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Exhibit R-2, RDT&E Budget Item Justification							Date: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E: Defense Wide/Office of Force Transformation/BA 6				R-1 ITEM NOMENCLATURE PE: 0605799D8Z Force Transformation				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	19.333	38.670	19.927	19.928	20.744	20.753	21.451	21.948

(U) A. Mission Description and Budget Item Justification:

The Office of Force Transformation efforts are directly linked to the broad elements of national and military strategy. This funding request supports the Director’s five organizational objectives detailed in the R2a. This program is intended to perform general support of transformational RDT&E activities. Within these activities the office is sponsoring groundbreaking research and prototyping in selected areas that are considered vital to the advancement of transformation within the Department. Funding will be used to catalyze transformational activities such as experimentation and exploration of the ramifications of new concepts and technologies and their combination. Activities include; research, testing, studies, analysis and development of transformation articles (“prototype-like” system surrogates), which will enable advanced experimentation for the co-evolution of concepts and technologies. Examples of such activities include 1) the fielding of a prototype full-spectrum effects platform for use in urban operations that will have an integrated set of tactical capabilities that provide options to the ground warrior beyond those currently available, giving the warrior the most effective means to engage across the mission spectrum — essentially creating a new engagement model by shrinking the enemy’s engagement zone in both time and space while expanding ours to create maximum advantage; and 2) the development of a transformational capability to re-direct directed energy (specifically laser energy) at the tactical level for tactical applications/effects. This initiative would pair a ground-based laser with a re-directed energy pod carried on a Predator B. If successful, it would provide ground commanders with a semi-persistent, ISR-strike platform that would perform all functions across the find-fix-track-target-engage (at the speed of light) - assess kill chain.

(U) B. Program Change Summary:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Previous President’s Budget	19.388	19.591	19.381	19.404
Current Budget Estimate Submission	19.333	38.670	19.927	19.928
Total Adjustments:	0.0	19.079	0.0	0.0
Congressional program reductions:	0.0	0.0	0.0	0.0
Congressional rescissions:	0.0	0.0	0.0	0.0

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Congressional increases:	0.0	20.0	0.0	0.0
Reprogrammings:	0.0	0.0	0.0	0.0
SBIR/STTR Transfer:	0.0	0.0	0.0	0.0
Other Adjustments:	-0.055	-0.921	0.546	0.524

(U) C. Other Program Funding Summary: Not Applicable.

(U) D. Acquisition Strategy: Not Applicable.

(U) E. Performance Metrics: The Office of Force Transformation (OFT) applies funding to achieve potentially high payoff transformational capabilities to satisfy deficiencies highlighted during a previous year Strategic Transformation Appraisal developed and presented by the Director, OFT to the Secretary of Defense. This appraisal identifies potential gaps and shortfalls in the overall DoD transformation effort thereby permitting a very focused application of RDT&E funding to help close those gaps the following year. To determine the impact of those selectively applied funds, the OFT assesses the extent to which the outcome of each project is embraced and furthered by either the military services and/or joint organizations such as Combatant Commands. Therefore, as the catalyst for transformation, the OFT continues to investigate areas where major impact can be derived from a selective application of limited RDT&E funds based on annual assessments of the state of transformation within the Department and the gaps highlighted as a result of those assessments.

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Exhibit R-2a, RDT&E Project Justification							Date: September 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Office of Force Transformation/BA 6			PROGRAM ELEMENT: 0605799D8Z		PROJECT NAME AND NUMBER Force Transformation/Project #799			
Cost (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	19.333	38.670	19.927	19.928	20.744	20.753	20.451	21.948

(U) A. **Mission Description and Budget Item Justification.** The Office of Force Transformation (OFT) is the principal advisor to the SecDef on transformation within the DoD and is tasked to be the catalyst for transformation within the Department. This funding request supports the Director’s five organizational objectives for this office, which are described below. This program is designed to provide general support to the overall DoD transformation effort through the implementation of a variety of focused RDT&E activities. Within these activities the office is sponsoring groundbreaking research and prototyping in selected areas that are considered vital to the advancement of and provide the greatest leverage for transformation within the Department. Funding will be used to catalyze transformational activities such as experimentation and exploration new concepts and technologies. Activities include; research, testing, studies, analysis and development of transformation articles (“prototype-like” system surrogates), which will enable advanced experimentation for the co-evolution of concepts and technologies.

