PE TITLE: ICBM - DEM/VAL

PE NUMBER: 0603851F

	RDT&E BUDGET ITEM	JUSTI	FICATI	ON SH	EET (R	-2 Exhi	bit)		DATE	Februar	y 2003
=	T ACTIVITY Advanced Component Developmei O&P)	nt and P	rototype	•	IUMBER ANI 13851F	CBM - D	EM/VAL				
	COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	44,409	62,087	67,632	91,992	86,901	83,428	84,682	85,919	Continuing	TBD
1020	ICBM Guidance Applications	16,906	24,552	18,158	20,423	20,859	18,530	20,772	21,050	Continuing	TBD
1021	ICBM Propulsion Applications	1,550	4,281	24,356	41,399	42,042	42,064	39,777	40,386	Continuing	TBD
1022	ICBM Reentry Vehicle Applications	19,841	24,530	17,181	20,423	21,023	19,920	21,213	21,515	Continuing	TBD
1023	Rocket System Launch Program	3,521	31	31	33	33	34	35	35	Continuing	TBD
1024	ICBM Command & Control (C2) Applications	409	1,412	433	444	458	465	471	477	Continuing	TBD
4209	Long Range Planning (LRP)	2,182	7,281	7,473	9,270	2,486	2,415	2,414	2,456	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

In FY2004, Project 4209 Long Range Planning includes a new start effort for Analysis of Alternatives for follow on Land-Based Strategic Nuclear Deterrent (LBSND).

(U) A. Mission Description

This program's efforts identify methods to reduce life cycle costs, improve nuclear safety and surety, and ensure continued ICBM viability. Program includes demonstration and validation projects for ICBM guidance options, support for reentry vehicles beyond original design life, assessment of current and future ICBM propulsion systems, and development of enhancements to ensure command and control capabilities.

(U) B. Budget Activity Justification

This program is in Budget Activity 04 - Advanced Concept Development and Prototypes because the efforts demonstrate technology, component and subsystem maturity and provide risk reduction.

Page 1 of 30 Pages

Exhibit R-2 (PE 0603851F)

	RDT&E BUDGET ITEM JUSTIFICATION	_{DATE} Febru	ary 2003		
04 -	GET ACTIVITY • Advanced Component Development and Prototypes • D&P)	PE NUMBER AND TITLE 0603851F ICBM - DI			,
(U)	C. Program Change Summary (\$ in Thousands)				
		<u>FY 2002</u>	FY 2003	<u>FY 2004</u>	Total Cos
(U)	Previous President's Budget	47,519	63,025	54,198	TBD
(U)	Appropriated Value	47,984	63,025		
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions	-681	-667		
l	b. Small Business Innovative Research	-2,894			
	c. Omnibus or Other Above Threshold Reprogram		-271		
	d. Below Threshold Reprogram				
	e. Rescissions				
(U)	Adjustments to Budget Years Since FY 2003 PBR			13,434	
(U)	Current Budget Submit/FY 2004 PBR	44,409	62,087	67,632	TBD
(U)	Significant Program Changes:				
	FY04: Includes adjustments to ICBM Propulsion Applications to support N Applications and Reentry Vehicle Applications.	luclear Posture Review - recom	nmended static fire	demonstrations, and to	ICBM Guidance
	Pag	e 2 of 30 Pages		Exhibit R-2	(PE 0603851F)

RDT&E BUDGET ITEM	RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)												
BUDGET ACTIVITY 04 - Advanced Component Developmer (ACD&P)		E NUMBER AND 603851F		EM/VAL		PR(10							
COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	. =	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost			
1020 ICBM Guidance Applications	16,906	24,552	18,1	58 20,423	20,859	18,530	20,772	21,050	Continuing	TBD			

(U) A. Mission Description

The ICBM Guidance Applications Project is required to meet on-going needs in applied strategic guidance systems and their subcomponents. This project ensures the continued readiness of our strategic deterrent forces in response to the Nuclear Posture Review, recommendations of the USSTRATCOM Strategic Advisory Group, Commander, USSTRATCOM guidance, and the Defense Science Board Task Force on Nuclear Deterrence. Efforts within this project are focused on current and future requirements, reduced life cycle costs, and increased nuclear surety and safety. These activities leverage the efforts of the Science and Technology community. The efforts are coordinated with the Navy guidance applications efforts so as to avoid duplication while realizing maximum return on the invested dollars. The key elements of the Guidance Applications Project are the continued preservation of the minimum critical technical skills and capabilities needed to respond to unexpected problems in the Minuteman guidance system, the assessment and mitigation of any degradation of aging hardware, and the development and analysis of future strategic guidance hardware.

Budget Activity Justification:

This program is in Budget Activity 04 - Advanced Concept Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity and provide risk reduction.

(U) <u>FY 2002 (\$ in Thousands)</u>

1	\mathbf{T}	0.2	Accomplishments/Planned Program
ı١		, ,,,,,,	ACCOMDISHINGING LAUNCU I TOSTAIN

(U) \$5,021 Continued development and prototype of concepts for future common strategic guidance system technology

(U) \$2,948 Continued development of radiation hard application-specific integrated circuits (ASICs) and high throughput microprocessor

(U) \$8,937 Continued development and test of alternate instrument technology -- e.g. Accelerometer, Gyro, micro-electrical mechanical (MEMs)

(U) \$16,906 Total

Project 1020 Page 3 of 30 Pages Exhibit R-2A (PE 0603851F)

