

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001																																														
BUDGET ACTIVITY 07 - Operational System Development					PE NUMBER AND TITLE 0305911F Defense Support Program																																																		
COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost																																													
Total Program Element (PE) Cost	7,708	9,374	6,363	6,639	0	0	0	0	0	1,929,651																																													
3615 Shield/Alert	6,608	7,312	4,269	4,544	0	0	0	0	0	76,018																																													
3624 Defense Support Program	1,100	2,062	2,094	2,095	0	0	0	0	0	1,853,633																																													
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0																																													
<p>This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.</p> <p>(U) <u>A. Mission Description</u> The Defense Support Program (DSP) is a system of satellites in geostationary orbits, fixed and mobile ground processing stations, one multi-purpose facility, and a ground communications network. DSP's primary mission is to provide strategic and tactical warning and limited attack assessment of a ballistic missile attack. Shield/ALERT (Attack and Launch Early Reporting to Theater) is a ground station mission processing capability which exploits inherent satellite capability to provide theater missile warning and cueing.</p> <p>(U) <u>B. Budget Activity Justification</u> DSP is an operational system and is funded in Budget Activity 7, Operational Systems Support</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th></th> <th style="text-align: right;"><u>FY 2000</u></th> <th style="text-align: right;"><u>FY 2001</u></th> <th style="text-align: right;"><u>FY 2002</u></th> <th style="text-align: right;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2001 PBR)</td> <td style="text-align: right;">7,361</td> <td style="text-align: right;">11,426</td> <td style="text-align: right;">6,418</td> <td style="text-align: right;">1,923,990</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: right;">7,459</td> <td style="text-align: right;">9,462</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: right;">-58</td> <td style="text-align: right;">-67</td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td style="text-align: right;">-271</td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td style="text-align: right;">607</td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: right;">-29</td> <td style="text-align: right;">-21</td> <td></td> <td></td> </tr> </tbody> </table>												<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	7,361	11,426	6,418	1,923,990	(U) Appropriated Value	7,459	9,462			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-58	-67			b. Small Business Innovative Research	-271				c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram	607				e. Rescissions	-29	-21		
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

June 2001

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305911F Defense Support Program(U) **C. Program Change Summary (\$ in Thousands) Continued**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Adjustments to Budget Years Since FY 2001 PBR			-55	
(U) Current Budget Submit/FY 2002 PBR	7,708	9,374	6,363	1,929,651

(U) **Significant Program Changes:**

(U) FY00:

(1) \$1.1M in RDT&E funds reprogrammed to Defense Support Program, BPAC 673624 to start DSP EELV integration.

(2) DSP Flight 20 launched May 20, 2000

(U) FY01:

(1) \$2 million congressionally directed to support the High Accuracy Network Determination System (HANDS).

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DATE

June 2001

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305911F Defense Support Program

PROJECT

3615

COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
3615 Shield/Alert	6,608	7,312	4,269	4,544	0	0	0	0	0	76,018

This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

(U) A. Mission Description

Beginning in 1993, the Talon Shield project developed changes to preexisting DSP processing techniques to provide a Theater Missile Defense capability. These changes provided for the timely and accurate detection, description, and tracking of Tactical Ballistic Missiles and other theater threats, and served as the basis for the activation, on 10 March 1995, of full-time ALERT System operations by the newly constituted 11th Space Warning Squadron. ALERT-generated messages are distributed to theater warfighters; they enhance attack operations/counterforce operations by providing accurate, timely launch point estimates and support active and passive defense by providing cueing data to shooters and warning data to theater assets in the form of impact point predictions. Shield has continued to serve as a key resource in the evolution of operational improvements to the ALERT System, demonstrating the value of candidate enhancements on a prototype basis in the live, real-time environment. The FY02 Program supports the ground consolidation under SBIRS increment 1 and transition of ALERT operational capabilities to the SBIRS mission control station.

(U) FY 2000 (\$ in Thousands)

- (U) \$2,960 Continued engineering task development to prototype and implement ALERT capabilities leading up to DSP Ground consolidation.
(Space-Based Infrared System (SBIRS) Increment I).
- (U) \$2,438 Continued SBIRS ground consolidation developmental test and evaluation.
- (U) \$1,210 Performed Technical analysis and independent verification and validation of contractor.
- (U) \$6,608 Total

(U) FY 2001 (\$ in Thousands)

- (U) \$4,799 Continued engineering prototypes and feasibility analysis.
- (U) \$1,243 Continued SBIRS ground consolidation developmental test and evaluation.
- (U) \$1,270 Perform technical analysis and independent verification and validation of contractor.
- (U) \$7,312 Total

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DATE

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305911F Defense Support Program

PROJECT

3615(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands)**

(U) \$2,935 Continue engineering prototypes and feasibility analysis. Continue SBIRS ground consolidation developmental test and evaluation.

(U) \$1,334 Perform technical analysis and independent verification and validation of contractor.

