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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

, ,												
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	39,573.685	617.695	737.149	512.631	-	512.631	592.304	515.742	359.012	269.091	Continuing	Continuing
2262: Joint Strike Fighter EMD STOVL	39,573.685	617.695	737.149	482.823	-	482.823	557.360	439.945	244.047	96.185	Continuing	Continuing
3350: F-35B Sustainment/ Capability Enhancements	0.000	0.000	0.000	14.904	-	14.904	14.976	14.960	0.000	0.000	0.000	44.840
3351: F-35B Follow-on Development	0.000	0.000	0.000	14.904	-	14.904	19.968	60.837	114.965	172.906	Continuing	Continuing

MDAP/MAIS Code(s): 198

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

FY07: 1 Conventional Take Off and Landing (CTOL) flight test article

FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article; 1 STOVL ground test article

FY09: 1 STOVL flight test article; 2 CTOL ground test articles

FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV

FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

^{*} FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

FY13: 1 CV flight test article

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	651.786	737.149	693.484	-	693.484
Current President's Budget	617.695	737.149	512.631	-	512.631
Total Adjustments	-34.091	0.000	-180.853	-	-180.853
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-17.800	0.000			
SBIR/STTR Transfer	-16.291	0.000			
 Rate/Misc Adjustments 	0.000	0.000	-180.853	-	-180.853

Change Summary Explanation

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

The SDD funding profile has been rephased (FY14-17) to better align resources to requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
l			

1319: Research, Development, Test & Evaluation, Navy

PE 0604800M: (U)Joint Strike Fighter (JSF)

PE 0604800M: (U)Joint Strike Fighter (JSF) 2262: Joint Strike Fighter EMD STOVL

BA 5: System Development & Demonstration (SDD) - EMD

]							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
2262: Joint Strike Fighter EMD STOVL	39,573.685	617.695	737.149	482.823	-	482.823	557.360	439.945	244.047	96.185	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0			

^{*} FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

Total cost including USN, USMC, International partner contributions and USAF funding are: FY12 \$2,735.504M, FY13 \$2,803.393M and FY14 \$1,777.322M. R-2 data reflects variant unique funding only.

R2A costs shown above reflects service funding only.

R-2A(section B)/R-3 displays total combined Service (i.e. not Service specific), including International partners, funding for JSF Engineering and Manufacturing Development(EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:

USAF PE 0604800F BPAC 653831 USN PE 0604800N Project Unit 2261 USMC PE 0604800M Project Unit 2262 International Partners

D&S Includes:

USAF PE 0604800F BPAC 653832 USN PE 0604800N Project Unit 3352 USMC PE 0604800M Project Unit 3350

JSF FoD Includes:

Navy

UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	2262: Joint Strike Fighter EMD STOVL
BA 5: System Development & Demonstration (SDD)	- EMD	

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

The top-line Program Element reflects the unique variant for each Service. Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

- FY07: 1 Conventional Take Off and Landing (CTOL) flight test article
- FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article); 1 STOVL ground test article
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- FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV
- FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV
- FY13: 1 CV flight test article

Navy

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Development and Demonstration	2,025.446	1,795.102	761.153
Articles:	· '	0	0
Description: SDD execution of the Air System (Lockheed Martin) including International Commonality Effort; includes airframe, vehicle and mission systems, autonomic logistics, systems engineering & test efforts.			
FY 2012 Accomplishments:			

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: A	April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD	PROJE 2262: 3	JECT : Joint Strike Fighter EMD STOVL			
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each)		FY 2012	FY 2013	FY 2014	
Continue SDD execution of the Air System, with Lockheed Martin in airframe, vehicle systems, mission systems, autonomic logistics, sy						
FY 2013 Plans: Continue SDD execution of Air System (Lockheed Martin), including vehicle systems, mission systems, autonomic logistics, systems en		ne,				
FY 2014 Plans: Continue SDD execution of Air System (Lockheed Martin), including vehicle systems, mission systems, autonomic logistics, systems en with planned completion of SDD in 2018.	•					
Title: F135 Propulsion System	Art	ticles:	277.559 0	359.618 0	399.749 (
Description: SDD execution of the F135 Propulsion System (Pratt testing, autonomic logistics, integration & performing technology materials).		cludes				
FY 2012 Accomplishments: Continue SDD execution of the F135 Propulsion System with Pratt integration and performing technology maturation efforts.	& Whitney that includes engine testing, autonomic logistic	es,				
FY 2013 Plans: Continue SDD execution of F135 Propulsion System (Pratt & Whitr and performing technology maturation efforts.	ney), including engine testing, autonomic logistics, integrat	tion				
FY 2014 Plans: Continue SDD execution of the F135 Propulsion System with Pratt integration and performing technology maturation efforts. Funding contract value resulting from the total program baseline review.						
Title: F136 Propulsion System	Art	ticles:	5.000 0	0.000	0.000	
Description: SDD execution of the F136 Propulsion System (Gene	eral Electric/Rolls Royce)					
FY 2012 Accomplishments:						

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: /	April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy	R-1 ITEM NOMENCLATURE PE 0604800M: (U) Joint Strike Fighter (JSF)	PROJE		Sightor EMD S	STOVI	
BA 5: System Development & Demonstration (SDD)	- EMD	2202. 3	Joint Strike Fighter EMD STOVL			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	·		FY 2012	FY 2013	FY 2014	
Continued F136 Propulsion System Development effort by the GE/Ro	lls Royce Fighter Engine Team.					
Title: Systems Engineering (SE)	Art	ticles:	44.121 0	20.063	32.188 (
Description: SDD SE including systems operations requirements and requirements integration, and interoperability support.	alysis, program integration,					
FY 2012 Accomplishments: Continue SDD Systems Engineering (SE) including systems operation integration, and interoperability support.	ns requirements analysis, program integration, requirem	nents				
FY 2013 Plans: Continue SDD SE, including systems operations requirements analys interoperability support. Decrease in funds is due to across the board						
FY 2014 Plans: Continue SDD SE, including systems operations requirements analysinteroperability support.	is, program integration, requirements integration, and					
Title: Development Test and Evaluation (DT&E)	Art	ticles:	152.406 0	374.258 0	381.713 (
Description: Government DT&E/Operational Testing (OT) in support Elements of DT&E include preparation for flight testing and weapons						
FY 2012 Accomplishments: Continue government DT&E/OT in support of test aircraft. Continue fi (CTOL), Short Take Off Vertical Landing (STOVL), and Carrier Varian mission systems testing to include initial Block 2B. Elements of DT&E testing, and component capabilities testing.	at (CV) variants to expand the air vehicle envelope to su	pport				
FY 2013 Plans: Continue government DT&E/OT in support of test aircraft. Continue for expand air vehicle envelope and support mission systems testing (incomposition for flight testing, weapons integration testing, and component capabilities.)	lude initial Block 2B). Elements of DT&E include prepar					
FY 2014 Plans:						

