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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)					PE 0604274N / Next Generation Jammer (NGJ)							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	503.587	153.552	230.713	411.767	-	411.767	515.085	615.060	720.998	568.877	1,193.346	4,912.985
0557: Next Generation Jammer	503.587	153.552	230.713	398.767	-	398.767	496.085	548.060	546.998	354.226	155.642	3,387.630
3380: Next Generation Jammer Inc II	0.000	-	-	13.000	-	13.000	19.000	67.000	174.000	214.651	1,037.704	1,525.355

Program MDAP/MAIS Code: P445

A. Mission Description and Budget Item Justification

NOTE: The cost to complete on exhibit R2 and R2a for project unit 0557 should be \$213.000M and the total cost \$3,444.988M. The cost to complete on exhibit R2 and R2a for project unit 3380 should be \$530.810M and the total cost \$1,018.463M. Total Program Element cost to complete \$743.810M and total cost \$4,463.451M.

The Next Generation Jammer (NGJ) is the next step in the evolution of Airborne Electronic Attack (AEA) and is needed to meet current and emerging Electronic Warfare gaps, ensure kill chain wholeness against growing threat capabilities and capacity, and to keep pace with threat weapons systems advances and continuous expansion of the AEA mission area. NGJ capabilities will address AEA capability gaps, AEA sufficiency gaps, and address ALQ-99 Tactical Jamming System shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability. NGJ will deliver significantly improved radar and communications jamming capabilities with Open Systems Architecture that supports software and hardware updates to rapidly counter improving threats. NGJ will contribute across the spectrum of missions defined in the Defense Strategic Guidance to include strike warfare, projecting power despite anti-access/area denial challenges, and counterinsurgency/irregular warfare. NGJ is an evolutionary acquisition program providing capability in three increments: Increment 1 (Mid-Band), Increment 2 (Low-Band) and Increment 3 (High-Band). The order of development - mid, low, and then high - was determined by the threat and available capability. Increment 3 remains unfunded at this time.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	157.796	246.856	471.805	-	471.805
Current President's Budget	153.552	230.713	411.767	-	411.767
Total Adjustments	-4.244	-16.143	-60.038	-	-60.038
• Congressional General Reductions	-	-0.020			
• Congressional Directed Reductions	-	-16.123			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.244	-			
• Program Adjustments	-	-	-18.000	-	-18.000
• Rate/Misc Adjustments	-	-	-42.038	-	-42.038

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)
<u>Change Summary Explanation</u> Technical: Not applicable. Schedule: Schedule has shifted by nine months due to Technology Development (TD) contract award protest. TD contract award occurred in 4th Qtr FY 2013, however protest delayed start of execution of the TD contract period of performance to early 2nd Qtr FY 2014. As a result of protest delay to program execution, a revised cost estimate was developed to reflect this nine month shift in schedule. Program milestones needed to be further adjusted to reflect protest delay and funding adjustments. System Demonstration Test Article RD TEN Deliveries (SDTA) was previously listed as Low Rate Initial Production 1.		

