



MBDA UNVEILS ITS VISION OF FUTURE AIR SYSTEMS

Le Bourget 17th June 2019. MBDA presents for the first time its vision of the capabilities that will lie at the heart of the next generation of European air combat systems.

As threats evolve and access denial strategies become ever more complex, with diversified effects combining surface-to-air and air-to-air assets in large scale, air superiority will need to be created on a local and temporary basis. Aircraft and air effectors will need to be able to enter denied areas, see threats before being seen, force hidden threats to uncover early enough to suppress them and to always react quicker than the adversary.

In these ever faster operations, networked effectors will take an essential part in the combat 'cloud', exchanging tactical information and target co-ordinates in real-time with platforms and other network nodes, in order to carry out the desired operational effects. These will also have to deploy robust survivability strategies in front of highly evolving threats. The fight will not only take place between platforms but between enemy networks, and only the most agile and adaptable will win. The engagement of these networked effectors will rely on resilience to any form of aggression (eg: Electronic Warfare, Cyber) as well as on rapid decision aids able to compute complex situations.

MBDA is a key actor able to bring answers to these significant challenges, thanks to its decades long experience in supplying armament capabilities to all Europe's air combat platforms and to its in-depth understanding of operational and technological issues. This is evidenced by the concepts presented at Paris Air Show, which result from ongoing studies in its domestic nations, whether in cooperation or in the framework of individual national roadmaps. These concepts form a coherent set of capabilities and demonstrate that MBDA can shape innovative responses for the benefit of its customers for their Future Air System projects.

These concepts cover the whole field of key domains:

- **Deep Strike** with cruise missiles using the most advanced options in order to penetrate and open breaches in the most efficient A2AD (Anti Access Area Denial) deployments in the future, for the benefit of friendly forces.
- **Tactical Strike** with stand-off, networked and compact armaments, delivering precision effects but also able to saturate enemy defences thanks to pack or swarm behaviours.

- **Air-to-Air Combat** with, Meteor, which today has no equivalent and will keep its lead and remain a powerful asset for next-generation fighter aircraft.
- **Self-Protection** with the 'Hard Kill' anti-missile system that will counter incoming missiles and so provide essential protection during 'stand-in' combat, when soft-kill counter-measures and decoys are no longer sufficient. Such a system is able to reverse the balance of power against saturating defences.
- **Enablers** for the penetration of adversary defences thanks to the 'Remote Carriers' that deliver multiple effects, whether lethal or non-lethal, as well as new services for munitions such as intelligence, targeting, and deception of enemy sensors.

MBDA Remote Carriers are compact, stealthy, co-operate with other armaments and platforms, and can be launched from combat or transport aircraft, or surface ships. They work as capability extenders for the platforms and the armaments that they accompany.

MBDA is the only European player in the domain of complex weapons able to master all technologies needed for the development of these concepts and their operational chain:

- Stealthy or supersonic long range vehicles;
- Very compact airframes and sub-systems for high loadouts, without compromising effects and connectivity performance;
- Networking, infrared and radio frequency sensors with data fusion and artificial intelligence for automated target identification in complex environments, threat detection, complex engagements planning, and decision aids.

As it masters these essential technologies as well as all steps in the OODA (Observation, Orientation, Decision, Action) loop, from detection and localisation to damage assessment, MBDA positions itself as the architect of this decision-action chain, which will experience significant breakthroughs in concept and doctrine.

Referring to this presentation, Éric Béranger, CEO of MBDA, stated: "MBDA's vision for future air armaments is exhaustive and ambitious, and we are ready to take on the challenge to deliver to our domestic nations the full sovereignty of their future air combat systems by taking part in the definition and development of the armaments that these systems will operate. MBDA has demonstrated that pulling together the best expertise in propulsion, guidance, connectivity and system integration have made Meteor the world best air-to-air missile, giving the pilots of European combat aircraft a decisive operational advantage. Thanks to its decades long culture of co-operation, MBDA will be equally able to develop the next weapons that will ensure European nations can sustain their air superiority in the long term."

Notes to editors:

MBDA is the only European group capable of designing and producing missiles and missile systems that correspond to the full range of current and future operational needs of the three armed forces (land, sea and air).

With a significant presence in five European countries and within the USA, in 2018 MBDA achieved revenue of 3.2 billion euros with an order book of 17.4 billion euros. With more than 90 armed forces customers in the world, MBDA is a world leader in missiles and missile systems. In total, the group offers a range of 45 missile systems and countermeasures products already in operational service and more than 15 others currently in development.

MBDA is jointly owned by Airbus (37.5 %), BAE Systems (37.5 %), and Leonardo (25 %).

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