CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION						DATE February 2008	
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**			R-1 ITEM NOMENCLATURE **0604501N/ADVANCED ABOVE WATER SENSORS**				
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	0.000	118.900	153.558	158.296	188.794	187.390	191.784
3186 / Air and Missile Defense Radar	0.000	106.798	140.369	149.278	179.140	182.178	185.630
3187 / Periscope Detection	0.000	6.595	7.550	3.246	3.756	0.000	0.000
3188 / Dual-Band Radar	0.000	5.507	5.639	5.772	5.898	5.212	6.154

A. MISSION DESCRIPTION:

Air and Missile Defense Radar (AMDR): The AMDR is being developed to support Theater Air and Missile Defense requirements as part of a next generation cruiser, CG(X), radar suite. The AMDR will provide multi-mission capabilities, supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the BMD capability, increased radar sensitivity and bandwidth over the current SPY-1 system is needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter rejection capability is needed to detect, react to, and engage stressing Very Low Observable /Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to pace the evolving threat. Modularity of hardware and software, a designed in growth path for technology insertion, and Open Architecture (OA) Compliance are required for performance and technology enhancements throughout service life.

Periscope Detection: The CVN Periscope Detection Radar program develops and delivers a radar that provides automatic detection and discrimination of submarine periscopes using advanced algorithms enabling discrimination of periscopes from surface contacts, buoys, small boats, floating mines, etc. This effort is based on an advanced development model, developed in the PE 0603553N Antisubmarine Warfare.

Dual-Band Radar (DBR) Upgrades: The DBR Upgrades will fund future upgrades/technology insertion efforts for the Multi-Function Radar (MFR)/Volume Search Radar (VSR)/Dual Band Radar (DBR) suite. Upgrades and technology inserts are required to maintain the level of force protection needed for ship defense against all threats envisioned in the littoral environment. The upgrades will include all aspects of the radar system/subsystems, including hardware and software. Specific subsystem areas include the Array, T/R module, Receiver/Exciter, Signal Data Processor and power/cooling systems.

B. PROGRAM CHANGE SUMMARY:

This PE was established for the FY2008 President's Budget. Previous Budget Submissions were PE 0604307N AEGIS Combat System Engineering - project 3044/Solid State Spy Radar and PE 0603513N/Shipboard System Component Development - project 4019/Radar Upgrades.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		R-1 ITEM NOMENCLATURE **0604501N/ADVANCED ABOVE WATER SENSORS**

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2007	FY 2008	FY 2009
Previous President's Budget: (FY08 PB Controls)	0.000	121.494	154.573
Current President's Budget: (FY09 PB Controls)	0.000	118.900	153.558
Total Adjustments	0.000	-2.594	-1.015
Summary of Adjustments			
Exec Realign SB Issue	0.000	-1.822	
Undistributed General Reductions	0.000	-0.772	
Revised Rates and Inflation Indices	0.000		-1.015

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**				PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	106.798	140.369	149.278	179.140	182.178	185.630
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The AMDR is being developed to support Theater Air and Missile Defense requirements as part of a next generation cruiser, CG(X), radar suite. The AMDR will provide multi-mission capabilities, supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the BMD capability, increased radar sensitivity and bandwidth over the current SPY-1 system is needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter rejection capability is needed to detect, react to, and engage stressing Very Low Observable /Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to pace the evolving threat. Modularity of hardware and software, a designed in growth path for technology insertion, and Open Architecture (OA) Compliance are required for performance and technology enhancements throughout service life.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	38.100	5.308
RDT&E Articles Quantity	0	0	0

R&D / RISK REDUCTION

Planned:
- High Voltage (HV) GaAs Field Effect Transistor (FET) technology producibility
- Technology Risk reduction of Digital Array Radar (DAR) / digital beamforming, array architectures, T/R modules, thermal management, and RF semiconductors.
- Critical component and subsystem demonstrations, integration and testing
- Conduct related international cooperative research projects, including ARTIST (U.K.), AUSPAR (Australia), and JUSRR (Japan).