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 0557 / Next Generation Jammer			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0557: Next Generation Jammer	503.587	153.552	230.713	398.767	-	398.767	496.085	548.060	546.998	354.226	155.642	3,387.630
Quantity of RDT&E Articles		-	-	-	-	-	7	-	4	-		
A. Mission Description and Budget Item Justification												
NOTE: The cost to complete on exhibit R2 and R2a for project unit 0557 should be \$213.000M and the total cost \$3,444.988M.												
The Next Generation Jammer (NGJ) is the next step in the evolution of Airborne Electronic Attack (AEA) and is needed to meet current and emerging Electronic Warfare gaps, ensure kill chain wholeness against growing threat capabilities and capacity, and to keep pace with threat weapons systems advances and continuous expansion of the AEA mission area. NGJ capabilities will address AEA capability gaps, AEA sufficiency gaps, and address ALQ-99 Tactical Jamming System shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability. NGJ will deliver significantly improved radar and communications jamming capabilities with Open Systems Architecture that supports software and hardware updates to rapidly counter improving threats. NGJ will contribute across the spectrum of missions defined in the Defense Strategic Guidance to include strike warfare, projecting power despite anti-access/area denial challenges, and counterinsurgency/irregular warfare. NGJ is an evolutionary acquisition program providing capability in three increments: Increment 1 (Mid-Band), Increment 2 (Low-Band) and Increment 3 (High-Band). The order of development - mid, low, and then high - was determined by the threat and available capability. Increment 3 remains unfunded at this time.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Next Generation Jammer Primary Hardware Development Articles:								79.767	126.227	196.508	-	196.508
								-	-	-	-	-
FY 2014 Accomplishments: Continued Technology Development Efforts in support of Milestone B decision.												
FY 2015 Plans: Continue Technology Development phase and continued development of Pod Prime Hardware to a Preliminary Design Review level of maturity.												
FY 2016 Base Plans: Continue maturation of Critical Technology Elements (CTEs) to a Technology Readiness of 6 in support of Milestone B. Award Engineering and Manufacturing Development Contract in 2nd Qtr FY 2016. Post Milestone B work will focus on continuing maturation of technologies and maturation of the system design of the Pod Prime Hardware in preparation for Critical Design Review in FY 2017 and ordering of material in support of test article builds.												
FY 2016 OCO Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015				
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)		Project (Number/Name) 0557 / Next Generation Jammer				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A								
Title: Next Generation Jammer Systems Engineering				37.486	44.348	72.933	-	72.933
Articles:				-	-	-	-	-
FY 2014 Accomplishments: Performed System Engineering efforts in support of continued Next Generation Jammer Increment 1 development.								
FY 2015 Plans: Perform System Engineering efforts in support of continued Next Generation Jammer Increment 1 development.								
FY 2016 Base Plans: Perform System Engineering efforts in support of continued NGJ Increment 1 development to include initial system security engineering development activities culminating in a Critical Design Review in FY 2017. A Technology Readiness Assessment will be performed during this timeframe, where the Technology Readiness Level (TRL) of the NGJ Critical Technology Elements (CTEs) will be determined.								
FY 2016 OCO Plans: N/A								
Title: Next Generation Jammer Test and Evaluation				1.343	1.300	12.762	-	12.762
Articles:				-	-	-	-	-
FY 2014 Accomplishments: Wind tunnel efforts for the development of pod outer mold line to support Preliminary Design Review.								
FY 2015 Plans: Wind tunnel events in support of Critical Technology Element demonstrations to support Technology Readiness Assessment for Milestone B.								
FY 2016 Base Plans: Develop Test Evaluation Master Plan for Milestone B. A static loads test article will be prepared in support of initiation of static loads testing. The Integrated Test Team (ITT) will start build up in the aeromechanical disciplines and the flutter A/C will be modified in support of flutter testing.								
FY 2016 OCO Plans:								

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)		Project (Number/Name) 0557 / Next Generation Jammer		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A						
Title: Next Generation Jammer Aircraft Integration Articles:		30.776 -	55.127 -	112.782 -	- -	112.782 -
FY 2014 Accomplishments: Performed Aircraft/Software Integration efforts to support Next Generation platform integration and meet Initial Operational Capability (IOC).						
FY 2015 Plans: Perform Aircraft/Software Integration efforts to support Next Generation platform integration and meet IOC.						
FY 2016 Base Plans: Develop, design, procure, and test A-kit modifications and initiate flight clearance work in support of MS B program requirements and testing activities. Efforts include non-recurring engineering for proposed aircraft modifications, finalization of software requirements for the NGJ integration software build, and commencement of software development.						
FY 2016 OCO Plans: N/A						
Title: Next Generation Jammer Support & Management Services Articles:		4.180 -	3.711 -	3.782 -	- -	3.782 -
FY 2014 Accomplishments: Provided Support and Management Services associated with the Next Generation Jammer Program.						
FY 2015 Plans: Provide Support and Management Services associated with the Next Generation Jammer Program.						
FY 2016 Base Plans: Provide Support and Management Services associated with the Next Generation Jammer Program.						
FY 2016 OCO Plans: N/A						
Accomplishments/Planned Programs Subtotals		153.552	230.713	398.767	-	398.767

