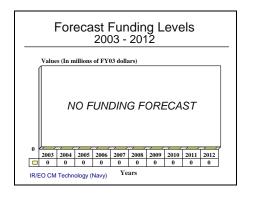
# ARCHIVED REPORT

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# IR/EO CM Technology (Navy) - Archived 12/2004

#### Outlook

- Program will remain active throughout forecast period
- Changes to occur as new concepts are incorporated
- PE funding narrowed to a single effort, FY02



### Orientation

**Description.** This program focuses on advanced-technology developments in support of radio frequency, infrared, and electro-optical countermeasures. Projects are from Program Elements #0603271N, #0602114N, #0602123N, and #0602235N.

#### **Sponsor**

U.S. Navy Naval Research Laboratory (NRL) 4555 Overlook Ave, SW Washington, DC 20032 USA

Tel: +1 202 767 2541

Web site: http://www.nrl.navy.mil

Space & Naval Warfare Systems Command (SPAWAR)

Crystal Park, Building #5 Arlington, Virginia (VA) 22202

USA

Tel: +1 703 602 8954

Web site: http://www.navsea.navy.mil

**Status.** Technology base development.

**Total Produced.** This is a technology development program only.

**Application.** These programs develop general IR/EO CM technology with a specific focus on countermeasures techniques for fleet combat and pre-combat operations.

**Price Range.** Indeterminate

## **Contractors**

The contractors change as projects develop.



## **Technical Data**

The global arms industry continues to supply increasingly sophisticated sensors and weapons to the worldwide market. The combination of military and commercial systems dictates the need to develop electronic warfare technologies capable of adequately countering the use of these new threats.

The IR/EO countermeasures programs are responsive to OPNAV (Chief of Naval Operations) guidance and

identified system command warfighting requirements and needs. The programs integrate 6.1 category programs and 6.2 exploratory development programs with 6.3A EW core programs and advanced technology demonstrations (ATDs) in order to produce prototypes suitable for naval force deployments.

# Variants/Upgrades

This program develops technology that can be used to upgrade existing systems.

# **Program Review**

**Background.** This information is based on the most recent program Descriptive Summary.

PE#0603270N - E2194 Electronic Warfare Advanced Technology (EWAT). The EWAT project responded to a congressional/OSD directive concerning Integrated Modular Avionics (IMA). The program transitions new technologies to Tactical Air (TACAIR), low observable aircraft, surface electronic warfare platforms, and Preplanned Product Improvement programs with emphasis on TACAIR. This effort seeks to improve threat detection, identification, and response in order to address the modern threat, including multi-spectral/ multi-modal sensors and seekers. From FY92 through FY01, roughly US\$62.221 million was used to fund a variety of efforts, including work by the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Integrated Product Team (IPT). Work included the development of advanced IR expendables and completion of a two-color missile warning system for the TADIRCM system.

Under the TADIRCM project, a live-fire missile flight test of the TADIRCM system is being conducted using an unmanned QF-4 aircraft with the TADIRCM pod installed.

In FY01, Congress added US\$4.794 million to PE#0603271N, for the TADIRCM effort – specifically, for the successful completion of a live missile firing program. A QF-4 drone aircraft with a podded TADIRCM system onboard successfully protected the aircraft against an advanced surface-to-air missile and an advanced air-to-air missile. Based on TADIRCM's impressive performance, strong support is building toward the establishment of a Systems Development Demonstration (SDD) program in FY04.

Under PE#0604272N, TADIRCM was budgeted to receive US\$4.143 million in funding in FY02. To date this funding has been used to develop and evaluate manufacturing techniques that will reduce the cost and enhance the availability of two-color mid-wave staring infrared focal plane arrays for missile warning. Focal plane arrays were then delivered for performance evaluation against system specifications, and integration into prototypes sensors.

Funding for FY03 was listed as N/A by the Navy.

# **Funding**

			U.S. F	UNDING					
	FY	FY02		FY03		FY04(Req)		FY05(Req)	
	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT	
<b>RDT&amp;E (USN)</b> PE#0604272N									
Two-color FPA	-	4.1	-	N/A	_	-	-	_	
-11									

All US\$ are in millions.

## **Recent Contracts**

No contracts over \$5 million listed.

## **Timetable**

No milestones have been released.

## **Worldwide Distribution**

The IR/EO CM efforts are mainly U.S. Navy initiatives at this time, with some international testing cooperation.

### **Forecast Rationale**

The Navy continues to develop technology that meets the needs of the Fleet, especially IR/EO protection. As the infrared and electro-optical threat becomes more sophisticated, planners need a seedbed for advanced techniques. The Navy has been restructuring the efforts, with Congress adding funds for specific programs.

TADIRCM is nearing final development and production.

The forecast was based on the program elements discussed herein continuing as planned and is based primarily on the work scheduled to be performed. It is possible that the PEs will be revised in the outyears.

## **Ten-Year Outlook**

No future funding is listed for this Program Element.

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