

CLASSIFICATION:

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[illegible]

This Program Element continues development efforts budgeted in program element 0603800N prior to FY 2002.

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Strike Fighter program will develop and field a family of aircraft that meets the needs of the USN, USAF, USMC, and allies, with maximum commonality among the variants, consistent with National Disclosure Policy (NDP), to minimize life cycle costs. This is a joint program with no executive service. Navy and Air Force each provide approximately equal shares of annual funding to the program. The United Kingdom and 7 other International countries are participants in the JSF Program.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604800N, JOINT STRIKE FIGHTER (JSF) PROGRAM				PROJECT NUMBER AND NAME 2261, JOINT STRIKE FIGHTER (JSF) PROGRAM			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	2,081.930	2,145.239	2,393.013	2,287.055	1,944.629	1,518.126	1,207.520	751.608
RDT&E Articles Qty			1	2	6	6		

This Program Element continues development efforts budgeted in program element 0603800N prior to FY 2002.

Quantity of 15 RDT&E articles reflect flight test articles; 8 ground test articles are also budgeted in SDD

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Strike Fighter program will develop and field a family of aircraft that meets the needs of the USN, USAF, USMC, and allies, with maximum commonality among the variants, consistent with National Disclosure Policy (NDP), to minimize life cycle costs. This is a joint program with no executive service. Navy and Air Force each provide approximately equal shares of annual funding to the program. The United Kingdom and 7 other International countries are participants in the JSF Program.

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B. Accomplishments/Planned Program (Breakout reflects USN, USAF, UK and other International funding)				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3,348.068	3,757.000	4,409.000	3,911.000
<p>System Development and Demonstration (SDD) for Air System with Lockheed Martin including International Commonality Effort (ICE) commenced execution in FY02. FY 04, FY05, FY06 and FY07 continue SDD execution of the Air System, including airframe, vehicle systems, mission systems, autonomic logistics, systems engineering and integrated test efforts.</p>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	868.969	797.000	711.000	421.000
<p>System Development and Demonstration (SDD) for F135 Propulsion System with Pratt & Whitney including International Commonality Effort (ICE) commenced in FY02. FY 04, FY05, FY06 and FY07 continue SDD execution of the F135 Propulsion System, including engine testing, autonomic logistics, integration and performing technology maturation efforts.</p>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	141.578	231.000	236.000	370.000
<p>FY04, FY05, FY06 and FY07 continue the Fighter Engineer Team (General Electric/Rolls Royce) F136 development for a second, interchangeable, JSF engine for competition in production (previously begun in associated program elements 0603800N and 0603800F). Efforts include technology maturation, engine testing, autonomic logistics and integration.</p>				

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Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604800N, JOINT STRIKE FIGHTER (JSF) PROGRAM	PROJECT NUMBER AND NAME 2261, JOINT STRIKE FIGHTER (JSF) SDD		
B. Accomplishments/Planned Program (Cont.)				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	262.158	291.811	313.276	482.779
<p>SDD Systems Engineering (SE) and Mission Support activities, including modeling, simulation and analysis (MS&A) efforts, risk reduction activities and program office functions commenced in FY02. FY04, FY05, FY 06 and FY07 continue SE and Mission Support activities, including MS&A, risk reduction, Government verification and test, non-test systems engineering and technical support and program office functions.</p>				
GRAND TOTAL	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4,620.773	5,076.811	5,669.276	5,184.779

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604800N, JOINT STRIKE FIGHTER (JSF) PROGRAM	PROJECT NUMBER AND NAME 2261, JOINT STRIKE FIGHTER (JSF) SDD		

C. PROGRAM CHANGE SUMMARY:

Funding:	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Previous President's Budget:	2,159.197	2,264.507	2,493.847	2,281.780
Current BES/President's Budget	2,081.930	2,145.239	2,393.013	2,287.055
Total Adjustments:	-77.267	-119.268	-100.834	5.275
Summary of Adjustments				
Congressional program reductions		-134.000		
Congressional undistributed reductions		-20.328		
Congressional rescissions				
SBIR/STTR Transfer	-56.211			
Other adjustments		-2.940	-124.621	-23.099
Economic Assumptions	-2.047		23.787	28.374
Reprogrammings	-19.009			
Congressional increases		38.000		
Subtotal	-77.267	-119.268	-100.834	5.275

Schedule: This submission reflects JSF Program Replan and is subject to refinement pending completion of the updated Block Plan and Test Plan. Please see R-4A Schedule Exhibit for detailed schedule changes.

Technical: Additional design work and scope is required to achieve weight reductions in the STOVL variant, necessitating increase in cost and schedule.