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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khibit R-2A, RDT&E Project Justification: PB 2014 Navy						
PRIATION/BUDGET ACTIVITY Research, Development, Test & Evaluation, Navy System Development & Demonstration (SDD) R-1 ITEM NOMENCLATURE PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD						
uantities in Each)	FY	Y 2012	FY 2013	FY 2014		
Arri		1	140.477	95.76		
				,		
ion systems, weapons integration, mission support, and						
sion systems, weapons integration, mission support, and						
sion systems, weapons integration, mission support, and ecrease is due to across the board reduction between bo	th					
Δrt	icles:	93.608	113.875 0	106.75		
gineering technical services, and studies analyses and						
al services, and studies analyses and evaluations in supp	port of					
•						
	uantities in Each) flight sciences testing of CTOL, STOVL, and CV variants include initial Block 2B). Elements of DT&E include prepartilities testing. Art mission systems, weapons integration, mission support, and in systems in the board reduction between both in support in the systems, and studies analyses and evaluations in support in support in support in the systems in t	PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD partities in Each flight sciences testing of CTOL, STOVL, and CV variants to include initial Block 2B). Elements of DT&E include preparation illities testing. Articles: mission systems, weapons integration, mission support, and sion systems, weapons integration, mission support, and sion systems, weapons integration, mission support, and sion systems, weapons integration, mission support, and ecrease is due to across the board reduction between both Articles:	R-1 ITEM NOMENCLATURE PE 0604800M: (U)Joint Strike Fighter (JSF) luantities in Each) flight sciences testing of CTOL, STOVL, and CV variants to clude initial Block 2B). Elements of DT&E include preparation illities testing. Articles: mission systems, weapons integration, mission support, and cion systems, weapons integration, mission support, and cion systems, weapons integration, mission support, and ecrease is due to across the board reduction between both Articles: 93.608 Articles: 93.608 Articles: al services, and studies analyses and evaluations in support of all services, and studies analyses and evaluations in support of	PE 0604800M: (U) Joint Strike Fighter (JSF) - EMD 2 uantities in Each) flight sciences testing of CTOL, STOVL, and CV variants to notude initial Block 2B). Elements of DT&E include preparation illities testing. Articles: Articles: ion systems, weapons integration, mission support, and in systems, weapons integrat		

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	2262: Join	t Strike Fighter EMD STOVL
BA 5: System Development & Demonstration (SDD)	- EMD		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives. Program Management Support decrease is due to across the board reduction between both services. Continue use of RDT&E for civilian pay. (Air Force Only).			
Accomplishments/Planned Programs Subtotals	2,735.504	2,803.393	1,777.322
RDT&E, AF/ 0604800F	1,366.147	1,192.506	782.335
International Partner (SDD)	145.664	149.346	4.411
RDT&E,N (Navy)/0604800N/2261	605.998	724.392	507.753
Navy Subtotals	617.695	737.149	482.823

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

		-	FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
RDT&E/0604800F: Joint Strike	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
Fighter											
International: International	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
Partner (SDD)											
• APAF/0207142F: <i>F-35 Joint</i>	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.4771	50,878.7501	89,907.778
Strike Strike Fighter											
• RDT&E/0604800N/2261: <i>JT</i>	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
Strike Fighter (JSF) - EMD	00.400		44 707		44 707	404040	0.4.400	00.400			500.000
• APN/0605B: F-35 Joint Strike	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
Fighter STOVL Spares	400.000	05.400	04.700		04.700	400.000	405.004	0.40.770	100 111	0.004.077	E 040 E70
• APN/0147C: F-35 Joint Strike	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
Fighter CV AP	29.902	44 466	42.060		42.060	17.310	22 270	101 000	63.995	0.000	348.286
APN/0605C: F-35 Joint Strike Fighter CV Spares	29.902	41.466	42.000		42.060	17.310	32.270	121.283	63.995	0.000	340.200
OPN/4265: Other Aviation	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
Support Equipment	3.003	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.005
• International 2: International	1,808.640	3,453.903	5,738.517		5.738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
Procurement	1,000.040	0,400.000	0,700.017		0,700.017	7,000.720	0,020.000	5,105.507	7,047.200	3.000	-10,0-10.012
• MC/0207142F: USAF MILCON	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300
	21.200	. 5.000	. 1.000		. 1.000	. 2.100	23.000	33.170	. 1.000	.,551.200	2,000.000

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Just	ification: PB	3 2014 Navy							DATE: A	oril 2013	
APPROPRIATION/BUDGET ACTIV	ITY			R-1 IT	EM NOMEN	ICLATURE		PROJEC	T		
1319: Research, Development, Test	& Evaluation	n, Navy		PE 06	04800M: <i>(U</i>)Joint Strike	Fighter (JSF)	2262: Jo	int Strike Fig	ghter EMD S	TOVL
BA 5: System Development & Demo	nstration (SI	DD)		- EMD					_		
C. Other Program Funding Summa	ary (\$ in Mill	ions)									
	•	,	FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	ОСО	Total	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cos
• APAF/0204142F: <i>USAF</i>	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.34
Modification Funding											
• FOD/0207142F: USAF Follow-on	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.11
Development											
0207142F/USAF: USAF Spares	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
OPN/4267: Autonomic Logistics	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
Information System (ALIS)											
• USAF/OPAF PE 27142F: OPAF	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.94
APN/0592: F-35 STOVL Series	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.24
 APN/0593: F-35 CV Series 	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800N/3352:	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.980
F-35C Sustainment/Capability											
Enhancements											
• RDT&E/0604800N/3353: <i>F-35C</i>	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.73
Follow-on Development											
• USAF SDD BP 653832:	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.80
Deployability and Suitability											
Enhancements											
 PAF/0207142F: JSF CTOL 	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.85
Advance Procurement											
• DCA/0207142F 676011: Dual	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.68
Capable Aircraft (DCA)											
APN/0147: F-35 Joint Strike	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.67
Fighter CV											
APN/0152C: F-35 Joint Strike	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.76
Fighter STOVL AP											
APN/0152: F-35 Joint Strike	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
Fighter STOVL											
• USN MILCON: USN JSF	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.30
MILCON											
• RDT&E/0604800N/3194: <i>USN</i>	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.26
USRL											

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	2262: Joint	t Strike Fighter EMD STOVL
BA 5: System Development & Demonstration (SDD)	- EMD		

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

			FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost

Remarks

D. Acquisition Strategy

The SDD program consists of a cost-reimbursement contract awarded to Lockheed Martin Aeronautics Company to develop the F-35 Air System, consisting of three aircraft variants and its associated logistics support system, for the U.S. Services and international participants. Similarly, a cost-reimbursement contract was awarded to Pratt & Whitney to develop the F135 propulsion system. Ground and flight testing will be conducted during development to accomplish validation and verification, with the extensive use of modeling and simulation to offset the risk of this large, complex, and concurrent lifecycle program. A comprehensive logistics support environment, including an integrated training system for aircrew, maintenance, and support personnel, is also being developed.

On 25 April 2011, the Department of Defense terminated the development of the General Electric Rolls-Royce Fighter Engine Team F136 propulsion system.

The F-35 Program has made international involvement a key element of the acquisition strategy. This includes international partnership in the development, production, and sustainment phases of the lifecycle. Additional international participation includes Foreign Military Sales arrangements.

In Fiscal Year 2007, separate cost-type contracts were awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney to begin low rate initial production for F-35 air vehicles, propulsion systems, and sustainment for the fielded systems. Transition to fixed-price-type contracts occurred with the fourth low rate lot. To provide logistics support for delivered aircraft, Performance-Based Logistics cost-type contracts will be awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney.

