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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy											Date: February 2018	
Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)</i>					R-1 Program Element (Number/Name) PE 0604282N I (U) <i>Next Generation Jammer (NGJ) Increment II</i>							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	12.306	18.964	66.686	115.253	-	115.253	169.567	207.866	237.848	241.754	2,536.714	3,606.958
3380: <i>Next Generation Jammer Inc II</i>	12.306	18.964	66.686	115.253	-	115.253	169.567	207.866	237.848	241.754	2,536.714	3,606.958
Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): P520												
A. Mission Description and Budget Item Justification <p>The Next Generation Jammer (NGJ) is the next step in the evolution of Airborne Electronic Attack (AEA) and is a critical capability necessary to address current, emerging, and evolving Electronic Warfare gaps, ensure kill chain wholeness against growing threat capabilities and capacity, keep pace with enemy threat weapon systems' advancements, and support the continuous expansion of the AEA mission areas that exceed the capability of currently fielded systems. NGJ will utilize enhanced techniques and tactics to deliver significantly improved radar and communications jamming effectiveness as well as other classified capabilities. Utilizing an Open Systems Architecture that supports software and hardware updates to rapidly counter emergent and evolving threats, NGJ is a key enabler and force multiplier for operations across the spectrum of missions defined in the Defense Strategic Guidance, including strike warfare, projecting power despite anti-access/area denial challenges, and counterinsurgency/irregular warfare. NGJ will also address the shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability of the existing AN/ALQ-99 Tactical Jamming System.</p> <p>This Program Element (PE 0604282N) supports the Next Generation Jammer - Low Band (NGJ-LB) (formerly known as Next Generation Jammer Increment 2) program. NGJ-LB will address AEA capability and sufficiency gaps against enemy threats operating in the lower frequency bands of the electromagnetic spectrum. NGJ-LB will provide the ability to effectively engage enemy threats from increased stand-off distances, employ increased capacity (number of jamming assignments) against enemy targets, and support agile employment by operators. The NGJ-LB system will be integrated on the EA-18G tactical aircraft and replace the aging AN/ALQ-99 Tactical Jamming System Low-Band pods.</p>												