	RDT&	E BUDGET ITEM JUSTIFICATION	SHEET (R-2A Exhibit)	DATE February 2003
04 -	GET ACTIVITY · Advanced Com CD&P)	ponent Development and Prototypes	PE NUMBER AND TITLE 0603851F ICBM - DEM/VAL	PROJECT 1020
(U)	A. Mission Descript	ion Continued		
(U) (U) (U) (U) (U) (U) (U)	FY 2003 (\$ in Thous: \$0 \$7,139 \$3,447 \$8,668 \$5,298 \$24,552	Accomplishments/Planned Program Continue development and prototype of concepts for f Continue assessment, evaluation and test of radiation l Continue development and test of alternate instrument Assess, develop and implement flight test experiment Total	hard electronics for strategic guidance applications technology (e.g. Accelerometer, Gyro, MEMs)	
(U) (U) (U) (U) (U) (U) (U)	FY 2004 (\$ in Thous: \$0 \$4,563 \$1,851 \$5,722 \$6,022 \$18,158	Accomplishments/Planned Program Continue development and prototype of concepts for f Continue assessment, evaluation and test of radiation l Continue development and test of alternate instrument Assess, develop and implement flight test experiment Total	hard electronics for strategic guidance applications technology (e.g. Accelerometer, Gyro, MEMs)	
(U)	B. Project Change S	ummary		
(U) (U)	C. Other Program F None.	unding Summary (\$ in Thousands) FY 2002 FY 2003 FY 2004 FY 20 Actual Estimate Estimate Estim		
(U)	D. Acquisition Strate Accomplish studies, a appropriate.	egy nalyses, and limited engineering/pre-prototype hardwar	e development. Efforts will be conducted using contr	racting strategies deemed most
(U)	E. Schedule Profile		FY 2002 FY 2003	<u>FY 2004</u>
P	roject 1020	Page	4 of 30 Pages	Exhibit R-2A (PE 0603851F)

RDT&E BUDGET ITEM JUSTIFICATION	DATE	DATE February 2003			
BUDGET ACTIVITY 04 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603851F ICBM - DEM/VAL			PROJECT 1020	
(U) E. Schedule Profile Continued					
	FY 2002 FY 2003		FY	2004	
1	$\overline{2}$ $\overline{3}$ $\overline{4}$ $\overline{1}$ $\overline{2}$ $\overline{3}$	4	1 2	3 4	
(U) Development/Demonstration of Future Common System Concepts					
(Ongoing)					
U) Progress Reports	*	X		X	
U) Alternate Instrument Technology Development (Ongoing)					
U) Progress Report	*	X		X	
U) Radiation Hardened Parts Analysis (Ongoing)					
U) Progress Report	*	X		X	
U) Flight Test Options Analysis					
U) Progress Report* - Completed EventX - Planned Event		X		X	
Project 1020 Page	ge 5 of 30 Pages	Ex	khibit R-2A (P	E 0603851F)	

	RDT&E PROG	RAM ELE	MENT/F	PROJECT	COST B	REAKDO	WN (R-3)		DATE F (ebruary 2	003
04 -	GET ACTIVITY Advanced Compone CD&P)	nt Developi	ment and	Prototypes		SER AND TITLE 51F ICBM	- DEM/VAI	_		-	PROJECT 1020
(U)	A. Project Cost Breakdown	ı (\$ in Thousan	<u>ds</u>)								
(U) (U) (U) (U) (U)	Common System Concepts Radiation Hardness Alternate instrument technol- Flight Test Options Analysis Total	· · ·	erometer, Gyr	o, MEMs)			5. 2. 8.	2002 ,021 ,948 ,937 0 ,906	FY 20 7,13 3,44 8,66 5,29 24,55	39 47 58 98	FY 2004 4,563 1,851 5,722 6,022 18,158
(U)	B. Budget Acquisition History	orv and Plannir	ng Informatio	on (\$ in Thousa	nds)						·
(U)	Performing Organizations: Contractor or Government Performing Activity Product Development Organi Northrop Grumman (Prime) Others TBD Support and Management Or Other Engineering Support Test and Evaluation Organization	Contract Method/Type or Funding Vehicle izations / C/CPAF ganizations Various	Award or Obligation Date Dec 97 / TBD As Req'd	Performing Activity EAC Continuing Continuing	Project Office EAC Continuing Continuing	Total Prior to FY 2002 35,427 3,455	Budget FY 2002 16,846	Budget FY 2003 24,492	Budget FY 2004 18,098	Budget to Complete Continuing Continuing	<u>Total</u> <u>Program</u> TBD TBD
(U)	Item Description Product Development Proper None Support and Management Pro None	Contract Method/Type or Funding Vehicle	Award or Obligation Date	<u>Delivery</u> <u>Date</u>		Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Total</u> <u>Program</u>
Р	roject 1020			P	age 6 of 30 Pa	iges			Exhib	it R-3 (PE 0)603851F)

RDT&E PROGRAM ELEMENT/PROJECT C	RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								
BUDGET ACTIVITY 04 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603851F ICBM			PROJECT 1020					
(U) Government Furnished Property Continued: Test and Evaluation Property None Subtotals Subtotal Product Development Subtotal Support and Management Subtotal Test and Evaluation	Total Prior to FY 2002 35,427 3,455	Budget FY 2002 16,846 60	Budget FY 2003 24,492 60	Budget FY 2004 18,098 60	Budget to Complete TBD TBD	Total <u>Program</u> TBD TBD			
Total Project	38,882	16,906	24,552	18,158	TBD	TBD			
Project 1020 Pag	e 7 of 30 Pages			Exhib	it R-3 (PE 06	603851F)			

	RDT&	E BUDGET ITEM	JUSTIF	ICATIO	ON SHE	ET (R-	2A Exh	ibit)		DATE	Februar	y 2003
04 -	GET ACTIVITY Advanced Com D&P)	nponent Developmer	nt and P	rototype		IUMBER ANI 13851F		EM/VAL	-			PROJECT 1021
	COST (\$ in	Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
1021	ICBM Propulsion A	pplications	1,550	4,281	24,356	41,399	42,042	42,064	39,777	40,386	Continuing	TBD
(U)	current ICBM propu opportunities for app demonstrating applic development and sys Budget Activity Just	ulsion Application Program of lsion systems, conducting stu- olying common materials and cation of technology develop- stem engineering skills and ca- ification: studget Activity 04 - Advance	idies assess technolog ed by the S apabilities t	ing applica y between t cience and for the futur	tion of new he ICBM at Technology re.	technology nd submaring community	to meet fur ne-launched y to the ICE	ture ICBM ballistic m BM strategio	propulsion issile (SLB e systems.	system requ M) propuls Γhis approa	uirements, a ion systems, ach maintain	ssessing , and is critical design
(U) (U) (U) (U)	FY 2002 (\$ in Thous \$0 \$347 \$1,203	Accomplishments/Planned Completed studies and cor Designed and evaluated te propulsion systems Total	ntinued asse		_	-				•		pport of ICBM
(U) (U) (U) (U) (U) (U)	FY 2003 (\$ in Thous \$0 \$157 \$2,626 \$395 \$512		chnology d propulsion uirements a	technologie	es for applic	cation to IC	BM subsyst	ems throug	esting		ling to static	e-fire
Р	roject 1021				Page 8 of 3	30 Pages				Exh	ibit R-2A (F	PE 0603851F)

