EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4						R-1 ITEM NOMENCLATURE 0604272N, TADIRCM	
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	92.490	32.552	63.244	64.668	61.092	49.206	44.182
3040 ANTI-MISSILE TECHNOLOGY (TADIRCM)	11.590	26.988	63.244	64.668	61.092	49.206	44.182
3166 CH-53 DIRCM TAP	80.900						
9999 Congressional Add		5.564					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This element includes development of electronic warfare systems for the United States Navy (USN) and United States Marine Corps (USMC) (in coordination with United States Army tactical aircraft efforts) USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USN and USMC communications and non-communications jammers and development and testing of electronic warfare devices for emerging threats and emergency contingencies are supported.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2007	FY 2008	FY 2009
FY2008 President's Budget:	98.361	27.569	52.566
FY2009 President's Budget:	92.490	32.552	63.244
Total Adjustments	-5.871	4.983	10.678

Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-2.371	-0.211	
Congressional Increases		5.600	
Economic Assumptions			-0.006
Program Phasing			11.130
Miscellaneous Adjustments	-3.500	-0.406	-0.446
Subtotal	-5.871	4.983	10.678

1. FY2007 funding total includes $80.900 received in GWOT supplemental.

Schedule:

As a result of the revised acquisition strategy, all Strike efforts have been removed from the schedule.

Technical:

The acquisition strategy has been revised to field a DIRCM capability for Assault aircraft. An evolutionary approach will be implemented in fielding this Assault DIRCM capability. The capability will be fielded in two increments, with the first increment being a Missile Warning System (MWS) capability, designated as the Joint and Allied Threat Awareness System (JATAS) by N88, is planned for FY 2008 with an IOC for this increment planned for FY 20013. The second increment, DIRCM, for Assault aircraft is planned for MS B for FY 2009 with an IOC of FY 2015. OPNAV (N88) is in the process of evaluating the need for an IRCM capability for Strike Aircraft and the Acquisition Strategy for Strike aircraft will be determined upon the completion of this assessment.

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604272N, TADIRCM			PROJECT NUMBER AND NAME 3040, ANTI-MISSILE TECHNOLOGY (TADIRCM)			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3040 ANTI-MISSILE TECHNOLOGY (TADIRCM)*	11.590	26.988	63.244	64.668	61.092	49.206	44.182
RDT&E Articles Qty Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Tactical Aircraft Direct Infrared Countermeasures (TADIRCM) system provides the warfighter with protection against surface and air-to-air missiles. This project looks at the InfraRed (IR) Man Portable Air Defense (MANPAD) and surface-to-air (SAM) threat. The Early Operational Assessment (EOA) project to flight test was funded by an FY 2005 Congressional Add and anticipates Initial Operational Capability (IOC) for Strike DIRCM FY 2017. IOC for Assault DIRCM improved missile warning system is anticipated in FY 2013 and IOC for the DIRCM will be in FY 201

Strike DIRCM is designed for fixed wing aircraft that is needed for protection against surface-to-air and air-to-air IR threats. Strike DIRCM regains airspace below 20K feet and neutralizes the IR threat

Assault DIRCM is an advanced capability against the IR SAM threat directed at rotary wing aircraf

B. ACCOMPLISHMENTS / PLANNED

EOA Flight Test and Report	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.170		
RDT&E Articles Qty Not Applicable			

Completed design and build of a podded DIRCM system, incorporating missile warning sensors, system processor and pointer/tracker, and flight test of the pod to provide an assessment of the advance technology in simulated flight conditions. EOA was completed in June 2007. OPNAV will provide the final EOA report to congress 4th quarter of FY0

DIRCM Pre-MS B, Risk Reduction, SDD Effort	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	10.420	26.988	63.244
RDT&E Articles Qty Not Applicable			