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)		PE 0604282N I (U)Next Generation Jammer (NGJ) Increment II			
B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	52.065	66.686	116.550	-	116.550
Current President's Budget	18.964	66.686	115.253	-	115.253
Total Adjustments	-33.101	0.000	-1.297	-	-1.297
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.001	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	-1.297	-	-1.297
• Congressional Directed Reductions Adjustments	-33.100	-	-	-	-
Change Summary Explanation					
Technical: Not applicable.					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604282N / (U)Next Generation Jammer (NGJ) Increment II				Project (Number/Name) 3380 / Next Generation Jammer Inc II			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3380: Next Generation Jammer Inc II	12.306	18.964	66.686	115.253	-	115.253	169.567	207.866	237.848	241.754	2,536.714	3,606.958
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: P520												
A. Mission Description and Budget Item Justification												
This Program Element (PE 0604282N) supports the NGJ-LB program. NGJ-LB will address Airborne Electronic Attack (AEA) capability and sufficiency gaps against enemy threats operating in the lower frequency bands of the electromagnetic spectrum. NGJ-LB will provide the ability to effectively engage enemy threats from increased stand-off distances, employ increased capacity (number of jamming assignments) against enemy targets, and support agile employment by operators. The NGJ-LB system will be integrated on the EA-18G tactical aircraft and replace the aging AN/ALQ-99 Tactical Jamming System Low-Band pods.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)												
Title: Next Generation Jammer Low Band Primary Hardware Development Articles: FY 2018 Plans: Release the DET Request for Proposal (RFP), award and begin execution of the three NGJ-LB DET contracts to include DET design reviews and hardware build approvals, leading up to NGJ-LB Engineering and Manufacturing Development (EMD), Development Request for Proposal Decision Release Point (DRRDP) in FY2019. FY 2019 Base Plans: Continue execution of the three NGJ Low Band technology demonstration contracts. Complete DRRDP 1QFY2019 and release EMD RFP in 2QFY2019. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Increase from FY 2018 to FY 2019 due to the award of three Demonstration of Existing Technologies (DET) contracts in 4QFY2018.								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
								6.773	25.043	76.868	0.000	76.868
								-	-	-	-	-
Title: Next Generation Jammer Low Band Systems Engineering Articles:								11.129	30.120	29.740	0.000	29.740
								-	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
FY 2018 Plans: Continue Systems Engineering efforts in support of Low band development to include conducting the Integrated Logistics Assessment and finalizing the performance specification and Statement of Work in preparation for the DRRDP and release of the EMD RFP in FY 2019. Continue development of the NGJ-LB specific CDD and the Low Band Acquisition Strategy.						
FY 2019 Base Plans: Start source selection for the NGJ-LB Engineering and Manufacturing Development (EMD) contract for award in FY 2020. Complete preparation for and execute NGJ-LB System Readiness Review (SRR-1). Complete and finalize NGJ-LB CDD and Acquisition Strategy.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: N/A						
Title: Next Generation Jammer Low Band Support & Management Services Articles:		0.954 -	1.054 -	1.040 -	0.000 -	1.040 -
FY 2018 Plans: Provide Support and Management Services associated with the NGJ-LB Program.						
FY 2019 Base Plans: Provide Support and Management Services associated with the NGJ-LB Program.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease from FY 2018 to FY 2019 due to CSS efficiencies.						
Title: Next Generation Jammer Low Band Aircraft Integration Articles:		0.000 -	3.085 -	0.000 -	0.000 -	0.000 -
FY 2018 Plans: Utilize information gained from trade studies and technology demonstrations to begin development of the Statement of Requirements (SOR) for the aircraft System Configuration Set (SCS) software build required for						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
integration of NGJ-LB physical and software interfaces into the EA-18G. Complete aircraft integration Statement of Work (SOW) and award contract to begin aircraft integration studies.						
FY 2019 Base Plans: N/A						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease from FY 2018 to FY 2019 due to additional aircraft integration efforts not required until FY 2020.						
Title: Next Generation Jammer Low Band Test & Evaluation		0.108	7.384	7.605	0.000	7.605
Articles:		-	-	-	-	-
FY 2018 Plans: Test & Evaluation activities include finalizing the MS B TEMP. Additional efforts include activities to scope initial aeromechanical flight test program and scoping of the initial mission system and integration flight test program. Continue resource and infrastructure improvements.						
FY 2019 Base Plans: Begin execution of tests for each DET contractor at the Facility for Antenna Radar Cross Section Measurements (FARM) and continue execution of resource and infrastructure improvements plan.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: Increase from FY 2018 to FY 2019 due to the start of DET testing in 4QFY2019 and continued resource and infrastructure improvements to support future NGJ-LB testing.						
Accomplishments/Planned Programs Subtotals		18.964	66.686	115.253	0.000	115.253
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						

