

Exhibit R-2, RDT&E PROJECT JUSTIFICATION									DATE February 2003	
APPROPRIATION0/BUDGET ACTIVITY RDT&E/Defense-Wide/BA 3							R-1 ITEM NOMENCLATURE Joint Warfighting , PE 0603727D8Z			
COST <i>(In Millions)</i>	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Cost
Joint Warfighting/P727	7.536	9.296	9.685	9.948	10.283	10.531	10.963	11.191	Continuing	Continuing

A. Mission Description and Budget Item Justification

In May 1998 the Secretary of Defense appointed U.S. Joint Forces Command (formerly the U.S. Atlantic Command), as the Defense Department's Executive Agent for Joint Experimentation. Subsequently, the Department realigned resources to support the Joint Forces Command's new role. In FY 1999 funds from this JWP Program Element (PE: 0603727D8Z) were redirected to support the initial stand-up of Joint Forces Command's Joint Experimentation Directorate. Funding for joint experiments was transferred to Joint Forces Command through the Navy and PE 0603727N in FY 2000 and was established to provide Joint Forces Command with its own funding source. Funding to support the Joint Advanced Warfighting Program (JAWP) concept development, the Information Technology Backplane (ITB), and Technology Feeder Support (TFS) for joint experimentation was retained in the JWP PE. The DoD Adaptive Red Team (DART) was initiated as a pilot project in FY 2002. DART has proven to be very successful by providing an independent team of experts to challenge emerging operational concepts from their origin through the experimentation process. It has been continued as a key element of the Joint Warfighting Program starting in FY 2003.

The Joint Warfighting PE supports four related activities: the JAWP, the ITB, DART and TFS for Joint Experimentation. While these activities strongly support Joint Forces Command's joint experimentation efforts, a separate program element has been retained since the activities support other organizations in addition to Joint Forces Command, and they require a degree of independence from Joint Forces Command to function as envisioned.

The JAWP was established by the Office of the Secretary of Defense (OSD), with the support of the Vice Chairman of the Joint Chiefs, to serve as a catalyst for innovation and change. This program's focus is on assisting in the formulation and assessment of advanced concepts and capabilities, plus identifying enabling technologies and integration options for the Department. These concepts drive changes in the doctrine, organization, training and education, materiel, leadership and facilities (DOTMLF) of the Services.

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The JAWP serves a key role in identifying, exploring and evaluating breakthrough warfighting capabilities. It builds on the lessons learned from earlier Service experiments that have underscored the importance of having a firm conceptual basis upon which to build experiments. The JAWP concentrates on joint, vice Service-unique, revolutionary concepts. In identifying and elaborating innovative joint concepts and capabilities, and associated enabling technologies, the JAWP will not only take into account Service efforts, but those of Combatant Commanders and Defense agencies as well. The JAWP promotes integration, conducts experiments and assists in implementation. The JAWP's work complements and supports the activities of Joint Forces Command, the Joint Staff and the OSD. It provides an independent source for formulating advanced concept candidates for joint experimentation. The JAWP is composed of both civilian analysts and technologists. The JAWP Analytical Project Office (JAWP-APO), a jointly manned activity established by the Deputy Secretary of Defense, consists of military personnel from the four Services. The active duty military members provide a current operational perspective to concepts under investigation and serve as a vital link to ongoing relevant activities in the Services.

The ITB provides an advanced network infrastructure that extends commercial capabilities to meet JV2020 needs. Information Superiority is a key JV2020 building block and the ITB provides the means to experiment with the digital transmission capabilities that are projected to be available five years (from each funding year). The ITB is not a new physical network. It is a virtual network that capitalizes on existing physical networks such as the Defense Information Systems Network (DISN), the DISN Asynchronous Transfer Mode Service Network (DATMS), the Defense Research and Engineering Network (DREN), and the experimental Advanced Technology Demonstration Network (ATDnet). The ITB has many users from sites served by existing networks but the funding included in this PE is the incremental funding needed to support joint experimentation. For example, this PE provides the circuit costs to extend the ITB from the experimentation site to the nearest point on the backplane (where no other network exists), and only the "extra" backplane costs generated by the Joint Warfighting Experiments. Since joint experiments are very dependent on advanced distributed simulation, or on limited, live, command post exercises that are being driven by simulations, a robust high-performance network is needed to interconnect the various sites. These simulations press the state of the art in networking capability, including that of requiring high-bandwidth, low-latency Type-I encryption for protected communications. The ITB also supports new bandwidth-intensive applications such as video teleconferencing, high definition television and large file transfers.

The third effort supported by this PE is TFS for joint experiments. There are many Technology Demonstrations (TDs), Advanced Technology Demonstrations (ATDs), and Advanced Concept Technology Demonstrations (ACTDs) that can provide advanced technologies to support joint experiments. For example, the Joint Staff has prepared 72 desired operational capabilities based on JV2020 concepts and 21st Century Challenges. For each Challenge, the Joint Staff has prepared roadmaps that provide opportunities to assess each Challenge. The roadmap for the battlefield awareness challenge shows 42 ACTDs that have the potential to demonstrate some aspect of a desired operational capability supporting battlefield awareness. This effort provides technology managers the resources to expand the scope of a test or demonstration to collect data for the joint staff or JFCOM, thereby leveraging the OSD and Service ACTD investment. The Technology Feeder Support effort was used to initiate a Red Team Pilot Project (DoD Adaptive Red Team – DART) for Joint Forces Command. The DART participated in Joint Forces Command Concept Development and Experimentation to provide an independent assessment that will ensure

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that product quality stays high and credible. This source of funding, which is separate from other Joint Forces Experimentation funding, will provide the necessary independence.

The DART has been established as a separate project starting with the FY2003 budget. The DART has assisted USJFCOM in the preparation for MILLENNIUM CHALLENGE 2002 and assisted United States Central Command (USCENTCOM) and United States South Command (USSOCOM) in preparation for real world operations in Operation Enduring Freedom. It will continue to provide an independent source of Red Teaming expertise to challenge operational concept development from their origin through experimentation and into execution.

B. Program Change Summary

PE: 0603727D8Z)	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget	7.536	9.610	9.867	10.156
Current FY 04 President's Budget	7.536	9.296	9.685	9.948
Total Adjustments:		-.314	-.182	-.208
Congressional program reductions		-.314		
Congressional rescissions				
Congressional increases				
Reprogrammings				
SBIR/SSTR Transfer				
Other			-.182	-.208

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

E. Major Performers: N/A.