

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4					Radiological Controls/0603542N					
COST (\$ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost		3.227	0.601	0.572	0.566	0.634	0.614	0.602	CONT.	CONT.
RADIAC Development/S1830		3.227	0.601	0.572	0.566	0.634	0.614	0.602	CONT.	CONT.
Quantity of RDT&E Articles										
<p>A. Mission Description and Budget Item Justification: Project S1830 coordinates all Navy efforts for the development of nuclear radiation detection devices in direct support of the Navy Nuclear Propulsion Program and other users by providing accurate, reliable Health Physics instrumentation at the lowest possible life cycle cost. Reliable radiation monitoring instruments are needed to ensure the radiological safety of Navy personnel. This includes hand-held RADIAC meters, personnel dose measurement devices, and area monitors used to measure radiation fields. The Navy Dosimetry System will be able to meet new NRC regulations and will provide sensitive measurements down to the levels required for all new and imminent health and safety requirements. The Multifunction RADIAC will cut calibration costs and reduce the requirements for spare parts by replacing over 16 different models of obsolete equipment. New requirements for the measurement of lower neutron levels necessitate the development of modernized instrumentation. The program is critical to joint-service radiation safety initiatives within DOD and has been coordinated with Army, Air Force, and Defense Nuclear Agency personnel to achieve the maximum cross-service applicability.</p> <p>Multifunction RADIAC (MFR), OR #176-04-86 Navy Dosimetry System, OR #180-04-87 Neutron Dosimetry System, OR #179-04-87 Automated RADIAC Calibration and Diagnostics System, OR #175-04-86 Underwater RADIAC System, OR #178-04-88 Wide Range Survey Meter, OR #177-04-87 Tritium Monitors, OR #182-04-89 EOD Personal Dosimeter, OR #181-04-87 (Updated 09 MAR 95 as 392-04-95)</p>										

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RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4	Radiological Controls/0603542N		
<p>(U) Program Accomplishments and Plans:</p> <p>FY 1999 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$1.020) Continued development and began testing of Navy Dosimetry System. - (U) (\$1.349) Continued development of MFR extendable probe, directional gamma probe, and alpha probe, and compact neutron probe. Began MFR control unit enhancement and MFR frisker station development. - (U) (\$.196) Completed development of Underwater RADIAC System. - (U) (\$.112) Completed development of Casualty Dosimeter. - (U) (\$.550) Began enhancements to Air Particle Detectors. <p>FY 2000 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$.301) Complete the development of Navy Dosimetry System. - (U) (\$.300) Complete the development of MFR directional gamma probe. Continue the development of extendable probe and frisker station. <p>FY 2001 PLAN:</p> <ul style="list-style-type: none"> - (U) (\$.286) Begin enhancement of Navy Dosimetry System. - (U) (\$.286) Complete the extendable probe and frisker station. <p>B. Program Change Summary:</p>			
	FY 1999	FY 2000	FY 2001
FY 2000 President's Budget:	3.600	0.605	0.573
Appropriated Value:	3.600	0.605	
Adjustment to FY 1999/2000 Appropriated Value/	-0.373	-0.004	-0.001
FY 2000 President's Budget:			
FY 2000/01 President's Budget Submit:	3.227	0.601	0.572

