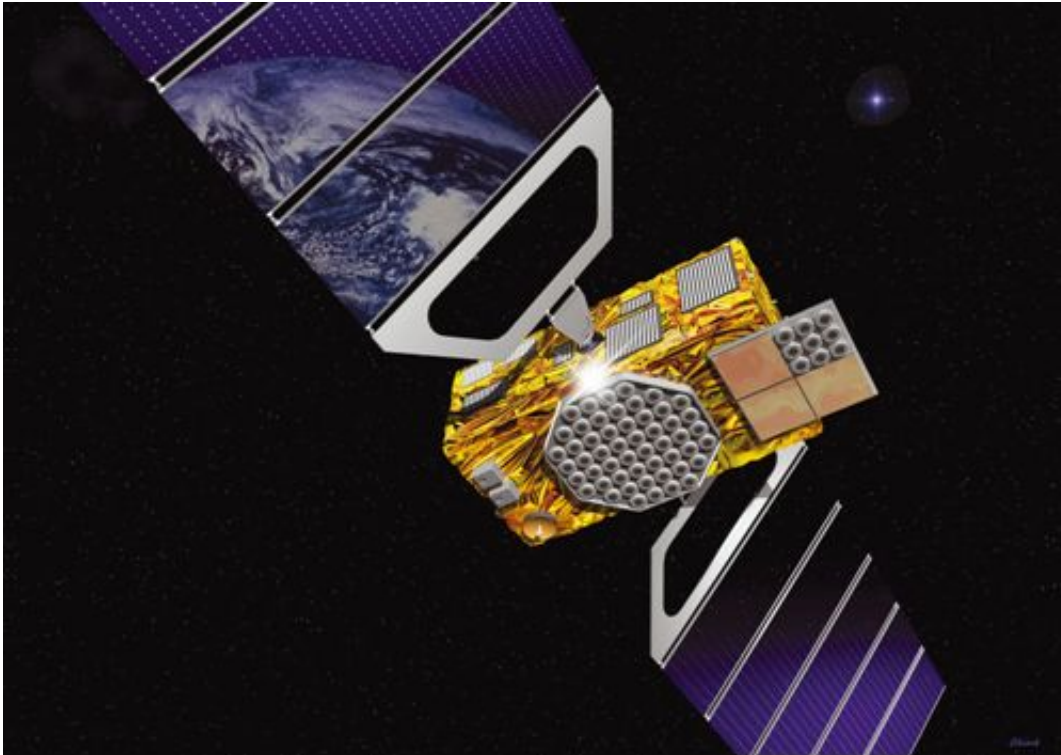


Secured navigation arrives to UK

July 15 2013



Artist's impression of a Galileo satellite. Credit: ESA.

Vital public service providers, such as the UK's emergency services and key government departments, will soon have access to a more reliable system of satellite navigation, thanks to the greater level of resilience offered by Galileo's Public Regulated Service (PRS).

On 1 July 2013, the UK became the first independent EU Member State to achieve live position fixes using the secure PRS signals from the

current constellation of Galileo [navigation satellites](#). This was achieved by a QinetiQ team supporting the UK Space Agency and the Satellite Applications Catapult under the auspices of UK national PRS trialling activities.

The positioning was achieved using the Galileo PRS Test User Receiver (PRS-TUR) jointly developed by QinetiQ and its Belgian partner Septentrio Satellite Navigation NV under a European Space Agency (ESA) contract. For the reception test, the receiver was installed and operated by QinetiQ technical experts in its Secure Navigation laboratory in Malvern, UK. Positioning accuracy of ~10 m was achieved, excellent for a first test so early in the system's deployment.

This latest achievement builds on the successful completion of the UK Space Agency's first phase of UK PRS Pilot projects in areas covering end-to-end security, key management, novel PRS service delivery models and PRS receivers for Governmental and [military applications](#).

Dr David Parker, Chief Executive of the UK Space Agency said: "The UK is delighted to be supporting ESA and the Galileo Programme in its delivery of the UK's PRS pilot activity. The achievement of a PRS only position fix is a notable success in its own right. For the UK this is also part of a broader body of test and development activity to create a range of technology platforms and novel applications to demonstrate how the UK will meet the needs of a range of PRS users. Our [collaborative approach](#) to securing growth and innovation through partnerships with industry and the Satellite Applications Catapult are key to delivering innovative solutions that will ensure the future success of PRS technologies and PRS derived applications."

PRS is one of the key Galileo services which offers a higher level of integrity and resilience for sensitive applications and government use. The unique nature of Galileo as a civil system means that this kind of

reliability and integrity will become available to a wide range of non-military and military approved users across government functions and applications in critical infrastructure including telecoms, transport, finance and public utilities. PRS enables Governments to respond more effectively to the increasing threats to [satellite navigation](#) systems from deliberate or inadvertent interference which could undermine crucial government functions or national services.

With PRS becoming a tangible reality, national governments will increasingly improve their continuity of access to reliable satellite based navigation and timing signals, even in compromised environments where users with sensitive applications require a high level of service continuity.

Paul Febvre, Chief Technology Officer of the Satellite Applications Catapult said: "PRS represents a real opportunity for UK industry. GPS has been enormously successful and led to creation of thousands of applications, some of which are now critical to Britain's continued economic success, efficiency, and security. The Galileo PRS service will bring additional protection, security and accuracy. Significant growth is anticipated as organisations realise the potential benefits. The Catapult is delighted to be part of UK's strategy in this area and proud to support the UK Space Agency with this initiative. The early success demonstrated by QinetiQ with PRS positioning is another example of UK companies working with government agencies in a collaborative and innovative manner to support growth in the space sector."

Dr Jeremy Ward, Managing Director of QinetiQ's C4ISR Division added: "Galileo and the Public Regulated Service present significant opportunities for UK growth and I am delighted that, with this latest achievement, QinetiQ has made another significant contribution to driving the development pace towards the roll-out of PRS products, services and applications. We are delighted to have been part of this UK

achievement in becoming the first EU member state to independently demonstrate a live PRS position fix. This is a significant milestone which represents many years of innovation and investment and is a key step for UK industry towards delivering returns on the UK's significant investment in the Galileo programme to date."

Provided by United Kingdom Space Agency

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