Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)

Date: March 2014

Development & Demonstration (SDD)

Appropriation/Budget Activity

,												
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	794.317	125.203	114.799	134.564	-	134.564	97.478	93.494	125.772	161.445	Continuing	Continuing
0954: Shipboard EW Improvement Program	434.583	18.193	17.921	13.421	-	13.421	14.635	15.088	15.428	15.865	Continuing	Continuing
2190: NULKA Decoy	52.308	2.267	4.611	4.651	-	4.651	1.852	2.040	2.150	7.110	Continuing	Continuing
3227: SEWIP Block 2	177.918	28.872	5.968	0.400	-	0.400	0.414	0.426	0.438	0.451	Continuing	Continuing
3316: Advanced Offboard EW	22.395	22.445	23.132	44.451	-	44.451	40.064	38.900	69.732	99.828	Continuing	Continuing
3321.: SEWIP Block 3	107.113	53.426	58.300	71.641	-	71.641	40.513	37.040	38.024	38.191	Continuing	Continuing
3362: <i>E-NULKA</i>	0.000	-	4.867	-	-	-	-	-	-	-	-	4.867

MDAP/MAIS Code: 582

A. Mission Description and Budget Item Justification

0954 - The Surface Electronic Warfare Improvement Program (SEWIP) Block 1 provides enhanced Electronic Warfare (EW) capabilities to existing and new ship combat systems to improve Anti Ship Missile Defense (ASMD), counter-targeting and counter surveillance capabilities, as well as improved situational awareness. The SEWIP Block 1 employs an evolutionary acquisition and incremental development strategy to upgrade surface EW capabilities via a series of block upgrades to the AN/SLQ-32(V) system, and field EW improvements to counter the ASMD threat. SEWIP Block 1 will provide required EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades and improvements in performance.

- 2190 The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection.
- 3227 SEWIP Block 2 is developing an upgraded antenna, receiver, and combat system interface for SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of Electromagnetic Interference (EMI).
- 3316 The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. The program consists of a Rapid Response Effort (RRE) to provide an initial, limited decoy capability to the Fleet by 2014 and a Decoy Development Effort (DDE) culminating in the delivery of a fully supported, full capability system. The RRE (FY12-FY14) consists of the evaluation and integration

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

^{*} The FY 2015 OCO Request will be submitted at a later date.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)

PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)

of commercially available decoys. The DDE (commenced in FY12) consists of the development and evaluation of a long duration, active electronic offboard decoy system (payload only) integrated on an existing flight vehicle and an onboard/offboard EW coordinator fully able to counter the threat.

3321 - SEWIP Block 3 will provide an Electronic Attack (EA) capability improvement required for the SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to all surface combatants (CVN, CG, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms.

3362 - E-Nulka is an upgrade to the Nulka decoy to expand frequency coverage to counter an emerging class of Anti-Ship Missiles (ASMs) for which no active countermeasure currently exists. The Program supports the engineering development of the payload receiver, signal processor and transmitter, construction of complete payloads, integration of the completed payload with the Nulka vehicle, and subsequent technical and operational assessment. Due to changes in the security classification guidance, this program will transfer to a classified portion of the budget starting in FY15.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	151.489	164.799	210.407	-	210.407
Current President's Budget	125.203	114.799	134.564	-	134.564
Total Adjustments	-26.286	-50.000	-75.843	-	-75.843
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-50.000			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-2.347	-			
Program Adjustments	-	-	-59.982	-	-59.982
Rate/Misc Adjustments	0.001	-	-15.861	-	-15.861
 Congressional General Reductions 	-11.940	-	-	-	-
Adjustments					
Congressional Directed Reductions	-12.000	-	-	-	-
Adjustments					

Change Summary Explanation

FY 2013 reductions include sequestration, general, and rates/miscellaneous adjustments.