At the completion of Low Rate Initial Production, a Defense Acquisition Board review, and Milestone Decision Authority approval, the F-35 Program will enter Full Rate Production. Fixed-price procurement contracts will be awarded for F-35 air vehicles and propulsion systems for the U.S. Services and international participants. Multiyear procurement authority for the F-35 Air System will be requested for Full Rate Production. Concurrently, multiple-year, fixed-price-type Performance Based Logistics contracts for sustainment will be executed to support multi-Service and multi-national requirements.

E. Performance Metrics

The following are the key performance parimeters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius

Navy

Conventional Take Off and Landing Does Not Meet Requirement

Carrier Variant (CV) Meets Tripwire Requirement

Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: System Development & Demonstration (SDD)

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0604800M: (U)Joint Strike Fighter (JSF)
2262: Joint Strike Fighter EMD STOVL

CV Recovery

Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance

Flat Deck (High-High-Profile Fuel) Meets Requirement In Tripwire Band Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability

Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection

CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability

Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement

CV Exceeds ORD Objective

Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement

STOVL UK Meets/Exceeds Tripwire Requirement

Sortie Generation Rate

Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement

Carrier Variant (CV) Meets/Exceeds Tripwire Requirement

STOVL USMC Meets/Exceeds Tripwire Requirement

STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints

CTOL Meets/Exceeds Tripwire Requirement

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume

CV Exceeds ORD Objective

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD	PROJECT 2262: Joint Strike Fighter EMD STOVL
STOVL USMC Exceeds ORD Objective STOVL UK Meets/Exceeds Tripwire Requirement	1	
Logistics Footprint-Weight CV Exceeds ORD Objective STOVL USMC Exceeds ORD Objective STOVL UK Meets/Exceeds Tripwire Requirement		

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604800M: (U)Joint Strike Fighter (JSF) 2262: Joint Strike Fighter EMD STOVL

- EMD

Product Developmen	nt (\$ in Mi	illions)		FY 2	2012	FY 2	2013		2014 ase		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Lockheed Martin - SDD	C/CPAF	Lockheed Martin:Ft. Worth, TX	27,393.270	2,025.446	Nov 2011	1,795.102	Oct 2012	761.153	Dec 2013	-		761.153	2,093.817	34,068.788	27,535.63
Lockheed Martin - IDIQ D0022	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	11.572	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	11.572	
Lockheed Martin - IDIQ D0009	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	16.759	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	16.759	
Lockheed Martin - BOA	SS/BOA	Lockheed Martin:Ft. Worth, TX	3.511	0.000		0.000		0.000		-		0.000	0.000	3.511	
Pratt and Whitney - SDD	C/CPAF	Pratt and Whitney:Hartford, CT	6,906.621	277.559	Oct 2011	359.618	Oct 2012	399.749	Dec 2013	-		399.749	274.288	8,217.835	6,810.64
Pratt and Whitney - Close Out Contract C0132	C/CPFF	Pratt and Whitney:Hartford, CT	1.364	0.000		0.000		0.000		-		0.000	0.000	1.364	
Pratt and Whitney - Close Out Contract C0050	SS/CPFF	Pratt and Whitney:Hartford, CT	2.211	0.000		0.000		0.000		-		0.000	0.000	2.211	
Pratt and Whitney - BOA	SS/BOA	Pratt & Whitney:Hartford, CT	35.983	0.000		0.000		0.000		-		0.000	0.000	35.983	
Pratt and Whitney - IDIQ	SS/IDIQ	Pratt and Whitney:Hartford, CT	10.925	0.000		0.000		0.000		-		0.000	0.000	10.925	
General Electric - SDD	SS/CPAF	FET:Cincinnati, OH	2,155.573	5.000	Sep 2012	0.000		0.000		-		0.000	0.000	2,160.573	2,415.49
General Electric - IDIQ D0009	SS/IDIQ	FET:Cincinnati, OH	0.264	0.000		0.000		0.000		-		0.000	0.000	0.264	
General Electric - IDIQ D0074	SS/IDIQ	FET:Cincinnati, OH	4.175	0.000		0.000		0.000		-		0.000	0.000	4.175	
General Electric - F136 Transition	SS/CPFF	FET:Cincinnati, OH	100.400	0.000		0.000		0.000		-		0.000	0.000	100.400	
General Electric - BOA	SS/BOA	FET:Cincinnati, OH	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	
General Electric - Phase	SS/CPAF	FET:Cincinnati, OH	382.753	0.000		0.000		0.000		-		0.000	0.000	382.753	
Systems Engineering	Various	Various:Various	289.956	44.121	Oct 2012	20.063	Nov 2012	32.188	Nov 2013	-		32.188	99.915	486.243	
		Subtotal	37,320.885	2,352.126		2,174.783		1,193.090		0.000		1,193.090	2,468.020	45,508.904	

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604800M: (U)Joint Strike Fighter (JSF) 2262: Joint Strike Fighter EMD STOVL

- EMD

Support (\$ in Millions	s)			FY 2	2012	FY 2	2013		2014 ase	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
AFFTC/Eglin	Various	Eglin AFB:Eglin, FL	102.435	14.298	Oct 2011	15.340	Oct 2012	5.416	Nov 2013	-		5.416	8.672	146.161	
ASC/AFRL	Various	ASC/AFRL:Dayton, OH	55.685	8.762	Oct 2011	8.255	Oct 2012	2.525	Nov 2013	-		2.525	5.475	80.702	
Bolling AFB	Various	Bolling AFB:Washington, DC	6.775	0.000		0.000		0.000		-		0.000	0.000	6.775	
DMEA	Various	DMEA:McClellan, CA	5.630	0.000	Oct 2011	1.400	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.030	
ESC	Various	ESC:Hanscom AFB, MA	7.103	0.000	Oct 2011	0.511	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.614	
AEDC/Fuel	Various	AEDC/Fuel:Arnold, TN	143.754	0.000	Oct 2011	23.266	Nov 2012	0.000	Nov 2013	-		0.000	0.000	167.020	
NADEP Jacksonville	Various	NADEP:Jacksonville, FL	7.880	0.000	Oct 2011	1.757	Oct 2012	0.000	Nov 2013	-		0.000	0.000	9.637	
Miscellaneous	Various	Various:Various	226.696	51.771	Oct 2011	21.332	Nov 2012	37.488	Nov 2013	-		37.488	80.491	417.778	
NAWC China Lake	Various	NAWC WD:China Lake, CA	96.177	21.418	Oct 2011	24.833	Nov 2012	20.710	Nov 2013	-		20.710	51.927	215.065	
NAWC Patuxent River	Various	NAWC AD:Patuxent, MD	299.158	41.115	Oct 2011	42.672	Nov 2012	29.621	Nov 2013	-		29.621	100.346	512.912	
NAWC TSD	Various	NAWC TSD:Orlando, FL	9.680	0.000	Oct 2011	0.771	Nov 2012	0.000	Nov 2013	-		0.000	0.000	10.451	
NSWC	Various	Various:Indian Head, MD	3.813	0.000	Oct 2011	0.308	Nov 2012	0.000	Nov 2013	-		0.000	0.000	4.121	
SPAWAR	Various	Various:San Diego, CA	8.434	0.000	Oct 2011	0.032	Nov 2012	0.000	Nov 2013	-		0.000	0.000	8.466	
DFAS	Various	Various:Various	0.000	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	0.000	
SBIR Technology Insertion Congressional Add	Various	Various:Various	24.187	0.000		0.000		0.000		-		0.000	0.000	24.187	
		Subtotal	997.407	137.364		140.477		95.760		0.000		95.760	246.911	1,617.919	

