

ARCHIVED REPORT

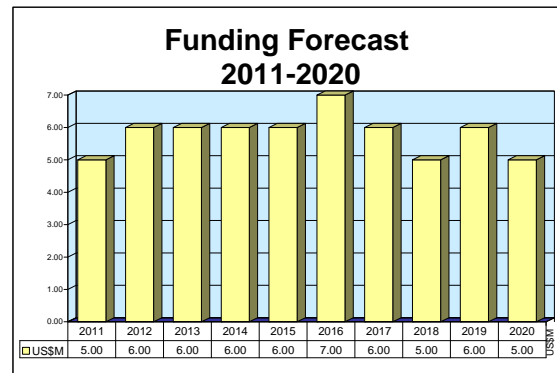
For data and forecasts on current programs please visit

www.forecastinternational.com or call +1 203.426.0800

Defensive System Fusion Technology

Outlook

- R&D project develops affordable RF and EO emitter warning concepts and techniques
- Based on FY12 defense budget, U.S. Air Force will allocate \$34.7 million on program through FY16
- Future funds will be used to conduct analyses and demonstrations of electronic warfare battle management strategies



Orientation

Description. This project develops and demonstrates technologies for use in integrating electronic combat sensors.

Sponsor. U.S. Air Force
Air Force Systems Command
Aeronautical Systems Center
ASC/PAM
Wright-Patterson AFB, OH 45433-6503
USA
Tel: + 1 (513) 255-3767
Web site: <http://www.wpafb.af.mil>

Status. Technology development program funded by the U.S. Congress.

Application. This project develops technologies and techniques for the denial, disruption, and suppression of adversary air defense operations.

Technical Data

This advanced development program expands the electronic combat (EC) technology base by testing design concepts and demonstrating technologies to support critical Air Force EC requirements. The projects within the program aim to develop components, subsystems, and technologies that satisfy combat, special operations, and airlift requirements, as well as reduce the acquisition and life-cycle costs of systems.

The Defensive System Fusion Technology project is part of PE#0603270F – Electronic Combat Technology, which funds the development and demonstration of technologies to support U.S. Air Force EC

requirements. It focuses on developing components, subsystems, and technologies that can be applied to air combat, special operations, and airlift applications in three project areas.

Project 2432 – Defensive System Fusion Technology develops and demonstrates technologies for use in integrating EC sensors. It develops techniques that will enable combat aircraft to operate in multispectral threat environments. It also matures technologies required for command and control, standoff jamming, and electronic support measures purposes. The purpose of these

Defensive System Fusion Technology

technologies is to deny, disrupt, and suppress enemy air defense operations.

Defensive System Fusion Technology

Program Review

Project 2432 develops affordable radio frequency (RF) and electro-optical (EO) emitter warning concepts and techniques. It will also focus on developing techniques for coordinating multiple jamming nodes against integrated air defense systems. To better develop concepts and technologies, this program also conducts simulations and demonstrations.

In FY07, the Defensive System Fusion Technology project completed demonstrations of advanced threat alert and jamming subsystems that could be used by combat aircraft to counter advanced, integrated RF, EO, and infrared (IR) air defense systems.

In FY08, the project investigated electronic warfare battle management strategies and technical protocols for controlling multiple jamming nodes working in

coordination against an integrated air defense system. The project focused on non-traditional intelligence, surveillance, reconnaissance, and strike operations. In FY08, the project also developed and demonstrated technical protocols to integrate and coordinate electronic warfare, command-and-control warfare, and information operations against integrated air defense systems.

Future funds will be used to conduct analyses and demonstrations of EW battle management strategies at the U.S. Air Force Integrated Demonstrations and Applications Laboratory and Virtual Combat Laboratory simulation facilities. Funds will also be used to develop and mature technologies essential for airborne electronic-attack risk reduction.

Funding

		U.S. FUNDING							
		FY11	FY11	FY12	FY12	FY13	FY13	FY14	FY14
		<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>
RDT&E (U.S. Air Force)									
PE#0603270F ECM Technology									
2432 Defensive System Fusion Tech		-	4.7	-	6.1	-	6.2	-	6.0
		FY15	FY15	FY16	FY16				
		<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>				
RDT&E (U.S. Air Force)									
PE#0603270F ECM Technology									
2432 Defensive System Fusion Tech		-	5.8	-	5.9				

All \$ are in millions.

Source: FY12 U.S. budget documents

Timetable

<u>Year</u>	<u>Major Development</u>
FY07	Completed demonstrations of advanced threat alert and jamming subsystems
FY08	Investigated EW battle management strategies

Worldwide Distribution/Inventories

This is a **United States Air Force** program.

Defensive System Fusion Technology

Forecast Rationale

Sophisticated air defense systems never cease to be a threat to American military operations. Because these systems utilize integrated sensors, they are difficult to defeat. In response, the U.S. will continue to develop electronic support measures that can detect enemy radar and electro-optical sensors, as well as equipment to jam those sensors. The Defensive System Fusion Technology project develops and demonstrates technology for use in integrating various sensors. This technology will allow the U.S. to create a single

integrated picture of enemy air defenses, and therefore be better able to defeat those defenses.

The Defensive System Fusion Technology project will be steadily funded over the next several years. Under the FY12 defense budget, the U.S. Air Force allocates \$34.7 million through FY16 for RDT&E. Based on a projection of the budget, an estimated \$58 million will likely be spent on this project over the 10-year forecast period.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR RDT&E FUNDING (in millions \$)												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
MFR Varies												
Defensive System Fusion Technology <> United States <> Air Force												
	18.05	5.00	6.00	6.00	6.00	6.00	7.00	6.00	5.00	6.00	5.00	58.00
Total	18.05	5.00	6.00	6.00	6.00	6.00	7.00	6.00	5.00	6.00	5.00	58.00