system has been used to re-align the station as required by the programme of geo-physical, astro-physical, and solar observations, while the Delta autonomous navigation system has eliminated the exhausting and tedious work of orbital correction.

The possibility of natural disaster in orbit is considered minimal—pilot-cosmonaut Georgii Grechko has been quoted as saying that a direct hit by a meteor would be likely only once in two thousand years. Nevertheless, a Tass report of 24 December notes that a micrometeorite groove 1.5 mm deep has been observed on the glass surface of one of the Salyut 6 portholes. Grechko remains unruffled. □

First catch your bear . . .

AN unscheduled contribution to Soviet-US co-operation in the ecology of the Far North has been initiated by an Alaskan polar bear which, wearing a collar with a radio-transmitter attached, has set out across the Bering Strait to Siberia. When last observed, the bear appeared to be making for Wrangel Island, an area in which unfortunately, no major expedition is working at present. It has been agreed, however, that should the staff at the reserve base on Wrangel Island spot the bear, the collar and its transmitter will be returned to the Americans. □

\$17m for Salk institute

THE Salk Institute for Biological Studies is to set up a new "government services division" to carry out contract research for various government agencies.

This move has been made possible by the donation to the institute of the vaccine research and production facilities of a major pharmaceutical manufacturer, Richardson-Merrill, Inc. The value of the facilities has been assessed at \$17m.

The manufacturing portion of the facilities has already been sold. The institute will retain the research portion of the facilities, situated in Swiftwater, Pennsylvania, including 25 professional and technical personnel. □

MAN, with his increasing numbers and his wasteful use of resources, may damage both his immediate environment and the globe as a whole. Most of us wish to try to make the world a better place to live in, or at least to prevent further damage to its natural amenities. However, those concerned have different approaches to environmental problems, and it is perhaps worthwhile trying to decide which is the most effective.

Most publicity is given by the media to the extreme 'doomwatchers', who think that the only way to produce results is to frighten mankind into mending his ways. This was the technique of the Victorian hell-fire preacher. Today some environmentalists seem almost to exult in the prospect of impending disaster, as did the earlier preacher at the probability that his listeners would suffer the tortures of eternal damnation.

These extremists are unwilling to agree that there has ever been any improvement—they may even believe that this is the case. They are scornful of those with a different approach, and have their own vocabulary of insults. Those who express even the most qualified optimism are "complacent", and when this optimistic picture is supported by evidence that at least one type of damage had been controlled this is described as "simplistic". Even when it is impossible to deny that there has been some improvement they think up cryptic and subtle dangers from which we are suffering without being aware of their presence.

On the other hand we have those who take a more moderate line. They know that resources are limited, and they wish to make sure that these are used effectively. They wish to identify and quantify all dangers, so as not to waste their efforts on trivial and unimportant factors. As this group tends

Postponing doomsday



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to lack glamour, it is seldom seen on television.

One organisation which has a reputation for moderation is the National Society for Clean Air (NSCA). I attended their annual conference at Harrogate recently. The members of this society are mostly recruited from the local authorities which are responsible for environmental protection, together with government and other scientists expert in different fields. The atmosphere at their conference was one of hope, not of doom. Most of the papers recorded growing improvements in the air quality of urban and industrial areas in Britain, and few spectacular dangers of any magnitude were reported.

The relative unimportance of the existing levels of substances like carbon monoxide and lead, which would be disastrous at higher concentrations, was discussed. However,

the conditions in areas with laggard local authorities, where smoke control was not enforced, were fully described, and those responsible were duly castigated. The members of NSCA had no doubt that their own efforts had contributed substantially to the real improvements which they reported. Some listeners complained that the Society was unduly complacent, and that it should be more militant even when existing pollution levels were apparently harmless and were, anyhow, decreasing, but these views received little support.

It will be clear that my sympathies are with NSCA. They get things done. Extremists will say that this is, at least in part, because doomwatch publicity has affected public opinion, and made it ready to respond to moderate views which might otherwise be ignored. I am doubtful. In the late nineteen sixties we were told that growing air pollution would make the major cities of Europe and America uninhabitable before the end of the century. Most and most people can recognise that things have got better and not worse. The Victorian preacher did not stamp out sin; many of his congregation did not really believe in the hell he promised them. The doom-besotted environmentalist is in an even worse position, for there is concrete evidence that his particular hell, if it exists, is getting further away as the moderates get on with the job of environmental improvement.

However, the world is still far from perfect. The extremists are not always wrong, and though their efforts at frightening the general public may be counterproductive, the experts would be wise to pay at least some attention to their views, for the cryptic dangers they stress have, at least in some few cases, been shown to be real.