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 0557 / Next Generation Jammer			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APN/0591: Next Generation Jammer	-	-	-	-	-	-	-	216.591	522.651	4,026.402	4,765.644
• APN/0605: Spares and Repair Parts	-	-	-	-	-	-	-	37.521	34.555	33.021	105.097
• MCN/00620258: Next Generation Jammer	-	-	-	-	-	4.352	-	-	-	-	4.352
Remarks											
D. Acquisition Strategy											
Next Generation Jammer is designated a Pre-Major Defense Acquisition Program (MDAP), with Pre-MDAP program number P455. The activity will focus on technology maturation plans to develop the Critical Technology Elements to a Technology Readiness Level of 6 in preparation for Milestone B in early FY16. Post Milestone B, the focus will be on system design of the pod toward a Critical Design Review level of maturity.											
E. Performance Metrics											
To obtain sufficient technology demonstration to obtain favorable Milestone B decisions for continued program development.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 0557 / Next Generation Jammer					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development - Technology Development	C/CPIF	Raytheon : El Segundo, CA	61.800	79.767	Mar 2014	126.227	Oct 2014	50.824	Oct 2015	-		50.824	-	318.618	318.618
Primary Hardware Development - Engineering and Manufacturing Development	C/CPIF	Raytheon : El Segundo, CA	0.000	-		-		145.683	Feb 2016	-		145.683	1,160.086	1,305.769	1,305.769
Aircraft Integration	WR	NAWCWD : China Lake, CA	7.758	2.590	Nov 2013	4.815	Nov 2014	14.000	Nov 2015	-		14.000	50.956	80.119	-
Aircraft Integration- Loads Aircraft	Various	Boeing : St. Louis, MO	10.343	-		-		-		-		-	-	10.343	10.343
Aircraft Integration	SS/CPIF	Boeing : St. Louis, MO	10.000	4.000	Dec 2013	12.189	Dec 2014	2.000	Dec 2015	-		2.000	-	28.189	28.189
Aircraft Integration - EMD	TBD	Boeing : St. Louis, MO	0.000	-		-		20.825	Feb 2016	-		20.825	86.264	107.089	107.089
Software Integration - Systems Integration Lab	Various	Boeing : St. Louis, MO	1.945	0.793	Jul 2014	2.524	Jan 2015	11.592	Jan 2016	-		11.592	22.127	38.981	38.981
Software Integration- Systems Integration Lab	SS/FFP	Northrop Grumman : Bethpage, NY	13.579	1.773	Jul 2014	-		7.411	Jan 2016	-		7.411	14.147	36.910	36.910
Software Integration - SOR	Various	Boeing : St. Louis, MO	2.693	8.394	Jul 2014	21.995	Apr 2015	-		-		-	-	33.082	33.080
Software Integration - Blk Update	WR	NAWCWD : Pt. Mugu, CA	0.000	8.529	Nov 2013	8.918	Nov 2014	6.443	Nov 2015	-		6.443	23.452	47.342	-
Software Integration	SS/FFP	Northrop Grumman : Bethpage, NY	0.000	4.696	Jul 2014	4.685	Jan 2015	-		-		-	-	9.381	9.381
Software integration H-14	Various	Various : Various	0.000	-		-		50.511	Nov 2015	-		50.511	172.860	223.371	-
Systems Engineering	Various	TBD : TBD	0.000	-		-		24.273	Nov 2015	-		24.273	104.685	128.958	-
Systems Engineering	WR	NAWCAD : Patuxent River, MD	44.456	16.727	Nov 2013	22.927	Nov 2014	23.386	Nov 2015	-		23.386	98.068	205.564	-
Systems Engineering	WR	NAWCWD : Pt. Mugu, CA	24.187	6.206	Nov 2013	8.178	Nov 2014	9.257	Nov 2015	-		9.257	32.373	80.201	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy **Date:** February 2015