FY 2015 reductions include re-phasing of Advanced Offboard EW Decoy program, Naval EW system tech change, Departments decision to reduce Contracted Services and to properly phase program requirements with expenditures, and other rate/miscellaneous adjustments.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED Page 2 of 25

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy											Date: March 2014			
Appropriation/Budget Activity 1319 / 5					_	am Elemen 57N / Ship S	•	lumber/Name) ipboard EW Improvement Program						
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost		
0954: Shipboard EW Improvement Program	434.583	18.193	17.921	13.421	-	13.421	14.635	15.088	15.428	15.865	Continuing	Continuing		
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-				

^{*} The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

SEWIP Block 1 provides enhanced EW capabilities to existing and new ship combat systems to improve ASMD, counter-targeting and counter surveillance capabilities, as well as improved situational awareness. SEWIP Block 1 employs an evolutionary acquisition and incremental development strategy to upgrade surface EW capabilities via a series of block upgrades to the AN/SLQ-32(V) system, and field EW improvements to counter the ASMD threat. SEWIP Block 1 will provide required EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades and improvements in performance.

SEWIP Block 1 is segmented into Block 1A, and Block 1B, ALQ-210 integration, and EW Rapid Capability Insertion Process (RCIP). Block 1A upgrades the AN/SLQ-32 pulse-processing computers and the display console allowing the system to more quickly identify threats and better display the information to the operator. Block 1A Electronic Surveillance Enhancements (ESE) pulse-processing computers and the Improved Control and Display (ICAD) Human System Interface (HSI) console partially open the electronic warfare system architecture to support subsequent EW capability upgrades. Block 1B adds adjunct sensors for special signal intercept, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for threat correlation, situational awareness, and extending the battle space. ALQ-210 integration will develop capability to use and integrate Electronic Warfare Support (ES) controls and data between AN/SLQ-32 and the ALQ-210 on the MH60R. EW Rapid Capability Insertion Program (RCIP) identifies joint force ASM capability gaps by analyzing EW baseline and fleet requirements, prioritizes those gaps based on fleet input and critical technology maturity, and develops upgrades to the AN/SLQ-32(V) product line for fielding to address those gaps. EW RCIP will identify and select candidate technologies based on technical maturity and ability to meet the gaps within programmatic (lifecycle cost, schedule, risk) constraints.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Title: Block 1B3		6.018	5.988	0.600
	Articles:	-	-	-
FY 2013 Accomplishments: Continued integration and testing.				
FY 2014 Plans: Complete integration and testing of EDMs. Conduct At-Sea testing.				
FY 2015 Plans:				

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

Navy

	UNCLASSIFIED						
Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	larch 2014			
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)		t (Number/N Shipboard E	Name) EW Improvement Prog			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	antities in Each)		FY 2013	FY 2014	FY 2015		
Complete Full Rate Production (FRP) Decision Review (DR).							
Title: EW RCIP	Ar	ticles:	8.510 -	11.933 -	12.821 -		
FY 2013 Accomplishments: Continued development of EW RCIP #1. Awarded development contract for RCIP #2. Identified and prioritized capability gaps in support of release of RFI/R	PP for future (RCIP #3) RCIP candidates.						
FY 2014 Plans: Identify EW technology shortfalls based on the current and emerging Solicit industry, University Affiliate Research Centers, and government Evaluate and select RCIP technology candidates. Award RCIP #3 contract. Evaluate RCIP technologies production readiness. Successfully demonstrate and validate RCIP capabilities.							
FY 2015 Plans: Identify EW technology shortfalls based on the current and emerging solicit industry, University Affiliate Research Centers, and government Evaluate and select RCIP technology candidates. Award RCIP #4 contract. Evaluate RCIP technologies production readiness. Successfully demonstrate and validate RCIP capabilities.							
Title: V(4) Electronic Surveillance Enhancements (ESE)			0.500	-	-		
	Ar	ticles:	-	-	-		
Description: Due to ship availability delays, V(4)ESE Initial Operation quarter FY13.	nal Test & Evaluation (IOT&E) was conducted in second	d					
FY 2013 Accomplishments: Conducted IOT&E. Analyzed and corrected deficiencies. Completed MS-C DR. FY 2014 Plans:							

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED Page 4 of 25

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: N	/larch 2014	
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)	Project (Number/ 0954 / Shipboard I	•	nent Program
B. Accomplishments/Planned Programs (\$ in Millions, Article N/A	Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2015 Plans: N/A				
Title: Shipboard Integration		3.165	-	-
	Arti	icles: -	_	-
FY 2013 Accomplishments: Completed development of capability to use and integrate ES cont SLQ-32.	trols and data between ALQ210 (on the MH60R) and AN/			
FY 2014 Plans: N/A				
FY 2015 Plans: N/A				

