CLASSIFICATION:

EXHIE	BIT R-2, RDT	&E Budget	Item Justifica	ation				DATE:				
		·							Ju	ne 2001		
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NO	MENCLATURI	Ė				
RESEARCH DEVELOPMENT TEST & EVALUAT	TION, NAVY	/	BA-7			0204229N Tomahawk and Theater Mission Planning Center						
	Prior										Total	
COST (\$ in Millions)	Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program	
Total PE Cost		137.445	90.461	76.036								
A0545 Tomahawk		135.640	88.610	76.014								
A1784 Theatre Mission Planning Center	92.830	1.805	1.851	0.022								
		EDM										
Quantity of RDT&E Articles		10										

- (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
- (U) The Tomahawk Weapons System (TWS) provides the Tomahawk cruise missile attack capability against targets on land (Tomahawk Land Attack Missile (TLAM)). The TLAM can be fitted with either Conventional unitary warhead (TLAM/C), Nuclear warhead (TLAM/N) or submunition Dispenser (TLAM/D). This program ensures that the TWS exploits state-of-the-art technology to preserve the efficiency of this proven weapon system.
- (U) The Tomahawk project includes all missile development, mission planning system development, and submarine and surface ship weapons control development.
- (U) The Tactical Tomahawk (TT) missile development covered by this budget provides a comprehensive baseline upgrade to the TWS. The TT weapons program will provide the tactical commander a quick reaction response capability as well as improved flexibility, accuracy, and lethality.
- (U) This budget provides for the Tomahawk Command and Control System (TC2S) Theater Mission Planning Center (TMPC) and Afloat Planning System (APS), a shipboard version of TMPC. TMPC and APS provide mission planning and employment support information for both the nuclear (TMPC only) and conventional TLAM. This project also supports the distribution of mission data and command information essential to TLAM employment via the Mission Distribution System (MDS) and associated communications infrastructure. TMPC and APS software development decreases mission planning time and increases the quality and accuracy of each mission for Block II and III TLAM. The development of Tactical Tomahawk capabilities in TMPC/APS/MDS includes software development, integration, test, and delivery; support for TECHEVAL and OPEVAL; development of training; installation planning; and simulation/model development required by COMOPTEVFOR to offset live missile flights in TECHEVAL and OPEVAL. This project includes development required by future national and tactical imagery architectures.

R-1 SHOPPING LIST - Item No. 18

UNCLASSIFIED Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 1 of 14)

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget	t Item Justification		DATE:
			June 2001
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATUR	E
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /	BA-7	0204229N Tomahawk and	Theatre Mission Planning Center
(U) The Tomahawk Weapons Control System provides launch capability for su Replacement (LCGR) completed Initial Operational Capability (IOC) in FY00. S Engineering and Manufacturing Development (EMD) in FY99 with Phase A IOC	Submarine ATWCS Block 1 planned for FY03.	/C Mod 0/1 completed IOC in FY01. Ta	
(U) These efforts provide battle-group tactical flexibility and responsiveness whi	ile maximizing TWS wartim	e capability.	
(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under of existing, operational systems.	OPERATIONAL SYSTEMS	DEVELOPMENT because it encompas	ses engineering and manufacturing development for upgrade

CLASSIFICATION:

E	XHIBIT R-2a,	RDT&E Pro	ject Justifica	ition				DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY	PROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NA										
RDT&E, N / BA-7	0204229N TO	MAHAWK AND	THEATER M	ISSION PLANN	NING CENTER	A0545 TOMAI	HAWK				
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program
Project Cost		135.640	88.610	76.014							
	EDM EDM										
RDT&E Articles Qty		10									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