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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME			
RDT&E, N / BA-5		0604800N, JOINT STRIKE FIGHTER (JSF) PROGRAM			2261, JOINT STRIKE FIGHTER (JSF) SDD			
<p>D. OTHER PROGRAM FUNDING SUMMARY: This is a joint program with no executive service. Program Element 0604800F continues USAF development efforts budgeted in 0603800F prior to FY 2002. The United Kingdom and multiple other countries are participants in the SDD phase of JSF.</p>								
<u>RDT&E:</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
0604800F	2,021.034	2,181.272	2,474.763	2,192.584	1,914.385	1,578.312	1,282.774	839.995
International Partner Funding	517.809	750.300	801.500	705.140	480.670	228.260	166.670	137.010
<p>RELATED RDT&E: Funding prior to JSF SDD (FY94-FY01): USN PE 0603800N \$1,950.617; USAF PE 0603800F \$1,907.352; DARPA PE 0603800E \$118.006; and International Partner contributions of \$253.921 for a total of \$4,229.896.</p>								
<u>RELATED PROCUREMENT:</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
0214146N (Quantity)				247.238 (0)	1,957.609 (10)	4,483.630 (32)	4,350.714 (36)	3,584.416 (33)
USN Initial Spares					85.322	153.089	167.744	148.682
0207142F (Quantity)			152.377 (0)	1,095.027 (5)	1,386.200 (8)	2,126.635 (15)	2,531.230 (20)	3,574.468 (31)

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Exhibit R-2, RDTE Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME			
RDT&E, N / BA-5		0604800N, JOINT STRIKE FIGHTER (J:				2261, JOINT STRIKE FIGHTER (JSF) SDD			
		<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
<u>RELATED SPARES AND REPAIR PARTS:</u>									
USN						85.322	153.089	167.744	148.682
		<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
<u>RELATED MILCON:</u>									
0207142F		19.060	9.965	0.000	0.000	85.402	79.998	TBD	TBD
91211F		1.000	0.900						
24146N		24.370							

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604800N, JOINT STRIKE FIGHTER (JS	PROJECT NUMBER AND NAME 2261, JOINT STRIKE FIGHTER (JSF) SDD

E. ACQUISITION STRATEGY:

Activities in the prior phase of JSF centered around three distinct objectives to provide a sound foundation for the start of SDD in Fall 2001:

- (1) facilitated the Services' development of fully validated, affordable operational requirements;
- (2) lowered risk by investing in and demonstrating key leveraging technologies that lowered the cost of development, production and ownership; and
- (3) demonstrated operational concepts.

Early warfighter and technologist interaction was an essential aspect of the requirements definition process, and achieved JSF affordability goals. To an unprecedented degree the JSF Program used cost-performance trades early, as an integral part of the weapon system development process. The Services defined requirements through an iterative process, balancing weapon system capability against life cycle cost at every stage. Each iteration of requirements was provided to industry. They evolved their designs and provided cost data back to the warfighters. The warfighters evaluated trades and made decisions for the next iteration. This iterative process produced iterations of the Services' Joint Interim Requirements Documents in 1995, 1997, 1998 and culminated in the approved joint Operational Requirements Document (ORD) in FY 2000.

A sizable technology maturation effort was conducted to reduce risk and life cycle cost (LCC) through technology maturation and demonstrations. The primary emphasis was on technologies identified as high payoff contributors to affordability, supportability, survivability, and lethality. Numerous demonstrations were accomplished to validate performance and life cycle cost impact to component, subsystem, and the total system.

In November 1996, contracts were awarded to Boeing and Lockheed Martin for Concept Demonstration Programs. These competing contractors built and flew concept demonstrator aircraft, conducted concept unique ground demonstrations, and refined their respective weapon system concepts. Specifically, Boeing and Lockheed Martin demonstrated commonality and modularity, STOVL hover and transition, and low speed handling qualities of their respective weapon system concepts. Pratt and Whitney provided propulsion hardware and engineering support. General Electric continued development of a second, interchangeable, engine for competition in production.

Following evaluation of proposals and a favorable Milestone B decision, the JSF Program entered SDD on 26 October 2001 with SDD contract awards to Lockheed Martin and Pratt & Whitney. The SDD plan reflects a block approach, based on open systems architecture, for accomplishing aircraft and weapons integration. General Electric continues propulsion development efforts.

DoN procurement is planned to begin in FY 2008 with advance procurement in FY 2007. USAF procurement is planned to begin in FY 2007 with advance procurement in FY 2006.

The 14 Oct 04 DAB reiterated JSF Acquisition Strategy and updated program schedule.

