	RDT&E BUDGET ITEM	JUSTI	FICATI	ON SH	EET (R	-2 Exhi	bit)		DATE	June :	2001
	T ACTIVITY Engineering and Manufacturing De	060	PE NUMBER AND TITLE 0604442F Space Based Infrared Systems (SBIRS) Low								
	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
4598	SBIRS Low Element EMD	218,088	238,810	0	0	0	0	0	0	0	493,499
	Quantity of RDT&E Articles	0	0	0	0	2	1	0	0	0	0

NOTE: 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

(U) The Space-Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces or its allies. SBIRS will incorporate new technologies to enhance detection; improve reporting of ICBM, SLBM and tactical ballistic missiles; and provide critical mid-course tracking and discrimination data for national and theater missile defense. This system will provide increased performance in order to meet requirements in US Space Command's Capstone Requirements Document and Air Force Space Command's Operational Requirements Document. SBIRS will consist of satellites in Geosynchronous Earth Orbits (GEO), Highly Elliptical Orbits (HEO) and Low Earth Orbits (LEO) and an integrated centralized ground station serving all SBIRS space elements and Defense Support Program (DSP) satellites. This PE funds the SBIRS Low Program Definition Risk Reduction (PDRR) activities and leads to Engineering, Manufacturing and Development (EMD). SBIRS Low is the LEO component of SBIRS.

(U) FY 2000 (\$ in Thousands)

(U)	\$162,000	PDRR Contracts (38 month FFP competitive contracts between two contractors to design a system capable of meeting the SBIRS Low
		requirements described in the SBIRS Operational Requirements Document).
(U)	\$17,645	Provided Program Definition Support (Includes studies, integration into SBIRS Increment System-of-Systems and modeling and simulation)

(U) \$17,617 Accomplished other risk reduction activities (Includes cryocoolers, batteries, algorithms, rad hard parts, phenomenology, optical filters, MSX data reduction, contamination control, focal plane arrays (visible and long-wave), and survivability)

(U) \$20,826 Supported Program Office activities

(U) \$218,088 Total

The following net transaction is not reflected in the FY00 program total: BTR = -1,459K. This transaction is not reflected in the other sections of the R-docs where an FY00 total is shown.

Project 4598 Page 1 of 6 Pages Exhibit R-2 (PE 0604442F)

	RI	OT&E BUDGET ITEM JUSTIFICATION	ON SHEET (R-2 Exhil	oit)	DATE Jun e	e 2001
	GET ACTIVITY • Engineering	g and Manufacturing Development	PE NUMBER AND TITLE 0604442F Space Ba Low	ased Infrared	Systems (SBIRS)	PROJECT 4598
(U)	A. Mission Des	cription Continued				
(U)	FY 2001 (\$ in T	housands)				
(U)	\$172,000	PDRR Contracts (38 month FFP competitive cont		esign a system cap	pable of meeting the SBI	RS Low
(U)	\$29,016	requirements described in the SBIRS Operational Provide Program Definition Support (Includes stu	*	mant Systam of Sy	vetome and modeling an	d simulation)
(U)	\$13,239	Accomplish other risk reduction activities (Includes				
(0)	Ψ13,237	reduction, contamination control, focal plane arra	•		onenomenology, optical	inters, MDZ data
(U)	\$24,555	Support Program Office activities	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
(U)	\$238,810	Total				
(U) (U) (U)	FY01 total is sh FY 2002 (\$ in T \$0 \$0				in the other sections of t	he R-docs where an
(U)	(U) This Program	vity Justification m Element is in Budget Activity 5, EMD because it fund O) portion of the SBIRS program	ls Program Definition efforts inclu	ding initial system	design and EMD activit	ies for the Low
(U)	C. Program Ch	nange Summary (\$ in Thousands)				
			<u>FY 2000</u>	FY 2001	FY 2002	Total Cost
(U)		ent's Budget (FY 2001 PBR)	225,566	241,021	306,530	3,191,255
(U) (U)	Appropriated V	alue Appropriated Value	229,029	241,021		
(0)		Appropriated value	-1,934	-1,687		
	_	ess Innovative Research	-8,323	-,00,		
	c. Omnibus or C	Other Above Threshold Reprogram	•			
P	roject 4598		Page 2 of 6 Pages		Exhibit R-2	(PE 0604442F)

