

Can Europe put Columbus together again?

Brussels. A week is an eternity in space politics. Bloodied by US vacillation over an international space station, the European Space Agency (ESA) heaved a sigh of relief last week when President Bill Clinton affirmed his commitment to an international modular station based on the original Freedom design.

"We couldn't have hoped for a better outcome," says Lanfranco Emiliani, head of ESA's Columbus programme. ESA had panicked earlier this month when it became known that none of NASA's three options met the \$9 billion budgetary ceiling demanded by the US president (see *Nature* 363, 569; 1993). The agency feared that Clinton might kill the space station, wasting the millions of dollars it has already spent on Columbus, or even opt for the cheapest "big tin-can" redesign, thus making ESA's attached module redundant. Pulling out seemed on the cards.

Clinton's unexpected proposal for a space station combining elements of options A (a simpler version of Freedom) and B (a truncated version of Freedom, which can be expanded as budgets allow) has allayed ESA's fears. Although the fudge obscures what is being axed and what is being kept, it promises to cost less than the alternatives, and is expected to receive the support of Congress.

ESA is also pleased that Clinton post-

poned a decision to increase the inclination of the orbit of the space station from 28.8° to 51.6° to allow the station to be reached from Russian launch sites. ESA had protested that to launch Columbus into this higher orbit would require using the Russian Proton rocket, a competitor of Ariane. NASA is apparently considering a compromise orbit, which the Russians could still reach, although only by flying over China.

Clinton's decision has restored confidence in Europe, where support for the station has crumbled over the past few months. "There is now the political will to continue with the space station," says Klaus Berge, director of the German programme. Whether there is a financial way is another matter. Italy has said it cannot afford to meet the commitments it made in Granada last November (see *Nature* 360, 199; 1992), while ESA itself has reserved its position on continued participation in the light of "Europe's economic difficulties". ESA is relying on further reducing the costs of Columbus to avert internal strife, says Berge.

Continued support for the station in Europe is likely to be forthcoming only if the present *ad hoc* collaboration is transformed into a truly international project. The stumbling block to a *ménage à trois* between Europe, Russia and the United States is that all three are competitors in the commercial satellite launch market (see sidebar). And

Launch wars

As Europe, Russia and the United States discuss prospects for greater cooperation in an international space station, all three are engaged in a battle for a share of the commercial satellite launch market.

The United States and Europe are concerned that, unless Russia's entry is regulated, it could destabilize the market through dumping; Russia can undercut by half the \$62 million cost of an Ariane launch. But Europe and the United States have failed to agree on acceptable terms, and are already divided over the rules of fair play: the United States accuses Europe of subsidizing Arianespace, while ESA wants the United States to open government contracts to foreign competition.

Independently, the United States this month agreed tariffs and quotas with Russia for the launch of US satellites using its Proton rocket. But Europe immediately accused the United States of manipulating events to destabilize Ariane as the market leader while protecting its own launchers. ESA has since made a similar agreement with the Russians, but it remains to be seen how long Russia will be content to restrict its exports to the agreed quotas. **D.B.**

while Europe and the United States in public make much of their efforts to "save" Russian space competence, officials privately admit that both are jealously competing for access to Russian technology. **Declan Butler**

Monoglot filing urged for European patents

Munich. The Munich-based European Patent Office (EPO) last week announced a 5 per cent increase in the number of patent applications in 1992, after 1991 saw the first drop in its 15-year history. Half of the 58,000 applications were from member states, with Germany topping the list with 19.5 per cent of the total. The number of patents granted, 30,400, was 14 per cent more than in 1991.

But Paul Braendli, president of EPO, warned that the cost of filing a successful patent in Europe is too high. At an average of DM48,000 (US\$38,000), European patents cost twice as much as US patents and four times as much as Japanese. Nearly half the cost — DM22,000 — is for translation into the eight languages of the European Communities.

The language rule should be changed, says Braendli, if small European businesses are to compete effectively. He believes that this may be one of the reasons why the average number of patent applications per head in 1991 in Europe was only 70 per cent

of that in the United States, and less than a tenth of that in Japan. He would have patents filed in their original language and translated only if challenged in court. This hap-

pens only, on average, for one per cent of patents. "Unnecessary" translating costs the patent office DM800 million a year.

Alison Abbott

