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Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA 5	Program Element (PE) Name and No. CIC Conversion/NTDS Improv. / 0604518N Project K1604/U1604

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total P.E. Cost	10.196	4.565	8.126	3.740	0.0	0.0	0.0	0.0	0.0	231.563
Quantity of RDT&E Articles & cost										

A. Mission Description and Budget Item Justification: The ACDS Block 1 program replaces the vintage Naval Tactical Data System (NTDS) operating systems and applications algorithms and implements advanced concepts for Tactical Data Systems upgrades for surface combatants in response to future threats, operational deficiencies and new and existing operational requirements. The increased emphasis on joint operations and littoral warfare has heightened the importance of ACDS Block 1's joint operability and improved littoral warfare capabilities. The program's objective is to develop integrated real time command and control systems that will increase ship's operational capabilities; promote standardization and introduce new shipboard tactical displays and support equipment; and provide integration between sensor/weapons system which are organic to and outside the battle force. This program provides for significant Combat Direction System (CDS) improvements including implementation of the Joint Tactical Information Data System (JTIDS/Tactical Data Information Link Joint (TADILJ) (LINK 16) message standard to support interoperability/joint operations with U.S. Navy/Army/Air Force/Marine and NATO forces; implementation of the Aegis Tactical Executive System (ATES); and integration and interface with the Command and Control Processor (C²P), the Cooperative Engagement Capability (CEC), and Ship's Self Defense System (SSDS). This program will be an integral part of the LPD-17 and CVN-76 combat system, integrating battle management functions of all other sensor and weapon systems. In addition, the computer program is being integrated with SSDS MK 1 and will accommodate extensive use of COTS/NDI/OPEN Systems architecture hardware and firmware.

1. (U) FY 1998 Accomplishments:

- (\$2.505) Completed delivery and successfully conducted TECHEVAL in November/December 1997 on CVN 69 (IKE).
- (\$2.469) Completed initial operational evaluation testing (2/98) on board CVN 69 (IKE), deficiencies noted and corrective actions taken.
- (\$3.106) Completed CSIT on the ACDS Block 1 Level 2.1 (Cooperative Engagement Capability (CEC) Version) and delivered to CV 67 (JFK) and began participation in formal CEC DT events.
- (\$1.879) Completed test preparations for ACDS Block 1 Level 2.1.x and began implementations of interoperability deficiencies in order to deliver to the LHD-7 CSACF in 8/98.
- (\$.237) Completed system engineering studies and analysis to begin design review process for the SSDS MK1 integration effort.

2. (U) FY 1999 Plan:

- (\$2.067) Complete Y2K Compliance issues, continue OPEVAL deficiency corrections, and conduct operational test aboard CV 67 (USS JFK) in summer of FY 99 with CEC Baseline 2.
- (\$1.232) Complete ACDS Block 1 Level 2.1.x (CVN-68 and LHD-7) testing and verification.
- (\$1.175) Support Battle Group Engineering Testing (BGET) of the CV67 (USS JFK) Battle Group prior to 9/99 deployment. Implement Model 5 Taxonomy software changes, complete testing and begin Link Interoperability Certification.
- (\$0.091) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. (U) FY 2000 Plan:

- (\$3.375) Participate in CEC Baseline 2 DT/OT events in support of CEC's TECHEVAL and OPEVAL.
- (\$1.930) Correct software and hardware trouble reports associated with shipboard deliveries of ACDS Block 1 Level 2.1.x onboard CVN 68 and LHD 7, and upgrade CV 67, CVN 69 and LHD 1 with current software build.
- (\$2.821) Complete Interoperability corrections & conduct a Link Certification, followed by a Battle Group Testing of ACDS Block 1 and CEC Baseline 2.

