nature

NATURE · VOL 373 16 FEBRUARY 1995

Will Europe be lost in space?

The European Space Agency has a good reputation and an even better prospectus, but it needs to be rid of the anachronistic doctrine of *juste retour*.

EUROPE'S space science community is learning by fits and starts the perils of its capital-expensive field — and that the perils are the same wherever people work in this capital-expensive field. Tales abound of how researchers have worked for years on the development of instruments to make observations from a satellite only to discover, late in the day, that there will be no funds to launch them on an Earth satellite or interplanetary probe. (The Britons who have been working with Italian groups on the development of a γ-ray telescope seem destined for that fate, see *Nature* **373**, 459; 1995). Graduate students similarly work for years on such a project, but then run out of support before there are data to incorporate in a dissertation. And, generally, there are always fewer launches than the community considers it could use productively; the exploration of the Solar System is routinely squeezed by political imperatives.

These questions will be on the agenda for the ministerial meeting of the European Space Agency (ESA) planned for next November (and in the lobbying that will precede it), when ESA will be asking for member-states' support for its so-called 'Horizon 2000+' programme, entailing a 4–5 per cent annual increase of the budget in the first half of the next decade. Some of the forces that will then be deployed have already become plain. The British, for example, will be hoping to repeat in their dealings with ESA their success in containing the budget of CERN (the European particle physics laboratory at Geneva). The risk in that strategy is already plain. In space research, there seems still to be no shortage of governments willing to pay extra for a larger share of the action. At CERN last year, it was different; nobody wanted to pay more.

The British are on stronger ground in questioning the principle of '*juste retour*' by means of which member states hope for the return of a large proportion of their membership subscriptions by means of contracts between ESA and national industrial companies. This iniquitous principle goes back to the origins of ESA in the 1950s, when the agency (like its close cousin, the European Launcher Development Organization, now transmogrified into Arianespace) was partly advertised as a means by which European companies could learn the techniques of satellite construction. Over the years, governments have become ever-more zealous in their expectations, thereby turning ESA into an instrument of European industrial policy, but a pointless one. But does every member state need a competence in satellite construction? The very notion fits awkwardly with the reality of the European single market, in which business should flow to the most competitive companies.

But can member governments be weaned away from a practice to which they are apparently wedded? The obvious first need is for a survey of the space parts of Europe's aerospace industry, and for an appraisal of its future. On the face of things, there is no point in using the doctrine of *juste retour* if its purpose is simply to enable national governments to service ESA's modest construction needs up to some proportion of their annual subscription. Indeed, that is more like a guarantee that no European company will ever be competent enough to compete internationally with the major satellite constructors. Governments fond of saying publicly that most of what they contribute to ESA will be returned to national contractors should be asked whether, if ESA did not exist, they would pay over the same funds as straight subsidy. Mostly, they would demur, in which case they should pay their membership fees like grown-ups.

The cause is a good one. ESA's record is better than merely creditable, while the Horizon 2000+ programme, still in outline, is imaginative and potentially of great value. It is especially adventurous that the agency has the ambition to use the space environment as a physics laboratory and for astrometry and optical and infrared interferometry of objects in the Galaxy. The speaker at last week's meeting (see page 548) who declared the last project to be "one to die for" was merely saying that it is important to learn what the rest of the Galaxy is like. And that, of course, is what member governments should be paying for, not for a mechanism of industrial policy for which Europe has no urgent need. □

Clinton's dark horses

The putative Surgeon-General of the United States should command his president's support.

THE post of Surgeon-General in the United States is not usually contentious, although holders of the post can get themselves into trouble if they put their minds to it. In the 1960s, a surgeon-general famously caused embarrassment by announcing a ban on phosphorylated detergents (advertised by environmentalists as a threat to civilization as we know it through eutrophication) and their substitution by chemicals afterwards shown to be carcinogenic. More