

# The Cold War's unwanted monument

**The US project to build a space station is once again in trouble. The best solution is none of the alternatives presented last week to President Clinton, but a mechanism for true international participation.**

THE US space station Freedom has come a long way in the past nine years — at least on paper. The latest development, beginning last week, is that the Clinton administration is attempting to make a choice between three new and alternative designs for the station, each capable of substantially cutting the cost of the project from the recently fashionable estimate of \$30 billion. A few weeks from now, there will be a formal proposal to the Congress, which will then be expected to include an appropriate allowance in the budgets for the next and succeeding financial years (beginning on 1 October). It is already plain that there will be a row. Many in the Congress are fond of the original design, if not for itself then for the jobs it will create in their constituencies. But they and others are also conscious of the need to cut public spending and, with it, the federal fiscal deficit. It matters little what fudge resolves that conflict. It would be better if the Congress took this critical opportunity to ask again what the project is for, and whether it is worth even the \$9 billion or so that the administration seems prepared to spend.

The purpose of the space station has been ambiguous from its conception, when the Cold War still raged. Part of the Reagan administration's case for Freedom was to reassert US leadership in space exploration against the seemingly shaming drumbeat of the endurance records being set by then-Soviet cosmonauts' visits to Mir space stations. Freedom also offered a continuing use for the space shuttle (which, in two of the alternative designs now on offer, will literally be the housing for visitors to the space station for periods up to three weeks). Freedom would also keep men in space. And there was also, of course, to be a scientific programme, the distinctive parts of which — those that cannot be accomplished by other and cheaper means — boil down to the exploitation of the almost zero gravitational field in laboratories in free fall around the Earth. One hope, for example, is that protein molecules may crystallize more readily in such circumstances.

This package of disconnected promises does not justify the spending of \$30 billion, or even a tenth of that. Now that the Clinton administration has said the unsayable by declaring that it considers the space-station project to be worth only about \$9 billion (less than the estimated costs of each of last week's alternatives), it also opened the question of whether the same objectives could be attained more modestly yet more effectively by other means. The shuttle programme, for example, will continue; why not spend a little money to enhance the capabilities of that craft, thus ensuring that there

continue to be men and women in space? And why not divert a little of the money to more effective study of the Earth's climate than will be provided by the satellites the National Aeronautics and Space Administration (NASA) will have in orbit by the end of the decade?

There is, unfortunately, one obstacle in following that path, logical though it may be. NASA has enlisted as partners in its Freedom venture its counterparts in Canada, Europe and Japan, each of which has spent time and money on the design and engineering development of accessories for the shuttle. Even redesign will be annoying and costly for these partners, cancellation would make them seem fools. The administration's price-tag of \$9 billion may, for all we know, be the price it considers worth paying to avoid the ructions cancellation would bring, but even that calculation would be a fudge. Freedom is not strictly the international project it is often represented as, but an *ad hoc* collaboration in which no partner is irrevocably bound. The same difficulty afflicts the Superconducting Super Collider (SSC), to which non-US partners have also been invited without the promise of a voice in design and overall management — and in the knowledge that the US Congress ultimately decides whether or not it survives.

Even now, it is not too late for the US administration to resolve the conflict between the weakness of the case for Freedom and the awkward overseas obligations. After all, none of the governments concerned can be any more eager than the US administration to embark on the expensive phases of the Freedom project that lie ahead. So why not do for the exploration of space by people what is already long overdue in experimental high-energy physics — create an international planning mechanism to consider what might be done, with the understanding that particular projects would be managed as common enterprises regulated by formal treaties? That would be a better marker for the beginning of the next millennium than the purposeless monument to the Cold War now in prospect. □

## Universities' own feet

**Safeguards are needed if students are to pay a greater share of the costs of their education.**

WHEN an official of the Harvard Alumni Association boasted last week, at the university's annual commencement cer-