Fund efforts to support Milestone B decision for the first increment(Joint and Allied Threat Awareness System) of the Assault DIRCM program. Requirements development and contracting efforts for the System Design and Development (SDD) of the JATAS contract. Development of applicable modeling and simulation models began in FY 2007. Risk reduction efforts on the second increment(DIRCM pointer tracker) of the Assault DIRCM program DIRCM Pointer Tracker System began in FY 2007 and will continue through FY 2009. The MSB for the second increment(DIRCM) of Assault DIRCM is planned for the 4th quarter of FY 2009 The Assault SDD contract is scheduled for the 2nd quarter of FY 2009. Award Assault SDD contract in FY 2008 after the Milestone B decision.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
APN-5, Line 51, Common ECM, OSIP 005-08, 057600		29.448	25.759	2.793	43.842	44.667	45.470	1,910.599	2,102.578

D. ACQUISITION STRATEGY:

The acquisition strategy for TADIRCM has changed due to new guidance from OPNAV. Analysis of Alternatives (AoA) were conducted by N88 to asses the need for a IRCM capability for Strike and Assault aircra against surface-to air threats. Conclusions from the AOAs determined there was an immediate need for a DIRCM capability for Assault (Rotary Wing) aircraft, however, additional analysis was required to evaluat what level of IRCM is required for Strike aircraft. As a result of the AOAs and guidance from OPNAV, PMA-272 was requested to revised the acquisition strategy for TADIRCM. The Assault DIRC system consist of two key components. A Missile Warning System (MWS) used to detect the InfraRed (IR) threat and a Directed InfraRed Countermeasure (DIRCM). The DIRCM sends directed laser energy to th incoming IR threat (once detected by the missile warning system). N88 completed an Analysis of Alternative (AoA) in March 2007 to address the need for an Assault DIRCM capability for Assault (Rotary Wing platforms. As a result of the AoA, it was determined that technology for the missile warning component of Assault DIRCM was ready to proceed into capability will be fielded via an evolutionary approach. This approac will accelerate development, however, DIRCM technology required maturation to support the size and weight constraints of USN/USMC Assault platforms. Per guidance of the AoA and N88, the Assault DIRC the timeline to provide capability to the warfigher. The first increment of Assault DIRCM is the missile warning component designated by N88 as the Joint and Allied Threat Awareness System (JATAS). The JATA is scheduled for a MS B decision in the 4th quarter of FY 2008 with contract award in the 1st quarter FY 2009. JATAS IOC is planned for FY 2013. The second increment, DIRCM, is scheduled for MSB in FY2009 and IO