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Exhibit R-3 Cost Analysis								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604800N, JOINT STRIKE FIGHTER (JSF) PROGRAM			2261, JOINT STRIKE FIGHTER SDD						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hdw Develop - Air System	C/CPAF	Lockheed Martin, Ft. Worth TX	6,797.619	3,757.000	10/04	4,409.000	10/05	3,911.000	10/06	TBD	TBD	19,670.105
Award Fees (Non-Add -Budgeted)			(588.088)	(333.000)		(280.000)		(285.000)				
Award Fees (% Funded to Date)			44%									
Primary Hdw Develop - Air System	SS/BOA	Lockheed Martin	5.500									
Primary Hdw Develop - Air System	SS/IDIQ	Lockheed Martin	1.000									
Primary Hdw Develop - F135 Engine	SS/CPAF	Pratt & Whitney, Hartford CT	2,372.930	786.000	10/04	709.000	10/05	421.000	10/06	TBD	TBD	4,850.529
Award Fees (Non-Add -Budgeted)			(234.440)	(94.000)		(71.000)		(75.000)				
Award Fees (% Funded to Date)			65%									
Prim Hdw Dev - F135 Engine	SS/BOA	Pratt & Whitney	35.021	11.000	10/04	2.000	10/05					
Subtotal SDD			9,212.070	4,554.000		5,120.000		4,332.000		TBD	TBD	
Primary Hdw Dev - F136 Eng Phase IIlb	SS/CPAF	General Electric, Cincinnati OH	367.909	23.000	10/04					TBD	TBD	468.444
Award Fees (Non-Add - Budgeted)			(35.542)	(7.000)								
Award Fees (% Funded to Date)			57%									
Primary Hdw Dev - F136 Eng	SS/BOA	General Electric	1.961	1.000	10/04	9.000	10/05	8.000	10/06	TBD	TBD	
Primary Hdw Dev - F136 Eng	SS/IDIQ	General Electric	3.000									
Primary Hdw Dev - F136 Eng SDD	SS/CPAF	General Electric		207.000	10/04	227.000	10/05	362.000	10/06	TBD	TBD	
Award Fees (Non-Add)												
The GE Target Value of F-136 Engine Contract reflects the negotiated value of the current Phase IIlb; development is under negotiation with expected contract award in 4Q FY05. Cost to Complete and Total Cost are TBD pending finalization of program replan and approval by DAB.												

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Remarks:

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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604800N / JOINT STRIKE FIGHTER (JSF) PROGRAM			2261 / JOINT STRIKE FIGHTER S						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Included in Product Development											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Program Mgmt Support	SS/CPFF	Stanley, Arlington VA	25.000	12.211	10/04	12.797	10/05	13.309	10/06	TBD	TBD	
	SS/CPFF	Aegis, Arlington VA	7.172	3.311	12/04	3.358	12/05	3.492	12/06	TBD	TBD	
Subtotal Management			32.172	15.522		16.155		16.801		TBD	TBD	
Remarks:												
Total Cost			10,070.224	5,076.811		5,669.276		5,184.779		TBD	TBD	
Remarks: Prior Years reflect \$4,466,337 USN / \$4,379.834 USAF / \$1,249,969 International / Total \$10,070,224 FY 2005 reflects \$2,145,239 USN / \$2,181,272 USAF / \$750.300 International / Total \$5,076,811 FY 2006 reflects \$2,393,013 USN / \$2,474,763 USAF / \$801,500 International / Total \$5,669,276 FY 2007 reflects \$2,287,055 USN / \$2,192,584 USAF / \$705,140 International / Total \$5,184,779												

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Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R4, Schedule Profile

DATE:

