The Galileo Project: European plans for global navigation supremacy

Daniel Woreck
7 July 2007

The European Union (EU) has for the first time officially acknowledged the "possible utility" of Galileo—Europe's largest joint satellite navigation project—for military purposes. Galileo has frequently been described by its sponsors as a "strictly civilian enterprise", but already in 2001 US government circles began warning of the threat posed by the Galileo project to its own domination of the satellite communications field.

Jacques Barrot, the vice-president of the European Commission (EC), the executive arm of the EU, commented to the press in early May, "You cannot exclude a [navigations system] user because he is military. It will be civilian-controlled, but there will be military users." For some time the armaments industry in Europe has been insisting on a stake in the lucrative Galileo project, which is under the technical supervision of the Paris-based European Space Agency (ESA). These companies are clearly motivated by the project's military applications.

Satellite and navigation technology plays an increasingly significant role in modern warfare and is pivotal in assuring communication, espionage and strategic air supremacy. The targeting of modern missile systems is dependent on sophisticated expertise in space technology. According to a *Der Spiegel* article published June 4, "advanced weapons technology that is not based on satellite navigation is as hard to sell today as a rotary dial telephone".

Although the lucrative deals attached to the project are certainly significant, the European space program is chiefly motivated by the geo-political ambitions of the various European powers, rather than immediate commercial benefit. Confronted with an increasingly crisis-ridden Bush administration, the European bourgeoisie is well aware of the need to advance its own geopolitical interests while retaining its shaky partnership with Washington.

The abrupt official acknowledgement by the EU of the military implications of the Galileo project underscores the fact that the European powers are increasingly seeking to acquire crucial military technology to match their own foreign policy interests.

The occupation of Iraq by the US military and Washington's continuing preparations for a possible military strike against Iran have cut across the vital geo-political interests of the European bourgeoisie not just in the Middle East, but also in the energy-rich Caspian Sea basin region.

This was the geo-political backdrop to the launching of Galileo, as an "independent" satellite navigation system for Europe aimed at providing an alternative to the US military-controlled Global Positioning System, known as GPS. With its own navigation system, European powers will be able to end their dependency on the GPS system and significantly challenge US supremacy in space technology. "We must prove our worth in this field of technology in competition with the United States, Russia and Asia," declared German Transport Minister, Wolfgang Tiefensee, in early June, referring to the commercial and strategic rivalries that motivate the space program as a whole.

Parallel to the EU project, China has set up its own satellite navigation program—"The Compass"—and sent one of the navigation satellites into space this April. Not wanting to fall behind in the space race, India has also begun its own program to establish an additional "independent" navigation system called the "Indian Regional Navigation Satellite System (IRNSS)". Its first navigation satellite planned for military use is scheduled to be launched in August this year.

Alarmed by the new players in the game, both the US and Russia (Global Navigation Satellite System-GLONASS) are in the course of updating their ageing systems. The Pentagon has recently announced plans to launch a new generation of navigation satellites (GPS-II) within the next few years.

Incorporating both government and major private firms, the Galileo satellite navigation system is a venture of the EU space agency, including major aerospace, defence and telecommunication companies. Prominent companies involved include the German-French giant, European Aeronautic Defence and Space Co. (EADS), France's Thalès and Alcatel-Lucent, the UK-based Inmarsat, Italy's Finmeccanica, Spain's AENA and Hispasat, as well as a German group led by Deutsche Telekom.

Galileo, which is slated to consist of 30 navigation satellites, is to be deployed in three circular Medium Earth Orbit (MEO) planes at an altitude of 23,222 km above the Earth's surface. While 27 will be operational, three satellites will act as an active reserve or backup. In case of technical failure, a backup navigation satellite will replace the defective satellite and ensure uninterrupted communication.

In December 2005, one of Galileo's 30 planed satellites was lifted into orbit on a Soyuz rocket from Baikonur in Kazakhstan. The device, named "GIOVE- A" (Galileo In-Orbit Validation Element), was equipped with two atomic clocks and started emitting test calibration signals in January, 2006. A second satellite, "GIOVE-B", built by the European consortium Galileo

© World Socialist Web Site

Industries, was due to be launched in mid 2006, but was rescheduled for the end of this year due to an onboard technical hitch.

Once in orbit the satellites are to transmit ten separate signals—six for so-called "open service" or public use, and the remaining four encrypted for commercial use. According to the European Commission, Galileo will enable any individual to determine his or her location or the position of any moving or stationary object down to one meter or less—i.e. with far greater accuracy than any other existing navigation system.