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B. Program Change Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
FY 1999 President's Budget:	10.943	4.704	4.441
Appropriated Value:	11.325	4.704	
Adjustment to FY 1998 Appropriated Value/ FY 1999 President's Budget:			
a. Congressional Undistributed Reduction	-0.382		
b. SBIR Reduction	-0.254		
c. BTR Issue	-0.450		
d. Minor Pricing Adjustments	-0.043	-0.139	-0.115
e. Revised Testing Schedule for OPEVAL			+ 3.800
FY 2000 PRES Budget Submit:	10.196	4.565	8.126

Funding: FY 98 decrease for Congressional undistributed reductions and minor pricing adjustments (\$-1.129). FY 99 decrease for minor pricing adjustments (\$-.139). FY00 funding increase (\$+3.800) for OPEVAL.

Schedule: N/A

Technical: N/A

C. Other Program Funding Summary

	<u>FY 1998</u>	<u>FY 1999</u>	<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>To Complete</u>	<u>Total Cost</u>
O&M,N 07088017N/46N80 Ship System Tactical	16.305	18.908	16.848	16.833	17.158	16.760	17.181	17.612	CONT.	CONT.
OPN 260600 PEO(TSC) CEC Program Office	70.903	81.993	60.494	74.407	155.646	185.456	123.648	124.961	CONT.	CONT.

D. Acquisition Strategy: ACDS Block 1 program will complete in FY 2001 upon completion of both ACDS Block 1 and CEC Baseline 2 TECHEVAL and OPEVALS. Until then the hardware and software corrections will be made by Raytheon Systems Company via a sole source contract, N00024-97-C-5466. The life cycle maintenance and software support agent for ACDS Block 1 is NSWC PHD ECO.

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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA 5	PROGRAM ELEMENT NAME AND NUMBER CIC Conversion/NTDS Improv. / 0604518N	PROJECT NAME AND NUMBER CIC Conversion/NTDS Improv. / U1604/K1604

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Primary Product Development	C/CPAF	Hughes Aircraft Co.	106.521	0	N/A	0	N/A			0	106.521	106.521
Primary Product Development N00024-94-C-5428	SS/CPFF	Hughes Aircraft Co.	17.806	0	N/A	0	N/A			0	17.806	48.418
Primary Product Development N00024-97-C-5466	SS/CPFF	Raytheon Systems Co.	2.071	2.002	10/98	5.511	10/99			2.105	11.689	12.122
Govt. Engineering and Formal Test	WR	SSC-SD	43.326	0	N/A	0	N/A			0	43.326	N/A
Govt. System Engineering/ILS/Training/Test	WR	NSWC / PHD	1.239	.770	10/98	.750	10/99			.750	3.509	N/A
Miscellaneous/Government	VAR	Various		.075	10/98	.245	10/99			.135	0.455	N/A
Miscellaneous/Contractors	VAR	Various	10.037	.355	10/98	.440	10/99			.250	11.082	N/A
Subtotal Product Development			181.000	3.202		6.946				3.240	194.388	
Award Fees												
Subtotal Product Development												
Remarks: N00024-94-C-5428 was a CPFF/LOE contract that accepted other related funding (i.e. CEC RDT&E,N) in order to integrate with ACDS Block 1 Level 2.0. N00024-97-C-5466 was awarded as a CPAF/CPFF contract, with CLIN 0007 for ACDS Block 1 program specific efforts was a CPFF/LOE CLIN.												
Miscellaneous (Test Facility, Simulation Upgrades, Licenses)	VAR	Various	12.672	.133	N/A	.130	N/A			.50	12.985	N/A
Subtotal Support			12.672	.133		.130				.50	12.985	

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Exhibit R-3 Project Cost Analysis
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Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	Fy00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Miscellaneous (DT/OT test, test support and IV&V efforts)	Var	Various	20.842	1.160	11/98	1.050	11/99			.450	23.502	N/A
Subtotal T&E			20.842	1.160		1.050				.450	23.502	
Remarks:												
Resource Management Support N00024-95-C-5433	SS/CPFF	SIR, Inc.	.618	.070	10/98	0	10/99			0	.688	3.944
Subtotal Management			.618	.070		0				0	.688	
Remarks: N00024-95-C-5433 was not awarded specifically for ACDS Block 1, support also includes SSDS MK 1 support efforts.												
Total Cost			215.132	4.565		8.126				3.740	231.563	
Remarks:												

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