



Ministry of Defence



Delivering the Next Generation Air Force: The UK's Combat Air Strategy

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Head Combat Air Acquisition Programme

UK Combat Air Strategy: The First Year

- **Tempest Acquisition Programme**
 - Team established in MOD Main Building
 - Strategic Outline Case by Dec 18 (achieved)
 - Concept work progressing
 - Outline Business Case in 2020; Full Business Case in 2025; Initial Operating Capability 2035
- **International Collaboration**
 - Agreements signed with international partners
 - Discussions with other partners with aligned objectives
- **Technology and Demonstration**
 - Step change in Government-Industry relationships
 - Over 1,800 people to be employed on FCAS TI activities by end of Dec 19
 - Over 150 sub-contracts let to companies, universities and catapult centres
 - Over 500 Small & Medium Enterprises engaged
 - STEM scholarships and apprenticeships launched





Current and Future Environment

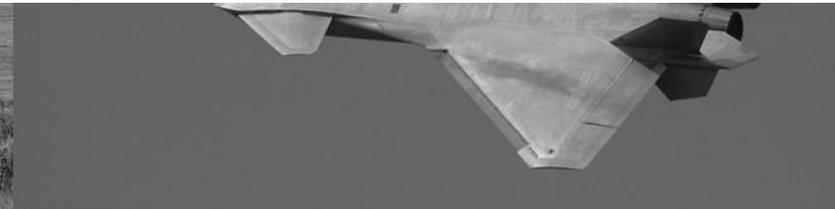
- Advanced **5th-generation** aircraft and missile systems attempt to deny or limit our access to operational spaces.
- This anti-access and area denial (**A2AD**) strategy reduces the effectiveness of our **stand-off ISR** and our ability to understand the situation in the adversary's area of control.
- **Finding and tracking targets** will be further complicated by adversaries who use: camouflage, concealment, deception, electronic warfare, GPS denial, mobile systems and the urban environment.
- Space, stand-off and Cyber ISR are unlikely to be sufficient to provide an understanding in the adversaries' areas of control or **to cue our precision strike capabilities.**



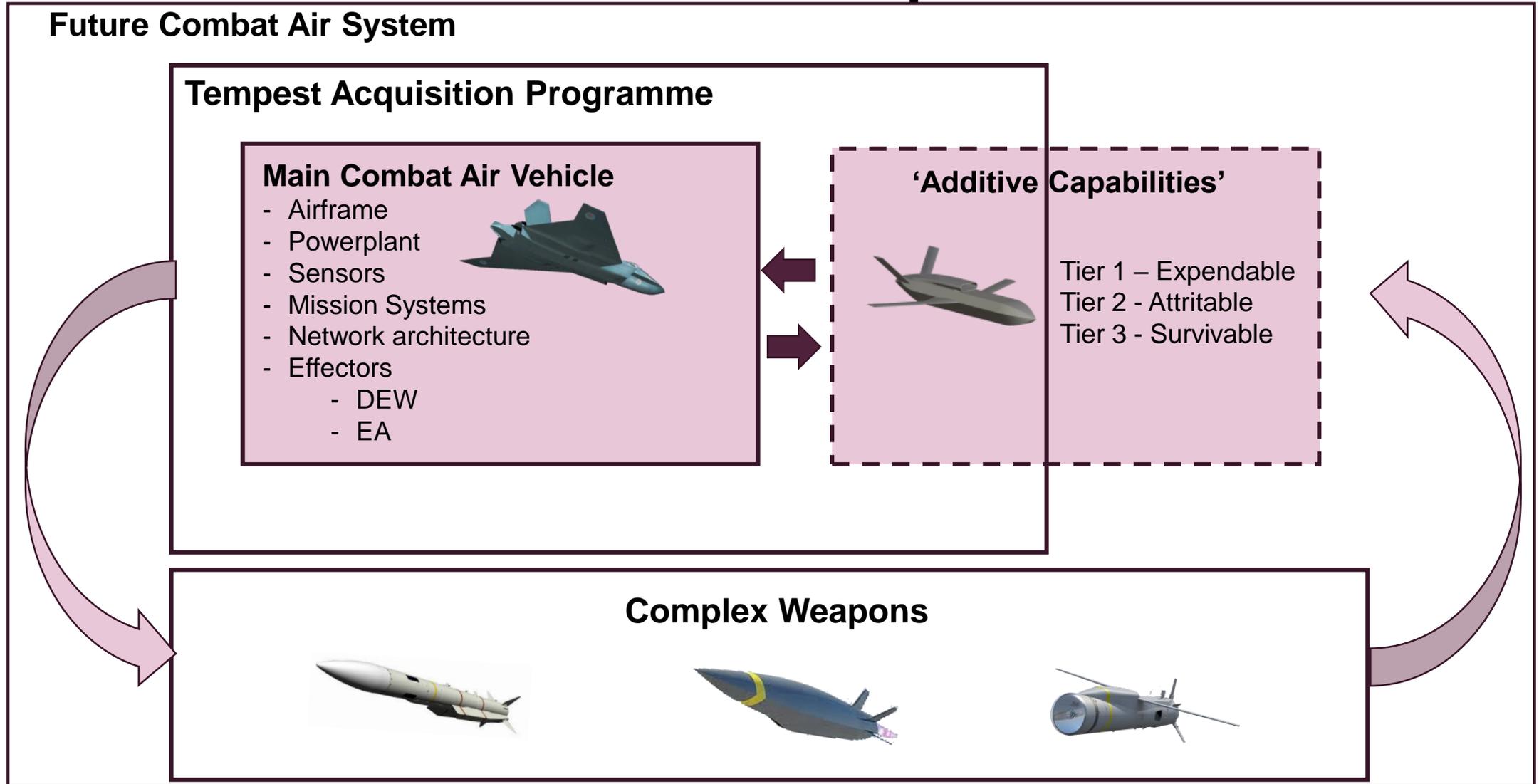


Why Combat Air

- Given the inherent advantages of airpower – speed, reach and height -- **airborne sensors** will continue to be required to find and track air and surface targets.
- A **contested electro-magnetic environment** is likely to reduce the decision space and require a shorter kill chain; the time available to engage ‘fleeting’ targets.
- A re-useable and survivable capability is required to deliver airborne sensors to the right place at the right time to provide the necessary understanding and to deliver timely effect (both kinetic and non-kinetic). **This capability is a combat air system.**
- Manned-unmanned teaming appears to have earliest potential for Attack and ISR, and to enable high-end war fighting.
- Focus on Information Advantage.



Potential Trades and Additive Capabilities



Affordability

- New Techniques
 - Advanced Manufacturing
 - Model Based Systems Engineering
 - Synthetic Qualification
 - Open Systems Architecture
- Business Models
- International Partnering