- (U) The TOMAHAWK Cruise Missile has been designed to accurately attack land targets from seaborne platforms at great distances from the launch platform (Tomahawk Land-Attack Missile (TLAM)). The TLAM can be produced with either a single Conventional warhead (TLAM/C), a submunition Dispenser (TLAM/D), or a Nuclear warhead (TLAM/N).
- (U) The Tomahawk development program (Project A0545) contains all costs for the Tactical Tomahawk (TT) program including the missile, weapons control systems, both surface ship and submarine, and the Tomahawk Command and Control Systems (TC2S).
- (U) The TT missile development covered by this budget provides a comprehensive baseline upgrade to the Tomahawk Weapon System including the missile, weapons control systems, and mission planning systems. The upgrade will improve system flexibility, responsiveness, accuracy and lethality. The essential elements of the TT are upgrades to the guidance, navigation, control, and mission computer systems of the missile along with the associated Command and Control (C2) systems and weapons control systems. TT will provide a UHF Satcom data link to enable the missile to receive in-flight mission modification messages, to transfer health and status messages, and to broadcast Battle Damage Indication (BDI) messages. TT also includes a high anti-jam GPS receiver, navigation improvements including Precision Terrain Aided Navigation (PTAN), and associated antenna systems.
- (U) The weapons control development portion of the project is centered on the Tactical Tomahawk Weapons Control System (TTWCS), being introduced into the surface and submarine fleets. The TTWCS advancements are increased data throughput, thereby reducing the time needed to execute missile preparation and launch sequences, and improving strike coordination capabilities.
- (U) The development of TT capabilities in TC2S includes software development, integration, test, and delivery; support for TECHEVAL and OPEVAL; development of training; installation planning; and simulation/model development.

CLASSIFICATION:

	DATE:		
			June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER ANI	O NAME
RDT&E, N / BA-7	0204229N TOMAHAWK AND THEATER MISSION PLANNING CENTER	A0545 TOMAHAWK	

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

- 1. FY 2000 ACCOMPLISHMENTS:
 - (U) (\$97,534) Completed System Critical Design Review (CDR). Continued missile prototype fabrication and component-level Development Testing.
 - (U) (\$38.106) Continued development of common launch and track control systems for surface ship and submarine platforms for the new Tactical Tomahawk baseline. Completed CDR leading to Development Testing of entire system in 2001.
- 2. FY 2001 PLANS:
 - (U) (\$44.659) Conduct Development, Integration and Qualification Testing of Tactical Tomahawk missile.
 - (U) (\$18.915) Incorporate new capabilities in Tomahawk Command and Control systems necessary for the employment of the Tactical Tomahawk missile.
 - (U) (\$23.234) Complete software development and begin Government Testing of Weapons Control System. Conduct Phase 1A Land Based System Integration Tests of redesigned surface and submarine Weapons Control Systems.
 - (U) (\$1.802) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68.
- 3. FY 2002 PLANS:
 - (U) (\$42.629) Conduct Contractor Flight Testing of missile. Complete missile Development, Integration and Qualification testing.
 - (U) (\$19.530) Continue the incorporation of new capabilities in Tomahawk Command and Control systems necessary for the employment of Tactical Tomahawk. Support Tactical Tomahawk Weapon System TECHEVAL, and continue development of related training and installation materials.
 - (U) (\$13.855) Complete Phase 1A land based tests of Weapons Control System. Initiate Weapons Control System TECHEVAL/OPEVAL for Phase 1A. Conduct Phase 1B Land Based and Sea Based System Integration Testing. I

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXH	IBIT R-2a, RDT&E Pr	on		DATE: June 2001	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT I	NUMBER AND N	AME	PROJECT NUMBER AND N	
RDT&E, N / BA-7	0204229N TOMAHAWK	AND THEATER	MISSION PLANNING CENTER	A0545 TOMAHAWK	
(U) B. PROGRAM CHANGE SUMMARY:					
	FY2000	FY2001	FY2002		
(U) FY 2001 President's Budget:	139.522	89.565	52.483		
(U) Adjustments from the President's Budget:	(3.882)	(0.955)	23.531		
(U) FY 2002 President's Budget:	135.640	88.610	76.014		

CHANGE SUMMARY EXPLANATION:

(U) Funding:

The FY 2000 net decrease of \$3.882 million consists of a decrease of \$2.842 million for Small Business Innovative Research assessment, a decrease of \$.480 million for reprioritization of requirements within the Navy, a \$0.547 million decrease for a Congressional Recission, and a decrease of \$0.013 million for Federal Technology Transfer.