(U) \$4,269 Total

(U) **B. Project Change Summary**(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) Other APPN										
(U) Missile Procurement (PE 305911F, BA-05, P-25)	100,469	105,380	112,456	99,309	30,338	35,725	34,009	34,867	0	4,993,653
(U) Other Procurement (PE 305911F, BA-03, P-62)	14	6	0	0	0	0			0	1,201,700
(U) Related RDT&E:										
(U) PE 604442F - SBIRS Low EMD (RDT&E, BA-05, R-68)	218,088	238,810	0	0	0	0	0	0	0	493,499
(U) PE 604441F- SBIRS High EMD (RDT&E, BA-05, R-67)	400,348	563,967	405,229	334,753	270,531	197,390	246,625	228,855	292,419	4,249,767
SBIRS Low transferred to BMDO										

(U) **D. Acquisition Strategy**

The Shield/ALERT Development effort is contracted with Aerojet Electronic Systems Division, Azusa, CA. Initially awarded as part of the Centralized Tactical Processing Program (CTPP) contract in FY95, the effort was moved to the DSP Sensor Post Production Contract in late FY99. The original award was a five-year contract ending in FY00. Authorization to extend the existing effort through FY03 was granted by SAF/AQ and a contract modification at the end of FY00 added the FY01 effort (with provision to add FY02 and FY03 at a later date).

Project 3615

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE			
								June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
07 - Operational System Development					0305911F Defense Support Program				3615		
(U) A. Project Cost Breakdown (\$ in Thousands)											
					FY 2000		FY 2001		FY 2002		
(U) Contractor Engineering Support					0						
(U) Software Development					2,743		3,035		1,200		
(U) Program Management Support					573		642		384		
(U) Training Development					0						
(U) Developmental Test and Evaluation					2,082		2,365		1,351		
(U) Federally Funded Research and Development Contractor (FFRDC)					1,210		1,270		1,334		
(U) Total					6,608		7,312		4,269		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
Contractor or Government		Contract Method/Type	Award or Obligation	Performing Activity	Project Office	Total Prior to FY 2000	Budget FY 2000	Budget FY 2001	Budget FY 2002	Budget to Complete	Total Program
Product Development Organizations											
Aerojet		CPAF	Aug 92	7,898	7,898	7,898				0	7,898
SPARTA		CPAF	Aug 94	487	487	487				0	487
Lincoln Lab		PO	Mar 95	288	288	288				0	288
Aerojet (FO)		CPAF	Oct 96	43,624	43,624	26,031	5,398	6,042	2,939	3,214	43,624
Nichols Research Corporation				2,378	2,378	2,378				0	2,378
Support and Management Organizations											
Program Office Support				N/A	N/A	67				0	67
FFRDC				N/A	N/A	9,147	1,210	1,270	1,330	1,330	14,287
Dept Air Force				N/A	N/A	6,989				0	6,989
Test and Evaluation Organizations											
Project 3615											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE June 2001	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
07 - Operational System Development		0305911F Defense Support Program				3615
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
						<u>Total</u>
<u>Subtotals</u>						<u>Program</u>
Subtotal Product Development		37,082	5,398	6,042	2,939	54,675
Subtotal Support and Management		16,203	1,210	1,270	1,330	21,343
Subtotal Test and Evaluation						
Total Project		53,285	6,608	7,312	4,269	76,018

Project 3615

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305911F Defense Support Program

PROJECT

3624

COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
3624 Defense Support Program	1,100	2,062	2,094	2,095	0	0	0	0	0	1,853,633

This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

(U) **A. Mission Description**

The Defense Support Program (DSP) system provides a space-based surveillance system to detect and report missile and space launches and nuclear detonations in near real time during pre-, trans-, and post-attack periods. The DSP system consists of a constellation of satellites in geostationary orbits, fixed and mobile ground processing stations, one multi-purpose facility, and a ground communications network. DSP's primary mission is to provide strategic and tactical warning and limited attack assessment of a ballistic missile attack. DSP also detects and reports nuclear detonation events and provides information for theater warning and exploitation. This project funds changes associated with Year 2000 roll-over, Advanced Concept Technology Demonstration (ACTD), and DSP-to-SBIRS transition activities and EELV mission unique engineering integration. The FY02 program funds mission unique engineering efforts to integrate DSP-23 on EELV.

(U) **FY 2000 (\$ in Thousands)**

(U) \$1,100 Started integration effort for DSP 23 on Evolved Expendable Launch Vehicle (EELV).

(U) \$1,100 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$2,062 Continued integration efforts for DSP 23 on Evolved Expendable Launch Vehicle (EELV).

(U) \$2,062 Total

The following net transaction is not reflected in the FY01 program total: BTR: = +3405K. This transaction is not reflected in other sections of the R-docs where an FY01 total is shown.

(U) **FY 2002 (\$ in Thousands)**

(U) \$2,094 Continue integration efforts for DSP 23 on Evolved Expendable Launch Vehicle (EELV).

(U) \$2,094 Total

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0305911F Defense Support Program

PROJECT

3624(U) **B. Project Change Summary**

\$1.1M FY00 RDT&E funds reprogrammed to this BPAC to start DSP EELV integration.