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) February 2003 PE NUMBER AND TITLE **BUDGET ACTIVITY PROJECT** 04 - Advanced Component Development and Prototypes 0603851F ICBM - DEM/VAL 1021 (ACD&P) A. Mission Description Continued FY 2003 (\$ in Thousands) Continued \$591 (U) Conduct assessments and demonstration of advanced service life prediction technology in ICBM propulsion subsystems \$4,281 (U) Total FY 2004 (\$ in Thousands) \$0 Accomplishments/Planned Program (U) Evaluate and test solid propulsion technologies for ICBM application through process development and stage manufacture leading to static fire (U) \$19,448 testing \$4,396 Assessment and demonstration of ordnance and post-boost components technology developments (U)\$512 Evaluate test protocols in support of hazard classification methods for ICBM solid rocket motors (U) \$24,356 (U) Total **B. Project Change Summary** FY04: Funding increased to support Nuclear Posture Review (NPR) - recommended accelerated program of static fire demonstrations to ensure viability of solid rocket propulsion design and development capability. C. Other Program Funding Summary (\$ in Thousands) FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 Cost to **Total Cost Estimate** Estimate Estimate Estimate Estimate Estimate Estimate Complete <u>Actual</u> (U) None (U) D. Acquisition Strategy Studies, analyses, and motor ground test firings will be accomplished. Efforts will be conducted using contracting strategies deemed appropriate. (U) E. Schedule Profile FY 2002 FY 2003 FY 2004

Exhibit R-2A (PE 0603851F)

Project 1021

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)											DATE February 2003			
SUDGET ACTIVITY 14 - Advanced Component Development and Prototype ACD&P)	es	PE NUMBER AND TITLE 0603851F ICBM - DEM/VAL					•		-	PRO 10 2	JECT 21			
U) E. Schedule Profile Continued														
	1	<u>FY :</u> 2	2002 3	4	1	<u>FY</u>	2003 3	4	1	<u>FY 2</u>	2 <u>004</u> 3	4		
U) Studies/Assessments of technology developments	1	2	3	4	1	2	3	4	1	2	3	4		
U)Begin/Complete Annual Studies	*			*	*			X						
U) Solid stage design and evaluation of solid propulsion technology														
U)Begin/Complete Annual Studies				*		X		X						
U) Ordnance demo design and evaluation of technologies						*7		***						
U)Periodic Status Report/ReviewsU) Post-boost propulsion design and evaluation of technologies						X		X						
U)Periodic Status Report/Reviews						X		X						
U) Studies/assessments of advanced service life prediction technologies	*					11		11						
U)Begin/Complete Annual Studies						X		X						
U) Evaluate and test solid propulsion technologies for ICBM application														
U)Periodic Status Report/Reviews										X		X		
U) Assessment/demonstration of ordnance and post-boost components tech														
U)Periodic Status Report/Reviews										X		X		
U) Evaluate test protocols in support of hazard classification methods										71		21		
U)Periodic Status Report/Reviews										X		X		
* - Completed Event X - Planned Event														
Project 1021	Page	10 of 30	Pages					Е	Exhibit I	R-2A (P	E 0603	851F		

	RDT&E PRO	GRAM ELE	MENT/P	ROJECT	COST BI	REAKDO	WN (R-3))	DATE F (ebruary 2	:003
04 -	BET ACTIVITY Advanced Compor D&P)	nent Develop	ment and	Prototypes		ER AND TITLE	- DEM/VAI	_		-	PROJECT 1021
(U)	A. Project Cost Breakdo	wn (\$ in Thousan	<u>ds</u>)								
							<u>FY 2</u>	<u> 2002</u>	FY 20	<u>03</u>	FY 2004
(U)	Contract Engineering Sup	•						347		0	0
(U)	Studies/Assessments of te	•••						0	15		0
(U)	Solid stage demo evaluation			ies			1,	203	2,62		C
(U)	Ordnance demo design and							0	39		0
(U)	Post-boost propulsion desi	-	_					0	51		C
(U)	Studies/Assessments of ad							0	59		0
(U)	Evaluate and test solid prodevelopment	pulsion technolog	ies for ICBM	application thro	ough process			0		0	19,448
(U)	Assessment/Demonstratio	n of ordnance and	post-boost co	mponents techn	ology develop	ments		0		0	4,396
(U)	Evaluate test protocols in	support of hazard	classification 1	methods for ICI	BM solid rocke	et motors		0		0	512
(U)	Total						1,	550	4,28	31	24,356
(U)	B. Budget Acquisition Hi	story and Planni	ng Informatio	on (\$ in Thousa	nds)						
(U)	Performing Organization	<u>ıs:</u>									
	Contractor or	<u>Contract</u>									
	Government	Method/Type	Award or	Performing	<u>Project</u>						
	Performing	or Funding	Obligation	<u>Activity</u>	<u>Office</u>	Total Prior	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	Budget to	· · · · · · · · · · · · · · · · · · ·
	Activity	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	to FY 2002	FY 2002	FY 2003	FY 2004	<u>Complete</u>	<u>Progran</u>
	Product Development Orga										
	Northrop Grumman (Prim	ie) / C/CPAF	Dec 97 /	Continuing	Continuing	664	1,540	4,251	23,256	Continuing	TBD
	Others TBD		TBD								
	AFRL Edwards	PO or MIPR	TBD	Continuing	Continuing	0	0	0	1,000	Continuing	TBD
	Support and Management										
	Prog Management	Various	As Req'd	Continuing	Continuing	46	10	30	100	Continuing	TBD
	Test and Evaluation Organ	<u>ıızatıons</u>									
	None										
Р	roject 1021			Pa	ge 11 of 30 Pa	ages			Exhib	it R-3 (PE ()603851F)