C. Other Program Funding Summary (\$ in Millions)

•	•	,	FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
 0204228N/2312: OPN BA-2 AN/SLQ-32(V) 	79.950	150.353	214.582	-	214.582	237.938	339.173	379.358	503.719	Continuing	Continuing
• 24575N & 72827N/1C2C: OMN BA-1 AN/SLQ-32(V)	6.453	7.688	6.943	-	6.943	7.271	8.288	8.175	8.285	Continuing	Continuing

Remarks

Navy

D. Acquisition Strategy

SEWIP will develop Block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and Sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion.

E. Performance Metrics

Successfully achieve Block 1B3 Milestone C / Low Rate Initial Production (LRIP) Decision Review (DR).

Successfully complete Block 1B3 Initial Operational Test & Evaluation (IOT&E).

Successfully achieve Block 1B3 Full Rate Production (FRP) DR.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED

Page 5 of 25 R-1 Line #131

Accomplishments/Planned Programs Subtotals

18.193

17.921

13.421

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy	Date: March 2014		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)	- , ,	umber/Name) oboard EW Improvement Program
Successfully identify PCIP canabilities			

Successfully identify RCIP capabilities.

Successfully identify and assess RCIP Science & Technology candidates.

Award development contract for RCIP #1.

Successfully demonstrate and validate RCIP capabilities.

Award development contract for RCIP #2.

Award development contract for RCIP #3.

Award development contract for RCIP #4.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

UNCLASSIFIED

Exhibit R-4, RDT&E Sched	dule Profile	e: PB 20	015 I	Navy	,																	Date	e: Ma	arch 2	2014			
Appropriation/Budget Act 319 / 5	5															Project (Number/Name) 1954 I Shipboard EW Improvement Prog				ogra								
Fiscal Year	2013 201				14	2-0		20	115	2016				2017		~		20	18	201		19						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones									Δ		ck 1E																	
De velo pme nt	De velo & Inte	HGHS opment gration		tion					EW	Rap	id Ca	apab	pility	Inse	ertio	n Pr	oces	ss (R	CIP)	0								
	* 1.0		H	H						Ĭ																		I
Test and Evaluation																												
Milestones	1B	3 Integ	ırati	on 8	Tes	t																						
D evelopment Test								Λ	1B3	S TE	CHEV	AL																
Operational Test									1B3	T																		

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

UNCLASSIFIED Page 7 of 25

Exhibit R-2A, RDT&E Project Ju		Date: March 2014										
Appropriation/Budget Activity 1319 / 5		_		t (Number / Self Def (Eng	, ,	oject (Number/Name) 90 <i>I NULKA Decoy</i>						
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
2190: NULKA Decoy	52.308	2.267	4.611	4.651	-	4.651	1.852	2.040	2.150	7.110	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

[#] The FY 2015 OCO Request will be submitted at a later date.

The second of th

A. Mission Description and Budget Item Justification

The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: NULKA Decoy Subsystem	2.267	2.405	2.523
Articles:	-	-	-
FY 2013 Accomplishments: Conducted NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
FY 2014 Plans: Continue NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
FY 2015 Plans: Continue NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
Title: NULKA Software	-	2.206	-
Articles:	-	-	-
FY 2013 Accomplishments: N/A			
FY 2014 Plans: Conduct NULKA software Product Line Architecture (PLA) Demonstration.			
FY 2015 Plans:			

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED
Page 8 of 25

R-1 Line #131

Navy

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy	Date: March 2014		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N I Ship Self Def (Engage: Soft Kill/EW)	- , (umber/Name) LKA Decoy

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
N/A			
Title: CVN AT-SEA TEST	-	-	2.128
Articles:	-	-	-
FY 2013 Accomplishments: N/A			
FY 2014 Plans: N/A			
FY 2015 Plans: Conduct At-Sea test of NULKA CVN capabilities.			
Accomplishments/Planned Programs Subtotals	2.267	4.611	4.651