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4		PROGRAM ELEMENT 0604272N, TADIRCM				PROJECT NUMBER AND NAME 3040, ANTI-MISSILE TECHNOLOGY (TADIRCM)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Aircraft Integration	TBD	TBD				.800	Jan 2008	2.900	Dec 2008	25.774	29.474	
Aircraft Integration	CPIF	DCMA, Lockheed Martin, Owego, NY		1.500	Dec 2007						1.500	1.500
Aircraft Integration	CPIF	DCMA, Sikorsky, Stratford, CT		.992	Dec 2007						.992	.992
Ancillary Hdw Development	TBD	TBD				.400	Jan 2008	5.203	Dec 2008	7.543	13.146	
EMD Support	TBD	TBD						.200	TBD	2.400	2.600	
Modeling/Simulation	WX	VARIOUS		.300	Nov 2006	.300	Feb 2008	.400	Dec 2008	1.000	2.000	
Primary Hdw Development	CPIF	GALAXY SCIENTIFIC, EGGHARBOR WA	5.301	2.627	Dec 2007	13.098	TBD	35.935	TBD	93.723	150.684	150.684
Systems Engineering	CPFF	TEKLA, WOODBRIDGE VA	2.496	.400	May 2007	1.300	TBD	1.300	TBD	10.000	15.496	15.496
Systems Engineering	CPFF	SCIENCE APPLICATIONS		.075	May 2007						.075	.075
Systems Engineering (Gov't)	VARIOUS	VARIOUS		.889	Jan 2007						.889	
Systems Engineering (Gov't)	MP	NRL, WASHINGTON DC	1.243	.200	Jan 2007						1.443	
SUBTOTAL PRODUCT DEVELOPMENT			9.040	6.983		15.898		45.938		140.440	218.299	
Remarks:												
SUPPORT												
Configuration Management	WX	VARIOUS				.100	Nov 2007	.100	Nov 2008	.400	.600	
Development Support	WX	NAWCWD, PT MUGU CA		.350	Oct 2006			.475	Nov 2008	1.000	1.825	
Integrated Logistics	WX	VARIOUS	.040	.180	Oct 2006	1.451	Nov 2007	2.392	Nov 2008	9.565	13.628	
Software Development	WX	VARIOUS	.050	.200	Oct 2006	1.600	Nov 2007	2.800	Nov 2008	18.078	22.728	
Studies and Analysis	WX	VARIOUS	2.320								2.320	
Technical Data	TBD	TBD				.200	TBD	1.800	TBD	3.700	5.700	
SUBTOTAL SUPPORT			2.410	.730		3.351		7.567		32.743	46.801	
Remarks:												
TEST & EVALUATION												
Developmental T&E	WX	NRL, WASHINGTON DC	.372			2.759	Dec 2007	2.000	Dec 2008	7.098	12.229	
ENG & Evaluation	CPFF	VARIOUS	2.768			.400	Nov 2007				3.168	3.168
ENG & Evaluation Government	WX	VARIOUS	1.262	.745	Nov 2006	.700	Nov 2007	.500	Nov 2008	10.647	13.854	
Live Fire Support	VARIOUS	VARIOUS						4.350	VARIOUS	3.700	8.050	
Operational Test & Evaluation	VARIOUS	VARIOUS	.162			.400	Feb 2008			6.000	6.562	
Technical Maturation	VARIOUS	VARIOUS	2.540								2.540	
Test Assets	WX	NAWCWD, CHINA LAKE CA								6.152	6.152	
SUBTOTAL TEST & EVALUATION			7.104	.745		4.259		6.850		33.597	52.555	
Remarks:												
MANAGEMENT												
Direct Support Costs	WX	VARIOUS	.195	.167	VARIOUS	.045	VARIOUS	.052	VARIOUS	.278	.737	
Eng & Tech Spt	CPFF	VARIOUS	1.248	1.168	Nov 2006	.500	Nov 2007	.500	Nov 2008	2.000	5.416	5.416
Government Engineering Support	WX	VARIOUS	.946	.816	Nov 2006	1.650	Nov 2007	1.392	Nov 2008	6.900	11.704	
Mgt & Prof Suppt Srvc	CPFF	VARIOUS	.331	.590	Nov 2006	.700	Nov 2007	.750	Nov 2008	.800	3.171	3.171
NAWCAD/Pax Support	WX	NAWCAD, PATUXENT RIVER MD	.231	.312	Nov 2006	.400	Nov 2007			1.600	2.543	
Transportation	MP	DEFENSE INTELLIGENCE AGENCY	.007	.008	Mar 2007						.015	
Travel	TO	NAVAIR	.216	.072	Oct 2006	.185	Oct 2007	.195	Oct 2008	.790	1.458	
SUBTOTAL MANAGEMENT			3.174	3.132		3.480		2.889		12.368	25.043	

Remarks: Totals may not add due to rounding.