The FY 2001 net decrease of \$0.955 million consists of a \$0.627 million Congressional Reduction, a decrease of \$0.133 million for reprioritization of requirements within the Navy, and a decrease of \$0.195 million for a Congressional Recission.

The FY 2002 net increase of \$2.3.531 million consists of an increase of \$13.205 million for TTWCS government, an increase of \$7.5M to support missile EMD cost growth, restoration of \$2.800 million for TTWCS government testing, an increase of \$6.00 million for TTWCS prototype training lab design, a decrease of \$0.302 million for reprioritization of requirements within the Navy, and a decrease of \$0.302 million for economic assumptions.

Schedule: Not Applicable

(U) C. OTHER PROGRAM FUNDING SUMMARY.

FY 2000	FY 2001	FY 2002
0.000	0.000	50.101
43.543	43.830	36.808
3.464	2.833	3.062
	0.000 43.543	FY 2000 FY 2001 0.000 0.000 43.543 43.830

Related RDT&E,N: Not Applicable

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

	EXHIBIT R-2a, RDT&E Project Just	ification	С	DATE:
				June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AN	D NAME	PROJECT NUMBER AND NA	ME
RDT&E, N / BA-7	0204229N TOMAHAWK AND THEAT	ER MISSION PLANNING CEN	FER A0545 TOMAHAWK	
(U) D. ACQUISITION STRATEGY: In 1998, the Approval (CJ&A No AIR-22448) signed by the Ur Tactical Tomahawk. The Tactical Tomahawk decontractor provided an unsolicited proposal with a	der Secretary of the Navy on 29 May 1998. The velopment program is a cost sharing contract bet	acquisition strategy, in brief, is tween the Government and the G	o transition the on-going Tomahav Contractor to add capability to the i	vk Baseline Improvement Program (TBIP) to missile. As part of the development, the
(U) E. SCHEDULE PROFILE:				
	<u>FY 2000</u> <u>FY</u>	2001	FY 2002	
(U) Program Milestones				
(U) Engineering Milestones	3Q/00 CDR Complete			
(U) T&E Milestones		/01 AUR System egration Complete	4Q/02 AUR System Qual Complete	
(U) Contract Milestones			3Q/02-LRIP One Award	
Definitions: AUR - All-Up-Round CDR - Critical Design Review IOC - Initial Operational Capability LRIP - Low Rate Initial Production OA - Operational Assessment PDR - Preliminary Design Review				
	R-1 SI	HOPPING LIST - Item No.	183	

CLASSIFICATION:

Exhibit R-3 Cost Ana	lveis (nane	1)							DATE:		June 2001	l			
APPROPRIATION/BUDG	ET ACTIVITY	/	PROGRAM ELEM	MENIT			PROJECT NU	IMBED AND N	IAME		Julie 200	ı			
	BA-7			HAWK AND THEATE	R MISSION PLAN	INING CENTER		A0545 TOMAHAWK							
Cost Categories		ontract	Performing	Total		FY 01		FY 02							
,			Activity &	PY s	FY 01	Award	FY 02	Award			Cost to	Total	Target Value		
	8	Туре	Location	Cost	Cost	Date	Cost	Date			Complete	Cost	of Contract		
Primary Hardware Develop	ment														
All Product Development Co	4-														
1974 through TBIP Costs in				2,176.447									+		
To Trainedgit 12ii Coole iii	1000			2,110.111											
Tactical Tomahawk Program	n														
AUR	C	/CPFF	Raytheon, Tucson, AZ	160.758	19.330	11/00	18.287	11/01							
Launcher Integration	Т	BD	NAVSEA, Washington, DC	17.372	2.671	11/00									
													<u> </u>		
Systems Engineering		/FP	Raytheon, Tucson, AZ	6.000			1.000						_		
		ARC	APL, Laurel, MD	11.587		01/01	3.665	01/02							
	C	/FP	Boeing, St. Louis, MO	3.000											
													-		
													-		
													+		
													+		
													1		
													<u> </u>		
Subtotal Product Developr	nent			2,375.164	28.736		22.952								
Remarks: None															