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)	Project (Number/Name) 0557 / Next Generation Jammer
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NSWC Crane : Crane, IN	20.765	3.753	Nov 2013	3.835	Nov 2014	3.912	Nov 2015	-		3.912	23.934	56.199	-
Systems Engineering	WR	NSWC Dahlgren : Dahlgren, VA	2.582	0.783	Nov 2013	1.017	Nov 2014	1.037	Nov 2015	-		1.037	5.224	10.643	-
Systems Engineering	SS/CPFF	Johns Hopkins University Applied Physics Lab : Laurel, MD	13.738	7.393	Nov 2013	6.051	Jan 2015	8.178	Nov 2015	-		8.178	44.701	80.061	80.061
Systems Engineering	WR	Naval Research Laboratory : Washington, DC	2.411	0.775	Nov 2013	0.754	Nov 2014	1.271	Nov 2015	-		1.271	4.987	10.198	-
Systems Engineering	Various	Various : Various	6.318	1.850	Nov 2013	1.587	Nov 2014	1.619	Nov 2015	-		1.619	4.955	16.329	-
Systems Engineering Trainer	Various	TBD : TBD	0.000	-		-		-		-		-	28.979	28.979	-
Prior Year Prod Dev costs no longer funded in FYDP	Various	Various : Various	257.466	-		-		-		-		-	-	257.466	-
Subtotal			480.041	148.029		225.702		382.222		-		382.222	1,877.798	3,113.792	-

Remarks

Schedule has shifted by nine months due to Technology Development (TD) contract award protest. TD contract award occurred in 4th Qtr 2013, however protest delayed start of execution of the TD contract period of performance to early 2nd Qtr 2014. As a result of protest delay to program execution, a revised cost estimate was developed to reflect this nine month shift in schedule.

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Svc (Non FFRDC)	Various	Various : Various	17.587	4.010	Dec 2013	3.511	Dec 2014	3.582	Dec 2015	-		3.582	22.207	50.897	50.897
Prior years support no longer funded in the FYDP	Various	Various : Varios	5.382	-		-		-		-		-	-	5.382	-
Subtotal			22.969	4.010		3.511		3.582		-		3.582	22.207	56.279	-

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Remarks

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PE 0604274N: *Next Generation Jammer (NGJ)*
Navy

R-1 Line #104

R-1 Program Element (Number/Name)
PE 0604274N / *Next Generation Jammer (NGJ)*

Project (Number/Name)
0557 / Next Generation Jammer

Next Generation Jammer (Increment 1)		FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020					
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
Acquisition Milestones																															
Milestones								DRRDP ▲				MS B ▲						IPR DAB (Pre-LRIP RFP) ▲									MS C ▲				
Systems Development																															
Hardware Development			Tech Development																												
														Engineering & Manufacturing Development																	
																					EDM Deliveries (Qty 9)										
Software Development														H Build Integration																	
Test & Evaluation																															
Technical Evaluation													TEMP 1 ▼	Integrated Testing																	
Operational Evaluation								EOA												TEMP 2 ▼								OA 1 ▼			

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604274N / Next Generation Jammer
(NGJ)

Project (Number/Name)
0557 / Next Generation Jammer

Next Generation Jammer (Increment 1) (cont)	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Engineering Milestones																												
Reviews			SRR 2 ■	IBR 1 ■	SFR ■		SSR ■	PDR ■				IBR 2 ■		CDR ■			TRR ■			PRR ■	FRR ■	SVR ■						
Production Milestones																												
Contract Awards		TMRR Startup (delayed due to protest) ●												E&MD Award ●								SDTA (4) RDTE ●		LRIP 1 (4) APN-5 ●		LRIP 2 (10) APN-5 ●		
Deliveries																												
																												SDTA (4) RDTE Deliveries