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013

PROJECT

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604800M: (U)Joint Strike Fighter (JSF) 2262: Joint Strike Fighter EMD STOVL

- EMD

Test and Evaluation	(\$ in Milli	ons)		FY	2012	FY 2	2013		2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
NAWC China Lake	Various	NAWC WD:China Lake, CA	26.630	7.581	Oct 2011	5.829	Nov 2012	3.820	Nov 2013	-		3.820	9.249	53.109	
NAWC Patuxent River	Various	NAWC AD:Patuxent River, MD	301.964	74.780	Oct 2011	115.186	Nov 2012	153.350	Nov 2013	-		153.350	318.568	963.848	
Edwards AFB	Various	Edwards AFB:Edwards AFB, CA	340.541	23.905	Oct 2011	82.500	Nov 2012	130.000	Nov 2013	-		130.000	263.000	839.946	
Other (including Classified PIDs)	Various	Various:Various	26.080	30.757	Oct 2011	56.449	Nov 2012	61.803	Nov 2013	-		61.803	137.987	313.076	
WEPS/Eglin	Various	WEPS/Eglin:Various	27.829	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	27.829	
JTIC	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
OT-AFOTEC/AFFC	Various	OT-AFOTEC/ AFFTC:Kirkland AFB, NM/Eglin AFB, FL	93.604	15.383	Oct 2011	108.518	Nov 2012	32.740	Nov 2013	-		32.740	344.578	594.823	
OT-JITC/OPTEV	Various	OT-JITC/ OPTEC:Various	6.211	0.000	Oct 2011	5.776	Oct 2012	0.000	Nov 2013	-		0.000	0.100	12.087	
		Subtotal	822.859	152.406		374.258		381.713		0.000		381.713	1,073.482	2,804.718	

Management Service	s (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ise		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Business Integration - Cost ACT I	SS/CPFF	ACT I:Arlington, VA	5.700	2.903	Oct 2011	3.049	Dec 2012	3.248	Dec 2013	-		3.248	1.681	16.581	
Security Mantech	C/FP	Mantech:Arlington, VA	50.978	10.500	Oct 2011	11.046	Dec 2012	11.600	Dec 2013	-		11.600	12.484	96.608	
Business Integration - Acq PA Cons	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
Autolog - SEIT DRC	C/CPFF	DRC:Arlington, VA	5.916	0.000		0.000		0.000		-		0.000	0.000	5.916	

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

PE 0604800M: (U)Joint Strike Fighter (JSF)

PROJECT

2262: Joint Strike Fighter EMD STOVL

BA 5: System Development & Demonstration (SDD)

- EMD

Management Service	es (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba	-	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Chief Engineer - First Principles	C/CPFF	First Principles:Arlington, VA	3.016	1.988	Oct 2011	1.836	Nov 2012	1.928	Dec 2013	-		1.928	3.190	11.958	
ASC Civilian Pay	Various	ASC CIVPAY:Wright Patterson, AFB, OH	0.000	14.564	Oct 2011	35.724	Oct 2012	18.586	Oct 2013	-		18.586	76.779	145.653	
Operations Wyle	C/CPFF	Wyle:Arlington, VA	90.871	20.774	Oct 2011	23.305	Dec 2012	24.884	Dec 2013	-		24.884	27.429	187.263	
Operations SAFTAS	C/CPAF	Saftas:Arlington, VA	101.734	20.529	Oct 2011	12.867	Dec 2012	17.350	Dec 2013	-		17.350	33.778	186.258	
Operations Stanley	C/CPAF	Stanley:Arlington, VA	159.020	22.350	Oct 2011	22.051	Oct 2012	24.604	Dec 2013	-		24.604	35.090	263.115	
GE F136 Congressional Studies	Various	Various:Various	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	
Travel and Misc	Various	Various:Various	14.499	0.000	Oct 2011	3.997	Oct 2012	4.559	Nov 2013	-		4.559	17.652	40.707	
		Subtotal	432.534	93.608		113.875		106.759		0.000		106.759	208.083	954.859	

Remarks

Cumulative Award Fee earned in prior years for Stanley is 99%.

	All Prior Years	FY 2	2012	FY 2	2013	1	2014 Ise	FY 2	 FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	39,573.685	2,735.504		2,803.393		1,777.322		0.000	1,777.322	3,996.496	50,886.400	
RDT&E, AF/ 0604800F	-	1,366.147		1,192.506		782.335		-	782.335	-	-	-
International Partner (SDD)	-	145.664		149.346		4.411		-	4.411	-	-	-
RDT&E,N (Navy)/0604800N/2261	-	605.998		724.392		507.753		-	507.753	-	-	-
Project Cost Totals	39,573.685	617.695		737.149		482.823		0.000	482.823	3,996.496	50,886.400	

Remarks

NOTE 1: Prior Years reflect \$17,449.086M USAF/\$16,874.804M USN/\$602.142 USMC /\$4,647.653M International/Total \$39,573.685M

FY 2012 reflects \$1,366.147 USAF/\$605.998M USN/\$617.695M USMC/\$145.664M International/Total \$2,735.504M

FY 2013 reflects \$1,192.506M USAF/\$724.392M USN/\$737.149M USMC/\$149.346M International/Total \$2,803.393M

FY 2014 reflects \$782.335M USAF/\$507.753M USN/\$482.823M USMC/\$4.411M International/Total \$1,777.322M

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604800M: (U)Joint Strike Fighter (JSF) | 2262: Joint Strike Fighter EMD STOVL

BA 5: System Development & Demonstration (SDD) - EMD

Target

Target All Prior FY 2014 FY 2014 FY 2014 Value of Cost To Total Years FY 2012 FY 2013 Base oco Total Complete Cost Contract

NOTE 2:R-2A/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:

USAF PE 0604800F BPAC 653831 USN PE 0604800N Project Unit 2261 USMC PE 0604800M Project Unit 2262 International Partners

D&S Includes:

USAF PE 0604800F BPAC 653832 USN PE 0604800N Project Unit 3352 USMC PE 0604800M Project Unit 3350

JSF FoD Includes:

Navy

UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

PE 0604800M: (U) Joint Strike Fighter (JSF) - EMD

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Exhibit R-4, RDT&E Schedule Pro	file:	PB 20	14 N	lavy											,								D	ATE	: Apı	ril 20	013		
APPROPRIATION/BUDGET ACTIV 1319: Research, Development, Test BA 5: System Development & Demo	& E	valuati								PI					Joint S			ghte	er (JS		PRC 2262			trike	Figl	hter	EMD .	STOV	L
JSF Variants - CV, STOVL & CTOL			2012	•	ı	FY	201	3	<u> </u>		2014		<u> </u>	FΥ	2015			FY	2016	i	ı	FY	2017		1	FY	2018	1	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	10	2Q	3Q	4Q	1Q	20	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4C	1Q	2Q	3Q	4Q	
Acquisition Milestones		MS B																											
Test & Evaluation		Bloo	ck 2/	A DT&E	/Cer	rt																ĺ							
	Г		\Box					Block	2B	DT	E/Ce	rt			j	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ			İ	
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Defense Acquisition Reviews		IPR	\square	IPR				IPR			IPR				IPR				IPR				IPR				IPR		
		FY12-1		FY12-2				FY13	1		FY14	1			FY15				FY16	`			FY17				FY18		
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft)						L	RIP	6 (31)				(20)																
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2014PB - 0604800M - 2262																												·	

PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD* Navy

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604800M: (U)Joint Strike Fighter (JSF) | 2262: Joint Strike Fighter EMD STOVL

BA 5: System Development & Demonstration (SDD) - EMD

Schedule Details

	Sta	art	En	d
Events by Sub Project	Quarter	Year	Quarter	Year
JSF Variants - CV, STOVL & CTOL	,			
Acquisition Milestones: Milestone B	2	2012	2	2012
Test & Evaluation: Test and Evaluation: Block 2A DT&E/Cert	1	2012	3	2013
Test & Evaluation: Test and Evaluation: Block 2B DT&E/Cert	1	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3I DT&E/Cert	3	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3F DT&E/Cert	3	2014	3	2017
Test & Evaluation: Test and Evaluation: Initial Operational Test and Evaluation (IOT&E)	1	2015	4	2018
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-1	2	2012	2	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-2	4	2012	4	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-13	4	2013	4	2013
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-14	3	2014	3	2014
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-15	3	2015	3	2015
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-16	3	2016	3	2016
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-17	3	2017	3	2017
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-18	3	2018	3	2018

PE 0604800M: (U) Joint Strike Fighter (JSF) - EMD UNCLASSIFIED

Navy

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DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

1319: Research, Development, Test & Evaluation, Navy PE 0604800M: (U)Joint Strike Fighter (JSF) 2262: Joint Strike Fighter EMD STOVL

BA 5: System Development & Demonstration (SDD) - EMD

	St	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 6 Full Funding / Production / Delivery	2	2012	2	2015
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 7 Full Funding / Production / Delivery	2	2013	2	2016
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 8 Full Funding / Production / Delivery	2	2014	2	2017
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 9 Full Funding / Production / Delivery	2	2015	2	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 10 Full Funding / Production / Delivery	2	2016	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 11 Full Funding / Production / Delivery	2	2017	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 12 Full Funding / Production / Delivery	2	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604800M: (U)Joint Strike Fighter (JSF) | 3350: F-35B Sustainment/Capability

BA 5: System Development & Demonstration (SDD) - EMD

Enhancements

,		• ,										
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3350: F-35B Sustainment/ Capability Enhancements	0.000	0.000	0.000	14.904	-	14.904	14.976	14.960	0.000	0.000	0.000	44.840
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

NOTE: * This Navy Project Unit (3350) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service (i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:

USAF PE 0604800F BPAC 653831 USN PE 0604800N Project Unit 2261 USMC PE 0604800M Project Unit 2262 International Partners

D&S Includes:

USAF PE 0604800F BPAC 653832 USN PE 0604800N Project Unit 3352 USMC PE 0604800M Project Unit 3350

JSF FoD Includes:

UASF PE 0207142F BPAC 675346 USN FY13 PE 0604800N Project Unit 2261 USN FY14 PE 0604800N Project Unit 3353 USMC FY13 PE 0604800M Project Unit 2262

USMC FY14 PE 0604800M Project Unit 3351

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3350: F-35B Sustainment/Capability
BA 5: System Development & Demonstration (SDD)	- EMD	Enhancements

A. Mission Description and Budget Item Justification

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

Funds enhancements to the deployability and suitability of the air system such as low observable (LO) maintenance enhancements, security architecture updates, and integrated training simulators. These enhancements will provide vital on-demand support to the war-fighter within a deployed environment and are not funded via the existing System Development and Demonstration (SDD) program or tied to Block 4 Operational Fight Program (OFP) development. Funding will result in achieving targeted suitability, maintainability, and affordability returns employing the F-35 in deployed or austere locations.

-Funding at the accomplishment/planned program level is reported as the total of all services as these activities support all aircraft variants. The annual funding contribution between the USN and USMC is approximately equal.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Sustainment and Capability Enhancements Articles	0.000	17.800 0	56.867 0
Description: Develop and acquire enhancements to the suitability and maintainability of the air system such as LO maintenance enhancements, security architecture updates, and integrated training simulators.			
FY 2013 Plans: Initiate disciplined systems engineering, requirements decomposition, technical maturation and development of suitability and deployability enhancements.			
FY 2014 Plans: Conduct systems engineering, technical maturation, integration and test planning for suitability and deployability enhancements.			
Title: Development Support Articles	0.000	0.000	6.390 0
Description: Initiate SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2014 Plans: Initiate development enhancement support to Deployable Autonomic Logistics Information Systems, decentralized maintenance capabilities low observable maintenance enhancements, security architecture updates, and integrated training simulators.			
Title: Development Test and Evaluation Articles	0.000	0.000	0.639 0
Description: Verification and testing for deployability and suitability enhancements			
FY 2014 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: System Development & Demonstration (SDD)

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0604800M: (U)Joint Strike Fighter (JSF)
- EMD

PROJECT
3350: F-35B Sustainment/Capability
Enhancements

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Initiate government test and evaluation of capability enhancements for Deployable Autonomic Logistics Information system, and			
LO maintenance enhancements.			
Accomplishments/Planned Programs Subtotals	0.000	17.800	63.896
RDT&E,N (Navy) 0604800N/3352	0.000	0.000	14.992
RDT&E,AF 0604800F/653832	0.000	17.800	34.000
Navy Subtotals	0.000	0.000	14.904

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

or ourse rogram ramanig ourse	······································	<u>,</u>	FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	Base	000	Total	FY 2015	FY 2016	FY 2017	FY 2018		Total Cost
• RDT&E/0604800F: Joint Strike	1,366.147	1,192.506	782.335	<u> </u>	782.335	621.432	486.094	175.591	77.992		22,151.183
Fighter	,	,									,
International: International	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
Partner (SDD/FOD)											
• APAF/0207142F: <i>F-35 Joint</i>	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.4771	50,878.7501	89,907.778
Strike Strike Fighter											
• RDT&E/0604800N/2261: <i>JT</i>	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
Strike Fighter (JSF) - EMD	23.430	00.006	41.707		44 707	131.216	94.193	66.423	127.264	0.000	E92 220
APN/0605B: F-35 Joint Strike Fighter STOVL Spares	23.430	99.006	41.707		41.707	131.210	94.193	00.423	127.204	0.000	583.239
• APN/0147C: F-35 Joint Strike	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
Fighter CV	100.000	33.133	0 00		0 00	102.000	.00.001	2.00		0,001.011	0,210.010
APN/0605C: F-35 Joint Strike	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
Fighter CV Spares											
OPN/4265: Aviation Support	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
Equipment											
• International 2: International	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
Procurement	04.050	10.500	44.000		44.000	70.400	05.000	00.470	44.000	4 554 000	0.050.000
• MC/0207142F: USAF MILCON	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	
APAF/0204142F: USAF Modification Funding	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
Modification Funding											
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PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD* Navy

