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Exhibit R-2, RDT&E Budget Item Justification						Date: February 2006	
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE			
RDT&E: Defense Wide/Office of Force Transformation/BA 6				PE: 0605799D8Z Force Transformation			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	37.645	60.448	20.404	21.272	21.307	22.012	22.488

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

This funding request supports the activities of the Office, Force Transformation and its five organizational objectives detailed in the R2a. The request is intended to support transformational RDT&E activities. Within these activities the office is expecting to sponsor 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) continued development and fielding of a prototype full-spectrum effects platform under “Project Sheriff” 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 in Iraq, giving the warrior the most effective means to engage across the mission spectrum. This concept/technology pairing attempts to create a new engagement model by shrinking the enemy’s engagement zone in both time and space while expanding ours to create maximum advantage; 2) the development of a transformational capability to re-direct 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 or other airborne platforms. 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; 3) the development of the various functional pieces that support the operationally responsive space business model to include the critical design of a standardized bus for tactical satellite operations and the development of operationally responsive payloads; 4) the conduct of technical performance trials of “Stiletto”, a high speed, composite watercraft with hydrodynamic lift; and 5) the creation of a concept development and experimentation (CD&E) program to promote joint warfighting capabilities. Finally, the funding would support the continued enhancement of the Virtual Missions Operation Center (VMOC) network which will allow SIPRNET users to task an array of distant sensors.

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(U) B. Program Change Summary:

(\$ in Millions)	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>
Previous President's Budget	19.591	19.927	19.928
Current Budget Estimate Submission	37.645	60.448	20.404
Total Adjustments:	18.054	40.521	0.476
Congressional program reductions:	0.000	0.000	0.000
Congressional rescissions:	0.000	0.000	0.000
Congressional increases:	20.000	41.500	0.000
Reprogrammings:	0.000	0.000	0.000
SBIR/STTR Transfer:	0.000	0.000	0.000
Other Adjustments:	-1.946	-0.979	0.476

(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 the 2006 Quadrennial Defense Review, Transformation Planning Guidance, and various transformation appraisals. These documents identify 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. 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 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: February 2006		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT:		PROJECT NAME AND NUMBER		
RDT&E, Defense Wide, Office of Force Transformation/BA 6			0605799D8Z		Force Transformation/Project		
Cost (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	37.645	60.448	20.404	21.272	21.307	22.012	22.488

(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 of 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 2006 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, the payload and the initiation of a standardized bus module. Characteristics of the delivered launch vehicle included low-cost and the ability to 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 continued development and conduct of technical performance trials of "Stiletto", a high speed, composite watercraft (unveiled in January 2006) with hydrodynamic lift. Stiletto features 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.
- 3) The production, operational testing and experimentation with the first prototype of an advanced technology ground platform titled "Project Sheriff" that integrates various support systems to include active defense systems, rapid fire denial systems, and non-lethal, projectile delivery systems to enable our forces in the new environments in which they operate today.
- 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. Initial testing completed with future maturing of the prototype with platforms such as the high altitude airship and the Predator UAV.

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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 2005</u>	<u>FY2006</u>	<u>FY2007</u>	<u>Description</u>
	(\$ in Millions)		
\$0.979	\$0.938	\$0.800	Objective 1: To make force transformation an integral element of DoD corporate and national defense strategy effectively supporting the four strategic objectives of national defense strategy.
\$5.881	\$10.100	\$5.744	Objective 2: To change the force and its culture from the bottom up through the use of experimentation, transformational articles (operational prototyping) and the creation and sharing of new knowledge and experiences.
\$3.921	\$4.180	\$2.180	Objective 3: To implement Network Centric Warfare (NCW) as an emerging theory of war for the information age and the organizing principle for joint capabilities and systems.
\$1.764	\$1.800	\$1.800	Objective 4: To get the decision rules and metrics right and cause them to be applied enterprise wide.
\$25.100	\$43.430	\$9.880	Objective 5: To discover, create or cause to be created new military capabilities to broaden the capabilities base and to mitigate risk.
\$37.645	\$60.448	\$20.404	TOTAL

In addition to the FY 2006 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 2007 and beyond, the office will continue the development and field Project Sheriff 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. In addition, OFT will focus on the critical area of concept development and experimentation (CD&E) to promote joint warfighting capabilities and will exploit the Stiletto surrogate in exploring command and control of dispersed forces in partnership with USSOCOM. Other focus areas will include developing near-term paths to creating overmatching complexity with distributed adaptive operations and support the continued enhancement of the Virtual Missions Operation Center (VMOC) network which will allow SIPRNET users to task an array of distant sensors.

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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. In addition, this program will ensure the injection of OFT assessments and insights into the experimentation process in the early stages of concept development.

(U) E. **Major Performers:** The following government faculties received \$10.000 million or more to support FY 2005 Office of Force Transformation projects: Naval Research Laboratory and Air Force Research Laboratory. We anticipate that the Naval Research Lab, the Air Force Research Lab, and the Naval Surface Warfare Center will each receive \$10.000 million or more in funding to support FY2006 projects.