

France Doubles Down on Space Defense Tech

By

Chris Bosquillon

The Space Defense and Security Summit, that took place in parallel to the September 2024 World Space Business Week conference in Paris, announced positive developments for European space defense. France has the second largest defense export industry in the world and is the fourth-largest military space spender—albeit far behind the US, China, and Russia. The country, emphasizing space deterrence and surveillance, decided to double down on space defense tech. By leveraging improved cooperation with its commercial space sector, France’s space defense also joins in a [global trend](#) that started with the US and Japan.

In planning to strengthen space defense capabilities, the French military procurement agency, Directorate General of the Armament (DGA) focuses on surveillance, security, and cooperation. France aims to have a full space defense capability by 2030, built on military space capabilities such as Earth observation, communications, positioning, and navigation. The country is also expanding its space situational awareness capability to monitor, classify, and better understand space activities and threats.

France unveiled *Toutatis*, a new space surveillance program to protect low-Earth orbit assets, focusing on satellite detection, characterization, and targeting. *Toutatis* works with two satellites. A “spotter” cubesat detects targets and a smaller target satellite—developed by French [start-up](#) U-space in partnership with defense industry major MBDA.

France also works on geosynchronous orbit surveillance through the *Yoda* program of small satellites with cameras to monitor space threats. The annual military space exercise, *AsterX*, highlights the need for enhanced situational awareness in low-Earth orbit. Within two years, the *Toutatis* program will test capabilities with planned launches of maneuverable satellites.

Rather than kinetic weapons against weaponized space assets, France deploys non-destructive measures like dazzling adversaries with lasers to neutralize threats—without creating debris. The country also seeks to balance autonomy with international cooperation. For example, an envoy from Ukraine recently discussed space defense in Paris. Pawan Kumar, Director of the Indian Defense Space Agency, recently provided the French space command with an update on military space cooperation between the two countries.

The French view is that enhanced situational awareness in space, through programs like *Toutatis*, is a cornerstone of its space defense strategies. Nations should prioritize investments in monitoring technology to observe potential threats and signal their deterrence capabilities.

France’s focus on space start-ups indicates a shift towards commercial and civilian involvement in space security. A timely joint-announcement made by two rising space ventures, [Cailabs](#) and [Unseenlabs](#), revealed they successfully tested space [laser](#) transmission for satellite downlink in a world first. While Cailabs supplied the optical ground station, Unseenlabs deployed a low-Earth orbit nano-satellite with a laser payload. The pair established a stable link for several minutes. France’s Ministry of Armed Forces called the successful test a world first. It was a first for the commercial sector, but a few other experiments remain confined to American government attempts.

The French Defense Innovation Agency funded the test with €5.5 million (\$6.1 million). The Cailabs/Unseenlabs system will be integrated on France’s future military satellites. Laser technology is hard to intercept or hack, compared with radio antennas.

Such a capability would be useful for expanding battlefield data transmissions. France's optical communications satellite project, dubbed *Keraunos* (thunderbolt in Greek), helps mitigate the effects of atmospheric turbulence, making space-Earth liaisons handy on mobile, land-based, naval, and airborne platforms.

The European Space Agency Director, General Josef Aschbacher, rightly noted that a gap in space spending between Europe and the United States (a ratio of 1 to 6) is complicated further by spending in Europe that is spread among a wider range of national space agencies. [Streamlining](#) European defense and space governance is thornier than in the US since it [involves structural reforms](#) on technological gaps, fragmented capital markets, and strategic spending.

A rather disappointing report on European [competitiveness](#) by Mario Draghi, former Italian Prime Minister and president of the European Central Bank, generated immediate push-back from Ludwig Moeller, director of the [European Space Policy Institute](#) (ESPI). ESPI methodically reviewed the Draghi Report's [shortcomings](#) when it came to European Defense and Space. ESPI suggested the report lacked an impulse for the needed market reforms.

As stated by Eva Portier, space deputy in France's military procurement agency, Directorate General of the Armament (DGA), "Access to space is an essential element of our national sovereignty, our capacity to use space to launch our satellites and conduct operations." While greater Europe is struggling to fundamentally unite in its efforts to counter future malicious space efforts by China and Russia, France is stepping forward in a more limited way. It is not lost on observers that French satellite names harken to a past where France needed protection. For example, *Toutatis*, discussed above, was a divinity once worshipped in ancient Gaul and Britain, and was considered a protector of Gallic and Celtic tribes. The annual military space exercise, *AsterX*, led by the French Air and Space Force and involving 15 partner countries, is a wink to Asterix and Obelix, leading characters of a comic book series describing the adventures of a small village resisting the Roman invaders. Legend has it the Gauls feared only "that the sky would fall on their head."

French efforts are moving in the right direction, but unless Europe reforms and consolidates space defense efforts across the continent, Europe will be unprepared when a crisis occurs. Major space reforms take time. Thus, it is important those reforms begin now. France simply cannot accomplish what is needed on its own.

Christophe Bosquillon is a Senior Fellow at the National Institute for Deterrence Studies. He has over 30 years of international experience in general management, foreign direct investment, and private equity and fund management across various industries in Europe and the Pacific Basin. Views expressed in this article are the author's own.