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OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY RDT&E/ Defense Wide BA# 4		PE NUMBER AND TITLE 0605017D8Z - Reduction In Total Ownership Cost						
Cost (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Program Element (PE) Cost		0.000	24.429	25.289	26.030	25.563	26.075	26.641
P017	Reduction in Total Ownership Cost Projects	0.000	24.429	25.289	26.030	25.563	26.075	26.641

A. Mission Description and Budget Item Justification: The USD(AT&L)-defined mission for the Reduction in Total Ownership Cost (R-TOC) program is the reduction of ownership costs for defense systems. The R-TOC program provides funding for initiatives that will:

1. increase the reliability, maintainability, supportability and thus increase readiness of new or existing defense systems;
2. reduce logistics footprint; and
3. generate future cost reductions in total ownership cost.

These individual initiatives are complete efforts within themselves that yield complete redesigns that the Services are committed to put into production and operation. The initiatives optimize cost avoidance, ultimately reducing the operating and support costs for systems.

The USD(AT&L) has set an FY 2010 R-TOC goal of reducing the total defense systems inflation increase in Operations and Support (O&S) cost by 30 percent between FY 2004 and FY 2010. This Program Element (PE) provides a major portion of the program funding to achieve this goal. The successful demonstration of the R-TOC program initiatives should stimulate additional initiatives by the Services to achieve even greater cost avoidances.

The OSD R-TOC program lead is OUSD(AT&L) Defense Systems, Systems Engineering, Deputy Director for Enterprise Development. This office is supported by the Institute for Defense Analyses (IDA). Individual R-TOC Project Management rests with the Services and their Project Managers. Each Service has an active R-TOC Point of Contact (POC) for the initial interface between OSD and the R-TOC Project Managers.

Some of the FY 2006 projects require two years of funding through FY 2007. The average Return on Investment (ROI) for these projects (based on discounted cash flow calculations) is approximately 16.7:1 with \$660.000 million in cost avoidance across the FYDP. The ROI is approximately 78.7:1 with \$3.700 billion in cost avoidances across the life cycle of the affected systems. These cost avoidances will be lost without the requested funding in FY 2007, which is needed to complete the projects begun with FY 2006 funding. The average Return on Investment (ROI) for these FY 2007 new start projects (based on discounted cash flow calculations) is approximately 5.5:1 with \$106.000 million in cost avoidance across the FYDP (new start FY 2007 investments of \$13.240 million). The ROI is approximately 26.3:1 with \$634.000 million in cost avoidances across the life cycle of the affected systems.

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	0.000	24.824	24.896
Current BES/President's Budget (FY 2007)	0.000	24.429	25.289
Total Adjustments	0.000	-0.395	0.393
Congressional Program Reductions			

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Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
Other		-0.395	0.393

C. Other Program Funding Summary: Not Applicable.

D. Acquisition Strategy There is an annual USD(AT&L) call for proposed project plans in December. Projects are submitted by the Services annually in January. The project plan format is provided with the call for submission of Service projects. Each project plan contains:

1. problem statement,
2. impact statement,
3. technical description,
4. risk analysis,
5. proposed phases,
6. expected deliverables and results or outcomes,
7. program management,
8. cost/benefit analysis,
9. schedule, and
10. implementation plan.

The project evaluation criteria are also provided as part of the call for use by the Services in arriving at their prioritized project list. There are eleven categories for evaluation:

Objective measures:

1. ROI (Future Years Defense Program), Score 10, 5, or 3 points, respectively for high (>10:1), medium (between 10:1 and 5:1), low (<5:1)
2. ROI (System's or Program's Life Cycle), Score 10, 5, or 3 points, respectively for high (>20:1), medium (between 20:1 and 10:1), low (<10:1)
3. Service ranking, Score 10, 5, 1 points, respectively for top 1/3, middle 1/3, and bottom 1/3
4. crossover year (return greater than investment), Score 5, 3, 1 points, respectively for <5 years, 3 years, >3 years
5. payback year (total return greater than total investment), Score 5, 3, 1 points, respectively for <4 years, 4 years, >4 years

Subjective measures:

1. operational readiness improvement, 10, 5, 1 points, respectively strong, medium, weak discussion of operational readiness improvements
2. benefits credibility, 5, 3, 1 points, respectively strong, medium, weak discussion of projected benefits
3. technology maturity, 3, 2, 1 points, respectively strong, medium, weak discussion of technology maturity

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4. schedule confidence, 3, 2, 1 points, respectively strong, medium, weak discussion of schedule confidence
5. budget confidence, 3, 2, 1 points, respectively strong, medium, weak discussion of budget confidence
6. management support, 3, 2, 1 points, respectively strong, medium, weak discussion of management support

The Services receive project plans and make a Service priority ranking based on detailed analysis of each proposed initiative against the eleven evaluation criteria. This priority ranking is sent to the OSD lead. Upon acceptance and approval of the projects by OSD, the projects are briefed to the R-TOC Forum and Congressional staff, as required. Funding is distributed equally between the Services based on priority and the evaluation process results.