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<p><u>D. Acquisition Strategy</u></p> <p>NGJ-LB program is designated a pre-Major Defense Acquisition Program (pre-MDAP), MDAP program number P520. The activity will focus on trade studies to inform the acquisition strategy, design engineering trades, and the identification of requirements and available technologies for program entry at Milestone B. Activity will also support execution of three DET contracts to validate existing technology maturity for low band applications on the EA-18G.</p> <p><u>E. Performance Metrics</u></p> <p>Utilize studies and technology demonstration efforts for favorable SRR-1 and System Functional Review (SFR) in 1QFY2019 and preparation for the Development Request for Proposal Release Decision Point (DRRDP) 1QFY2019.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604282N / (U)Next Generation Jammer (NGJ) Increment II				Project (Number/Name) 3380 / Next Generation Jammer Inc II					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 - Trade Studies	SS/CPFF	JHU : Laurel, MD	5.265	3.050	Jan 2017	0.000		0.000		-		0.000	0.000	8.315	8.315
Primary H/W Dev - Trade Studies	WR	NSWC Crane : Crane, IN	1.539	0.800	Jan 2017	0.000		0.000		-		0.000	0.000	2.339	-
Primary H/W Dev - Trade Studies	WR	NAWCAD : Patuxent River, MD	1.921	1.195	Dec 2016	0.000		0.000		-		0.000	0.000	3.116	-
Primary H/W Dev - Trade Studies	WR	NAWCWD : Point Mugu, CA	0.434	0.400	Dec 2016	0.000		0.000		-		0.000	0.000	0.834	-
Primary H/W Dev - Aircraft Specification Refinement	SS/CPIF	Boeing : St. Louis, MO	0.000	1.300	Sep 2017	1.600	Mar 2018	2.000	Feb 2019	-		2.000	2.040	6.940	6.940
Primary H/W Dev - Technology Demonstrators 1	C/CPFF	TBD : TBD	0.000	0.000		7.814	Jul 2018	24.956	Oct 2018	-		24.956	28.500	61.270	61.270
Primary H/W Dev - Technology Demonstrators 2	C/CPFF	TBD : TBD	0.000	0.000		7.814	Jul 2018	24.956	Oct 2018	-		24.956	28.500	61.270	61.270
Primary H/W Dev - Technology Demonstrators 3	C/CPFF	TBD : TBD	0.000	0.000		7.814	Jul 2018	24.956	Oct 2018	-		24.956	28.500	61.270	61.270
Primary H/W Dev - EMD	C/CPFF	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	1,908.536	1,908.536	1,908.536
Aircraft Integration - Study	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.000		-		0.000	59.988	59.988	-
Aircraft Integration	Various	Various : Various	0.000	0.000		3.085	Dec 2017	0.000		-		0.000	0.000	3.085	3.085
Aircraft Integration - EMD	SS/CPIF	Boeing : St. Louis, MO	0.000	0.000		0.000		0.000		-		0.000	188.560	188.560	188.560
Software Integration	WR	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.000		-		0.000	4.063	4.063	-
Software Integration	SS/CPIF	Boeing : St. Louis, MO	0.000	0.000		0.000		0.000		-		0.000	93.689	93.689	93.689
Software Integration	SS/CPIF	NGC : Bethpage, NY	0.000	0.000		0.000		0.000		-		0.000	97.088	97.088	97.088
Software Integration	WR	NAWCWD : Point Mugu, CA	0.000	0.000		0.000		0.000		-		0.000	89.194	89.194	-

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Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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	TBD	NSMA : Arlington, VA	0.000	0.000		0.000		0.000		-		0.000	21.054	21.054	-
Systems Engineering	WR	NAWCAD : Patuxent River, MD	1.405	6.651	Dec 2016	20.205	Dec 2017	17.367	Dec 2018	-		17.367	148.721	194.349	-
Systems Engineering	WR	NAWCWD : Point Mugu, CA	1.070	1.710	Dec 2016	3.668	Dec 2017	4.850	Dec 2018	-		4.850	85.027	96.325	-
Systems Engineering	WR	NSWC Crane : Crane, IN	0.456	0.775	Jan 2017	3.736	Dec 2017	3.810	Dec 2018	-		3.810	35.183	43.960	-
Systems Engineering	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.066	Jan 2017	0.131	Dec 2017	0.134	Dec 2018	-		0.134	1.493	1.824	-
Systems Engineering	SS/CPFF	JHU : Laurel, MD	0.000	1.900	Jan 2017	2.130	Dec 2017	3.325	Dec 2018	-		3.325	70.306	77.661	77.661
Systems Engineering	Various	Various : Various	0.000	0.055	Dec 2016	0.250	Dec 2017	0.255	Dec 2018	-		0.255	2.848	3.408	-
Systems Engineering - Trainer	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	7.035	7.035	-
Subtotal			12.090	17.902		58.247		106.609		-		106.609	2,900.325	3,095.173	N/A
Remarks															
Primary Hardware Development - Technology Demonstrators (1,2,3) increase from FY 2018 to FY 2019 due to having 3 planned demonstrators completing technology demonstration design, reviews and hardware build approvals for the Development Request for Proposal Decision Release Point.															
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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	0.215	0.925	Dec 2016	0.944	Dec 2017	0.926	Dec 2018	-		0.926	11.366	14.376	14.376
Subtotal			0.215	0.925		0.944		0.926		-		0.926	11.366	14.376	N/A