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	65.517	132.007
RDT&E Articles Quantity	0	0	0

SYSTEMS ENGINEERING

Planned:
- Participate in the development of threat definitions, performance requirements and radar specifications; perform radar systems performance analysis.
- Participate in Integrated Product Teams (IPTs) and Working Groups (WGs) to resolve critical issues.
- Perform supporting studies and analyses.
- Conduct CG(X) Radar competition
- Award CG(X) Radar SD&D Contract
- Conduct SFR for SD&D Contract

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	3.181	3.054
RDT&E Articles Quantity	0	0	0

PROGRAM MANAGEMENT SUPPORT

Planned:
- Program planning, assessment of technical alternatives, risk identification and mitigation.
- Cost and schedule development and execution.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**	

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
RDTEN 0604300N - 3107 CG(X) Development	15.004	84.899	172.078	222.013	240.480	245.139	249.912		
RDTEN 0604307N - 3044 Solid State Spy Radar	30.439								

D. ACQUISITION STRATEGY:

AMDR : Plans for the Air and Missile Defense Radar are to leverage research and development investments, integrate sufficiently matured fundamental advanced technologies from technology risk reduction efforts and allies, and incorporate Open Architecture approaches to develop a scalable radar design with major improvements in power, sensitivity, resistance to natural and man-made environments over current radar systems for multi-mission TAMD (BMD and Area AAW). System design will be accomplished using proven advanced technologies and commercial standards to lower schedule risk and develop a product with the lowest life-cycle cost. Program scope includes systems engineering design and development; development and testing of a pilot array; completion of a full Engineering Development Model (EDM) forland-based testing; and transition to production.

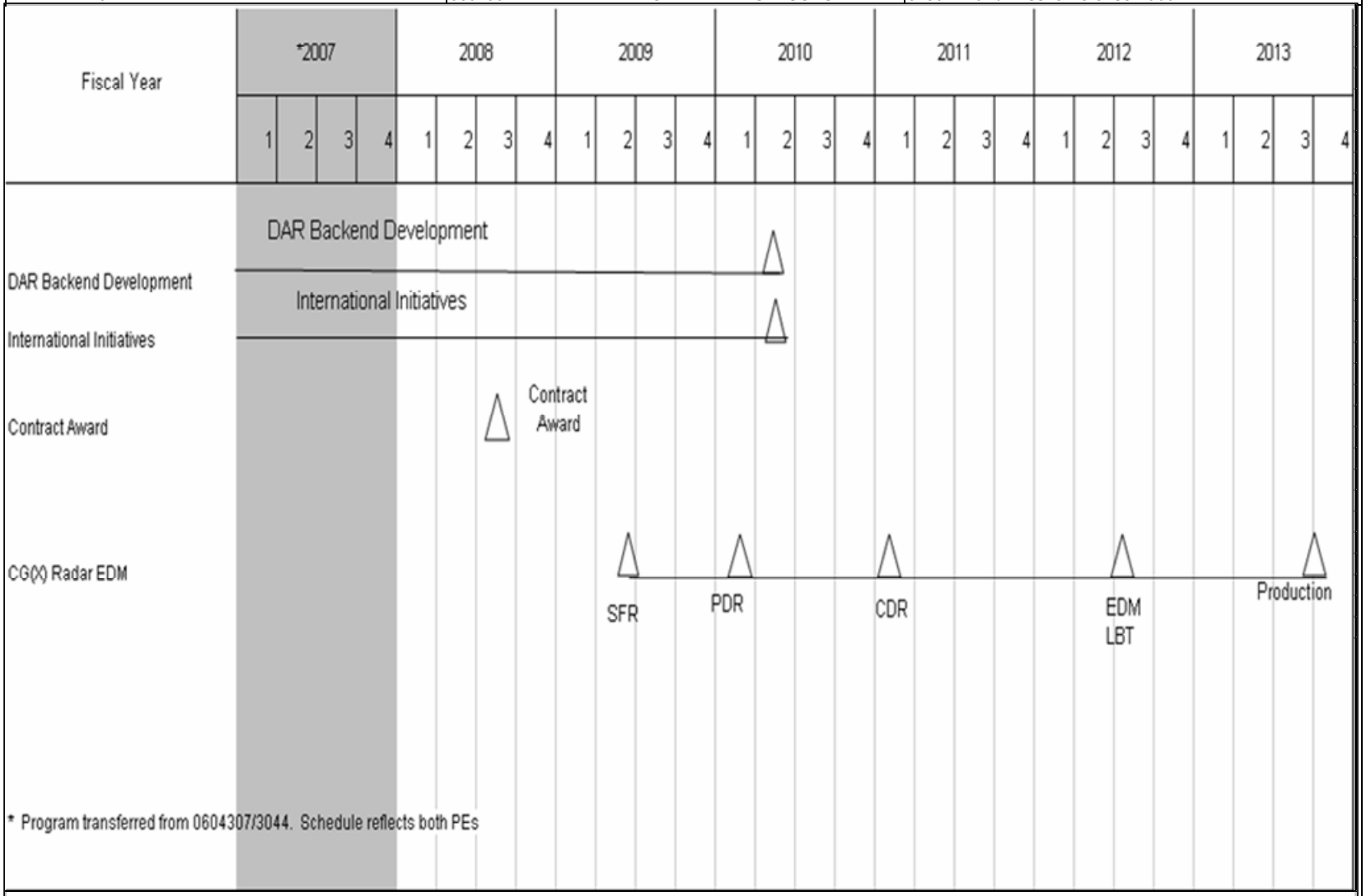
E. MAJOR PERFORMERS:

R&D/Risk Reduction: Raytheon, Northrop Grumman, Lockheed Martin

AMDR: TBD (Competitive Procurement)

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**					PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
R&D/ Risk Reduction	Various	Various	0.000	0.000		4.088	DEC-07	1.108	DEC-08	CONT	CONT	0.000
	WR	SCSC, Wallops	0.000	0.000		3.612	DEC-07	1.000	DEC-08	CONT	CONT	0.000
	MIPR	DMEA	0.000	0.000		30.400	DEC-07	3.200	DEC-08	CONT	CONT	0.000
System Engineering	Various	Various	0.000	0.000		20.414	DEC-07	8.198	DEC-08	CONT	CONT	0.000
	TBD	TBD	0.000	0.000		30.600	JUN-08	109.409	JUN-08	CONT	CONT	0.000
	CPFF	JHU/APL	0.000	0.000		3.300	DEC-07	3.100	DEC-08	CONT	CONT	0.000
	MIPR	MIT	0.000	0.000		1.300	DEC-07	1.200	DEC-08	CONT	CONT	0.000
	WR	NRL	0.000	0.000		3.000	DEC-07	3.000	DEC-08	CONT	CONT	0.000
	WR	NSWC DD	0.000	0.000		6.900	DEC-07	7.100	DEC-08	CONT	CONT	0.000
Subtotal Product Development			**0.000**	**0.000**		**103.614**		**137.315**		**CONT**	**CONT**	**0.000**
Remarks:												
Support/ Management Services	CPAF	BAE Systems	0.000	0.000		2.200	FEB-08	2.130	DEC-08	CONT	CONT	0.000
	Various	Various	0.000	0.000		0.909	DEC-07	0.849	DEC-08	CONT	CONT	0.000
			0.000	0.000		0.000		0.000		CONT	CONT	0.000
Travel			0.000	0.000		0.075	VAR	0.075	VAR	CONT	CONT	0.000
Subtotal Management Services			**0.000**	**0.000**		**3.184**		**3.054**		**CONT**	**CONT**	**0.000**
Remarks:												
Total Cost			**0.000**	**0.000**		**106.798**		**140.369**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**			PROJECT NUMBER AND NAME **3186/Air and Missile Defense Radar**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
A&MDR EDM							
Contract Awards		3Q					
System Functional Review (SFR)			2Q				
Preliminary Design Review (PDR)				1Q			
Critical Design Review (CDR)					1Q		
Engineering Development Model						2Q	
Land Based Testing						2Q	
Production							3Q