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xhibit R-2A, RDT&E Project Justi	fication: PB	2014 Navy							DATE: Ap	oril 2013	
PPROPRIATION/BUDGET ACTIV	TY			R-1 IT	EM NOMEN	ICLATURE		PROJEC	T		
319: Research, Development, Test A 5: System Development & Demo				PE 06 - <i>EME</i>	•)Joint Strike	3350: F-	35B Sustain ments	ment/Capab	ility	
. Other Program Funding Summa	ary (\$ in Mill	ions)									
			FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	oco	<u>Total</u>	FY 2015	FY 2016	FY 2017		Complete	
FOD/0207142F: USAF Follow-on	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.1
Development											
0207142F/USAF: <i>USAF Spares</i>	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	,
OPN/4267: Autonomic Logistics	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.9
Information System (ALIS)											
USAF/OPAF PE 27142F: <i>OPAF</i>	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.9
APN/0592: F-35 STOVL Series	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	,
APN/0593: <i>F-35 CV Series</i>	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.5
RDT&E/0604800N/3352:	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.9
F-35C Sustainment/Capability											
Enhancements											
RDT&E/0604800N/3353: <i>F-35C</i>	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.7
Follow-on Development											
USAF SDD BP 653832:	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.8
Deployability and Suitability											
Enhancements											
PAF/0207142F: <i>JSF CTOL</i>	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.8
Advance Procurement											
DCA/0207142F : Dual Capable	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.6
Aircraft (DCA)											
APN/0147: F-35 Joint Strike	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.6
Fighter CV											
APN PE BP0152C: Advance	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.7
Procurement (STOVL) BP0152C											
APN PE BP0152: Advance	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.0
Procurement (STOVL) BP0152											
USN MILCON: USN JSF	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.3
MILCON											•
USN RDT&E USRL: USN USRL	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.2
Remarks											
· · · · · · · · · · · · · · · · · · ·											

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3350: <i>F-35</i>	B Sustainment/Capability
BA 5: System Development & Demonstration (SDD)	- EMD	Enhancem	ents

D. Acquisition Strategy

Implement JSF Joint Executive Steering Board/Configuration Steering Board approved enhancements to existing capabilities through existing contracts using the engineering change proposal process. When appropriate, new cost type contracts may be established.

E. Performance Metrics

The following are the key performance parameters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius

Conventional Take Off and Landing Does Not Meet Requirement

Carrier Variant (CV) Meets Tripwire Requirement

Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

CV Recovery

Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance

Flat Deck (High-High-High Profile Fuel) Meets Requirement In Tripwire Band

Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band

Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability

Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection

CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability

Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement

CV Exceeds ORD Objective

Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement

STOVL UK Meets/Exceeds Tripwire Requirement

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3350: <i>F-35</i>	B Sustainment/Capability
BA 5: System Development & Demonstration (SDD)	- EMD	Enhancem	ents

Sortie Generation Rate

Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement Carrier Variant (CV) Meets/Exceeds Tripwire Requirement STOVL USMC Meets/Exceeds Tripwire Requirement STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints CTOL Meets/Exceeds Tripwire Requirement STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume CV Exceeds ORD Objective STOVL USMC Exceeds ORD Objective STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprint-Weight
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy 3350: F-35B Sustainment/Capability PE 0604800M: (U) Joint Strike Fighter (JSF) BA 5: System Development & Demonstration (SDD) - EMD Enhancements FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Complete Contract Cost Date Cost Cost Prime LM Deployability Lockheed Martin:Ft. SS/CPAF 0.000 0.000 17.800 Jul 2013 56.867 Dec 2013 56.867 109.461 184.128 184.234 Suitability Worth, TX Subtotal 0.000 0.000 17.800 56.867 0.000 56.867 109.461 184.128 184.234 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract **Development Support TBD** 0.000 6.390 Dec 2013 6.390 12.299 Various: Various 0.000 0.000 18.689 18.700 Subtotal 0.000 0.000 0.000 6.390 0.000 6.390 12.299 18.689 18.700 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract **Target** Method Performing All Prior Award Award Award Award **Cost To** Value of Total Complete **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Cost Contract Developmental Test & WR Various: Various 0.000 0.000 0.000 0.639 Dec 2013 0.639 1.230 1.869 Evaluation Subtotal 0.000 0.000 0.000 0.639 0.000 0.639 1.230 1.869 Target All Prior FY 2014 FY 2014 FY 2014 Cost To Total Value of Years FY 2012 FY 2013 Base oco Total Complete Cost Contract

Remarks

Navy

NOTE:

R-2A cost shown above reflect service funding only.

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

Cost Category Subtotals

Project Cost Totals

RDT&E.N (Navv) 0604800N/3352

RDT&E,AF 0604800F/653832

0.000

0.000

0.000

0.000

0.000

0.000

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17.800

0.000

17.800

0.000

63.896

14.992

34.000

14 904

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0.000

0.000

63.896

14 992

34.000

14 904

122.990

122 990

204.686

204 686

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

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1319: Research, Development, Test & Evaluation, Navy
BA 5: System Development & Demonstration (SDD)
PE 0604800M: (U)Joint Strike Fighter (JSF) | 3350: F-35B Sustainment/Capability | Enhancements

Target FY 2014 All Prior FY 2014 FY 2014 Cost To Value of Total Years FY 2012 FY 2013 Base oco Total Complete Cost Contract

R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:

USAF PE 0604800F BPAC 653831 USN PE 0604800N Project Unit 2261 USMC PE 0604800M Project Unit 2262 International Partners

D&S Includes:

USAF PE 0604800F BPAC 653832 USN PE 0604800N Project Unit 3352 USMC PE 0604800M Project Unit 3350

JSF FoD Includes:

USAF PE 0207142F BPAC 675346 USN PE 0608400N Project Unit 3353 USMC PE 0608400M Project Unit 3351

PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD* Navy

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xhibit R-4, RDT&E Schedule Pro	file:	PB 2	2014	Na	vy																		DA	TE:	Apri	1 201	13		
APPROPRIATION/BUDGET ACTIV 319: Research, Development, Test BA 5: System Development & Demo	& E				ivy						0604			NCL. J)Joil			Figl	nter	(JSF	33	350:	F-3:	5B S		inme	ent/C	Capa	bility	
Proj 3350		FY:	2012	:		F	Y 2013			FY 2	2014			FY 2	015			FY 2	2016			FY 2	017			FY 2	2018		
	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	
D&S							Contract Award	E	Deplo	pyme	ent ar	and Se	uitab	elity E	nhar	ncem	nents												
2014PB - 0604800M - 3350																													

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3350: <i>F-35</i>	B Sustainment/Capability
BA 5: System Development & Demonstration (SDD)	- EMD	Enhancem	ents

Schedule Details

	St	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3350				
D&S: D&S Contract Award	3	2013	3	2013
D&S: D&S Deployment and Suitablity Enhancements	3	2013	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

PROJECT

APPROPRIATION/BUDGET ACTIVITY

R-11EM NOMENCLATURE

PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0604800M: (U)Joint Strike Fighter (JSF) 3351: F-35B Follow-on Development

BA 5: System Development & Demonstration (SDD) - EMD

Brto. Gyotom Bovolopmont a Bor	monoti ation	(000)										
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3351: F-35B Follow-on Development	0.000	0.000	0.000	14.904	-	14.904	19.968	60.837	114.965	172.906	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

^{*} FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

NOTE: * This Navy Project Unit (3351) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflects service funding only.

