Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	14.186	18.649	21.609	-	21.609	15.828	22.089	20.298	20.532	Continuing	Continuing
3030: *FA-18 SLAP*	13.234	18.649	21.609	-	21.609	15.828	22.089	20.298	20.532	Continuing	Continuing
3182: *T-45 SLAP*	0.952	-	-	-	-	-	-	-	-	0.000	0.952

A. Mission Description and Budget Item Justification

3030: The F/A-18A-F Service Life Assessment Program (SLAP) is assessing the structural condition of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations inventory requirements.

3182: The T-45 SLAP is assessing the structural condition of the T-45 Fleet in order to determine structural modifications necessary to extend the aircraft designed service life to support Pilot Training Requirements and Naval Flight Officer Training Requirements until 2021.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	14.614	18.649	21.257	-	21.257
Current President's Budget	14.186	18.649	21.609	-	21.609
Total Adjustments	-0.428	-	0.352	-	0.352
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.415	-			
• Program Adjustments	-	-	-0.046	-	-0.046
• Section 219 Reprogramming	-0.013	-	-	-	-
• Rate/Misc Adjustments	-	-	0.398	-	0.398

Change Summary Explanation

Technical: Not applicable.

Schedule: 3030 F/A-18 SLAP schedule changes are due to schedule descriptions and events that have been updated to more accurately reflect the efforts of the SLAP Program. Subsystems SLAP is being broken out as a separate effort from Structural SLAP for clarity.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*	PROJECT 3030: *FA-18 SLAP*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3030: *FA-18 SLAP*	13.234	18.649	21.609	-	21.609	15.828	22.089	20.298	20.532	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The F/A-18E/F Service Life Assessment Program (SLAP) is assessing the structural condition of the F/A-18E/F fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. The goal of the SLAP program is to identify critical structures and components that can achieve the extended service life limit goals. An increase in total landings and flight hours would allow the F/A-18E/F to meet CNO inventory requirements, to include planning for the announced one year Joint Strike Fighter slide. This effort is required to be conducted for these airframes to ascertain what actions and modifications must be taken to safely operate each system beyond its designed life until the targeted end of service life.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: F/A-18 SLAP	13.234	18.649	21.609
Articles:	0	0	0
Description: Funding supports assessing the structural condition of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve CNO inventory requirements. ***FY 2010 Accomplishments:*** Continue analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours. ***FY 2011 Plans:*** Continue analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours. ***FY 2012 Plans:*** Continue analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours.			
Accomplishments/Planned Programs Subtotals	13.234	18.649	21.609

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*	PROJECT 3030: *FA-18 SLAP*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• APN/0525: *F-18 Series (OSIP 011-99)*	106.555	117.466	146.592	0.000	146.592	277.708	462.988	368.770	300.300	238.904	2,608.653

D. Acquisition Strategy

The SLAP program employs sole source contracts with Boeing, the aircraft prime manufacturer. SLAP consists of structural analyses of the main landing gear, arresting hook and catapult back-up structures, vertical tails, wings and fuselage. The current life limits for the F/A-18 E/F are 6,000FH, 2,250 Cat/Traps and 15,750 total landings. The F/A-18 E/F SLAP program of record states the SLAP goals as 12,000FH, 3,500 Cat/Traps and 22,500 total landings. The primary objective of F/A-18 E/F SLAP is to determine if the stated SLAP goals are feasible. SLAP further decomposes program of record goals into smaller discreet steps, analyzing requirements to extend flight hours from 6,000 to 9,000 first. These analyses will provide for the development of aircraft modifications necessary to extend total aircraft landings, catapults/arrestments, and flight hours. The F/A-18 SLAP Program consists of two major engineering efforts: the aircraft structural assessment and the aircraft subsystems assessment. Both efforts are broken into multiple phases which develop tools and models, assess current aircraft usage, and develop concepts to extend aircraft life to meet CNO objectives. The program will combine exploitation of complete structural fatigue testing and actual fleet usage with the expectation of extending the service life of the F/A-18 E/F aircraft. Conducting F/A-18 E/F SLAP to study the aircraft lifetime will provide a better estimate of aircraft service life and a follow on Service Life Extension Program (SLEP).

E. Performance Metrics

The SLAP provides an assessment of aircraft structure fatigue life as affected by flight maneuver, catapults, arrestments and landings, based on actual usage and identifies the efforts required to extend the aircraft life to SLAP goals. During SLAP Phase A (FY08-FY12) tools and modeling necessary to assess usage and fatigue life are developed. During SLAP Phase B (FY11-FY13) specific structural locations which do not meet SLAP goals are identified and analyzed. Flight Control Surface and Subsystems SLAP is also initiated concurrently with Structures Phase B. Retrofit concepts and repairs for deficient locations are developed during SLAP Phase C (FY13-FY17). SLAP is followed by the SLEP during which the actual retrofit and repairs are performed under a future OSIP to be established in FY14.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*	PROJECT 3030: *FA-18 SLAP*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prod Dev SLAP F/A-18A-D	SS/CPFF	Boeing:St. Louis, MO	28.775	-		-		-		-	0.000	28.775	28.775
Prod Dev SLAP F/A-18E-F	SS/CPFF	Boeing:St. Louis, MO	28.120	12.235	Mar 2011	14.665	Mar 2012	-		14.665	53.425	108.445	108.445
		Subtotal	56.895	12.235		14.665		-		14.665	53.425	137.220	137.220