February 2005

APPROPRIATION/BUDGET ACTIVITY

RDT&E, N /

BA-05

PROGRAM ELEMENT NUMBER AND NAME

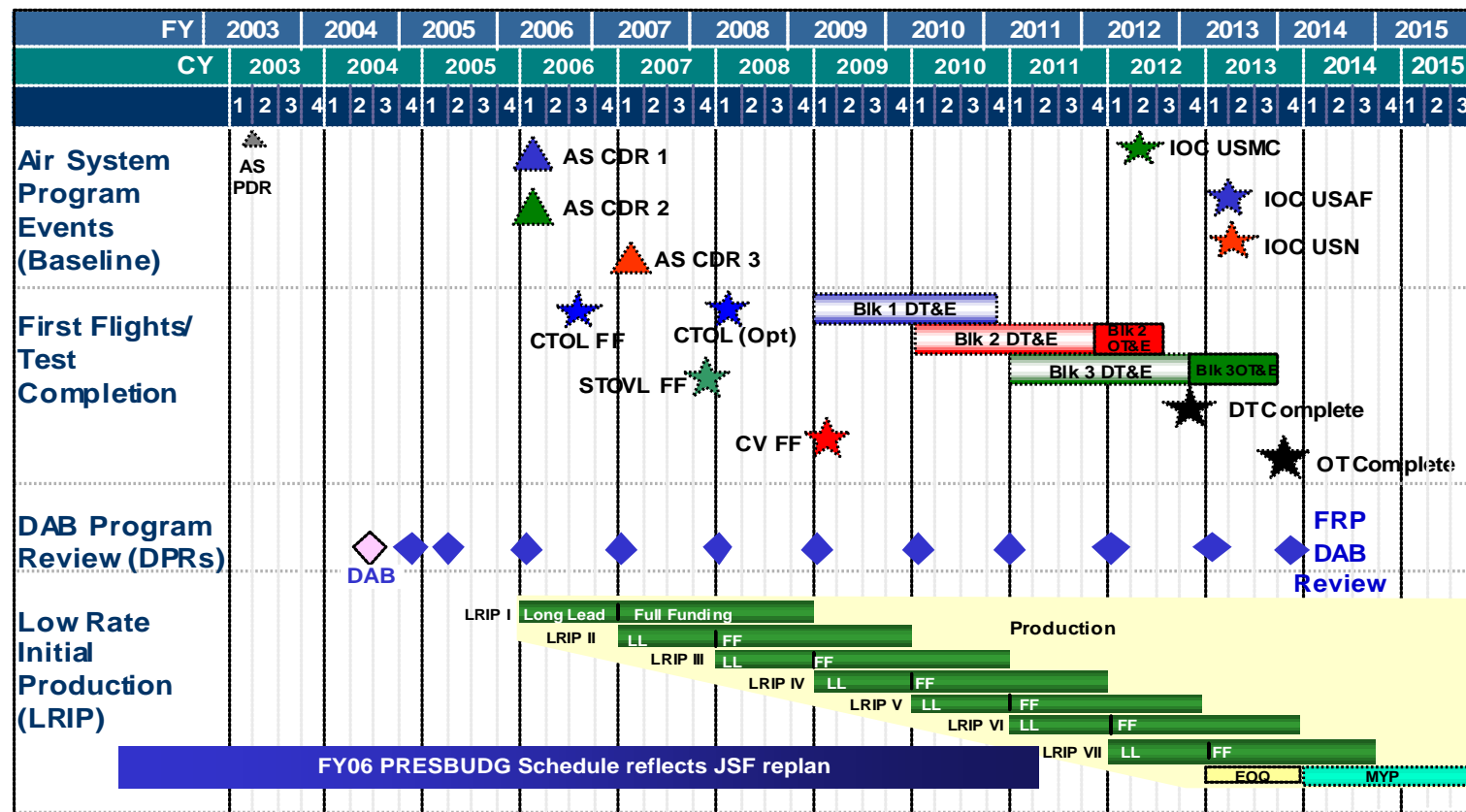
060 0604800N / JOINT STRIKE FIGHTER (JSF) PROGRAM

PROJECT NUMBER AND NAME

2261 / JOINT STRIKE FIGHTER SDD



Replan JSF Top Level Schedule



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Exhibit R-2, RDTEN Budget Item Justification

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Exhibit R-4a, Schedule Detail						DATE:		
						February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME		
RDT&E, N / BA-5		0604800N / JOINT STRIKE FIGHTER (JSF) PROGRAM				2261 / JOINT STRIKE FIGHTER SDD		
Schedule Profile		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Milestone B and Award of SDD Contract								
Air System Requirements Review (ASRR)								
Integrated Baseline Reviews at Lockheed Martin, Pratt & Whitney and GE								
Defense Acquisition Board (DAB)		3Q						
DAB Program Review (DPR)			1Q, 2Q	2Q	2Q			
Preliminary Design Review (PDR) for Air System								
Design Integration & Maturation Review (DIMR)								
Critical Design Reviews (CDRs)				CDR 1&2, 2Q	CDR 3, 2Q			
CTOL (Opt)								
CTOL First Flight				4Q				
STOVL First Flight								
CV First Flight								
Block 1, DT&E								
Block 1, OT&E								
Block 2, DT&E								
Block 2, OT&E								
Block 3, DT&E								
Block 3, OT&E								
USMC Initial Operational Capability (IOC)								
USAF IOC								
USN IOC								
Milestone C								

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Termination Liability Funding
For Major Defense Acquisition Programs,
RDT&E Funding
(\$000)

Program	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
0604800N JSF								
Lockheed	701	602	486	302	228	160	103	73
Pratt & Whitney	134	205	63	26	39	17	31	24
General Electric	0	122	TBD	TBD	TBD	TBD	TBD	TBD

- * Lockheed Termination Liability in FY02/03 was 300M; FY12 reflects -73M resulting in net zero for the program
- * Pratt and Whitney termination liability in FY02/03 was 201M; FY05-FY11 is TBD pending current replan estimates and reductions in FY05 congressional appropriation /conference language
- * General Electric termination liability in FY02/03 was 35M for F136 Phase III B resulting in a net zero for the program; F136 termination liability TBD after SDD contract award

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