C. Other Program Funding Summary (\$ in Millions)

	•	-	FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
 OPN/5530: Anti-Ship 	27.355	62.361	-	-	-	-	-	-	-	-	619.550
Missile Decoy System											
 OMN/12CR0 (1C2C): Nulka 	3.713	5.530	5.177	-	5.177	5.442	6.292	6.213	6.447	Continuing	Continuing
 OPN/5231: Ship Missile 	-	-	35.756	-	35.756	33.046	58.430	61.920	64.242	Continuing	Continuing
Support Equipment											

Remarks

Due to DON directed OPN Line Item (LI) Consolidation commencing in FY15, LI 530 was consolidated under LI 5231 in FY15 and in the outyears.

D. Acquisition Strategy

NULKA is a joint cooperative program between United States and Australia in full rate production.

E. Performance Metrics

Successfully complete first-of-class testing of MK 53 DLS upgrade for CVN.

Successfully complete Element Certification Decoy Launch Processor (DLP) software version 6_5 for the CVN 68 ship class.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

Page 9 of 25

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604757N I Ship Self Def (Engage: Soft	2190 / NUL	LKA Decoy
	Kill/EW)		

Fiscal Year	2013 2014		014		2015		2016			2017			2018			2019												
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
System Development					11	P	WA LA RFA																					
								Δ	so	 FTV	VAR	E P	LAI	 DEM	10													
Production Milestones																												
Test & Evaluation Milestones									Λ	LH	A 6	Insta	all C	Cert	ifica	itior	1											
Development Test											1	N C																
Operational Test																												

PLA - Product Line Architecture

Note: CVN Class DT moved from 4Q 2014 to 2Q 2015 based on new CNO availability dates.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

Navy

UNCLASSIFIED
Page 10 of 25

Exhibit R-2A, RDT&E Project J	ustification:	PB 2015 N	lavy							Date: Mar	ch 2014	
Appropriation/Budget Activity 1319 / 5					R-1 Progra PE 060475 Kill/EW)			lumber/Name) WIP Block 2				
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2018	FY 2019	Cost To Complete	Total Cost	
3227: SEWIP Block 2	177.918	28.872	5.968	0.400	-	0.400	0.414	0.426	0.438	0.451	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		
[#] The FY 2015 OCO Request w	ill be submitt	ed at a late	r date.									

A. Mission Description and Budget Item Justification

The SEWIP Block 2 program is developing an upgraded antenna, receiver, and combat system interface for SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of EMI.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: SEWIP Block 2	28.872	5.968	0.400
Articles:	-	-	-
FY 2013 Accomplishments: Continued integrated testing. Completed E&MD of SEWIP Block 2.			
FY 2014 Plans: Conduct At-Sea testing. Analyze and correct deficiencies.			
FY 2015 Plans: Analyze and correct deficiencies.			
Accomplishments/Planned Programs Subtotals	28.872	5.968	0.400

C. Other Program Funding Summary (\$ in Millions)

			FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
 0204228N/2312: OPN BA-2 AN/SLQ-32(V) 	79.950	150.353	214.582	-	214.582	237.938	339.173	379.358	530.719	Continuing	Continuing
• 0204575N/1C2C: OMN BA-1 AN/SLQ-32(V)6	-	2.708	5.440	-	5.440	6.516	12.519	12.361	12.630	Continuing	Continuing

Remarks

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED

R-1 Line #131

Navy Page 11 of 25

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604757N / Ship Self Def (Engage: Soft	3227 / SEI	WIP Block 2
	Kill/EW)		
	·	•	

D. Acquisition Strategy

SEWIP will develop Block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and Sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion.

E. Performance Metrics

Successfully achieve Block 2 MS C / LRIP DR.

Successfully complete Block 2 Initial Operational Test & Evaluation (IOT&E).