R-2A (sction B)/R-3 displays combined service funding for JSF Follow-on Development.

JSF FoD Includes:

USAF PE 0207142F BPAC 675346

FY13: USN PE 0604800N Project Unit 2261 FY14: USN PE 0604800N Project Unit 3353 FY13: USMC PE 0604800M Project Unit 2262 FY14: USMC PE 0604800M Project Unit 3351

JSF FoD Includes:

USAF PE 0207142F BPAC 675346 USN PE 0608400N Project Unit 3353 USMC PE 0608400M Project Unit 3351

JSF Dual Capability Aircraft (DCA) Includes:

USAF PE 0207142F BPAC 676011

A. Mission Description and Budget Item Justification

F-35 Follow-on Development (FoD) provides continuing incremental upgrades of the three F-35 variants and associated ground equipment. The FoD acquisition strategy is based upon incremental development of capabilities with each increment consisting of two development cycles. FoD capability planning includes an efficient transition from F-35 SDD to Follow-on Development. As SDD development activities ramp down through FY17, the FoD program will assume responsibility for new

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3351: <i>F-35</i>	B Follow-on Development
BA 5: System Development & Demonstration (SDD)	- EMD		

development and the maintenance of associated developmental infrastructure. FoD capability planning currently includes Milestone B in late FY15 to enable Block 4 Engineering and Manufacturing Development efforts from FY16 through FY18, followed by DT and OT testing in 2020 with delivery of capabilities in early 2021. A Materiel Development Decision (MDD) formally approving FoD Material Solution Analysis and Technology Development/Risk Reduction phases for technology acquisition is planned in late FY13.

This program is in Budget Activity 5, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

itle: Air Vehicle Follow-on Development (Capability Planning) Articles:	9.682		
Articles:	9.002	16.834	34.034
7.1.101.001	0	0	0
escription: FY2014 capability planning effort will focus on mission requirements analysis, early engineering, risk reduction and reparations leading to formal acquisition approval of Block 4. Program planning will consist of engineering and development upport for defining, managing and acquisition of capability enhancements required to address threats indicated in the Electronic /arfare ICD, the Fifth Generation Fighter Modernization ICD and as further defined in the F-35 Follow-on Development Increment (Block 4) Capability Development Document (CDD) (Note: CDD approval planned in FY-14).			
Y 2012 Accomplishments: SF Dual Capability Aircraft efforts.			
Y 2013 Plans: arly capability planning, requirements and alternatives analysis, and US and partner investment planning in accordance with the roduction, Sustainment and Follow On Development Memorandum of Agreement.			
Y 2014 Plans:			
equirements analysis and technical requirements development, systems engineering, and technical planning. A formal Systems equirements Review is planned in FY14.			
itle: Developmental Test & Evaluation	0.000	0.000	17.100
Articles:			0
escription: Initiate Laboratory and Test Aircraft Upgrade and other test planning activities required for Block 4 and later evelopment, integration, test and evaluation. Changes are needed to support development and evaluation of improvements riven by changes in threat and as identified in the Electronic Warfare ICD and the Fith Generation Fighter Modernization ICD.			
Y 2014 Plans:			

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3351: <i>F-35</i>	BB Follow-on Development
BA 5: System Development & Demonstration (SDD)	- EMD		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Near term funding will support infrastructure upgrades required for development of enhanced capabilities. This includes replacement of engines and other life limited components on DT aircraft that will be at end of life upon completion of SDD, as well as laboratory upgrades to support development and verification of capabilities to address advanced threats.			
Title: Development Support Articles:	0.000	0.000	4.582 0
Description: Technical and Analytical Support			
FY 2014 Plans: Initiate development support for defining, managing and acquiring the envisioned F-35C capability enhancements identified in approved requirements documents.			
Title: Management Services Articles:	0.000	0.000	3.630 0
Description: Includes management support services, travel, engineering technical services, studies analyses and evaluations in support of FoD objectives.			
FY 2014 Plans: Acquisition and program planning, documentation development to include all regulatory and statutory requirements required in preparation for Milestone B approval in late FY2015 or early FY16 to begin FoD Increment 1 - Block 4 E&MD			
Accomplishments/Planned Programs Subtotals	9.682	16.834	59.346
RDT&E,N (Navy) 0604800N/3353	0.000	0.000	11.442
RDT&E,AF 0207142F/675346	0.000	8.117	23.000
RDT&E,AF 0207142F/676011	9.682	0.000	10.000
RDT&E,N (USMC) 0604800M/2262	-	4.358	-
RDT&E,N (USN) 0604800N/2261	-	4.359	-
Navy Subtotals	0.000	-0.000	14.904

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Just	ification: PE	3 2014 Navy							DATE: Ap	oril 2013	
APPROPRIATION/BUDGET ACTIV	ITY			R-1 IT	EM NOME	NCLATURE		PROJEC	T T		
1319: Research, Development, Test	& Evaluation	n, Navy		PE 06	04800M: <i>(U</i>	l)Joint Strike	Fighter (JSI	F) 3351: <i>F</i> -	35B Follow-o	on Developn	nent
BA 5: System Development & Demo				- EMD	,	,	•	,		,	
C. Other Program Funding Summa	ary (\$ in Mill	lions)		'				'			
			FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
RDT&E/0604800F: Joint Strike	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
Fighter SDD											
• International: International	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
Partner (SDD/FOD)											
• APAF/0207142F: <i>F-35 Joint</i>	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.4771	50,878.7501	89,907.778
Strike Strike Fighter											
• RDT&E/0604800M/2261: <i>F-35</i>	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
Joint Strike Strike Fighter											
APN/0605B: F-35 Joint Strike	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
Fighter STOVL Spares											
APN/0147C: F-35 Joint Strike	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
Fighter CV AP											
APN/0605C: F-35 Joint Strike	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
Fighter CV Spares											
OPN/4265: Other Aviation	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
Support Equipment		0.450.000	5 7 00 5 4 7			7		0 450 005	7.047.000		10.010.070
• International 2: International	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
Procurement	04.050	10.500	44.000		44.000	70.400	05.000	00.470	44.000	4 554 000	0.050.000
• MC/0207142F: USAF MILCON	24.250	13.530	41.900		41.900	72.100	65.000	66.170		1,554.200	, i
• APAF/0204142F: USAF	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
Modification Funding • FOD/0207142F 675346: USAF	0.000	0 447	23.000		22.000	104.866	400 474	220 042	200.050	0.000	798.119
	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
Follow-on Development • 0207142F/USAF: USAF Spares	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: Logistics Information	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
System (ALIS)	0.000	3.020	4.027		4.027	4.554	4.004	5.729	5.630	43.336	12.920
• USAF/OPAF PE 27142F: <i>OPAF</i>	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: <i>F-35 STOVL Series</i>	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0592: F-35 CV Series	0.000	0.000	31.100		31.100	52.900	62.130	98.980	101.254	0.000	347.566
• RDT&E/0604800M/3352:	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.980
F-35B Sustainment/Capability	0.000	3.000	1-7.002		1-7.00∠	17.557	1-7.001	3.000	0.000	0.000	7-7.500
Enhancements											
- manocinonto											