2016PB - 0604274N - 0557

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604274N / <i>Next Generation Jammer</i> (NGJ)	Project (Number/Name) 0557 / <i>Next Generation Jammer</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Next Generation Jammer (Increment 1)</i>				
Acquisition Milestones: Milestones: Development RFP Release Decision Point	3	2015	3	2015
Acquisition Milestones: Milestones: Milestone B	2	2016	2	2016
Acquisition Milestones: Milestones: IPR DAB LRIP Pre-RFP Release	1	2018	1	2018
Acquisition Milestones: Milestones: Milestone C	4	2019	4	2019
Systems Development: Hardware Development: Technology Development	2	2014	2	2016
Systems Development: Hardware Development: Engineering & Manufacturing Development	2	2016	4	2020
Systems Development: Hardware Development: Engineering Development Model Deliveries	3	2018	4	2019
Systems Development: Software Development: H Build Integration	2	2016	4	2020
Test & Evaluation: Technical Evaluation: NGJ Test & Evaluation Master Plan -1	2	2016	2	2016
Test & Evaluation: Technical Evaluation: Integrated Testing	3	2016	3	2020
Test & Evaluation: Technical Evaluation: NGJ Test & Evaluation Master Plan -2	2	2018	2	2018
Test & Evaluation: Operational Evaluation: Early Operational Assesment	2	2015	4	2015
Test & Evaluation: Operational Evaluation: Operational Assessment 1	3	2019	3	2019
<i>Next Generation Jammer (Increment 1) (cont)</i>				
Engineering Milestones: Reviews: System Readiness Review - 2	3	2014	3	2014
Engineering Milestones: Reviews: Integrated Baseline Review - 1	4	2014	4	2014
Engineering Milestones: Reviews: System Functional Review	1	2015	1	2015
Engineering Milestones: Reviews: Software Specification Review	3	2015	3	2015
Engineering Milestones: Reviews: Preliminary Design Review	4	2015	4	2015
Engineering Milestones: Reviews: Integrated Baseline Review - 2	4	2016	4	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)		Project (Number/Name) 0557 / Next Generation Jammer	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Engineering Milestones: Reviews: Critical Design Review		2	2017	2	2017
Engineering Milestones: Reviews: Test Readiness Review		1	2018	1	2018
Engineering Milestones: Reviews: Flight Readiness Review		1	2019	1	2019
Engineering Milestones: Reviews: Production Readiness Review		4	2018	4	2018
Engineering Milestones: Reviews: System Verification Review		2	2019	2	2019
Production Milestones: Contract Awards: Technology Maturation and Risk Reduction Start		2	2014	2	2014
Production Milestones: Contract Awards: Enginering & Manufacturing Development Contract Award		2	2016	2	2016
Production Milestones: Contract Awards: System Demonstration Test Article RD TEN Contract Award		2	2019	2	2019
Production Milestones: Contract Awards: Low Rate Initial Production 1 APN-5 Contract Award		4	2019	4	2019
Production Milestones: Contract Awards: Low Rate Initial Production 2 APN-5 Contract Award		2	2020	2	2020
Deliveries: System Demonstration Test Article RD TEN Deliveries		4	2020	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy									Date: February 2015			
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 3380 / Next Generation Jammer Inc II			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3380: Next Generation Jammer Inc II	-	-	-	13.000	-	13.000	19.000	67.000	174.000	214.651	1,037.704	1,525.355
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
NOTE: The cost to complete on exhibit R2 and R2a for project unit 3380 should be \$530.810M and the total cost \$1,018.463M.												
The NGJ Increment 2 addresses the mission need for a robust low band radar and communications jamming capability from an airborne platform that will require capabilities beyond the currently deployed system. More specifically, the NGJ will provide Airborne Electronic Attack (AEA) capabilities against advanced radar and digital threats. The development of the NGJ is being conducted in three increments of capability with each increment addressing AEA capability needs within specific "bands" of frequency coverage. Increment 2 provides capability in "Low Band".												
The current program plan as phased in FY2016 President's Budget cost model requires FY2016 and FY2017 funding for initial government studies, technology maturity assessments, and program planning. Efforts are required before the FY2018 start of contracted technical maturation efforts.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Next Generation Jammer INC 2 Primary Hardware Development								-	-	6.736	-	6.736
								Articles:				
FY 2014 Accomplishments: N/A												
FY 2015 Plans: N/A												
FY 2016 Base Plans: Perform technology feasibility studies and prototyping efforts in support of validating technology readiness levels and development of technology roadmaps.												
FY 2016 OCO Plans: N/A												
Title: Next Generation Jammer INC 2 Systems Engineering								-	-	5.992	-	5.992
Articles:								-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)		Project (Number/Name) 3380 / Next Generation Jammer Inc II	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
FY 2014 Accomplishments: N/A					
FY 2015 Plans: N/A					
FY 2016 Base Plans: Perform System Engineering efforts in support of Next Generation Jammer Increment 2 development to include CDD updates, initial drafts of a performance specification and a System Engineering Plan and a reliability analysis.					
FY 2016 OCO Plans: N/A					
Title: Next Generation Jammer INC 2 Support & Management Services					
Articles:					
	-	-	0.272	-	0.272
FY 2014 Accomplishments: N/A					
FY 2015 Plans: N/A					
FY 2016 Base Plans: Provide Support and Management Services associated with the Next Generation Jammer INC II Program.					
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals					
	-	-	13.000	-	13.000
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
Next Generation Jammer Increment 2 is a prospective Major Defense Acquisition Program (MDAP) with activity focused on identification of requirements and available technologies needed to counter threats in the "Low Band" frequency range.					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)	Project (Number/Name) 3380 / Next Generation Jammer Inc II