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

PPROPRIATION/BUDGET ACTIV	/ITY	PROGRAM ELEM	1ENT				PROGRAM ELEMENT PROJECT NUMBER A								
DT&E, N / BA-7		0204229N/TOMA	HAWK AND T	HEATER MISSIC	ON PLANNIN	IG CENTER	A0545 TOMAHAWK								
ost Categories	Contract	Performing	Total		FY	´ 01		FY 02							
	Method	Activity &	PY s	FY 01		vard		Award			Cost to	Total	Target Val		
	& Type	Location	Cost	Cost	Da			Date			Complete	Cost	of Contrac		
evelopment Support	Economy Act	NSWC, Dahlgren VA		7.256	2.126	11/00	1.261	11/01							
	Economy Act	NAWC-WD, China Lake, CA		7.074	1.352	11/00	0.746	11/01							
	Economy Act	NSWC, Pt Hueneme, CA		3.043	0.152	11/00	0.202	11/01							
	Economy Act	NAWC-AD, Pax River, MD		2.425	1.088	11/00	0.338	11/01							
	Economy Act	NWAD, Corona		0.652	0.390	11/00	0.286	11/01							
	Economy Act	NUWC, Newport, RI		1.842	1.617	11/00	0.501	11/01							
	SS/CPFF	SAIC, Arlington, VA		3.165	2.199	12/00	1.738	12/01							
	Economy Act	NSWC, Indian Head, MD		1.944	2.152	11/00	0.675	11/01							
	Economy Act	NSWC, Carderock, MD		0.000	0.668	01/01	0.907	11/01							
		Various		14.635	0.351		0.310	, .							
		ranous		11.000	0.001		0.010								
her Development															
Mission Planning Systems (TC2S)	SS/CPFF	Raytheon, Arlington, VA		5.100											
	SS/CPFF	Boeing, St. Louis, MO		0.000											
	SS/CPFF	ComGlobal, San Jose, CA		0.000	9.401	12/00	10.181	12/01							
	SS/CPFF	SAIC, Arlington, VA		0.000	5.215	12/00	3.049	12/01							
	UARC	APL, Laurel, MD		0.000	3.596	12/00	4.300	12/01							
	SS/CPFF	BAE Systems, San Diego, CA		0.000	0.329	12/00	0.600	12/01							
	SS/CPFF	Lockheed, Valley Forge, PA		0.000	0.374	12/00	1.400	12/01							
Weapons Control Systems	C/CPAF	Lockheed, Valley Forge, PA		58.695	20.890	12/00	8.028	12/01							
weapons Control Systems	Economy Act	NSWC, Dahlgren VA		15.393	0.910	11/00	3.324	11/01							
	Economy Act	NUWC, Newport, RI		9.364	1.434	11/00	1.700	11/01							
Subtatal Command	UARC	APL, Laurel, MD		0.000	54.044		0.804 40.350	12/01							
Subtotal Support				130.588	54.244		40.350		1	l	1				

CLASSIFICATION:

