



GCAP: the sixth-generation fighter aims for total interoperability with NATO weapons and allied drones

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Rome — The future sixth-generation fighter of the GCAP (Global Combat Air Programme), jointly developed by Italy, the United Kingdom, and Japan, is designed with an ambitious requirement: to be able to employ the widest possible range of NATO and US weapon systems, in addition to the specific payloads of the three partner countries. The stated goal is to transform the platform into a central node of an integrated combat ecosystem, capable of operating flexibly with collaborative combat drones (CCA) from various sources.

This was explained by Group Captain Bill Sanders, the British officer responsible for FCAS and GCAP requirements, speaking at the International Fighter Conference in Rome. According to Sanders, the experience of the conflict in Ukraine has highlighted the strategic value of being able to access allied stockpiles and supply chains, especially in prolonged conflicts where national resources are quickly depleted.

“We need a platform capable of employing any NATO, American, or partner country weapon. It's a matter of operational flexibility and strategic resilience,” Sanders stated.

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Adaptive weapons: high technology at the start, simplicity when needed

A key principle of the GCAP concept is the ability to adapt the type of armament to the phase of the conflict. In the early stages, when it is necessary to neutralize advanced defenses and create operational advantage, the fighter will employ advanced, long-range, and high-precision munitions. But when enemy defenses are weakened, the platform must be able to quickly switch to less sophisticated and more economically efficient munitions — from “smart” bombs to simpler and less expensive solutions — thus optimizing the cost per engagement.

This logic, the designers explain, aims to preserve offensive capabilities over time by avoiding the unnecessary use of extremely costly resources in scenarios where their effectiveness does not justify the price.

Interoperability with CCA drones: the challenge of the multinational ecosystem

Alongside the weapons requirement, the GCAP is designed to work in teams with a heterogeneous family of “Loyal Wingman” drones and other collaborative platforms, both national and allied. Integrating drones developed according to different technological standards and operational doctrines requires the adoption of open architectures, common standards, and advanced capabilities in data-link, artificial intelligence, and mission systems.

“The GCAP must be able to work with what it finds in the operational theater. It is not a trivial task,” Sanders observed.

Industry experts — including Douglas Barrie of the IISS — emphasize that today many countries prefer to develop their own drones for reasons of technological sovereignty. However, if the

future truly requires multinational team capabilities, an interoperable ecosystem will be necessary where software, protocols, and operational security standards are shared or at least compatible.

Industrial governance: Edgewing as design authority

The industrial governance of the program has been entrusted to Edgewing, a joint venture equally owned by BAE Systems, Leonardo, and JAIEC. The agreement was announced on December 13, 2024, and formally launched on June 20, 2025, while the project received EU antitrust clearance on June 2, 2025. With headquarters in the United Kingdom and operational sites in the three countries, Edgewing has been presented as the design authority of the GCAP with the task of accelerating the integration of the platform, mission systems, and cooperation with CCA drones.

The choice of an equal joint venture responds to the need to balance industrial interests and coordinate technological development, production, and logistical support among international partners.

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The European context and industrial impacts

The conference highlighted how the spread of collaborative drones and the multiplication of configurations can generate significant complexity and costs for the industry. Jorge Tamarit-Degenhardt, CEO of Eurofighter, noted that the increase in variants and integration options risks weighing on companies' budgets. The watchword of the GCAP remains modularity: advanced software architectures, onboard AI, and an approach that favors open standards and the ability to upgrade over time.

Countries like Turkey, recently involved in an agreement for 20 Eurofighters, are also publicly discussing the integration of CCA on their platforms, showing how the issue is now central for many European air forces and beyond.

Conclusion: more than a fighter, an ecosystem

The GCAP program is confirmed not only as a high-profile industrial project but also as a testing ground for a future operational doctrine: interoperability, artificial intelligence, and flexible armaments are conceived as strategic assets for air dominance in the next decade. Italy, the United Kingdom, and Japan are therefore trying to build not just a weapon platform, but a central node capable of orchestrating national and allied capabilities in an increasingly complex and interconnected battlespace.