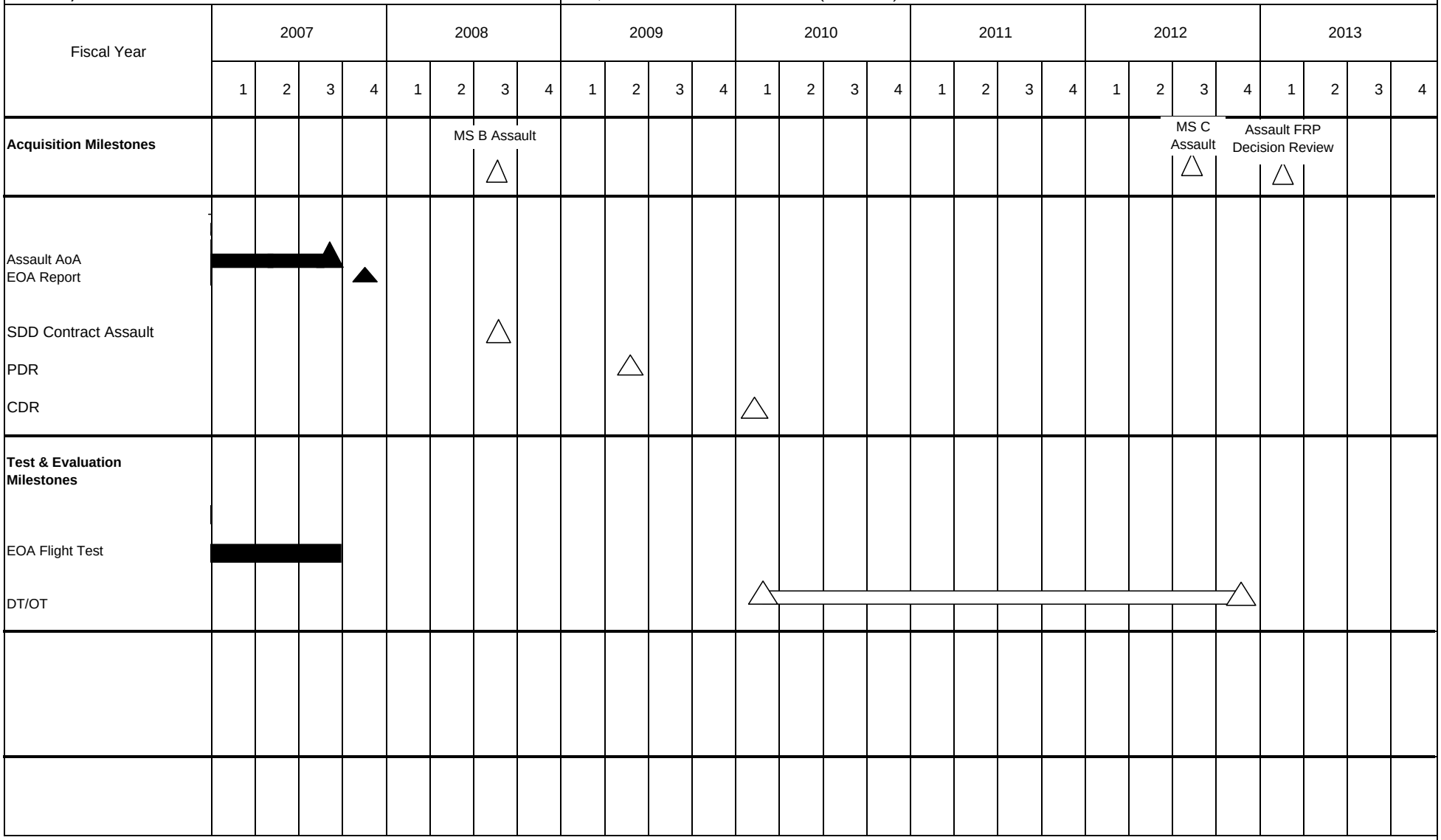
Total Cost			21.728	11.590		26.988		63.244		219.148	342.698	

Remarks: Totals may not add due to rounding.

EXHIBIT R4, Schedule Profile | DATE: February 2008

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-4**

PROJECT NUMBER AND NAME: 3040, ANTI-MISSILE TECHNOLOGY (TADIRCM)



Note: N88 has approved AoA recommendation for a separate JATAS and DIRCM acquisiton strategy. ASN(RDA)'s approval of JATAS CDD and ACAT Designation will result in schedule change.