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0604800M: (U)Joint Strike Fighter (JSF)	3351: F-35B Follow-on Development
BA 5: System Development & Demonstration (SDD)	- EMD	
C. Other Program Funding Summary (\$ in Millions)		

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

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			FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	<u>Base</u>	<u>000</u>	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
• RDT&E/0604800M/3353: <i>F-35B</i>	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.734
Follow-on Development											
• USAF SDD BP 653832:	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
Deployability and Suitability											
Enhancements											
• PAF/0207142F: JSF CTOL	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
Advance Procurement											
• DCA/0207142F 676011: <i>Dual</i>	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
Capable Aircraft (DCA)											
APN/0147: F-35 Joint Strike	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
Fighter CV											
APN PE BP0152C: Advance	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
Procurement (STOVL) BP0152C											
• APN PE BP0152: Advance	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
Procurement (STOVL) BP0152		4.7.000				000 500	151 700	40.400			
• USN MILCON: USN JSF	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
MILCON	00.044	10.504	0.000		0.000	0.000	0.000	0.000	0.000	0.000	440.000
• USN RDT&E USRL: USN USRL	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262
Remarks											

D. Acquisition Strategy

To enable the ability to adjust to potential discrepancies discovered during SDD Block 3 Test and Evaluation, the engineering and development planning support for Follow-on Development will be procured under a cost type contract. A fee provision will be used to target and motivate contractor performance. A separate Basic Ordering Agreement or Indefinite Quantity/Indefinite Delivery contract is planned to provide a long term approach to upgrading and maintaining laboratories and test aircraft. Both Development Support and Management Services will primarily use CPFF Delivery Orders.

E. Performance Metrics

Overall Follow-on Development Performance Metrics will reflect Key Program Performance data established in the F-35 Follow-on Development Increment 1 Capability Development Document (CDD) (Planned for completion and approval in 2014.)

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0604800M: (U)Joint Strike Fighter (JSF) 3351: F-35B Follow-on Development BA 5: System Development & Demonstration (SDD) - EMD FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost Requirements Analysis, Lockheed Martin:Ft. Systems Engineering and SS/CPFF 0.000 0.000 16.834 Aug 2013 24.034 Mar 2014 24.034 0.000 40.868 Worth, TX Risk Reduction Lockheed Martin - DCA Lockheed Martin:Ft. SS/CPFF 0.000 9.682 Mar 2013 0.000 19.682 10.000 Mar 2014 10.000 0.000 Integration Worth TX Subtotal 0.000 9.682 16.834 34.034 0.000 34.034 0.000 60.550 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 oco Total Base Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Activity & Location Cost Category Item** & Type Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Technical and Analytic Lockheed Martin:Ft. SS/T&M 0.000 0.000 0.000 4.582 Mar 2014 4.582 0.000 4.582 Support Worth, TX Subtotal 0.000 0.000 0.000 4.582 0.000 4.582 0.000 4.582 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 oco Base Total Contract Target Performing All Prior Cost To Method Award Award Award Award Total Value of & Type **Activity & Location** Years Date **Cost Category Item** Cost Cost Date Cost Date Cost Date Complete Cost Contract Cost Laboratory and Test Lockheed Martin:Ft. TBD 0.000 0.000 0.000 17.100 Jan 2014 17.100 0.000 17.100 Aircraft Infrastructure Worth TX Subtotal 0.000 0.000 0.000 17.100 17.100 0.000 0.000 17.100 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Cost Cost Complete Contract Date Date Date Cost Cost Program Support and Not Specified:Not Various 0.000 0.000 0.000 3.630 Nov 2013 3.630 0.000 3.630 Milestone Preparations Specified Subtotal 0.000 0.000 0.000 3.630 0.000 3.630 0.000 3.630

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy PE 0604800M: (U)Joint Strike Fighter (JSF) 3351: F-35B Follow-on Development

BA 5: System Development & Demonstration (SDD) - EMD

	All Prior Years	FY	2012 FY	_	Y 2014 Base	FY 2	 FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	0.000	9.682	16.834	59.3	46	0.000	59.346	0.000	85.862	
RDT&E,N (Navy) 0604800N/3353	-	0.000	0.000	11.4	12	-	11.442	-	-	-
RDT&E,AF 0207142F/675346	-	0.000	8.117	23.0	00	-	23.000	-	-	-
RDT&E,AF 0207142F/676011	-	9.682	0.000	10.0	00	-	10.000	-	-	-
RDT&E,N (USMC) 0604800M/2262	-	-	4.358	3	-	-	-	-	-	-
RDT&E,N (USN) 0604800N/2261	-	-	4.359		-	-	-	-	-	-
Project Cost Totals	0.000	0.000	-0.000	14.9	04	0.000	14.904	0.000	85.862	

Remarks

NOTE:

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:

USAF PE 0604800F BPAC 653831 USN PE 0604800N Project Unit 2261 USMC PE 0604800M Project Unit 2262 International Partners

D&S Includes:

USAF PE 0604800F BPAC 653832 USN PE 0604800N Project Unit 3352 USMC PE 0604800M Project Unit 3350

JSF FoD Includes:

USAF PE 0207142F BPAC 675346 USN PE 0608400N Project Unit 3353 USMC PE 0608400M Project Unit 3351

JSF Dual Capability Aircraft (DCA) Includes: USAF PE 0207142F BPAC 676011

PE 0604800M: (U)Joint Strike Fighter (JSF) - EMD Navy

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PROJECT

Exhibit R-4, RDT&E Schedule P	Profile:	PB 2	014	Nav	у																			DATE	E: Ap	ril 20)13	
APPROPRIATION/BUDGET ACT												ITEN										OJE		_		_		
1319: Research, Development, To BA 5: System Development & De					vy						PΕ (- <i>Ε</i> Λ	0604 1D	1008	И: <i>(</i> L)Joir	nt St	rike i	Fight	er (J	SF)	335	51: <i>F</i>	-35B	S Foli	llow-c	n De	evelo	pment
Proj 3351		FY 2	2012	:		FY 2	2013			FY 2	2014	,		FY 2	2015			FY:	2016			FY	2017	,		FY	2018	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	10	2Q	3Q	4Q
Block 4											Blo	ck 4	A RR															
																	ı	ı	Bloc	k 4A	ЕМІ) D	1	1	ı		4	ock A OT
																												\Box
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																									Bloc	ck 4B	EMI	
2014PB - 0604800M - 3351																												

PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD* Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

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

PATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0604800M: (U)Joint Strike Fighter (JSF)
- EMD

Schedule Details

	Sta	art	Eı	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3351				
Block 4: Block 4A Risk Reduction	1	2014	3	2015
Block 4: Block 4A Engineering and Manufacturing Development	3	2015	1	2018
Block 4: Block 4A DT/OT	3	2018	4	2018
Block 4: Block 4B Risk Reduction	2	2014	4	2017
Block 4: Block 4B Risk Engineering and Manufacturing Development	4	2017	4	2018