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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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	WR	NAWCAD : Patuxent River, MD	0.000	0.000		7.274	Dec 2017	7.493	Nov 2018	-		7.493	339.143	353.910	-
Development T&E - COTF	SS/FFP	FSC : San Diego, CA	0.000	0.108	Nov 2016	0.110	Dec 2017	0.112	Nov 2018	-		0.112	3.860	4.190	4.190
Development T&E - Wind Tunnel	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	9.804	9.804	-
Development T&E VX-23/31 - Engineers	TBD	Boeing : St. Louis, MO	0.000	0.000		0.000		0.000		-		0.000	67.491	67.491	67.491
Development T&E VX-23/31 - Maintenance	TBD	Boeing : St. Louis, MO	0.000	0.000		0.000		0.000		-		0.000	37.413	37.413	37.413
Operational T&E - TEST OT	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	22.397	22.397	-
Subtotal			0.000	0.108		7.384		7.605		-		7.605	480.108	495.205	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Travel	Various	Various : Various	0.001	0.029	Oct 2016	0.111	Oct 2017	0.113	Oct 2018	-		0.113	1.950	2.204	-
Subtotal			0.001	0.029		0.111		0.113		-		0.113	1.950	2.204	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			12.306	18.964		66.686		115.253		-		115.253	3,393.749	3,606.958	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)

PE 0604282N / (U)Next Generation Jammer
(NGJ) Increment II

Project (Number/Name)

3380 / Next Generation Jammer Inc II

Next Generation Jammer (Increment 2)	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023							
	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				
Acquistion Milestones									DRRDP ▲								MS B ▲															
Systems Development																																
	Trade Studies								DET								EMD															
																		H Build Integration														
Test & Evaluation													DET Testing		TEMP ▲		PDR Wind Tunnel Testing								CDR Wind Tunnel Testing							
Engineering Milestones									SRR-1 / SFR-1 ▲											SRR-2 ▲					SFR-2 ▲		PDR ▲					
Production Milestones																																
Contract Awards								DET Award(s) ●									EMD Award ●															

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604282N / (U)Next Generation Jammer (NGJ) Increment II	Project (Number/Name) 3380 / Next Generation Jammer Inc II	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Next Generation Jammer (Increment 2)				
Acquisition Milestones: Development Request for Proposal Release Decision Point (DRRDP)	1	2019	1	2019
Acquisition Milestones: Milestone B	4	2020	4	2020
Systems Development: Trade Studies	1	2017	4	2017
Systems Development: Demonstration of Existing Technologies (DET)	4	2018	3	2020
Systems Development: Engineering & Manufacturing Development (EMD)	4	2020	4	2023
Systems Development: H Build Integration	4	2020	4	2023
Test & Evaluation: DET Testing	4	2019	2	2020
Test & Evaluation: MS B Test & Evaluation Master Plan	3	2020	3	2020
Test & Evaluation: Preliminary Design Review Wind Tunnel Testing	4	2020	2	2022
Test & Evaluation: Critical Design Review Wind Tunnel Testing	3	2022	4	2023
Engineering Milestones: System Readiness Review - 1 / System Functional Review - 1	1	2019	1	2019
Engineering Milestones: System Readiness Review - 2	3	2021	3	2021
Engineering Milestones: Integrated Baseline Review	3	2021	3	2021
Engineering Milestones: System Functional Review - 2	2	2022	2	2022
Engineering Milestones: Preliminary Design Review	4	2022	4	2022
Contract Awards: DET Contract Award(s)	4	2018	4	2018
Contract Awards: Engineering and Manufacturing Development Contract Award	4	2020	4	2020