RDT&E PRO	OGRAM ELE	MENT/F	ROJECT C	OST BREAKDO	WN (R-3)		DATE F e	February 2003			
BUDGET ACTIVITY 04 - Advanced Compoi (ACD&P)	4 - Advanced Component Development and Prototypes				- DEM/VA		ROJECT 021				
(U) Government Furnished I Item Description Product Development Propone None Support and Management None Test and Evaluation Prope	Contract Method/Type or Funding Vehicle perty Property	Award or Obligation Date	<u>Delivery</u> <u>Date</u>	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Totai</u> Prograr		
None Subtotals Subtotal Product Develope Subtotal Support and Man Subtotal Test and Evaluati Total Project	ment lagement			Total Prior to FY 2002 664 46 710	Budget FY 2002 1,540 10 1,550	Budget FY 2003 4,251 30 4,281	Budget FY 2004 24,256 100 24,356	Budget to Complete TBD TBD TBD	Total Prograr TBD TBD		
Project 1021			Page	e 12 of 30 Pages			Exhib	it R-3 (PE 06	03851F)		

RDT&E BUDGET ITEM	RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)											
BUDGET ACTIVITY 04 - Advanced Component Development (ACD&P)	04 - Advanced Component Development and Prototypes 0603851F ICBM - DEM/VAL 1022											
COST (\$ in Thousands)	EV 2002 EV 2003 EV 2					FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost		
1022 ICBM Reentry Vehicle Applications	19,841	24,530	17,18	20,423	21,023	19,920	21,213	21,515	Continuing	TBD		

(U) A. Mission Description

ICBM Reentry Vehicle (RV) Applications efforts ensure the Minuteman force is equipped with the safest and most reliable RVs and explore options to meet future requirements. These efforts support RVs beyond their original design life by addressing problems with operational reentry systems, meeting real on-going needs, and ensuring the availability of long-lead components/materials. This project develops methods to better predict aging phenomena and identify life cycle cost reduction methods. A key element of the RV Applications efforts is the continued preservation of the minimum critical technical skills and capabilities needed to respond to unexpected problems, aging phenomena and future requirements. RV work conducted under this program will leverage the Science & Technology community investments and coordinate with Navy RV applications program to eliminate duplication and realize synergistic cost savings. Program products are tested on a space available basis on Minuteman and Peacekeeper Force Development Evaluation (FDE) flights.

Budget Activity Justification:

This program is in Budget Activity 04 - Advanced Concept Development and Prototypes because the efforts demonstrate technology, component, and subsystem maturity and provide risk reduction.

(U) FY 2002 (\$ in Thousands)

(0)	1 1 2002 (\$\pi\$ III THOUSE	
(U)	\$0	Accomplishments/Planned Program
(U)	\$4,855	Continued evaluation of RV material subsystems, materials aging, and material replacements by performing ground and flight tests
(U)	\$3,713	Continued design, development, and prototype flight testing of selected fuze assessment/measurement
(U)	\$1,488	Continued identification and ground testing of potential replacement options for critical RV components
(U)	\$986	Continued evaluation of improved accuracy measurements and methodologies
(U)	\$2,978	Continued evaluation of alternate flight test experiment options
(U)	\$3,491	Continued evaluation of advanced common RV designs, applications, and technologies
(U)	\$2,330	Continued development and assessment of RV Test & Evaluation methodologies and subsystems
(U)	\$19,841	Total

Project 1022 Page 13 of 30 Pages Exhibit R-2A (PE 0603851F

	RDT	RE BUDGET ITE	M JUST	IFICAT	ION SH	EET (R-	2A Exhil	bit)	D	February	2003
04	GET ACTIVITY - Advanced Co CD&P)	mponent Developi	ment and	Prototy	=	NUMBER AND 03851F I		EM/VAL		-	PROJECT 1022
(U)	A. Mission Descri	ption Continued									
	FY 2003 (\$ in Thou \$0 \$5,363 \$2,705 \$1,236 \$745 \$4,694 \$5,167 \$4,620 \$24,530 FY 2004 (\$ in Thou \$0 \$4,998	Accomplishments/Pla Continue evaluation o Continue design, deve Continue identificatio Continue evaluation o Continue evaluation o Continue evaluation o Continue developmen Total	of RV material elopment, and and ground of improved a falternate flat advanced of and assessing the programmed	al subsystem d prototype i d testing of p accuracy mea ight test exp common RV ment of RV	flight testing potential repl asurements a eriment opti- designs, app Fest & Evalu	of selected f acement opti and methodol ons olications, and action method	aze assessme ons for critic ogies I technologie lologies and	ent/measurem al RV compo es subsystems	ent onents		
	\$1,121 \$1,458 \$852 \$2,795 \$3,513 \$2,444 \$17,181	Continue design, deversity Continue identification of Continue evaluation of Continue evaluation of Continue evaluation of Continue development Total	elopment, and n and ground f improved a f alternate fl f advanced c	I prototype to testing of paccuracy meanight test exponents of the common RV	flight testing ootential repl asurements a eriment opti- designs, app	g of selected in acement options methodological ons olications, and	Tuze assessments for criticogies I technologie	ent/measurer al RV compo es	nent	end and ingin tests	
(U) (U)	B. Project Change C. Other Program	Summary Funding Summary (\$ in	n Thousands	<u>s)</u>							
(U)	None	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cos
l F	Project 1022				Page 14 of	f 30 Pages				Exhibit R-2A (Pl	E 0603851F)