The following net transaction is not reflected in the FY01 program total: BTR: = +3405K. The Space-Based Space Surveillance Operations ACTD was funded through this transaction.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) Other APPN										
(U) Missile Procurement (PE 305911F, BA-05, P-28)	100,469	105,380	112,456	99,309	30,338	35,725	34,009	34,867	0	4,993,653
(U) Other Procurement (PE 305911F, BA-65, P-N/A)	14	6	0	0	0	0			0	1,201,700
(U) Related RDT&E:										
(U) PE 604442F - SBIRS Low EMD	218,088	238,810							0	493,499
(U) PE 604441F - SBIRS High EMD	400,348	563,967	405,229	334,753	270,531	197,390	246,625	228,855	292,419	4,249,767
SBIRS Low transferred to BMDO.										

(U) **D. Acquisition Strategy**

DSP has finished the production of satellites through DSP 23. Current contract efforts include support for Flight 21 launch and sustainment for post production storage testing, launch preparation, and on orbit testing. These efforts were added to the existing DSP Spacecraft and Sensor Post Production Support contracts. The Space Based Infrared Systems (SBIRS) satellites will be the follow-on system to DSP.

(U) **E. Schedule Profile**FY 2000FY 2001FY 2002

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)									DATE June 2001		
BUDGET ACTIVITY 07 - Operational System Development						PE NUMBER AND TITLE 0305911F Defense Support Program				PROJECT 3624	
(U) <u>E. Schedule Profile Continued</u>											
		<u>FY 2000</u>				<u>FY 2001</u>			<u>FY 2002</u>		
	1	2	3	4	1	2	3	4	1	2	3
(U)	DSP 20 Launch		*								
(U)	DSP 21 Launch							X			
(U)	DSP 22 Launch (FY 03)										
(U)	DSP 23 Launch (FY04)										

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
07 - Operational System Development					0305911F Defense Support Program				3624	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					FY 2000		FY 2001		FY 2002	
(U) Space-Based Space Surveillance Operations ACTD*					0		0		0	
(U) DSP 23 Integration on EELV-Heavy					1,100		2,062		2,094	
(U) Total					1,100		2,062		2,094	
*Funding of effort shared with BMDO. See Project Change Summary for funding details.										
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>		<u>Contract</u>								
<u>Government</u>		<u>Method/Type</u>		<u>Award or</u>		<u>Performing</u>		<u>Project</u>		
<u>Performing</u>		<u>or Funding</u>		<u>Obligation</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>
<u>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2000</u>
								<u>Budget</u>		<u>Budget</u>
								<u>FY 2000</u>		<u>FY 2001</u>
								<u>Budget</u>		<u>Budget to</u>
								<u>FY 2002</u>		<u>Complete</u>
										<u>Total</u>
										<u>Program</u>
<u>Product Development Organizations</u>										
Previous DSP Contracts (1960's-1980's)		Various		Various		N/A		N/A		1,536,317
Boeing		FFP		Jul 00		7,351		7,351		0
Aerojet*		C/CPAF		Oct 93		25,719		25,719		25,719
Aerojet		C/CPAF		Sep 93		9,025		9,025		9,025
Aerojet		C/CPFF				25,743		25,743		25,743
Aerojet		C/CPAF		Oct 96		2,578		2,578		0
Loral		C/FPI/AF/CPF				37,732		37,732		37,732
DOE		P.O.				10,724		10,724		10,724
Loral		C/CPAF				22,975		22,975		22,975
* EAC is also funded by other appropriations.										
<u>Support and Management Organizations</u>										
Various		MIPRs		As needed				6,301		0
Aerojet		C/ CPFF				1,305		1,305		1,305
Aerojet/								0		0
Consolidated		C/ FFP		Oct 96		4,724		4,724		4,724
Project 3624										
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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
07 - Operational System Development				0305911F Defense Support Program				3624	
(U) Performing Organizations Continued:									
* EAC is also funded by other appropriations.									
<u>Support and Management Organizations</u>									
FFRDC	MORD		N/A	N/A	42,109	0	0	0	42,109
Other Gov't Cost			N/A	N/A	35,036	0	0	0	35,036
TRW	C/CPFF		9,872	9,872	9,872	0	0	0	9,872
TRW Consolidated	C/CPAF	Oct 96	292	292	292	0	0	0	292
PRC	C/FPIF	Apr 94	7,579	7,579	7,579	0	0	0	7,579
SPARTA	C/CPAF	Aug 94	150	150	150	0	0	0	150
<u>Test and Evaluation Organizations</u>									
Program Office Support	Various	As needed	N/A	N/A	68,101	0	0	0	68,101
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>					<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
Subtotal Product Development					1,670,813	1,100	2,062	2,094	2,095
Subtotal Support and Management					107,368	0	0		0
Subtotal Test and Evaluation					68,101	0	0		0
Total Project					1,846,282	1,100	2,062	2,094	2,095
									1,853,633

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