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Exhibit B 2 Cost Analysis (no	~~ O\								DATE:		June 2001			
Exhibit R-3 Cost Analysis (pa		PROGRAM ELEMEN	ıT				PROJECT NU	IMPED AND I	LANAE		June 2001			
RDT&E, N / BA-7	11 1			D MICCIO	NI DI ANNINI	CENTER	A0545 TOMA		TV WILL					
Cost Categories	Contract		AWK AND THEATER MISSION PLANNING CENTER Total FY 01			AUS45 TOWA	FY 02		1		1	1		
Cost Categories			PY s	FY 01	Awa		FY 02	Award			Cost to	Total	Target Value	
	& Type		Cost	Cost	Dat		Cost	Date			Complete	Cost	of Contract	
Developmental Test & Evaluation	SS/CPFF	Raytheon, Tucson, AZ	19.57	4	0.000	11/00	6.608	11/01						
	Economy Act	COMOPTEVFOR, VA	1.60	3	0.230	11/00	0.400	11/01						
	Economy Act	NAWC, Pt Mugu Test Ctr, CA	6.71	1	1.847	11/00	4.240	11/01						
	Economy Act	NOSC, San Diego CA	0.00	0	0.700	04/01	0.700	11/01						
	Economy Act	NUWC, Newport RI	0.00	0	0.235	11/00	0.239	11/01						
	UARC	APL, Laurel MD	0.00	0	0.200	11/00	0.450	11/01						
	Economy Act	NAC, China Lake FltTestCtr, CA	3.24	7										
		Various	0.00	0	0.616		0.075							
Subtotal T&E			31.13	5	3.828		12.712							
Management		SBIR			1.802									
Subtotal Management					1.802									
Remarks: None														
Total Cost			2,536.88	7	88.610		76.014							
Remarks:	•	•		-	*		•		*	•	•	•	•	

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

	EXHIBIT R-2a,	RDT&E Pro	ject Justifica	ition				DATE:			
PROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NA											
RDT&E, N / BA-7	0204229N TO	MAHAWK AND	THEATER MI	SSION PLANN	ING CENTER	A1784 THEAT	ER MISSION I	PLANNING CE	NTER		
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program
Project Cost	92.830	1.805	1.851	0.022							
RDT&E Articles Qty											·

- (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
- (U) The TOMAHAWK Theater Mission Planning Center (TMPC) ashore and Afloat Planning System (APS) provide data base generation and processing, flight mission data, command and control information preparation, and distribution for nuclear (TMPC only) and conventional TOMAHAWK Land Attack Missiles. The TMPC project designs and develops software to decrease mission planning time in response to contingency requirements, improves the production of missile data for distribution and provides automated command and control information for employment and strike planning. APS utilizes the TMPC software on down sized and ruggedized computer hardware for use in support of Afloat Strike Warfare Commanders. This improves battle-group tactical flexibility and responsiveness while maximizing TOMAHAWK Weapon Systems (TWS) warfare capability. The TMPC and APS systems will be compatible with the Navy Command and Control Systems and the TOMAHAWK Weapon System. Tomahawk Strike Planning Tools are comprised of two elements, the Mission Distribution System (MDS) and the Electronic TOMAHAWK Employment Planning Package (ETEPP). The Mission Distribution System (MDS) allows TOMAHAWK users the capability to transmit and receive mission data updates in a tactical environment. The ETEPP provides the TOMAHAWK user with command and control information needed to employ TOMAHAWK missions.
 - (U) PROGRAM ACCOMPLISHMENTS AND PLANS:
 - 1. FY 2000 ACCOMPLISHMENTS:
 - (U) (\$1.805) Continued TMPC integration of New National Sensors and Software Architectural Enhancements.
 - 2. FY 2001 PLANS:
 - (U) (\$1.790) Develop system updates to TOMAHAWK Command and Controls systems necessary for the employment of the Tactical TOMAHAWK missile.
 - (U) (\$0.061) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68.
 - 3. FY 2002 PLANS:
 - (U) (\$0.022) Continue to develop system updates to TOMAHAWK Command and Controls systems necessary for the employment of the Tactical TOMAHAWK missile.