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RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4						Radiological Controls/0603542N																			
<p>Change Summary Explanation: Funding: FY 99 decrease of \$.373M for minor adjustments. FY 00 decrease of \$.004M for minor pricing adjustments. FY 01 decrease of \$.001M is for minor pricing adjustments.</p> <p>Schedule: Not applicable. Technical: Not applicable.</p> <p>C. Other Program Funding Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 5%;">FY 1999</th> <th style="width: 5%;">FY 2000</th> <th style="width: 5%;">FY 2001</th> <th style="width: 5%;">FY 2002</th> <th style="width: 5%;">FY 2003</th> <th style="width: 5%;">FY 2004</th> <th style="width: 5%;">FY 2005</th> <th style="width: 5%;">Complete</th> </tr> </thead> <tbody> <tr> <td>OPN BLI: 292000 RADIAC</td> <td style="text-align: center;">3.994</td> <td style="text-align: center;">4.254</td> <td style="text-align: center;">8.308</td> <td style="text-align: center;">7.887</td> <td style="text-align: center;">8.217</td> <td style="text-align: center;">8.727</td> <td style="text-align: center;">8.736</td> <td style="text-align: center;">CONT.</td> </tr> </tbody> </table> <p>D. Acquisition Strategy: Development efforts are being focused on evaluation, modification (as required to meet operational requirements), and adaptation of Commercial Off-The-Shelf technology in order to minimize total ownership costs. To the maximum extent possible new contracts are targeted for fixed price efforts to control development cost.</p> <p>E. Schedule Profile: Dosimetry System Delivery of Advance Development Systems – 2/00 Completion of Testing – 6/00 Milestone III Decision – 8/01 Initial Operational Capability – 12/02 MFR Enhancements/Probe Development Delivery of Prototypes for Extendable Probe (EP) – 1/99 Completion of Testing for EP – 4/99</p>									FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Complete	OPN BLI: 292000 RADIAC	3.994	4.254	8.308	7.887	8.217	8.727	8.736	CONT.
	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Complete																	
OPN BLI: 292000 RADIAC	3.994	4.254	8.308	7.887	8.217	8.727	8.736	CONT.																	

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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2000
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4	R-1 ITEM NOMENCLATURE Radiological Controls/0603542N	
<p>MFR Enhancements/Probe Development con't.</p> <ul style="list-style-type: none">Delivery of Revised Prototype - 12/00Completion of Testing of Revised Prototype- 3/01Production Contract Awarded for EP – 9/01Delivery of Prototypes for Directional Gamma Probe (DGP) – 11/99Completion of Testing for DGP – 3/00Production Contract Awarded for DGP – 10/00Award Contract for Frisker Station Development - 3/00Delivery of Frisker Station – 12/00Completion of Testing of Frisker Station – 4/01Production Contract Awarded for Frisker Station - 10/01Delivery of Alpha Probe Samples for testing – 5/00Completion of Testing of Alpha Probe – 9/00Production Contract Award for Alpha Probe – 10/00 <p>Underwater RADIAC</p> <ul style="list-style-type: none">Delivery of Prototypes for Testing – 7/98Completion of Testing – 5/99Production Decision – 2/00Initial Production Award – 2/00 <p>Casualty Dosimeter</p> <ul style="list-style-type: none">Complete SBIR Phase II Testing – 1/99 <p>IM-239 Enhancements</p> <ul style="list-style-type: none">Award Enhancement Contract – 3/00Delivery of Test Samples – 12/00Test and Evaluation Complete - 3/01		

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Radiological Control/0603542N			RADIAC Development Project - S1830						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev Dosimetry	C/FP	Various (See below)	8.464	0.233	09/99	0.000		0.000		CONT.	CONT.	
Primary Hardware Dev Miscellaneous	C/FP	Various	5.212	0.880	Various			0.000		CONT.	CONT.	
Ancillary Hardware Development											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			13.676	1.113		0.000		0.000		CONT.	CONT.	
Remarks: Prior to 8/96 - International Sensor Technology, Pullman, Washington 12/96 - 7/98 - Keithley Radiation Measurements, Cleveland, Ohio Follow-on contract will be completed												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks: Not applicable												

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Exhibit R-3 Cost Analysis (page 2)							DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-4			Radiological Control/0603542N			RADIAC Development Project/S1830						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various	2.994	0.329	10/98	0.197	12/99	0.188	10/00	CONT.	CONT.	
Operational Test & Evaluation				0.329	10/98						0.329	
Tooling											0.000	
GFE											0.000	
Subtotal T&E			2.994	0.658		0.197		0.188		CONT.	CONT.	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support	WR	Various	4.716	0.329	10/98	0.096	12/99	0.091	10/00	CONT.	CONT.	
Program Management Support	WR	Various	4.717	0.329	10/98	0.096	12/99	0.090	10/00	CONT.	CONT.	
Travel			0.000	0.010	10/98	0.010	12/99	0.010	10/00	CONT.	CONT.	
Labor (Research Personnel)				0.788	10/98	0.202	12/99	0.193	10/00		1.183	
Overhead											0.000	
Subtotal Management			9.433	1.456		0.404		0.384		CONT.	CONT.	
Remarks:												
Total Cost			26.103	3.227		0.601		0.572		CONT.	CONT.	
Remarks:												

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