Successfully achieve Block 2 Full Rate Production (FRP) DR.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

Page 12 of 25

Exhibit R-4, RDT&E Schedule Pro	file: PB	2015	Nav	/y																		Date	: Ma	rch 2	2014			
Appropriation/Budget Activity 319 / 5									F	R-1 P PE 06 K <i>ill/E</i> l	047	am E 57N <i>i</i>	E lem I Ship	ent (N o Self	Numk Def	er/N (Eng	lame age:	e) Soft			t (Nu SEW							
	8	20	13	à		20	14	Š.		20	15			201	16			20	17			20	18			201	19	Ser
Fiscal Year	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones		Bloc	k 2	MS C	LRIF	DR			∆ Bloc	k 2 F	RP D	R																
Block 2 Development		lle ceiver /Inte)evel	rface																									
Block 2																												
Test and Evaluation																												
Milestones	F	QT1																										
Development Test	[ВІ	QT 2	2			Δι	Bloc	k 2 TE	CHE	VAL																
Operational Test								Δ	Bloc	k 2 l0	OT&E																	

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

UNCLASSIFIED
Page 13 of 25

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2015 N	lavy							Date: Marc	ch 2014	
Appropriation/Budget Activity 1319 / 5					_	am Elemen 57N / Ship S	•	•	Project (N 3316 / Adv		,	
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
3316: Advanced Offboard EW	22.395	22.445	23.132	44.451	-	44.451	40.064	38.900	69.732	99.828	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

[#] The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

3316 - The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. The program consists of a Rapid Response Effort (RRE) to provide an initial, limited decoy capability to the Fleet by 2014 and a Decoy Development Effort (DDE) culminating in the delivery of a fully supported, full capability system. The RRE (FY12-FY14) consists of the evaluation and integration of commercially available decoys. The DDE (commenced in FY12) consists of the development and evaluation of a long duration, active electronic offboard decoy system (payload only) integrated on an existing flight vehicle and an onboard/offboard EW coordinator fully able to counter the threat.

FY15 AOEW includes a government software development effort to integrate AOEW into the Softkill Coordinator (SKC) to gain maximum effectiveness from the AOEW decoy through coordination with on board systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Title: AOEW - Decoy Development Effort (DDE)		18.097	20.632	44.451
	Articles:	-	-	-
FY 2013 Accomplishments:				
- Completed Analysis of Alternatives.				
- Conducted design and engineering studies.				
- Continued development of concepts of operation.				
- Continued derivation of systems requirements.				
- Continued interoperability analysis.				
- Continued acquisition documentation development.				
FY 2014 Plans:				
- Continue development of concepts of operation.				
- Continue interoperability analysis.				
- Complete acquisition documentation development.				
- Initiate onboard/offboard EW coordinator development.				

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED Page 14 of 25

Exhibit R-2A, RDT&E Project Ju	stification: PB	2015 Navy							Date: N	larch 2014		
Appropriation/Budget Activity 1319 / 5						•	oer/Name) (Engage: Soft	_	Project (Number/Name) 3316 / Advanced Offboard EW			
B. Accomplishments/Planned P	<u> </u>	Millions, Art	icle Quanti	ties in Each)				FY 2013	FY 2014	FY 2015	
- Commence AOEW SKC integra	tion											
 FY 2015 Plans: Continue development of conce Continue interoperability analysi Continue AOEW integration. Award competitive development (E&MD) 	S.		ogy Develop	ment/Engine	ering & Mar	ufacturing [Development					
Title: AOEW - Rapid Response E	ffort (RRE)								4.348	2.500	_	
·	,						Α	rticles:	-	-	-	
FY 2013 Accomplishments: - Completed evaluation, integratio - Commenced RRE installation.	on, and testing o	of decoy capa	ability.									
FY 2014 Plans: - Develop conops and tactics Complete RRE installation.												
FY 2015 Plans:												
N/A												
				Accor	nplishment	s/Planned F	Programs Su	btotals	22.445	23.132	44.45	
C. Other Program Funding Sum	marv (\$ in Mill	ions)										
	······································	. 	FY 2015	FY 2015	FY 2015					Cost To)	
Line Item • OPN/5530: Anti-Ship Missile Decoy System	FY 2013 27.355	FY 2014 62.361	Base	000	<u>Total</u>	FY 2016 -	FY 2017 -	FY 201	8 FY 201		_	
ivilabile Decoy System												

Remarks

Navy

D. Acquisition Strategy

• OPN/5231: Ship Missile

Support Equipment

The AOEW DDE decoy will be competitively contracted and developed, and builds on technologies and concepts currently in development by ONR. For RRE, commercially available decoys will be procured for evaluation, integration and testing.