RDT&E BUDGET ITEM JUSTIFICAT	ΓΙΟΝ	SHEE	T (R-	2A Ex	khibit	t)		DAT		bruary	2003	
BUDGET ACTIVITY 04 - Advanced Component Development and Prototy (ACD&P)	pes		1BER AN 351F	D TITLE	- DEM	/VAL					PRO. 102	
(U) D. Acquisition Strategy Studies, analyses, limited engineering, and pre-prototype hardware do most appropriate.	evelopm	ent will b	e accom	nplished.	Efforts	will be c	conducte	d using c	ontracti	ng strateş	gies deei	med
(U) E. Schedule Profile												
		<u>FY 2</u>					2003			<u>FY 2</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Materials Replacement & Aging Evaluations		*		a ta		*7		*7		***		***
(U)Periodic Status Reports/Reviews		ক		*		X		X		X		X
(U) Fuze Assessment/Measurement Tool Development		*		*		X		X		X		v
(U)Periodic Status Reports/Reviews (U) Critical Components Evaluations		*		*		Λ		Λ		Λ		X
(U)Periodic Status Reports/Reviews		*		*		X		X		X		X
(U) RV Test & Evaluation Methodologies Development				·		Λ		Λ		Λ		Λ
(U)Periodic Status Reports/Reviews		*		*		X		X		X		X
(U) Accuracy Assessment Methodologies Development						Λ		Λ		71		Λ
(U)Periodic Status Reports/Reviews		*		*		X		X		X		X
(U) Advanced Common RV Designs, Applications & Technologies						21		21		71		71
Evaluations												
(U)Periodic Status Reports/Reviews		*		*		X		X		X		X
(U) Alternate Flight Test Options Development												
(U)Periodic Status Reports/Reviews		*		*		X		X		X		X
(U) Flight Tests			*	*		X	X			X		X
* - Completed Event X - Planned Event												
Project 1022	Page	15 of 30	Pages					E	Exhibit F	R-2A (PI	≣ 06038	351F)

RD1	T&E PROG	RAM ELE	MENT/P	ROJECT	COST B	REAKDO	WN (R-3)		DATE F	ebruary 2	2003
BUDGET ACTIVITY 04 - Advance (ACD&P)	d Compone	nt Developi	ment and	Prototypes		SER AND TITLE 51F ICBM	- DEM/VA	L		,	PROJECT 1022
(U) A. Project (Cost Breakdown	ı (\$ in Thousan	ds)				FY	2002	FY 20	03	FY 2004
(U) Evaluate Ma	terials Subsyster	ms and Replacer	nents					,855	5,30		4,998
(U) Fuze Assess	•	•					3	,713	2,70	05	1,121
(U) Identify/Gro	und Test Critica	1 Components					1	,488	1,23	36	1,458
(U) Accuracy As	sessment Measu	ures/Methodolog	ies					986	74	1 5	852
(U) Flight Test E	experiments Opt	ions					2	,978	4,69	94	2,795
(U) Evaluate Ad	vanced Common	n RV					3	,491	5,10	57	3,513
	Assess RV T&E	Methods						,330	4,62		2,444
(U) Total							19	,841	24,53	30	17,181
(U) B. Budget A	equisition Histo	ory and Plannir	g Informatio	on (\$ in Thousa	nds)						
(U) Performing	Organizations:										
Contractor or	•	Contract									
Government		Method/Type	Award or	Performing	Project						
Performing		or Funding	Obligation	<u>Activity</u>	<u>Office</u>	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 2002	FY 2002	FY 2003	FY 2004	Complete	<u>Progran</u>
	elopment Organi										
•	ımman (Prime)	/ C/CPAF	Dec 97 /	Continuing	Continuing	39,182	18,331	22,970	15,621	Continuing	TBD
Others TBD			TBD								
	Management Or	_									
Other Engine	-	Various	Ongoing	Continuing	Continuing	1,446	60	60	60	Continuing	TBD
Management		_									
	luation Organiza			a	a	4 700	4.50	# 0.0	#C 2	a	
Wright Lab		MIPR	Annual	Continuing	Continuing	1,590	450	500	500	Continuing	
AEDC	A ED	PO	Annual	Continuing	Continuing	1,902	750 250	750 250	750	Continuing	
Vandenberg	AFB	PO	As Req'd	Continuing	Continuing	146	250	250	250	Continuing	TBD
Project 1022				Pa	ge 16 of 30 Pa	ages			Fxhil	oit R-3 (PE (0603851F)

	M ELEMENT/F	PROJECT C	OST BREAKDO	February 2003				
IDGET ACTIVITY 4 - Advanced Component Do ACD&P)	evelopment and	Prototypes	PE NUMBER AND TITLE 0603851F ICBM -	DEM/VAI			ROJECT 022	
Item or Fu Description Vehic Product Development Property None Support and Management Property None	ract od/Type Award or onding Obligation	<u>Delivery</u> <u>Date</u>	<u>Total Prior</u> to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>To</u> <u>Progr</u>
Test and Evaluation Property None Subtotals Subtotal Product Development Subtotal Support and Management Subtotal Test and Evaluation Total Project			Total Prior to FY 2002 39,182 1,446 3,638 44,266	Budget FY 2002 18,331 60 1,450 19,841	Budget FY 2003 22,970 60 1,500 24,530	Budget FY 2004 15,621 60 1,500 17,181	Budget to Complete TBD TBD TBD TBD	Tot Progra TB TB TB

	RDT&	E BUDGET ITEM	JUSTIF	ICATIO	ON SHE	ET (R-	2A Exh	ibit)		DATE	Februar	y 2003
04 -	ET ACTIVITY Advanced Com D&P)	nponent Developmer	nt and P	rototype		UMBER AND 13851F I		EM/VAL	-			PROJECT 1023
	COST (\$ in	Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
1023	Rocket System Lau	nch Program	3,521	31	31	33	33	34	35	35	Continuing	ТВІ
(U)	Budget Activity Justi	udies/analyses on hardware f ification: udget Activity 04 - Advance					use the effo	rts demonst	rate techno	logy, comp	onent, and s	ubsystem
U) U) U) U) U)	FY 2002 (\$ in Thous \$0 \$31 \$3,490 \$3,521	Accomplishments/Planned Continued on-going study/ Provided operational supprotal	analysis fo	-			•				ts.	
U) U) U) U)	FY 2003 (\$ in Thous \$0 \$31 \$31	ands) Accomplishments/Planned Continue on-going study/a Total		the adoptio	n of low co	st front-end	systems fo	r use on dea	activated m	issile assets	3.	
U) U) U) U)	FY 2004 (\$ in Thous \$0 \$31 \$31	ands) Accomplishments/Planned Continue on-going study/a Total	_	the adoptio	n of low co	st front-end	systems fo	r use on dea	activated m	issile assets	3	
(U)	B. Project Change S	Summary										

