

Europe needs more space

The old world is launching satellites, for both commercial and military reasons. But the US doesn't like it. **CHARLES GRANT** and **DANIEL KEOHANE** report



What is the European Union trying to become? Should it aspire to be merely an economic superpower, or should it aim for a more credible common foreign and security policy? Should its aerospace industry depend on US technology, or should the Europeans nurture their own technological base? And is the EU's ambition of being able to manage its own military operations realistic, unless it develops satellite networks that can operate independently of America's space assets?

All these questions are relevant to Europe's hesitant efforts to develop a space policy and a space industry. The French, in particular, argue that space is a "strategic" industry and Europe therefore needs a coherent space policy. After all, telecommunications is already almost completely dependent on space-based systems, while many other sectors, such as transport, will rely on the same technology to a much greater degree than before.

The European space industry, with its annual turnover of about 6bn euros (it employs 40,000 people), is dwarfed by the US, where the government space budget alone is \$31bn. But unlike the US, where half the spending is military (indeed, the US accounts for 95 per cent of the world's military spending on space), Europe's future in space is heavily dependent on commercial success. For example, the Ariane series

of launchers (the Ariane 5 rocket had its first successful launch in February) accounts for about half the global market in commercial satellites.

But the current focus of European effort is Galileo, a satellite navigation system costing more than 3bn euros. The aim of Galileo is to do a similar job to the American Global Positioning System (GPS), a network of satellites whose signals can be picked up by small devices that reveal to the user his or her exact location, whether driving a lorry, sitting on a boat or exploring a jungle.

GPS technology will soon dominate the management of transport flows in the air, on roads and on rail. The campaign in Afghanistan showed that it has military uses, too: many of America's "smart" bombs and cruise missiles were steered towards their targets by GPS signals, which, unlike laser-guided bombs, work when it is cloudy.

Indeed, the GPS, like the internet, started life as a military technology and, in the US, it is still controlled by the military. This is one reason why the Europeans want their own version of the GPS, rather than continuing to share the American system; they fear that, during some political or security crisis, the GPS could be turned off.


Despite doubts on the part of the UK, the Netherlands and Germany about the cost of the system (there were some particularly tough arguments in Britain, with the Treasury and the Ministry

of Defence expressing reservations), Galileo got the go-ahead in March and is due to be operational by 2008. Its proponents say it will provide greater accuracy (location within four metres) than the GPS. As well as its transport and military applications, Galileo could be used to help environmental monitoring and meteorology.

The former Swedish prime minister Carl Bildt, who takes a keen interest in space policy, argues that the most important reason for Europe to develop Galileo is to maintain its high-tech industrial base. If Europe lacks its own system, its companies will be unable to take the lead in developing many of the lucrative commercial applications of satellite positioning systems.

Denis Verret, a senior French industrialist at EADS, the Franco-German defence company, makes an analogy with Airbus and Boeing. Consumers are better served by the existence of two aircraft-makers than they would be by a Boeing monopoly. Similarly, he says, the existence of two rival positioning systems should be good for competition and consumers.

Moreover, an independent PricewaterhouseCoopers study, conducted for the European Commission, estimates that the Galileo system operators will receive revenue for the use of the system to the tune of 515m euros a year by 2020. The Commission estimates that Galileo will create more than 100,000 jobs, and



A better place: the Galileo satellite system will revolutionise everyday life

generate service and equipment contracts worth approximately 9bn euros a year.

The US government, however, is hostile to Galileo and, according to a statement in March, sees “no compelling need” for it. One worry is that, on some occasions, Galileo will use the same frequencies as the GPS, thus disrupting US

military operations.

But the real motive, many suspect, is simply commercial. Some senior figures in the French defence industry argue that, unless Europe can rely on Galileo, the US could use its monopoly of positioning systems to damage European defence exports. Suppose a European firm wanted to sell a cruise missile to a certain country, and the US disapproved. The US might refuse to allow the European firm to buy the technology that enables the missile to receive the GPS signal.

Military observation satellites, however, have created the fiercest transatlantic disputes over space policy. The French president, Jacques Chirac, has argued that, unless Europe develops its own satellite capabilities, it will remain little more than a “vassal” of the US.

The French have been in the vanguard of European efforts to develop observation satellites. They already have two small Helios 1 satellites in orbit, and more powerful Helios 2 satellites are due to be launched. Meanwhile, the Germans are building a series of radar observation satellites that can see through clouds. They are doing so because they were unhappy with the quality of satellite imagery supplied by the US during the Kosovo conflict. The output from the French and German satellites will be available to their European partners.

Britain has privileged access to imagery from US spy satellites, which

makes the British reluctance to develop national or European capabilities for satellite photography understandable. The Americans have tried to discourage European ambitions in this area, and not only because US defence companies hope to sell satellites to European governments. They argue that European military capabilities are so deficient in so many basic areas – such as transport planes, precision-guided munitions or aircraft which can bomb at night – that they should focus on these before investing billions in the luxury of spy satellites.

They also argue that Europeans should focus their resources on improving intelligence assessment, rather than on more expensive intelligence collection capabilities – especially now that metre-resolution imagery is available from commercially run US satellites. To which the French retort that they do not trust the American government never to exercise “shutter control” in a crisis and switch off the commercial imagery.

The arguments for European space capabilities are economic and strategic. Despite divisions among the Europeans, the EU is moving slowly forward in its ramshackle, muddled way. Now that the EU’s governments have kick-started the Galileo project, they should put the European Space Agency under the wing of the EU, a move which, as Carl Bildt has argued, is crucial if the agency is ever to have a direct role in Europe’s foreign and security policy.

Many European politicians – even in Britain – appear to understand that indigenous European space capabilities will be an asset to their environmental and industrial policies; and – on those occasions when the EU may wish to act alone – a help to their embryonic foreign and defence policies.

Charles Grant and Daniel Keohane work at the Centre for European Reform, which publishes a pamphlet on European space policy this summer

WANT TO GO INTO SPACE?



Andy Kershaw

I was nine at the time of the first moon landing. The school I went to was run by enlightened German nuns

who realised just how world-changing the events were, and allowed us to watch Patrick Moore and James Burke on the BBC. We were all mesmerised, and I used to go home, empty the contents of my chest of drawers and hide in the top drawer, pretending it was a space capsule. No matter how cynical the cold-war motives were, you cannot deny the immensity of human endeavour, and to this day I’d still love to be an astronaut.

Bruce Kent

They weren’t called astronauts in my time, but I was an avid space enthusiast as a boy, and used to write stories, one of which was called “Rogo the space traveller”. But these are more sinister times. The US has declared that it “must be prepared to exploit the advantages of the space medium to protect the economic interests of the US economy” – frightening stuff.



Richard Whiteley

“While driving down the M1 from Leeds to London the other day, I noticed a miserable-

looking brown sign for the British Space Centre. Perhaps they’ll be using the motorway as a launch-pad.

Marcelle d’Argy-Smith

The rush hour wouldn’t be so bad in space, and it wouldn’t be a problem avoiding the traffic jams. I’d be interested in defying gravity, but why would anybody want to be like a tinned sardine? I’d be stuck with men who’d be playing with themselves. I’d rather watch an Arsenal match. It’s not alluring.