	RDT&E BU	DGET I	TEM JUS	STIFICA	TION SH	IEET (R	-2 Exhib	oit)		June	2001
	GET ACTIVITY - Engineering and Manu	ufacturin	g Develo _l	pment				sed Infra	red Syste	ems (SBIRS)	PROJECT 4598
(U)	C. Program Change Summa	ry (\$ in Tho	usands) Cor	ıtinued							
	d. Below Threshold Reprogram	n				I	FY 2000 212	FY 200	<u>E</u>	<u>Y 2002</u>	Total Cost
	e. Rescissions						-896	-524			
(U)	Adjustments to Budget Years		01 PBR							06,530	
(U)	Current Budget Submit/FY 20	02 PBR				2	218,088	238,810		0	493,499
	SBIRS Low program was give are currently studying the impartments of the studying the studying the studying the studying the studying studying the studying	acts of the Cass shifted from irect result o	3 capability of the SBIRS	on the Life Cy Definition S Management	ycle Cost (LC upport' effort	CC). s to the 'Prog	gram Office A	Activities' (\$4	.3M in FY00) and \$5.5M in FY	01) to increase
(U)	D. Other Program Funding S	ummary (\$	in Thousand	<u>ls)</u>							
		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
		<u>Actual</u>	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
(U)	PE 35922F - SBIRS Low Production	0	0	0	0	0	0	0	0	Continuing	TBD
(U)	PE 64441 SBIRS High EMD (RDT&E, BA 05, R - 67)	400,348	563,967	405,229	334,753	270,531	197,390	246,627	228,855	292,419	4,249,767
(U)	PE 35915 - SBIRS High Advanced Procurement (MPAF, BA-5, P-30)	0	0	93,752	481,020	0	6,968	15,652	17,262	0	614,654
(U)	PE 35911 - DSP (RDT&E, BA-07, R-187)	7,708	9,374	6,363	6,639	0	0			0	1,922,717
	FY02 SBIRS Low Production b	budget transf	erred to BM	DO							1,922,717

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) June 2001 BUDGET ACTIVITY PE NUMBER AND TITLE **PROJECT** 05 - Engineering and Manufacturing Development 0604442F Space Based Infrared Systems (SBIRS) 4598 Low (U) E. Acquisition Strategy The SBIRS program is managed through a single consolidated System Program Office (SPO) at the Space and Missile Systems Center, Los Angeles Air Force Base, CA. SBIRS Low began PDRR activities in August 1999 with the award of two firm fixed price contracts. PDRR will be followed by a competitive contract award for EMD scheduled for award in the fourth quarter of FY02 with the deployment of the SBIRS Low satellites beginning in the fourth quarter of FY06. FY02 budget transferred to BMDO. (U) F. Schedule Profile System Requirements Review (U) System Design Reviews (U) FY02 budget transferred to BMDO (U) (U) Exhibit R-2 (PE 0604442F) Project 4598 Page 4 of 6 Pages

	RDT&E PRO	GRAM ELE	MENT/P	ROJECT C	OST BI	REAKDO	WN (R-3))	DATE	June 200	1
	GET ACTIVITY Engineering and Ma	nufacturing	Developm	ient		ER AND TITLE 12F Space	e Based In	frared Sys	stems (SB		PROJECT 4598
(U)	A. Project Cost Breakdow	n (\$ in Thousand	<u>ls</u>)								
								<u> 2000</u>	FY 20		FY 2002
(U)	PDRR Contracts (Includes S	•						,000	172,00		0
(U)	Provided Program Definition System-of-Systems and mod			egration into SBII	RS Increme	nt	17	,645	29,01	6	0
(U)	Accomplished other risk red			coolers batteries	algorithms	rad hard	17	,617	13,23	19	0
(0)	parts, phenomenology, optic	al filters, MSX d	ata reduction,		-		1,	,017	13,23		
(\mathbf{I},\mathbf{I})	arrays (visible and long-way Supported Program Office a		nty)				20	.826	24,55		0
(U) (U)	Total	cuvities					218	,	24,33		0
(0)	FY02 budget transferred to 1	BMDO.					210	,000	230,01	.0	U
(U)	B. Budget Acquisition Hist	ory and Plannin	g Informatio	ı (\$ in Thousand	<u>s)</u>						
(U)	Performing Organizations:										
	Contractor or	Contract									
	Government	Method/Type	Award or	Performing	Project						
	Performing	or Funding	Obligation	Activity	Office	Total Prior	Budget	Budget	Budget	Budget to	<u>Total</u>
	Activity	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	to FY 2000	FY 2000	FY 2001	FY 2002	Complete	<u>Program</u>
	Product Development Organ										
	TRW	C/FFP	Aug 99			16,000	81,000	86,000			183,000
	Spectrum Astro	C/FFP	Aug 99			16,000	81,000	86,000			183,000
	EMD					0	0	0			0
	PDRR Support	Various	Various			0	17,645	29,016			46,661
	Other Risk Reduction Act	Various	Various			4,509	17,617	13,239			35,365
	FY02 budget transferred to I										
	Support and Management Or	-									
	Program Support	Various	Various	N/A	N/A	92	20,826	24,555			45,473
	Test and Evaluation Organiz	ations									
	Not Applicable										
P	roject 4598			Pag	e 5 of 6 Pag	ges			Exhib	it R-3 (PE 06	604442F)

	RDT&E PROGR		DATE June 2001								
BUDGET AC 05 - Eng i	TIVITY ineering and Manu	PE NUMB 06044 Low	tems (SB	PROJECT 4598							
Item Descri Produc Not A Suppo Not A	<u>M</u> <u>or</u>	ontract lethod/Type r Funding cehicle	Award or Obligation Date	<u>Delivery</u> <u>Date</u>		Total Prior to FY 2000	Budget FY 2000	Budget FY 2001	Budget FY 2002	Budget to Complete	
Subtot Subtot Subtot Subtot Total	pplicable					Total Prior to FY 2000 36,509 92 36,601	Budget FY 2000 197,262 20,826 218,088	Budget FY 2001 214,255 24,555 238,810	Budget FY 2002	Budget to Complete	
Project -	4598]	Page 6 of 6 Pag	ges			Exhib	it R-3 (PE ()604442F)