35.756

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED

Page 15 of 25 R-1 Line #131

33.046

58.430

61.920

64.242 Continuing Continuing

35.756

khibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
ppropriation/Budget Activity 19 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)	Project (Number/Name) 3316 / Advanced Offboard EW
Performance Metrics		
or the DDE:		
omplete Analysis of Alternatives.		
omplete systems requirements definition. ward Technology Development/E&MD contract.		
ward rechnology Development/Ealvid contract.		
or the RRE:		
omplete evaluation and integration.		
complete testing of commercially available decoys.		

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED
Page 16 of 25

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
	R-1 Program Element (Number/Name) PE 0604757N I Ship Self Def (Engage: Soft Kill/EW)	umber/Name) anced Offboard EW

Fiscal Year		20	13			20	14			20	15			20	16			20	17			20	18			20	19	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A cquisition Milestones (TBD)																												
	An		s of																									
Development	RRI	E Int	egra	tion																								
	DI	DEC	one	ept	Dev	velo	pm e	ent																				
										DE						pm	ent	/ En	gine	erin	ig a	nd N	/lanu	ufac	turir	ng		_
Test & Evaluation																												
Development Test		-	RF	RET	est			23 60																				
						RE stall	1																					

RRE: Rapid Response Effort

DDE: Decoy Development Effort

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

Navy

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2015 N	lavy							Date: Marc	ch 2014	
Appropriation/Budget Activity 1319 / 5 R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)								Project (Number/Name) 3321. I SEWIP Block 3				
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
3321.: SEWIP Block 3	107.113	53.426	58.300	71.641	-	71.641	40.513	37.040	38.024	38.191	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

^{*} The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

SEWIP Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to all surface combatants (CVN, CG, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms.

The SEWIP Block 3 Acquisition leverages technology developed under the Office of Naval Research's (ONR) Integrated Topside (InTop) Science and Technology (S&T) effort. SEWIP Block 3 will continue to expand the integrated shipboard combat system by providing a new integrated Electronic Attack (EA) transmitter, array, and associated EA techniques. The program builds on the EW Support (ES) capability delivered by SEWIP Blocks 1 and 2. SEWIP Block 3 includes a government software development effort for a SoftKill Coordinator (SKC) to manage EA engagements.

SEWIP Block 3 includes development and initial, limited interim capability by 2014 of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to support an urgent operational need.

The TEWM Speed to Fleet effort develops the TEWM system capability for engaging a wide range of anti-ship missile seekers to address the broader EW capability gap. This effort provides the resources to refine and accelerate the design, make it suitable for operational shipboard application, and implements a network command protocol to efficiently allow use on broad class of ships.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: SEWIP Block 3 Government Engineering	24.968	31.681	19.928
Articles	-	-	-
FY 2013 Accomplishments:			
Continued Milestone (MS) B preparation and acquisition documentation.			
Continued system engineering.			
Completed Technology Readiness Assessment(TRA).			
FY 2014 Plans:			ŀ
Continue system engineering.			
Complete MS B preparation and acquisition documentation.			1
Commence SKC software development			i

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

Navy

UNCLASSIFIED

Page 18 of 25 R-1 Line #131

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: M	arch 2014	
Appropriation/Budget Activity 1319 / 5		t (Number/N SEWIP Bloo			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	ntities in Each)		FY 2013	FY 2014	FY 2015
Conduct MS B. Conduct Integrated Baseline Review (IBR). Award Preliminary Design and Engineering and Manufacturing Develo	pment (E&MD) contract.				
FY 2015 Plans: Continue system engineering. Continue SKC software development.					
Title: SEWIP Block 3 Development			0.500	14.225	51.713
	Ar	ticles:	-	-	-
FY 2013 Accomplishments: Continued Surface Electronic Warfare Team Trainer (SEWTT) develop	oment.				
FY 2014 Plans: Continue SEWTT development. Commence Preliminary Design. Conduct System Functional Review (SFR) and Systems Requirements	s Review (SRR).				
FY 2015 Plans: Continue SEWTT development. Commence Engineering and Manufacturing Development (E&MD) Conduct Preliminary Design Review (PDR) Complete Preliminary Design Conduct Critical Design Review (CDR).					
Title: TEWM Development	4.	#ioloo:	18.787	0.996	-
FY 2013 Accomplishments: Continued development of modifications to the TEWM system.	AI	ticles:	-	-	-
FY 2014 Plans: Complete development of modifications to the TEWM system.					
FY 2015 Plans: N/A					
Title: TEWM Testing			4.320	8.039	-
	Aı	ticles:	-	-	-