E. Performance Metrics

Utilize studies and prototyping efforts to obtain sufficient information to develop system requirements and validate technology readiness levels prior to Milestone B and initiation of the Engineering Manufacturing Development phase.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 3380 / Next Generation Jammer Inc II					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary H/W Dev - AMP TM Study	Various	Various : Various	0.000	-		-		0.519	Dec 2015	-		0.519	1.353	1.872	-
Primary H/W Dev - AMP TM Study	Various	JHU : Laurel MD	0.000	-		-		0.519	Dec 2015	-		0.519	1.353	1.872	-
Primary H/W Dev - ANT/ RAD TM Study	Various	Various : Various	0.000	-		-		1.219	Dec 2015	-		1.219	2.885	4.104	-
Primary H/W Dev - ANT/ RAD TM Study	Various	JHU : Laurel MD	0.000	-		-		1.219	Dec 2015	-		1.219	2.885	4.104	-
Primary H/W Dev - Hardback TM Study	Various	Various : Various	0.000	-		-		0.282	Dec 2015	-		0.282	0.581	0.863	-
Primary H/W Dev - Hardback TM Study	Various	JHU : Laurel MD	0.000	-		-		0.282	Dec 2015	-		0.282	0.581	0.863	-
Primary H/W Dev - RAT TM Study	Various	Various : Various	0.000	-		-		0.282	Dec 2015	-		0.282	0.581	0.863	-
Primary H/W Dev - RAT TM Study	Various	JHU : Laurel MD	0.000	-		-		0.282	Dec 2015	-		0.282	0.581	0.863	-
Primary H/W Dev - Digital Payload	Various	Various : Various	0.000	-		-		1.069	Dec 2015	-		1.069	2.414	3.483	-
Primary H/W Dev - DIGITAL PAYLOAD	Various	JHU : Laurel MD	0.000	-		-		1.069	Dec 2015	-		1.069	2.414	3.483	-
Primary H/W Dev - Amplifier SIL H/W	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	10.265	10.265	10.265
Primary H/W Dev - Antenna/Radome SIL H/W	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	6.129	6.129	6.129
Primary H/W Dev - RAT SIL H/W	C/CPFF	Honeywell : TBD	0.000	-		-		-		-		-	1.732	1.732	1.732
Primary H/W Dev - Exciter SIL H/W	C/CPFF	Raytheon : El Segundo CA	0.000	-		-		-		-		-	7.700	7.700	7.700
Primary H/W Dev - Hardback SIL H/W	WR	NSWC Crane : Crane IN	0.000	-		-		-		-		-	2.503	2.503	-
Primary H/W Dev - Amplifier TM	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	12.099	12.099	12.099