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-4**				PROJECT NUMBER AND NAME 3040, ANTI-MISSILE TECHNOLOGY (TADIRCM)			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
MS B Assault		3Q					
MS C Assault						3Q	
Assault FRP Decision Review							1Q
Assault AoA	1Q-3Q						
EOA Report	4Q						
SDD Contract Assault		3Q					
PDR			2Q				
CDR				1Q			
EOA Flight Test	1Q-3Q						
DT/OT				1Q-4Q	1Q-4Q	1Q-4Q	

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604272N, TADIRCM			PROJECT NUMBER AND NAME 3166 CH-53 DIRCM TAP			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3166 CH-53 DIRCM TAP	80.900						
RDT&E Articles Qty Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This supplemental helps to accelerate the fielding of an advanced InfraRed Countermeasure (IRCM) capability for United States Navy (USN)/ United States Marine Corps (USMC) rotary wing platforms. This capability will significantly increase platform survivability against Man Portable Air Defense (MANPADs) and is required to defeat advanced threats expected to be encountered in the Global War on Terrorism (GWOT) theaters. Without this capability USN / USMC rotary wing platform will be limited in their ability to engage/complete mission in support of GWOT. This effort will entail the qualification and tests required to field an advanced IRCM capability on the CH-53E, in addition to the nonrecurring engineering costs necessary to address the limitation of the current Assault Support Equipment (ASE) Missile Warning Sensor (MWS) capability on forward deployed USN / USMC rotary wing platforms.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Qualification Tests	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	80.900		
RDT&E Articles Qty Not Applicable			

This funding will accomplish the qualification tests required to field an advanced IRCM capability on the CH-53E and the non recurring engineering costs necessary to address limitations of the current ASE MWS capability on forward deployed USN / USMC rotary wing platforms. The advanced IRCM capability requires system integration and engineering manufacturing development to existing hardware and software configuration of the CH-53 platform. Ancillary hardware development is required to support optimal utilization of IRCM detecting, tracking and targeting of the sensors and lasers. Modeling and simulation will support development of software and operability testing. The MWS will be integrated on multiple forward deployed USN / USMC rotary wing platforms. Additional ancillary hardware development is required to support A Kit development for the MWS.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable

D. ACQUISITION STRATEGY:

Initial Qualification of the CH-53 DIRCM capability for operational use occurred in FY 2006 and FY 2007. Contract execution of this effort began in the 3rd quarter of FY 2007 to procure initial DIRCM test assets. Upon completion of validation the CH-53 DIRCM, the system will be identified suitable and effective for operational use. An Engineering Change Proposal will be executed in FY 2008 followed by a contract award for the procurement of additional DIRCM A/B-KITS. In addition, a contract award will be executed to modify several USN/USMC platforms to accommodate an enhanced MWS capability. This strategy is a rapid response to provide a capability in support of GWOT.

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604272N, TADIRCM	PROJECT NUMBER AND NAME 9999, CONGRESSIONAL ADD	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999, CONGRESSIONAL ADD		5.564					
RDT&E Articles Qty							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional Add.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Assault Directed Infrared Countermeasure	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		3.964	
RDT&E Articles Qty Not Applicable			

This congressional add will be used to support risk reduction efforts to accelerate the fielding of a laser based DIRCM capability for small to medium sized rotary wing platforms. This funding will also be used to validate and demonstrate to the Assault DIRCM open archietecture concept.

High Power Fiber Laser (HPFL)	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		1.600	
RDT&E Articles Qty Not Applicable			

This funding will accomplish the evaluation of laser based DIRCM technology by demonstrating the maturity of the technology through HWIL SIL testing and some limited flight test events. Systems open architecture will be performed be developing open system standards for an Assault DIRCM capability and validating these open standards by demonstrating the interchangeability and performance of Assault DIRCM WRAs in a system integration lab.