Exhibit R-2A (PE 0603851F)

Project 1023

RDT&E BUDGET ITEM JUSTIFICA	TION SH	IEET (R-	2A Exhi	bit)		PATE Feb	ruary 2003
BUDGET ACTIVITY 04 - Advanced Component Development and Protot (ACD&P)	.	E NUMBER ANI 603851F		EM/VAL			PROJECT 1023
(U) C. Other Program Funding Summary (\$ in Thousands) FY 2002 FY 2003 FY 2004 Actual Estimate Estimate (U) Other APPN (U) None		FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	<u>Cost</u> <u>Compl</u>	
(U) D. Acquisition Strategy Studies and analyses will be performed primarily in-house augment require the development and/or evaluation of hardware along with t competition. Type contract used (e.g., CPIF, FPIF, etc) will be that	the associated	employment of	concepts will	be awarded	_		1 0
 (U) E. Schedule Profile (U) Start/Complete Annual Studies/Analysis (U) Quick Reaction Launch Capability Demo (U) Northern Edge launch 	1	<u>FY 2002</u> 2 3	4 1	<u>FY 2</u> 2	003 3 4 X		<u>FY 2004</u> 2 3 4 X
* - Completed Event X - Planned Event							
Project 1023	Page 19 o	of 30 Pages				Exhibit R	-2A (PE 0603851F)

	RDT&E PRO	GRAM ELE	MENT/F	PROJECT	COST BI	REAKDO	WN (R-3))	DATE F (ebruary 2	003
04	GET ACTIVITY - Advanced Compon CD&P)	ent Developi	ment and	Prototypes		ER AND TITLE 51F ICBM ·	- DEM/VAI	_			PROJECT 1023
(U)	A. Project Cost Breakdov	vn (\$ in Thousan	ds)								
(U) (U)	Studies/Analyses Quick Reaction Launch Ca	pability Demonst	rations				<u>FY 2</u>	<u>2002</u> 31	<u>FY 20</u>	<u>03</u> 1	<u>FY 2004</u> 31
(U) (U)	Northern Edge Exercise Total	e Quick Reaction	Launch					490 521		0	0 31
(U)	B. Budget Acquisition His	story and Plannir	ng Informatio	on (\$ in Thousa	ands)						
(U)	Performing Organizations Contractor or Government Performing Activity Product Development Organ Various Thiokol Support and Management Organ Various Trest and Evaluation Organi	Contract Method/Type or Funding Vehicle nizations Various FFP Organizations SS/T&M Various	Award or Obligation Date As Req'd Apr 02 As Req'd As Req'd	Performing Activity EAC N/A 600 N/A Continuing	Project Office EAC 7,338 600 N/A Continuing	Total Prior to FY 2002 5,363 0 8,103 842	Budget FY 2002 1,975 600 300 646	Budget FY 2003 0 0 0 31	Budget FY 2004 0 0 31	Budget to Complete 0 Continuing Continuing	Total Program 7,338 600 TBD TBD
(U)	Item Description Product Development Prop None Support and Management F None	roperty: Contract Method/Type or Funding Vehicle erty	Award or Obligation Date	Delivery Date		Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Total</u> <u>Program</u>
F	Project 1023			Pa	age 20 of 30 Pa	ages			Exhib	it R-3 (PE 0	603851F)

RDT&E PROGRAM ELEMENT/PROJECT C	OST BREAKDO	WN (R-3)		DATE F (ebruary 20	003
BUDGET ACTIVITY 04 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603851F ICBM	- DEM/VAI	_			PROJECT 1023
(U) Government Furnished Property Continued: Test and Evaluation Property None				-		
Subtotals	<u>Total Prior</u> to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Total</u> Progran
Subtotal Product Development	5,363	2,575	0	0	<u>compicte</u> 0	7,938
Subtotal Support and Management Subtotal Test and Evaluation	8,945	946	31	31	TBD	TBD
Total Project	14,308	3,521	31	31	TBD	TBD
Project 1023 Page	e 21 of 30 Pages			Exhib	it R-3 (PE 06	603851F)

	RDT&E BUDGET ITEM	JUSTIF	ICATIO	ON SHE	ET (R-	2A Exh	ibit)		DATE	Februar	y 2003
04 -	ET ACTIVITY Advanced Component Developme D&P)	nt and P	rototype		1UMBER AND 13851 F I		EM/VAL				PROJECT 1024
	COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
1024	ICBM Command & Control (C2) Applications	409	1,412	433	444	458	465	471	477	Continuing	ТВ
U)	A. Mission Description	•				ļ.					

Œ) \$0	Accomplishments/Planned Program
---	-------	---------------------------------

(U) \$186 Continued to develop and refine alternatives and concepts for a C2 system architecture supporting strategic missile applications

(U) \$223 Demonstrated, tested and evaluated alternative network architectures, applications, and technologies

(U) \$409 Total

(U) FY 2003 (\$ in Thousands)

(U) \$0 Accomplishments/Planned Program

(U) \$825 Continue to develop and refine alternatives and concepts that incorporate information assurance, joint interoperability, and other applicable DOD

initiatives. Include options identification and analyses for an improved, survivable C2 system

U) \$587 Continue demonstrations, testing and evaluation of alternative network architectures, applications, and technologies. Ensure compatibility with

transformational communications studies and integrate activities.