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 3380 / Next Generation Jammer Inc II					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary H/W Dev - Antenna/Radome TM	C/CPFF	TBD 1 : TBD	0.000	-		-		-		-		-	15.092	15.092	15.092
Primary H/W Dev - Antenna/Radome TM	C/CPFF	TBD 2 : TBD	0.000	-		-		-		-		-	15.092	15.092	15.092
Primary H/W Dev - Antenna/Radome TM	C/CPFF	TBD 3 : TBD	0.000	-		-		-		-		-	15.092	15.092	15.092
Primary H/W Dev - RAT TM	C/CPFF	Honeywell : TBD	0.000	-		-		-		-		-	13.106	13.106	13.106
Primary H/W Dev - Exciter TM	C/CPFF	Raytheon : El Segundo CA	0.000	-		-		-		-		-	4.954	4.954	4.954
Primary H/W Dev - Hardback TM	WR	NSWC Crane : Crane IN	0.000	-		-		-		-		-	0.488	0.488	-
Primary H/W Dev - Aircraft Integration TM	C/CPFF	Boeing : St Louis MO	0.000	-		-		-		-		-	9.612	9.612	9.612
Primary H/W Dev - Aircraft Integration TM	WR	NAWCWD : China Lake CA	0.000	-		-		-		-		-	30.103	30.103	-
Primary H/W Dev - Aircraft Integration TM	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	37.658	37.658	37.658
Primary H/W Dev - RAT EMD	C/CPFF	Honeywell : TBD	0.000	-		-		-		-		-	3.679	3.679	3.679
Primary H/W Dev - Antenna/Radome Amplfier EMD	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	302.665	302.665	302.665
Primary H/W Dev - Exciter EMD	C/CPFF	TBD : TBD	0.000	-		-		-		-		-	97.955	97.955	97.955
Primary H/W Dev - Hardback EMD	WR	NSWC Crane : Crane IN	0.000	-		-		-		-		-	22.597	22.597	-
Aircraft Int - EMD A/C Integration	C/CPFF	Boeing : St Louis MO	0.000	-		-		-		-		-	21.667	21.667	21.667
Aircraft Int - EMD A/C Integration	WR	NAWCWD : China Lake CA	0.000	-		-		-		-		-	28.669	28.669	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 3380 / Next Generation Jammer Inc II					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aircraft Int - EMD A/C Integration	Various	Various : Various	0.000	-		-		-		-		-	86.407	86.407	-
Aircraft Int - Loads Aircraft	Various	Boeing : St Louis MO	0.000	-		-		-		-		-	48.997	48.997	-
Systems Engineering	WR	NAWCAD : Patuxent River MD	0.000	-		-		2.398	Dec 2015	-		2.398	36.166	38.564	-
Systems Engineering	WR	NAWCWD : Pt Mugu CA	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	-
Systems Engineering	WR	NSWC : Crane IN	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	-
Systems Engineering	SS/CPFF	JHU : Laurel MD	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	9.651
Systems Engineering	WR	NRL : Washington DC	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	-
Systems Engineering	Various	Various : Various	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	-
Subtotal			0.000	-		-		12.130		-		12.130	891.320	903.450	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Srvc (Non FFRDC)	Various	Various : Various	0.000	-		-		0.598	Dec 2015	-		0.598	9.053	9.651	-
Subtotal			0.000	-		-		0.598		-		0.598	9.053	9.651	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development T&E - TEST DT	Various	Various : Various	0.000	-		-		-		-		-	67.241	67.241	-
Development T&E - COTF	SS/FFP	FSC : San Diego CA	0.000	-		-		-		-		-	1.616	1.616	1.616

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy													Date: February 2015		
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604274N / Next Generation Jammer (NGJ)				Project (Number/Name) 3380 / Next Generation Jammer Inc II					

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational T&E - TEST OT	Various	Various : Various	0.000	-		-		-		-		-	32.467	32.467	-
Subtotal			0.000	-		-		-		-		-	101.324	101.324	-

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various : Various	0.000	-		-		0.218	Dec 2015	-		0.218	2.163	2.381	-
Travel	Various	Various : Various	0.000	-		-		0.054	Dec 2015	-		0.054	1.603	1.657	-
Subtotal			0.000	-		-		0.272		-		0.272	3.766	4.038	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		13.000		-		13.000	1,005.463	1,018.463	-

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604274N / <i>Next Generation Jammer</i> (NGJ)	Project (Number/Name) 3380 / <i>Next Generation Jammer Inc II</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Next Generation Jammer (Increment 2)</i>				
Acquistion Milestones: Deveolpment RFP Release Decision Point	4	2018	4	2018
Acquistion Milestones: Milestone B	4	2019	4	2019
Systems Development: Trade Studies	1	2016	3	2018
Systems Development: Tech Maturation	1	2018	4	2019
Systems Development: Engineering & Manufacturing Development	4	2019	4	2020
Systems Development: H Build Integration	4	2019	4	2020
Test & Evaluation: NGJ Increment 2 Test & Evaluation Master Plan	3	2019	3	2019
Engineering Milestones: System Readiness Review - 1	3	2018	3	2018
Engineering Milestones: System Readiness Review - 2	4	2019	4	2019
Engineering Milestones: System Functional Review - 1	1	2020	1	2020
Engineering Milestones: Integrated Baseline Review	1	2020	1	2020
Engineering Milestones: Preliminary Design Review/Critical Design Review	3	2020	3	2020
Production Milestones: Contract Awards: Technical Maturation Award	1	2018	1	2018
Production Milestones: Contract Awards: Engineering and Manufacturing Development Contract Award	4	2019	4	2019