Upon final funding approval, MIPRs are prepared by OSD to transfer individual project funding to the appropriate funding sites. These funding sites are provided by the Services. After receiving the project funding, the Services are responsible for the funding and management of the projects. OSD retains oversight and direction of the R-TOC Initiative through the OSD lead office.

A quarterly project report (QPR) format has been defined, approved by the Services, and is required for each funded project. These reports require:

1. a statement of progress,
2. outstanding issues,
3. upcoming events,
4. schedule status,
5. current investment status, and
6. current estimate of savings or cost avoidance.

These QPRs are submitted to the OSD R-TOC Initiative lead office. OSD analyzes project status, progress and project statistics and informs the Service POCs of any project problems. Projects are also required to report verbally at the quarterly R-TOC Forums, as appropriate.

E. Performance Metrics: Not Applicable.

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PROJECT

P017

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B. Accomplishments/Planned Program:

Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.510	0.000

60mm Celluloid MICs

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Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	2.141	0.000	
CGA Development				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	1.350	0.000	
HIMARS UFCS				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	0.466	0.000	
Elim. Wirebound Box				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	0.950	0.000	
UV for RDX				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	0.050	0.000	
Replace AL layer				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	0.250	0.000	
Small Arms Overhaul				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	2.000	0.000	
Bradley Transmission				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Army	0.000	0.557	0.000	

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Paladin Rammer Assembly			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	2.350
H-60 Tailcone			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	2.500
Guardrail Low Band Antenna			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	0.681
Lightweight Composite Container			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	1.992
REMBASS II Stand Alone Sensor			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	0.450
Replace PDU			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Army	0.000	0.000	0.325
ANS-157 Interface Software Loader			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Navy	0.000	0.400	0.000
Fuel Management Control Panel			

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Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
	0.000	0.600	0.000	
Midrange FLIR				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.782	0.000	
H-60 Antenna Gaskets				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.290	0.000	
V-22 EAPS Blower Seal				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.096	0.000	
Whitehouse Duct RAMEC				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.204	0.000	
Forward Cooling Turbine				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.196	0.000	
Hydraulics Reservoir Endcap				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.600	0.000	
V-22 COANDA Tube				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.104	0.036	

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Rudder Actuator Hydraulic Seals				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.116	0.042
Stabilizer Actuator Hydraulic Seals				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.425	0.075
Ship's Material Condition Model				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.363	0.450
T-1 Fuel System Upgrade				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.500	0.150
EFV Aft Hydraulic Manifold				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	1.151	1.949
F/A-18 BIT Maturation				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.112	0.037
AFCS Actuator				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.312	0.046
Flaperon Actuator Seals				

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Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.480	0.480
Self Cleaning Oil Filter				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.569	0.055
Digital Electronic Control Unit (DECU)				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.315	0.315
PSS II Mechanical Seals				
TPI Digitization				
PALs and Power Supply				
CRALTS				
H-1 Main Rotor Cuff Closures				
DRT Model				
HV Module Repairability				
CVN Magnetic Coupling				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.660	0.400
Ceramic Bearings				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.000	0.100
H-1 UGHW Cost Reduction				
Accomplishment/Planned Program Title		FY 2005	FY 2006	FY 2007
Navy		0.000	0.000	0.150
TPI Digitization				

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Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	0.427	
PALs and Power Supply				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	0.450	
CRALTS				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	0.170	
H-1 Main Rotor Cuff Closures				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	0.180	
DRT Model				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	1.211	
HV Module Repairability				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Navy	0.000	0.000	1.576	
CVN Magnetic Coupling				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Air Force	0.000	1.270	1.130	
Engine Component Repair				
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007	
Air Force	0.000	3.144	3.781	

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Engine Reliability Centered Maintenance (RCM)			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Air Force	0.000	0.623	0.200
MILSTAR Radome Replacement			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Air Force	0.000	1.450	2.100
Fuel System Icing			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Air Force	0.000	1.393	0.807
Aircrew Bladder Relief			
Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
Air Force	0.000	0.000	0.674
F101-GE-102			
 C. Other Program Funding Summary: Not Applicable.			
 D. Acquisition Strategy: Not Applicable.			
 E. Major Performers Not Applicable.			

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OSD RDT&E COST ANALYSIS (R3)											Date: February 2006		
APPROPRIATION/ BUDGET ACTIVITY RDT&E/ Defense Wide BA# 4			PE NUMBER AND TITLE 0605017D8Z - Reduction In Total Ownership Cost								PROJECT P017		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal:			0										
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal:			0										
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal:			0										
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal:			0										
Project Total Cost:			0										

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