

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification						Date February 2004	
Appropriation/Budget Activity RDT&E Defense-Wide, BA 7				R-1 Item Nomenclature: Net Centricity PE 0305199D8Z			
Cost (\$ in millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost			214.222	216.015	219.464	231.226	236.086
Horizontal Fusion			206.422	207.815	210.864	222.126	226.586
GIG Evaluation Facility			7.800	8.200	8.600	9.100	9.500
<p>A. Mission Description and Budget Item Justification: This program element will support information management and information technology activities focused on the development, integration and assessment of capabilities or applications in support of joint and coalition warfighter needs. Resources will support network-centric collaborative operations to improve situational awareness and operational planning efforts. This program is funded under Budget Activity 7, Operational System Development, because it supports engineering development of an RDT&E program.</p> <p><u>Program Accomplishments and Plans:</u></p> <p>FY 2003 Accomplishments: N/A</p> <p>FY 2004 Plans: N/A</p> <p>FY 2005 Plans: (\$7.800 million)</p> <ul style="list-style-type: none"> • Provides engineering, integration and hardware and fiber optic connectivity that are necessary to validate the performance for key transformational Communication programs. • Provides resources needed to test key systems in an end-to-end manner, including providing for ten system engineers, test-bed hardware, software and fiber optic connectivity at the Naval Research Laboratory and several other test locations in the U.S. The evaluation facility will be used to demonstrate interoperability of multiple Transformational Communications programs including the Joint Tactical Radio System (JTRS), Global Information Grid Bandwidth Expansion (GIG BE), Teleport, and the Transformation Communication Study (TCS). For these systems the lab would: <ul style="list-style-type: none"> -Perform tests that physically demonstrate technical performance. -Provide an independent, overarching review of technology and interface standards. -Ensure technical issues are identified early and schedules synchronized to produce a jointly interoperable, timely 							

UNCLASSIFIED

R-1 Shopping List Item No. 180

Page 1 of 5

and cost-effective architecture development.

-Prevent costly program reworks and restructuring, and more importantly, head off delays in providing joint warfighter connectivity.

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)

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Previous President's Budget			-
Current BES			214.222
Total Adjustments			214.222
Congressional program reductions			
Congressional rescissions			
Congressional increases			206.422
Reprogrammings			
DERF Adds			
Program Increase			7.800

Program Change Summary:

FY 2005: Funding transferred from PE 0305190D8Z to PE 0305199D8Z to implement the restructuring of Defense Intelligence – 206.422 million, Program Decision Memorandum adjustment –7.800 million.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: N/A

Exhibit R-2a, RDT&E Project Justification							Date: February 2004	
Appropriation/Budget Activity RDT&E, Defense-Wide, BA 7				Project Name and Number: Horizontal Fusion/0305199D8Z				
Cost (\$ in millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Project Name: Horizontal Fusion			200.122	204.615	209.264	220.496	224.925	
GWOT - Horizontal Fusion			6.300	3.200	1.600	1.630	1.661	
<p>A. Mission Description and Budget Item Justification:</p> <p>The Horizontal Fusion program overcomes acknowledged limitations in Joint Force operations caused by the inability to rapidly adjust plans and tactics for situational awareness while taking advantage of the explosion in battlefield intelligence and information sources such as advanced sensor equipped UAVs, improved Special Reconnaissance capabilities and ongoing developments and deployment of digitized support systems. The HF portfolio breaks with the platform-centric operations in favor of a more effective net-centric approach that provides increased capability to the edge of the network. Horizontal Fusion provides Joint Force Commanders and their Battle Staffs with needed capabilities for increasing the speed of Command of widely dispersed Joint Forces to operate against a wide range of threats and to support new methods of war fighting – emphasizing more rapid and effective integration of operational intelligence planning by providing operators on the edge with the applications and data access to effectively achieve situational awareness without latency and ensure that the entire chain of command can simultaneously view events as the unfold. This portfolio promotes a shortened timeline to implement the Global Information Grid (GIG) architecture and addresses capabilities to enable time sensitive, net-centric collaborative operations among operational and selected elements of a Coalition/Joint Task Force by examining existing intelligence community and DoD programs to determine how quickly they can be extended to a net-centric operational environment, how well they can exchange services and operate effectively together, and the impact it will have on the advancement of decision support capabilities for the battle-field commander and Communities of Interest. The ability to “customize” the information space to support specific operational needs represents a major improvement over systems that rely on single viewpoint, information push. Most of the program’s objectives are achievable via integration of commercially available leading edge capabilities for collaboration, information fusion and mission rehearsal. While these capabilities are largely commercial in nature, the interoperability and information security challenges presented will require new approaches to large-scale integration. The HF portfolio represents a comprehensive solution and encompasses the selection, procurement, and deployment of leading edge commercial IT components (hardware and software), security services, procedures and training. The program synchronizes and integrates evaluated IT into selected programs of platforms identified for their Joint operational value and compatibility with the Global Information Grid architecture. The portfolio will maintain an alignment with the Services objectives, integration initiatives and requirements issues but maintain an approach that values finding feasible solutions to the problems of net-centric warfare.</p> <p>Accomplishments/Planned Program</p>								

UNCLASSIFIED

	FY 2003	FY 2004	FY 2005
Accomplishment/ Effort/Subtotal Cost			206.442
RDT&E Articles Quantity *(as applicable)			
<p>FY 2003 Accomplishments: N/A</p> <p>FY 2004 Plans: N/A</p> <p>FY 2005 Plans:</p> <ul style="list-style-type: none"> • Continue commercial technology investigation and evaluation • Continue net-centric implementation of GIG architecture • Coordinate with Combatant commanders for their attaching to “the net” • Continue expansion of sense-making tools (i.e., speech translation, multi-language translation, complex pattern recognition) • Continue to locate and incorporate information sources (both tactical and national for bi-lateral information sharing) • Continue to refine the HF environment and services (i.e., Collaboration tool suite interoperability) • Deliver additional enterprise services consistent with the Net Centric Enterprise System (NCES) activity • Leverage GIG Bandwidth expansion to refine information sharing and net-centric processes • Investigate ways of incorporating GIG-BE and Wide-band SATCOM proof-of-concept activities into the annual Horizontal Fusion demonstrations • Investigate and incorporate multiple end users platforms (low end – palm computing to high-end desktops and servers) • Investigate Secure Wireless technology to promulgate net-centric capability as far into the operational field as possible. • Continue to address streamlined security policy implementation with evaluation and testing of security technologies emphasizing cross-domain information exchange • Address tactics, techniques and procedures for net-centric operations within the Service schools and exercises • Continue to evaluate the parameters of the physical and logical edge of tactical data environments 			

UNCLASSIFIED

C. Other Program Funding Summary: N/A

D. Acquisition Strategy. N/A

E. Major Performers: DIA, DISA, NGA, NSA, NRO, ARMY Research Laboratory, Army HQ/G2, Navy CEC program, SPAWAR Support Center – Charleston, Pennsylvania State University Applied Research Laboratory, John Hopkins University Applied Physics Laboratory, Patrick AFB, Ft. Benning, GA, SOCOM, PACOM, CENTCOM, USFK, Ft. Bragg, Ft. Belvoir, USMC Quantico, JFCOM, STRATCOM, NATO, NGIC, Naval Research Laboratory, Hanscom AFB, CECOM, Department of State, Office of Naval Research, Wright Patterson AFB, INSCOM