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**				PROJECT NUMBER AND NAME **3187/Periscope Detection**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	6.595	7.550	3.246	3.756	0.000	0.000
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The CVN Periscope Detection Radar program develops and delivers a radar that provides semi-automatic detection and discrimination of submarine periscopes using advanced algorithms enabling discrimination of periscopes from surface contacts, buoys, small boats, floating mines, etc. This effort is based on an advanced development model, developed in the PE 0603553N, Surface Antisubmarine Warfare.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3187/Periscope Detection**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	6.595	7.550
RDT&E Articles Quantity	0	0	0

Planned:

- Design an EDM using established capabilities from previous radars (Algorithms utilized by ARPDD, technology based in part on the AN/SPQ-9B ASCM Radar) with modern computing advances in processing capability being inserted into the system using an Open Architecture approach.
- Install EDM on platform(s)
- Perform test and evaluation

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
0603553N Undersea Warfare	33.181	25.560	29.574	36.399	29.774	51.663	51.824	Cont.	Cont.
02042228N/2040 Radar Support (OPN)			10.503	10.160	16.564	10.300	0.000	Cont.	Cont.

D. ACQUISITION STRATEGY:

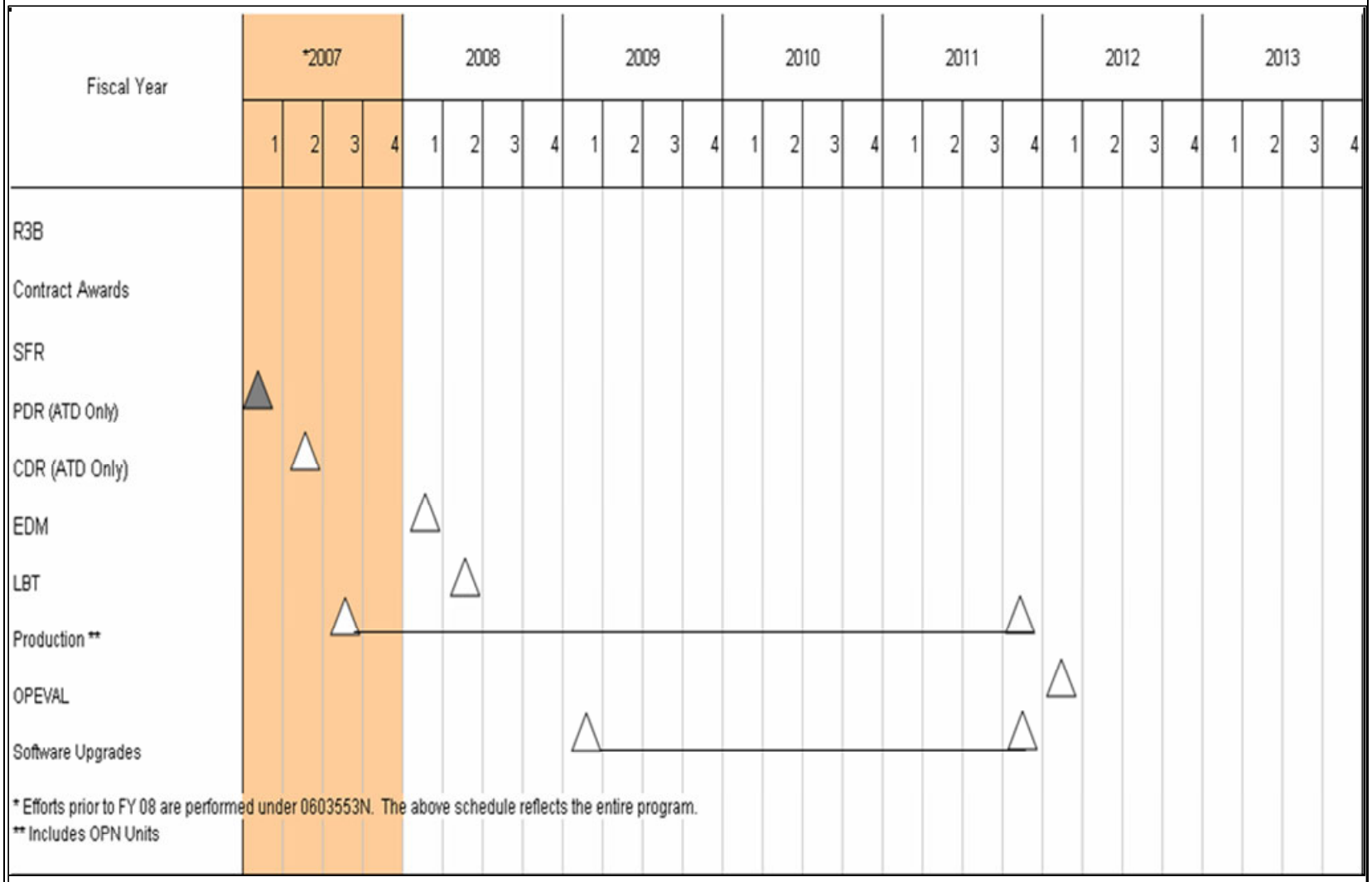
Periscope Detection : Current Program scope is for11 total units - 10 for installation onboard CVNs and 1 at a to be determined shore site. Of these 11 units, one will be an ADM and10 will be Rapid Deployment Capability (RDC) units. Funding for 4 of the units will come from R&D (ADM, plus three prototype RDC's) in FY 06, FY 07 and FY08 procurements, ands even will be funded using OPN. The current proposed plan is for all units to be awarded sole source to Northrop Grumman Corporation (NGC) and 3 Phoenix Corporation. NGC will be responsible for the antenna, transmitter, and receiver. 3 Phoenix will be responsible for the processor and for all 11 RDC units.