Project 1024 Page 22 of 30 Pages Exhibit R-2A (PE 0603851F)

	RDT&	E BUDGET IT	EM JUS	TIFICAT	ION SH	EET (R-	2A Ex	hibit)			DATE		oruary	2003	
04 -	GET ACTIVITY - Advanced Com CD&P)	ponent Develor	oment and	d Prototy		NUMBER AN 603851F					PRO. 102				
(U)	A. Mission Descript	ion Continued													
(U) (U)	FY 2003 (\$ in Thous: \$1,412	ands) Continued Total													
(U) (U) (U)	FY 2004 (\$ in Thous: \$0 \$433	Accomplishments/P. Develop concepts for (C4ISR) architecture develop plans for pro	or transformate for future IC	tion of ICBM CBM mission	s, including	analysis of re	equiremen			_					
(U)	B. Project Change S None														
	C. Other Program F None	unding Summary (\$ FY 2002 Actual	in Thousand FY 2003 Estimate	ls) FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 200 Estima		2008 stimate	FY 2009 Estimat		Cost Comp		<u>To</u>	otal Cost
(U)	D. Acquisition Strate Studies and analyses, deemed most appropri	and limited engineerir	ng and pre-pr	ototype hard	ware develop	oment will be	accompl	ished. E	fforts wi	ll be cond	ucted 1	using co	ntracting	g strateg	ies
(U)	E. Schedule Profile					FY 2002	4		<u>FY 2</u>		4	1		2004	4
(U) (U)	Future Concepts StudPeriodic Progress Re Begin demonstrationsPeriodic Progress Re * - Completed Event	eports/Reviews , test, and evaluations	of alternate i	C,	1	2 3	4 * *	I	2 X	3	4 X X	1	2 X	3	4 X X
P	Project 1024				Page 23 o	f 30 Pages					E	xhibit R	-2A (PE	06038	351F)

	RDT&E PROC	RAM ELE	MENT/F	ROJECT	COST BI	REAKDO	WN (R-3)		DATE F 6	ebruary 2	003
04	GET ACTIVITY - Advanced Compone CD&P)	nt Developi	ment and	Prototypes		SER AND TITLE 51F ICBM -	- DEM/VAI	L			PROJECT 1024
(U)	A. Project Cost Breakdown	ı (\$ in Thousan	ds)								
(U) (U) (U) (U)	System Architecture Study Demonstration of Alternate I ICBM C4ISR Architecture T Total							2002 186 223 0 409	FY 200 82 58 1,41	5 7 0	FY 2004 0 0 433 433
(U)	B. Budget Acquisition History	ory and Plannir	ng Informatio	on (\$ in Thousa	nds)						
(U)	Performing Organizations: Contractor or Government Performing Activity Product Development Organ: Northrop Grumman (Prime) Others TBD Support and Management Or Various Test and Evaluation Organization	Contract Method/Type or Funding Vehicle izations / C/CPAF rganizations Various	Award or Obligation Date Dec 97 / TBD As Req'd	Performing Activity EAC Continuing N/A	Project Office EAC Continuing N/A	Total Prior to FY 2002 1,958	Budget FY 2002 404	Budget FY 2003 1,397		Budget to Complete Continuing Continuing	<u>Total</u> <u>Program</u> TBD TBD
(U)	Item Description Product Development Proper None Support and Management Pro None	Contract Method/Type or Funding Vehicle	Award or Obligation Date	<u>Delivery</u> <u>Date</u>		Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Total</u> Program
F	roject 1024			Pa	ge 24 of 30 Pa	ages			Exhib	it R-3 (PE 0	603851F)

RDT&E PROGRAM ELEMENT/PROJECT C	OST BREAKDO	WN (R-3)		DATE F (DATE February 2003			
BUDGET ACTIVITY 04 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603851F ICBM	- DEM/VAI			PROJECT 1024			
(U) Government Furnished Property Continued: Test and Evaluation Property None Subtotals Subtotal Product Development Subtotal Support and Management Subtotal Test and Evaluation Total Project	Total Prior to FY 2002 1,958 22 1,980	Budget FY 2002 404 5 409	Budget FY 2003 1,397 15 1,412	Budget FY 2004 428 5 433	Budget to Complete TBD TBD TBD	Total Program TBD TBD TBD		
Project 1024 Page	e 25 of 30 Pages			Exhib	it R-3 (PE 06	503851F)		

	RDT&E BUDGET ITEM	JUSTIF	ICATIO	ON SHE	ET (R-	2A Exh	ibit)		DATE	DATE February 2003			
04 -	GET ACTIVITY - Advanced Component Developme CD&P)	ent and P	rototype		10MBER AND 13851F I		EM/VAL	-			PROJECT 4209		
	COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost		
4209	Long Range Planning (LRP)	2,182	7,281	7,473	9,270	2,486	2,415	2,414	2,456	Continuing	ТВГ		
	: In FY 2004, Project 4209 Long Range Planning SND).	includes ne	w start effo	rts to begin	an Analysi	s of Alterna	tives for a f	follow on L	and-Based	Strategic Nu	clear Deterrent		
(U)	A. Mission Description The Long Range Planning (LRP) task analyzes at technology insertion, employment, and force str generated by these studies are evaluated for feasing systems development and deployment. Budget Activity Justification: This program is in Budget Activity 04 - Advance maturity and provide risk reduction.	ucture. The ibility, syste	studies foci m impacts,	us on syster and cost. T	n supportab The LRP als	ility, operal o lays the g	oility, reliat roundwork	oility, and n for analysi	naintainabil s supporting	ity. Options g future ICB	s/concepts M weapon		
(U) (U) (U) (U) (U) (U)	FY 2002 (\$ in Thousands) \$0 Accomplished/Planned P \$435 Continued support of Lor Management Plan and the \$985 Continued to perform fea \$762 Continued to perform tec \$2,182 Total	ng Range Pla e ICBM Mas sibility and l	ster Plan. ife extensio	on studies			-	-	e of the Log	gistics Progi	am		
(U) (U) (U) (U)	FY 2003 (\$ in Thousands) \$0 Accomplished/Planned P \$469 Continue support of Long Plan and the ICBM Maste \$3,012 Continue to perform feas	g Range Plar er Plan		•	nt of the Sy	stems Optio	ons Report,	and update	of the Logi	stics Progra	m Management		

Exhibit R-2A (PE 0603851F)