(U) B. **Accomplishments/Planned Program.** In FY 2005 this funding supported activities such as:

- 1) The development of an operationally responsive, tailorable, space capability, with two major and distinct parts – the launch vehicle and the payload. Characteristics of the launch vehicle desired included low-cost and launch on-demand. The payload seeks to be highly modular, contain highly automated micro-satellite buses, common interfaces, and tasking and data dissemination using SIPRNET protocols — a concept now known as Operationally Responsive and Experimental Adaptability for Space Based Systems;
- 2) The development of an advanced technology water craft that can feature high-speed with efficiency (flat power curves), smooth ride quality in high sea states (shock mitigation), high payload-fractions (ease of re-configurability), and stability at all speeds— an effort known as “Stiletto”;
- 3) The experimentation with advanced technology ground platforms and their associated support systems to include active defense systems, rapid fire denial systems, and non-lethal, projectile delivery systems—an effort known as Project Sheriff;
- 4) The examination of the feasibility of redirecting laser energy through an airborne relay mirror system to provide firepower/ signal affects beyond line of sight/ over the horizon.

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Through this program, the Office of Force Transformation assisted in furthering the U.S. military transformation efforts in support of the overall transformation goals of the Department. This support was guided by the following set of objectives to maximize these efforts with funding budgeted for and applied to each area:

<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Description</u>
	(\$ in Millions)			
\$0.973	\$0.979	\$0.967	\$0.968	Objective 1: To make force transformation an integral element of DoD corporate and national defense strategy effectively supporting the four strategic pillars of national military strategy.
\$5.9	\$5.881	\$5.6	\$5.6	Objective 2: To change the force and its culture from the bottom up through the use of experimentation, operational prototyping and the creation of new knowledge.
\$3.93	\$3.921	\$4.18	\$4.18	Objective 3: To implement Network Centric Warfare (NCW) as the theory of war for the information age and the organizing principle for joints concepts, capabilities, and systems.
\$1.78	\$1.789	\$1.8	\$1.8	Objective 4: To get the decision rules and metrics right and cause them to be applied enterprise wide.
\$6.75	\$26.100	\$7.38	\$7.38	Objective 5: To discover, create or cause to be created new military capabilities to broaden the capabilities base and to mitigate risk.
\$19.333	\$38.670	\$19.927	\$19.928	TOTAL

In addition to the FY 2005 accomplishments described above, an important secondary output of these efforts was the establishment of new business models for DoD to further investigate, new concept/technology pairing that created large leaps in capabilities, and potential cultural changes within DoD as a result of understanding the impact of this R&D effort.

In FY 2006 and beyond, the office will continue the development and fielding of a prototype full-spectrum effects platform for use in urban operations that will have an integrated set of tactical capabilities that provide options to the ground warrior beyond those currently available. Other focus areas will include developing near-term paths to Coordinate with Coherence large numbers of geographically dispersed networked assets providing a venue for developing operational experience for Distributed Operations and the development of a capability to re-direct directed laser energy at the tactical level for tactical applications/effects.

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(U) C. **Other Program Funding Summary.** N/A

(U) D. **Acquisition Strategy:** This program represents a continuing level of effort supporting the research, the study and analysis, and the development of a wide range of new concepts and technologies that directly support the transformation vision and goals of the Secretary of Defense and the Department. The deliverables from each project represent a keen understanding of the national and military strategies and the linkages with the transformation effort, and what new capabilities, if discovered and delivered, better support the execution of those strategies.

(U) E. **Major Performers:** The following government faculties received \$10 million or more to support FY 2004 Office of Force Transformation projects: Naval Research Laboratory. We anticipate that the Air Force Research Laboratory and the Naval Underwater and Surface Warfare Centers will each receive \$10 Million or more in funding to support FY 2005 projects.