E. MAJOR PERFORMERS:

NGC will be manufacturing the radar antenna, transmitter, and receiver. 3 Phoenix will be designing the initial radar signal processor under an existing SBIR contract. Both companies are jointly responsible for the integration of the components into the ADM configuration with NGC having the overall responsibility as the lead integrator. Once the ADM has been completed, NSWC Crane will assume full integration responsibility for the three prototype RDCs and the seven production RDC units.

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**					PROJECT NUMBER AND NAME **3187/Periscope Detection**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
System Engineering	CPFF	NGC	0.000	0.000		3.500	DEC-07	4.000	DEC-08	CONT	CONT	0.000
System Installation	TBD	TBD	0.000	0.000		2.695	DEC-07	3.150	DEC-08	CONT	CONT	0.000
Subtotal Product Development			**0.000**	**0.000**		**6.195**		**7.150**		**CONT**	**CONT**	**0.000**
Remarks:												
NSWC PHD	WR		0.000	0.000		0.200	DEC-07	0.150	DEC-08	CONT	CONT	0.000
OPTEVFOR	WR		0.000	0.000		0.000		0.050	DEC-08	0.000	0.050	0.000
Travel			0.000	0.000		0.200	VAR	0.200	VAR	CONT	CONT	0.000
Subtotal Test and Evaluation			**0.000**	**0.000**		**0.400**		**0.400**		**CONT**	**CONT**	**0.000**
Remarks:												
Total Cost			**0.000**	**0.000**		**6.595**		**7.550**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3187/Periscope Detection**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**			PROJECT NUMBER AND NAME **3187/Periscope Detection**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Resource and Requirements Review Board Decision							
Contract Awards							
System Functional Review (SFR)							
Preliminary Design Review (PDR)	Q1						
Critical Design Review (CDR)	Q2						
Engineering Development Model (EDM)		Q1					
Land Based Testing		Q2					
Production (0603553N starts FY 07)	Q3-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4		
OPEVAL						TBD	
Software Support			Q1-Q4	Q1-Q4	Q1-Q4		