CLASSIFICATION:

	EXHIBIT R-2a, RDT&E Project Justification										
					T	June 2001					
APPROPRIATION/BUDGET ACTIVITY	PF	ROGRAM ELEMENT N	IUMBER AND NAM	E	PROJECT NUMBER AND N	NAME					
RDT&E, N / BA-7	02	04229N TOMAHAWK	AND THEATER MIS	SSION PLANNING CENTER	A1784 THEATER MISSION PLANNING CENTER						
(U) B. PROGRAM CHANGE SUMMARY:		FY2000	FY2001	<u>FY2002</u>							
(U) FY 2001 President's Budget:		1.895	1.871	0.022							
(U) Adjustments from the President's Budget:		(0.090)	(0.020)	0.000							
(U) FY 2002/2003 OSD Budget Submit:		1.805	1.851	0.022							
CHANGE SUMMARY EXPLANATION:											
(U) Funding:											
of \$0.037 million for reprioritization of requireme	nts within the N	avy.		. ,		llion for a Congressional Recission, and a decrease Congressional reduction, and a reduction of \$0.004					
(U) Schedule: Not Applicable											
(U) C. OTHER PROGRAM FUNDING SUMMAR	RY:										
Line Item No. & Name	FY 2000	FY 2001	FY 2002								
OPN BLI 525000 Surface Tomahawk Support Equipment	36.184	25.508	24.433								
Related RDT&E,N: Not Applicable											

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

		DATE: June 2001								
APPROPRIATION/BU	DGET ACTIVITY	PROGRAM ELEMENT NUMBER	PROJECT NUMBER AND NAME							
RDT&E, N /	BA-7			A1784 THEATER MISSION PLANNING CENTER						
RDT&L, N /	BA-1	0204229N TOWAHAWK AND TH	HEATER MISSION FLAMMING CENTER	A1784 THEATER WISSION FLA	INNING CENTER					
(U) D. ACQUISITION STRATEGY: The acquisition strategy for this project is to maintain contractual continuity to develop system updates to continue TMPC integration of New National Sensors and Software Architectural Enhancements.										
(U) E. SCHEDULE F	PROFILE:									
		FY 2000	FY 2001	FY 2002						
		112000	1 1 2001	1 1 2002						
(U) Program Mi	estones	Annual Fleet Release	Annual Fleet Release	Annual Fleet Release						
(U) Engineering	Milestones									
(U) T&E Milesto	nes									
(U) Contract Mil	estones	TMPC APS	TMPC APS	TMPC APS						
R-1 SHOPPING LIST - Item No. 183										

CLASSIFICATION:

Evhibit P-3 Cost Analysis (page 1)									DATE: June 2001					
Exhibit R-3 Cost Analysis (page 1) APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT PROJECT NUMBER AND N														
0204229N TOMAHAWK AND THEATER MISSION PLANIA1784 THEATER MISSION I						NTED								
FY 01				FY 02	PLAININING CE	NIEK		I						
FY 01				Award			Cost to	Total	Target Value					
Cost				Date			Complete	Cost	of Contract					
							•							
1.300	1.300	11/00	0.022	11/01										
1.300	1.300		0.022											
0.490	0.490	01/01												
0.490	0.490		0.000											
						DDING LIGT. Hom No. 402								

CLASSIFICATION:

									DATE:	DATE:					
Exhibit R-3 Cost Analysis (page 2)										June 2001					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT PROJECT NUMBER AND N												
RDT&E, N /	BA-7	1	T=	0204229N TO		ID THEATER N		ANIA1784 THE		PLANNING CEI	NTER	1	,		
Cost Categories		Contract Method	Performing Activity &		Total PY s	FY 01	FY 01 Award	FY 02	FY 02 Award			Cost to	Total	Target Value	
		& Type	Location		Cost	Cost	Date	Cost	Date			Complete	Cost	of Contract	
		5. 1 J F 5										- Compress	1		
Subtotal T&E					0.00	0.000	0	0.0	000						
					•	•	-		•	•	•	•	•	•	
Remarks:															
		1			1		Т	I		1	1	1	1	1	
Management			SBIR			0.06	1						-		
						+									
						1									
						+							+		
Subtotal Management						0.06	1								
D															
Remarks:															
Total Cost					94.63	5 1.85	1	0.0	022						
			•			•		•	•	•	•	•	•	•	
Remarks:															