Exhibit R-2, RDT&E Budget Item Justification						Date: February 2005		
APPROPRIATION/BUDGET ACTIVITY DEFENSE WIDE RDT&E BA 4			R-1 ITEM NOMENCLATURE REDUCTION OF TOTAL OWNERSHIP COST			PE 0605017D8Z		
COST ($ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost-0605017D8Z	0.000	0.000	24.824	24.896	25.598	25.115	25.626	26.210
ARMY								
Aircraft Metal Hydraulic Fluid Filters			1.550					
High Reliability Apache Cooler/Dewar			0.995					
60mm Celluloid MICs			0.683					
Clean Water Generating Unit			1.750					
H-60 Input Module Gearbox			0.709					
H-60 SAS Actuators			0.940					
CGA Core Gunnery Elements Development			1.647	0.761				
NAVY								
Fuel Management Control Panel			0.400					
Midrange FLIR			0.600					
Rudder Actuator Hydraulic Seals			0.104	0.036				
Stabilizer Actuator Hydraulic Seals			0.116	0.042				
Ship’s Material Condition Model			0.425	0.075				
H-60 Antenna Gaskets			0.782					
V-22 EAPS Blower Seal			0.290					
T-1 Fuel System Upgrade			0.363	0.450				
EFV Aft Hydraulic Manifold			0.500	0.150				
F/A-18 BIT Maturation			1.151	1.949				
Whitehouse Duct RAMEC			0.096					
AFCS Actuator			0.112	0.037				
Flaperon Actuator Seals			0.312	0.046				
Forward Cooling Turbine			0.204					
Hydraulics Reservoir Endcap			0.196					
V-22 COANDA Tube			0.600					
Self Cleaning Oil Filter			0.480	0.480				
Digital Electronic Control Unit (DECU)			0.569	0.055				
PSS II Mechanical Seals			0.315	0.315				
Ceramic Bearings			0.660	0.400				

AIR FORCE								
Engine Component Repair			1.270	1.130				
Engine Reliability Centered Maintenance (RCM)			3.539	3.388				
MILSTAR Radome Replacement			0.623	0.200				
Fuel System Icing			1.450	2.100				
Aircrew Bladder Relief			1.393	0.807				
Reliability Improvements				4.242	8.703	8.539	8.713	8.912
Maintainability Improvements				5.364	11.007	10.799	11.019	11.270
Supportability Improvements				2.869	5.888	5.777	5.894	6.028

A. Mission Description and Budget Item Justification:

The Acting 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.

The FY 2006 initiatives require two years of funding through FY 2007. The remaining FY 2007 funding and out year funding has been grouped into three project areas: Reliability Improvements, Maintainability Improvements, and Supportability Improvements. These three areas have proven to be the highest payoff areas for cost reductions and corresponding increases in system readiness. The average Return on Investment (ROI) for these initiatives (based on discounted cash flow calculations) is approximately 13:1 with

$489 million in cost avoidance across the FYDP. The ROI is approximately 67:1 with $3.471 billion in cost avoidances across the life cycle of the affected systems. Through quarterly R-TOC Forums, best practices and lessons learned are shared across the Services to produce greater cost avoidances.

B. Program Change Summary: (Show total funding, schedule, and technical changes for the program element that have occurred since the previous President's Budget Submission)

	FY 2004	FY 2005	FY 2006	FY2007
Previous President's Budget	0.000	27.351	25.145	25.159
Current FY 2005 President's Budget	0.000	0.000	24.824	24.896
Total Adjustments	+0.000	-27.351	-0.321	-0.263
Congressional program reductions		-27.351		
Congressional rescissions				
Congressional increases				
Reprogrammings				
SBIR/STTR Transfer				
Other			-0.321	-0.263

C. Other Program Funding Summary:

N/A

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
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:

The objective of each of the projects is the reduction of operations and support (O&S) costs for the affected systems. ROI is the primary performance metric for the projects and for the R-TOC initiative. Each project plan includes a cost/benefit analysis, which is based on discounted cash flow calculations of project investment costs and projected cost avoidances. OMB discount rates are used to provide real comparisons of future value against current uses of resources. Projected cost avoidances are based on engineering estimates of the benefits provided by project implementations. Sources of cost avoidances are defined as part of the project submittal and come from any O&S cost source (fewer spares, lower maintenance hours, faster turnaround times, reduced scheduled maintenance, etc.). Updated ROI calculations are part of the required quarterly project reports to provide tracking of this metric.

The average projected ROI for these projects (based on discounted cash flow calculations) is approximately 13:1 with $489 million in cost avoidance across the FYDP and approximately 67:1 with $3.471 billion in cost avoidance for the life cycle of the affected systems. Thus, the critical performance metric for this effort is the resulting O&S cost reductions. Gains in reliability, maintainability, supportability, and thus readiness are the by-products of the projects. Cost avoidances will be measured and tracked for each project, summed to the Service level, and totaled at the OSD level.