The implications for US-Europe relations as a result of the Galileo project were spelled out in a March 16 comment by the *Stratfor* website, which noted, "The military benefits to breaking the US monopoly on global positioning technology are obvious. Anyone who picks a military fight with the United States risks losing access to satellite positioning. This makes it impossible for other countries' militaries to develop and use GPS-based satellite guidance technology without playing nice with Washington."

"With a satellite system for hire, or its own proprietary system, a country would be able to follow in the United States' footsteps and revolutionize its military," *Stratfor* continued. "If Galileo fails to incorporate the deep pockets and fast-paced development the corporate world has to offer, however, the success of Galileo—and possibly other similar systems—will rest entirely on governments willing to fund them for strategic purposes."

The Bush administration, which has been keeping tabs on the European space project, has already openly lobbied against Galileo. On December 4th 2001, then-Deputy Secretary of Defence Paul Wolfowitz sent a letter to all the European defence ministers, spelling out US dissatisfaction with the Galileo project. According to Wolfowitz, interference from Galileo signals could threaten the viability of the US GPS system and its application for military purposes.

In response to pressure from Washington, the press spokesman of the Galileo Programme, Gilles Gantelet, declared in January 2002, "Galileo is almost dead". A few months later, however, in March 2002, the European Space Agency and European Union reshuffled their options and declared their determination to go ahead with the plan, despite obvious US dissatisfaction. Following the publication of the European space policy "Green Paper" in early 2003, the EU stepped up its plans to compete against the de facto US monopoly of space technology.

The Galileo project subsequently resumed its work and was re-launched in May 2003. Against a background of growing disagreements on the share and method of funding, China joined in by investing US$259 million in September of the same year. A short time later India followed along with Israel and Ukraine.

In response to these developments, the US initiated a series of diplomatic talks with the EU and then-Secretary of State Colin Powell subsequently signed an agreement with EU representatives at a summit held in Shannon, Ireland on June 29, 2004. He commented at the time that the Galileo and GPS systems would "navigate side by side" and even praised it as a "remarkable achievement". Significantly, the deal was signed on the basis that the Galileo project would be a strictly "civilian" project.

Although certain common concerns about US military actions have led to European powers sanctioning a joint navigation program, the involvement of national governments and major defence and logistic companies promoting their own national and profit interests have caused considerable foot-dragging. As a result, the € 3.2 billion program, which was originally scheduled to be completed by the end of 2008, was first deferred to 2010, then to 2011-12, and now is due to be completed by 2014.

"National interests also came into play, and proved to be an obstacle. When a dispute erupted over the location of the control centre, the solution was to pick three: one near Munich, one in Italy and one in Spain," wrote *Der Speigel*. However, by the end of last year, the EU managed to reach an agreement to form a consortium of eight major companies representing Germany, France, Britain, Italy and Spain to act as "one single company" for the sake of the project.

The stakes are high. For telecommunication companies, the Galileo project promises to become a highly profitable bargain considering potential customers in the highly populous China and India. According to predictions, the Galileo navigation network will consist of 3 billion users worldwide, bringing in revenues of €275 billion per year by 2020.

Nevertheless, financial conflicts between the eight main European participating companies continue to jeopardise the progress of the project (which includes €1 billion investment from public taxes). "Galileo is now being compared with the Airbus situation. Unfortunately that analysis is correct," commented Paul Verhoef, head of the Galileo unit.

Hence a meeting of EU transport ministers on June 7 sought to initiate an alternative funding plan, involving funding entirely from the public purse. Germany took the lead in the move; however, the meeting once again failed to reach a common consensus with Britain and the Netherlands opting for the former plan. Desperate for urgent funds, a resolution had been tabled during the European Parliamentary session on June 20 suggesting a full funding of Galileo from the EU budget. The resolution was voted on but is not legally binding. Finance ministers are to meet again on July 10 for further discussions.

Worried about the looming impasse in reaching a common agreement to counter Washington's designs, Michael Praet, head of the European Space Agency, stressed on June 5 that the global space effort in Europe, including national expenditures, was about one-sixth of that of the US system, and said, "I don't know how long we can remain competitive under such pressure." He further added, "If you don't have space in your tool basket, you will be relegated to the second tier in global competition: in military, economic and research terms."

Making clear the priorities in debate over Galileo's future, Preat commented, "Space technology is neither military nor civil by definition—it is politics, not technology that decides the way in which it is used."

To contact the WSWS and the Socialist Equality Party visit:

wsws.org/contact

© World Socialist Web Site