Project 4209

	RDT&E I	BUDGET ITEM JUSTIFICA	TION SHEET (R-	2A Exhibit)	ľ	February 2	2003		
04 -	GET ACTIVITY - Advanced Compo CD&P)	nent Development and Protot	pe number an ypes 0603851F	D TITLE ICBM - DEM/VAL	PROJECT 4209				
(U)	A. Mission Description	Continued							
(U) (U) (U) (U)	\$3,011 Be	s) Continued ontinue to perform technology insertion stuegin development of Threats and Scenarios otal			oability				
(U) (U) (U)	\$494 Co	s) ccomplishments/Planned Program ontinue support of Long Range Planning ta an and the ICBM Master Plan	asks, development of the Sy	vstems Options Report, ar	nd update of the	he Logistics Program	Management		
(U) (U) (U) (U)	\$1,249 Co \$825 Co \$4,905 Be	ontinue to perform feasibility and life externations to perform technology insertion studegin Analysis of Alternatives (AoA) for footal	idies in support of changin		3SND)				
(U)	B. Project Change Sum	mary							
(U)	C. Other Program Fund	ling Summary (\$ in Thousands) FY 2002 FY 2003 FY 2004 Actual Estimate Estimate		FY 2007 FY 2008 Estimate Estimate	FY 2009 Estimate	Cost to Complete	Total Cost		
` ′	D. Acquisition Strategy	be accomplished. Efforts will be conducted	ed using contracting strateg	ies deemed most appropr	iate.				
(U)	E. Schedule Profile		FY 2002	FY.	2003	FY 20	04		
P	roject 4209		Page 27 of 30 Pages			Exhibit R-2A (PE	0603851F\		

	RDT&E BUDGET ITEM JUSTIFICATION	ON	SHEE	T (R	-2A E	xhibi	t)		DAT	February 2003				
04	GET ACTIVITY - Advanced Component Development and Prototype CD&P)	es	-		ICBM	- DEN	I/VAL				-	PRO- 420		
(U) (U) (U) (U)	Contract Award for Annual Studies/AnalysesProgram ReviewsReports Received -Threats & Scenarios DB w/Modeling & Simulation capability development - Start LBSND Analysis of Alternatives * - Completed Event X - Planned Event	1	FY 2 * *	2002 3 *	4 *	1	FY 2 X X	2003 3 X	4 X X X	1	FY : 2 X X X X	2004 3 X	4 X	
F	Project 4209	Page	e 28 of 30	Pages						Exhibit I	R-2A (P	E 06038	351F)	

	RDT&E PROG	RAM ELE	MENT/F	ROJECT C	OST B	REAKDO	WN (R-3))	DATE F	DATE February 2003			
04 -	BET ACTIVITY Advanced Compone D&P)	nt Developı	SER AND TITLE 51F ICBM	- DEM/VA	L			PROJECT 4209					
(U)	A. Project Cost Breakdown	(\$ in Thousan	ds)										
								<u>2002</u>	FY 20		FY 2004		
(U)	Long Range Planning Tasks							435		59	494		
(U)	Feasibility Studies							985	3,0		1,249		
(U)	Technology Insertion Studies							762		89	825		
(U)	Threats & Scenarios database	_	& Simulation	n capability develor	pment			0	3,0		0		
(U)	LBSND Analysis of Alternat	ives						0	7.0	0	4,905		
(U)	Total						2.	,182	7,2	81	7,473		
(U)	B. Budget Acquisition Histo	ry and Plannin	g Informatio	on (\$ in Thousand:	<u>s</u>)								
(U)	Performing Organizations:												
	Contractor or	Contract											
	Government	Method/Type	Award or	Performing	Project								
	Performing	or Funding	Obligation	<u>Activity</u>	Office	Total Prior	Budget	Budget	<u>Budget</u>	Budget to	<u>Total</u>		
	Activity	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	to FY 2002	FY 2002	FY 2003	FY 2004	<u>Complete</u>	<u>Program</u>		
	Product Development Organi												
	Northrop Grumman (Prime)		Dec 97	N/A	N/A	4,409	409	469	481	Continuing	TBD		
	TBD - Annual	TBD	Annually	N/A	N/A	0	1,628	3,656	1,942	Continuing	TBD		
	Studies/Analysis												
	TBD - Threat/Scenario/DBs	TBD	Mar 03	N/A	3,011	0	0	3,011	0	0	3,011		
	TBD - LBSND AoA	TBD	Jan 04	N/A	11,905	0	0	0	4,905	7,000	11,905		
	Support and Management Org			27/4	37/4	2 2 4 5					TTD D		
	Various	Various	Ongoing	N/A	N/A	2,347	145	145	145	Continuing	TBD		
	Test and Evaluation Organiza	tions											
(U)	Government Furnished Pro	<u>perty:</u>											
		Contract											
		Method/Type	Award or										
	<u>Item</u>	or Funding	Obligation	<u>Delivery</u>		Total Prior	Budget	Budget	<u>Budget</u>	Budget to	<u>Total</u>		
	Description	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		to FY 2002	FY 2002	FY 2003	FY 2004	Complete	<u>Program</u>		
Р	roject 4209			Page	29 of 30 Pa	ages			Exhil	oit R-3 (PE 0	603851F)		

RDT&E PF	ROGRAM ELE	MENT/F	PROJECT C	OST BREAKDO	WN (R-3)		DATE February 2003			
BUDGET ACTIVITY 04 - Advanced Comp (ACD&P)	4 - Advanced Component Development and Prototypes				- DEM/VAI			PROJECT 4209		
(U) Government Furnished Item Description Product Development F None Support and Management None Test and Evaluation Product	Contract Method/Type or Funding Vehicle Property ent Property		<u>Delivery</u> <u>Date</u>	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	<u>Tota</u> <u>Progra</u> i	
None Subtotals Subtotal Product Devel Subtotal Support and M Subtotal Test and Evalu Total Project	opment Ianagement			Total Prior to FY 2002 4,409 2,347 6,756	Budget FY 2002 2,037 145 2,182	Budget FY 2003 7,136 145 7,281	Budget FY 2004 7,328 145 7,473	Budget to Complete TBD TBD TBD	Tota Prograr TBI TBI	
Project 4209			Page	e 30 of 30 Pages			Evhib	it R-3 (PE 06	S03851F)	