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)
Navy

UNCLASSIFIED

Page 19 of 25 R-1 Line #131

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: N	larch 2014	
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)		ct (Number/N I SEWIP Bloc		
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	antities in Each <u>)</u>		FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Continued TEWM test planning and coordination. Continued TEWM Simulator and Radar test platform support. Commenced testing.					
FY 2014 Plans: Complete TEWM testing. Complete TEWM Simulator and Radar test platform support.					
FY 2015 Plans: N/A					
Title: TEWM System Engineering	_		1.317	2.366	-
FY 2013 Accomplishments: Continued TEWM systems engineering and integration.	Ar	ticles:	-	-	-
FY 2014 Plans: Complete TEWM systems engineering and integration.					
FY 2015 Plans: N/A					
Title: Speed to Fleet- Transportable Electronic Warfare Module (TEW	,	ticles:	3.534	0.993	-
FY 2013 Accomplishments: - Refined design shortfalls based on operator feedback and FY 2012 - - Conducted local field testing of all improvements design, and comple - Completed and delivered two units.					
FY 2014 Plans: - Continue to test equipment at sea.					
FY 2015 Plans: N/A					
	Accomplishments/Planned Programs Sub	totals	53.426	58.300	71.64

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy UNCLASSIFIED
Page 20 of 25

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
1	3	- , (umber/Name)
1319 / 5	PE 0604757N I Ship Self Def (Engage: Soft Kill/EW)	3321.1 SE	WIP BIOCK 3

C. Other Program Funding Summary (\$ in Millions)

			FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
 0204228N/2312: AN/SLQ-32 	79.950	150.353	214.582	-	214.582	237.938	339.173	379.358	503.719	Continuing	Continuing

Remarks

D. Acquisition Strategy

SEWIP will develop block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each block and sub-block will be developed and contracted in an individual yet coordinated and overlapping fashion. Specifically, SEWIP Block 3 involves the transitioning and leveraging of work performed under the INTOP program sponsored by ONR, which focused on designing/architecting an integrated Electronic Attack (EA), Information Operations (IO), and Line of Site (LOS) Comms system for Naval Surface Platforms. SEWIP Block 3 also leverages work performed under the TEWM program that is sponsored by NRL that focuses on technique development and active engagement analysis/modeling for Naval surface combatants.

TEWM is a non-acquisition development and demonstration program to rapidly deliver advanced counter terminal EW capability in a transportable form factor for Fleet application. The units developed under this Speed to Fleet project provides a rapidly deployable capability. Multiple copies of the first articles can be rapidly replicated depending on operational needs.

UNCLASSIFIED

E. Performance Metrics

Achieve Block 3 Milestone B.

Award Preliminary Design/E&MD Contract

Complete TEWM development.