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**				PROJECT NUMBER AND NAME **3188/Dual-Band Radar**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	5.507	5.639	5.772	5.898	5.212	6.154
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Dual-Band Radar (DBR) Upgrades will fund future upgrades/technology insertion efforts for the Multi-Function Radar (MFR)/Volume Search Radar (VSR)/Dual Band Radar (DBR) suite. Upgrades and technology inserts are required to maintain the level of force protection needed for ship defense against all threats envisioned in the littoral environment. The upgrades will include all aspects of the radar system/subsystems, including hardware and software. Specific subsystem areas include the Array, T/R module, Receiver/Exciter, Signal Data Processor and power/cooling systems.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3188/Dual-Band Radar**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	2.439	2.499
RDT&E Articles Quantity	0	0	0

Radar Upgrades and Technology Insertion for the MFR/VSR/DBR hardware and software.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	2.868	2.915
RDT&E Articles Quantity	0	0	0

Government Engineering Services and Program Management support for radar upgrades and technology insertion of the MFR/VSR/DBR radars. Perform oversight and assessment of efforts associated with this phase of the program.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	0.200	0.225
RDT&E Articles Quantity	0	0	0

Provide Program Management in support of radar upgrades and technology insertion.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
PE 0604300N/ DDG 1000 Total Ship Sys Engineering	705.344	429.173	328.072	383.921	435.539	245.071	150.602	Cont.	Cont.

D. ACQUISITION STRATEGY:

Upgrades will be developed to address lessons learned and technology refresh for DBR systems on multiple ship classes.

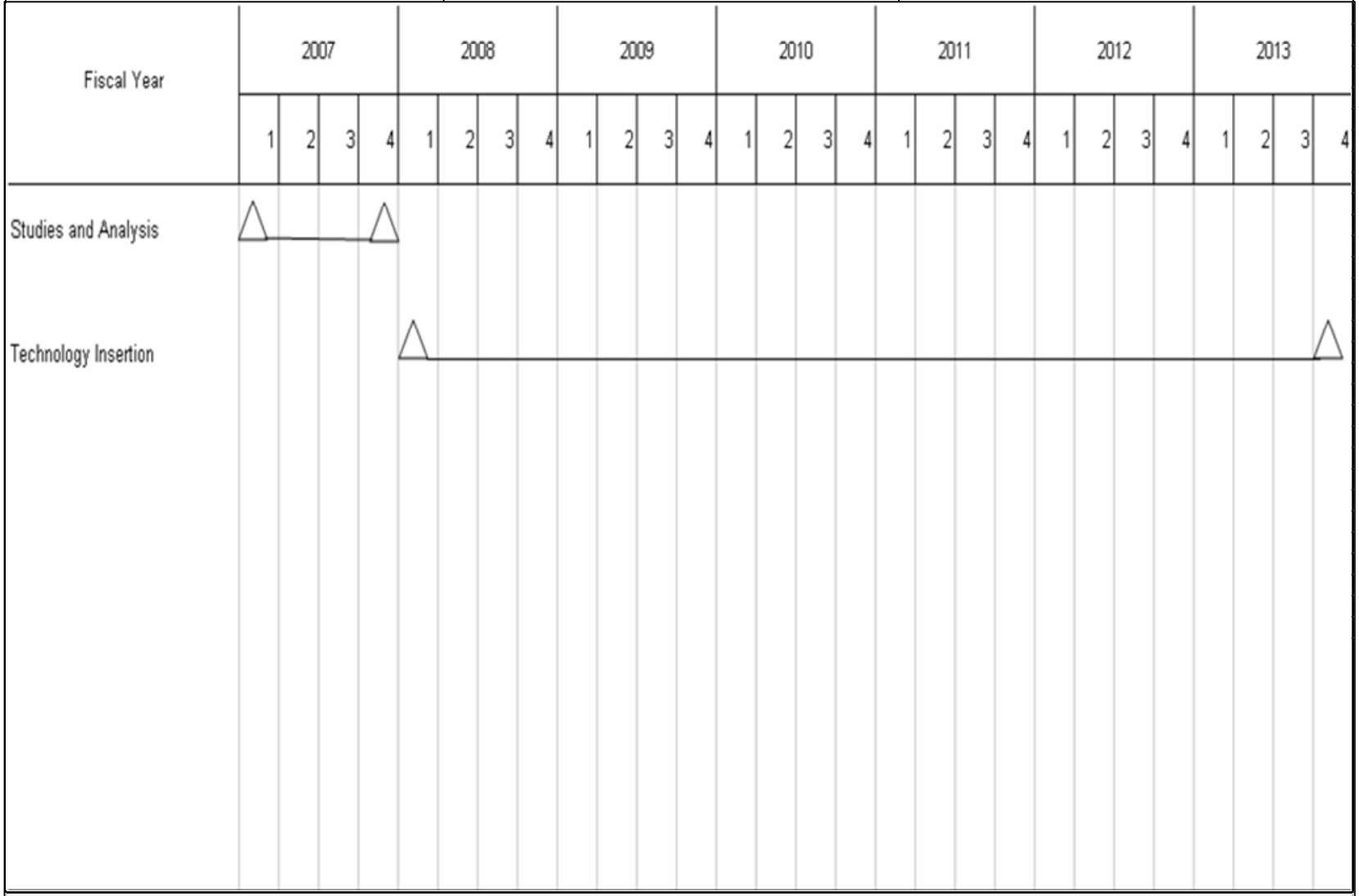
E. MAJOR PERFORMERS:

Northrop Grumman Ship Systems, Raytheon and Lockheed Martin.

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**					PROJECT NUMBER AND NAME **3188/Dual-Band Radar**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Primary Hardware Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Ancillary Hardware Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Systems Engineering	C/CPAF	DD (X) Design Agent	0.000	0.000		2.319	OCT-08	2.415	OCT-09	CONT	CONT	0.000
License			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Tooling			0.000	0.000		0.000		0.000		0.000	0.000	0.000
GFE			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Award Fees			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Subtotal Product Development			**0.000**	**0.000**		**2.319**		**2.415**		**CONT**	**CONT**	**0.000**
Remarks:												
Development Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Software Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Training Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Integrated Logistics Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Configuration Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
GFE			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Award Fees			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Subtotal Support Costs			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Developmental Test& Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Operational Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Test Assets			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Tooling			0.000	0.000		0.000		0.000		0.000	0.000	0.000
GFE			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Award Fees			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Subtotal Test and Evaluation			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**					PROJECT NUMBER AND NAME **3188/Dual-Band Radar**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Government Engineering Support	WR	Other Government Activities	0.000	0.000		2.988	SEP-08	2.999	SEP-09	0.000	5.987	0.000
Program Management Support	C/CPFF	Various	0.000	0.000		0.200	SEP-08	0.225	SEP-09	0.000	0.425	0.000
			0.000	0.000		0.000		0.000		0.000	0.000	0.000
			0.000	0.000		0.000		0.000		0.000	0.000	0.000
			0.000	0.000		0.000		0.000		0.000	0.000	0.000
			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Subtotal Management Services			**0.000**	**0.000**		**3.188**		**3.224**		**0.000**	**6.412**	**0.000**
Remarks:												
Total Cost			**0.000**	**0.000**		**5.507**		**5.639**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**	PROJECT NUMBER AND NAME **3188/Dual-Band Radar**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604501N/ADVANCED ABOVE WATER SENSORS**			PROJECT NUMBER AND NAME **3188/Dual-Band Radar**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Radar Upgrade Studies and Analysis	1Q-4Q						
Radar Upgrade Technology Insertion		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q