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SLAP Inventory Model	WR	ONR:Arlington, VA	2.250	-		-		-		-	0.000	2.250	
SLAP F/A-18 E/F	WR	NAWCAD:Patuxent River, MD	3.872	0.306	Dec 2010	1.551	Jan 2012	-		1.551	2.911	8.640	
SLAP F/A-18 E/F	WR	FRC Southwest:San Diego, CA	2.057	5.273	Dec 2010	5.020	Jan 2012	-		5.020	22.841	35.191	
		Subtotal	8.179	5.579		6.571		-		6.571	25.752	46.081	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval - SLAP E/F	WR	NAWCAD:Pax River, MD	-	0.500	Jan 2011	-		-		-	0.500	1.000	
		Subtotal	-	0.500		-		-		-	0.500	1.000	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Govt ETS SLAP F/A-18 E/F	WR	NAWCAD:Pax River, MD	0.367	0.335	Dec 2010	0.373	Jan 2012	-		0.373	0.000	1.075	
		Subtotal	0.367	0.335		0.373		-		0.373	0.000	1.075	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*	PROJECT 3030: *FA-18 SLAP*	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	65.441	18.649		21.609		-		21.609	79.677	185.376	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0702207N: *Depot Maintenance (NON-IF)*	**PROJECT** 3030: *FA-18 SLAP*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0702207N: *Depot Maintenance (NON-IF)*	**PROJECT** 3030: *FA-18 SLAP*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Service Life Assessment Program F/A-18				
Structures: 1.0 Structures Phase A	1	2010	4	2012
Structures: 2.0 Structures Phase B	1	2012	4	2014
Structures: 3.0 Structures Phase C	1	2014	4	2016
Subsystems: 4.0 Subsystems Phase A	1	2010	4	2010
Subsystems: 5.0 Subsystems Phase B	1	2011	1	2015
Subsystems: 6.0 Subsystems Phase C	2	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0702207N: *Depot Maintenance (NON-IF)*	PROJECT 3182: *T-45 SLAP*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3182: *T-45 SLAP*	0.952	-	-	-	-	-	-	-	-	0.000	0.952
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The T-45 Service Life Assessment Program (SLAP) is assessing the structural condition of the T-45 fleet in order to determine structural modifications necessary to extend the aircraft designed service life to support Pilot Training Requirements (PTR) and Naval Flight Officer Training Requirements (NTR) until 2021. The T-45 aircraft structure is currently fatigue limited to 14,400 flight hours based on initial full-scale fatigue tests conducted from 1992-1996. This service life limit prevents the T-45 fleet from meeting PTR/NTR requirements past 2016. Recent studies have determined that the fleet squadrons have not been flying the T-45 aircraft as aggressively as the initial fatigue studies predicted. These studies demonstrate that the 14,400 flight hour service life can likely be extended to 21,600 flight hours, which will support meeting PTR/NTR until 2021. A T-45 SLAP is required to assess the critical areas within the structure that require modifications to achieve a 21,600 flight hour service life. This assessment will be based on the updated fleet aircraft usage spectrum and future predicted training missions of the T-45 aircraft. The assessment will address critical structural areas that are either landing and/or flight hour limited. To maintain PTR/NTR beyond 2021, analysis and studies will be conducted to outline improvements, assess manufacturing capabilities and develop specifications for future trainer aircraft.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: T-45 SLAP	0.952	-	-
Articles:	0		
FY 2010 Accomplishments: Build/Publish results in three separate reports (Updated Finite Element Model report, SLAP Internal Loads Methodology report, and SLAP Fatigue Analysis report).			
Accomplishments/Planned Programs Subtotals	0.952	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The SLAP is a sole source contract effort with Boeing, the aircraft prime contractor. SLAP consists of structural analyses of landing gear, arresting hook and catapult back-up structure, vertical tail, wings and fuselage. These analyses will facilitate the future development of aircraft modifications necessary to extend the total aircraft service life from 14,400 to 21,600 flight hours.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0702207N: *Depot Maintenance (NON-IF)*	**PROJECT** 3182: *T-45 SLAP*

E. Performance Metrics

SLAP provides an assessment of aircraft structure fatigue life as affected by flight maneuver, catapults, arrestments and landings, based on actual usage and identifies the efforts required to extend the aircraft life to SLAP goals. Effort delineates tasking incrementally to include; Tools and modeling necessary to assess usage and fatigue life are developed, specific structural locations which do not meet SLAP goals are identified and analyzed. Retrofit concepts and repairs for deficient locations are developed, followed by the Service Life Extension Program during which the actual retrofit and repairs are undertaken.