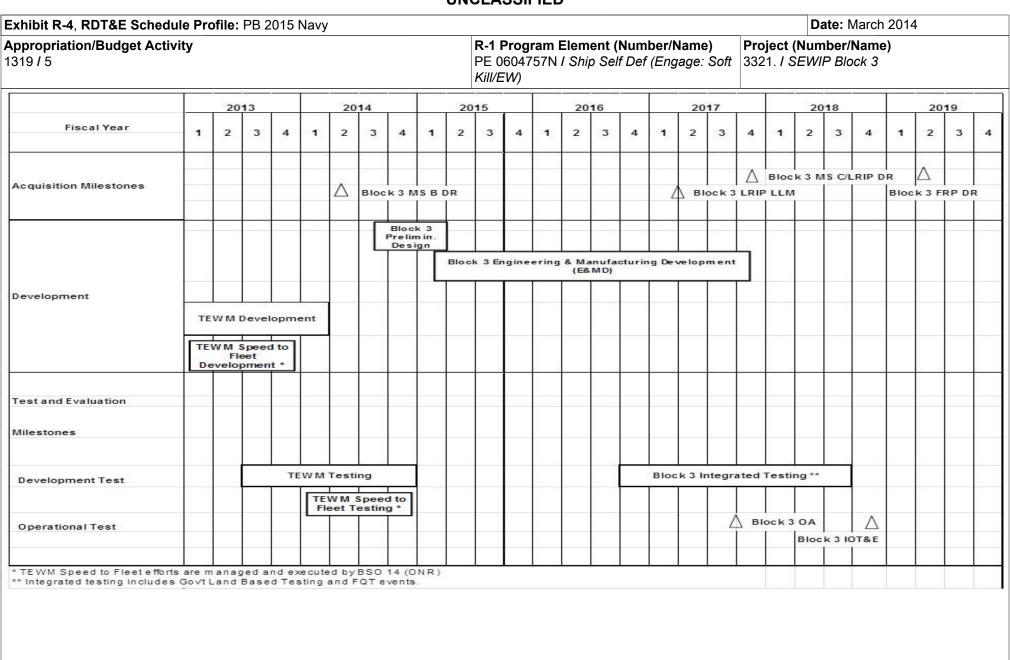
Complete TEWM integration and testing.

Achieve Block 3 MS C / LRIP DR.

Complete laboratory and at-sea testing against captive carry simulators.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

Navy Page 21 of 25 R-1 Line #131



PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

UNCLASSIFIED Page 22 of 25

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2015 N	Navy							Date: Marc	ch 2014	
1							t (Number/ Self Def (En	lumber/Name) IULKA				
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO [#]	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
3362: <i>E-NULKA</i>	-	-	4.867	-	-	-	-	-	-	-	-	4.867
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

^{*} The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

E-Nulka is an upgrade to the Nulka decoy to expand frequency coverage to counter an emerging class of Anti-Ship Missiles (ASMs) for which no active countermeasure currently exists. The Program supports the engineering development of the payload receiver, signal processor and transmitter, construction of complete payloads, integration of the completed payload with the Nulka vehicle, and subsequent technical and operational assessment. Due to changes in the security classification guidance, this program will transfer to a classified portion of the budget starting in FY15.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: E-Nulka Decoy	-	4.867	-
Articles:	-	-	-
FY 2013 Accomplishments: N/A			
FY 2014 Plans: - Define system requirements and specifications Conduct modeling and simulation Initiate development of Acquisition Documentation.			
FY 2015 Plans: N/A			
Accomplishments/Planned Programs Subtotals	-	4.867	_

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

E-Nulka is a new start program in FY14 which supports the engineering development/enhancement of the payload receiver, transmitter, signal processor and power supply. The E-Nulka payload will be competitively contracted and developed to be integrated into the existing Nulka flight vehicle. The payload builds on technologies

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW)

UNCLASSIFIED

Page 23 of 25 R-1 Line #131

ON	CLASSIFIED	
Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / Ship Self Def (Engage: Soft Kill/EW)	
and concepts currently in development by the Office of Naval Research (ONR) classified portion of the budget starting in FY15.	Due to changes in the security classification	guidance, this program will transfer to a
E. Performance Metrics		
Complete system requirements development. Complete system development and integration.		
Complete development testing.		

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014	
	,	,	umber/Name)
1319 / 5	PE 0604757N I Ship Self Def (Engage: Soft Kill/EW)	3362 <i>I E-N</i>	IULKA

Fiscal Year		20	13		2014				2015				2016				2017				2018				2019			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	2
Acquisition Milestones (TBD)																												
Sy stem s Development Milestones						QUIR VELO																						
Test & Evaluation Milestones Development Test Operational Test																												

NOTE: Due to changes in the security classification guidance, this program will transfer to a classified portion of the budget starting in FY15.

PE 0604757N: Ship Self Def (Engage: Soft Kill/EW) Navy

Page 25 of 25