Exhibit R-2, RDT&E Budget Item Justification						Date: February 2004	
Appropriation/Budget Activity RDT&E Defense-Wide, BA 7				R-1 Item Nomenclature: C3I Intelligence Programs PE 0305190D8Z			
Cost ($ in millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	106.672	130.178					
Horizontal Fusion	62.601	127.320					
C3I Intelligence Program Support	44.071	2.858					

A. **Mission Description and Budget Item Justification**:

This program element supports intelligence activities focused on the development, integration and assessment of systems or applications in support of non-traditional and contingency warfare. Resources will also support network-centric collaborative operations to improve situational awareness and operational-intelligence planning efforts. This program is funded under BA-7, Operational Systems Development, because it supports intelligence efforts that involve engineering development.

FY 2003 Accomplishments: ($44.071 million)

Project Picket Fence

- Provided support for Picket Fence initiatives.

JTF-CNO Joint Threat Incident D/B

- Provided limited capability for the cataloging of specific foreign Computer Network Operations threats to DoD's command and control infrastructure.
- Produced intelligence reports on computer network attacks against US systems.
- Provided overall incident assessments analyzed within the context of operationally relevant information from affected commands.
- Supported the development of appropriate response options and detailed courses-of-action in defense of protected networks.

GWOT - Information Operations (IO-21, EW Improvements)

- Advanced electronic attack capabilities to detect, isolate and attack selected C2 and information systems.
- Advanced technologies to derive targeting quality locations.
- Advanced testing and training to conduct EW test and evaluation, mission data software optimization, mission rehearsal.
- Improved missile flyout models/simulations, post mission data processing, and integrating new threat systems with test range.

GWOT - Information Operations (IO-14, Pre-Conflict Management)

- Developed methods of anticipating potential conflicts and tools to determine effective courses of action.
  - Identify potential alternatives that could preclude or reduce the likelihood of an event.
  - Identify potential alternatives that could reduce the intensity and/or duration of potential conflict.
- Developed a CONOPS for Interagency participation in conflict avoidance.

  GWOT - HDBT
- Provided secure communication and collaboration services between and among the Defense Intelligence components and some private sector and academia partners to develop these targets.
- Developed new analytical, data mining, and target visualization tools to characterize targets.
- Developed new sources and methods of intelligence collection, research and analysis, and production.
- Augment traditional intelligence sources and methods with subject matter experts as required (e.g. micro tunneling, hydrologic engineering, spoil/tailing spectroscopy/hyper spectral analysis, etc.)

  GWOT - CENTRIX
- Established a combined network control center providing secure coalition information sharing connectivity between Combatant Commanders.
- Established virtual private network for coalition partner use in maritime interdiction operations in support of GWOT.
- Initiated certification and accreditation efforts for secure coalition information networks.

 FY 2004 Plans: ($2.858 million)

  GWOT - CENTRIX
- Provides for development of multi-level thin client solution needed for ships and air operations centers.
- Implements improved metadata tagging and search capabilities on coalition information sharing networks
- Provides for completion of CENTRIXS network interoperability certification.

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 2003	FY 2004	FY 2005
Previous President's Budget	106.779	132.094	191.645
Current BES/President's Budget	106.672	130.178	-

Total Adjustments	-.107	-1.916	-191.645
Congressional program reductions			
Congressional rescissions, inflation adjustments	-.107	-1.916	
Congressional increases			
Reprogrammings			-191.645

Change Summary Explanation:
FY 2003: Inflation reduction -.107 million.
FY 2004: FFRDC Reduction -.513 million; Management Improvements -.280 million; Management Efficiencies –1.123 million.
FY 2005: Realigned to ASD(NII) PE 0305199D8Z to implement restructuring of Defense Intelligence –191.645 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.A BA # 7				Project Name and Number: Horizontal Fusion/ 0305190D8Z C3I Intelligence Programs			
Cost ($ in millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Name: Horizontal Fusion	57.001	22.787					
GWOT - Horizontal Fusion	5.600	4.533					

B. Mission Description and Budget Item Justification: 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.

Accomplishments/Planned Program				
	FY 2003	FY 2004	FY BY[1]	FY BY[2]
Accomplishment/ Effort/Subtotal Cost	57.001	122.787		
GWOT – Horizontal Fusion	5.600	4.533		

FY 2003 Accomplishments:

- Improved situational awareness by deploying the prototype collateral information space to establish and manage common data holdings for Combatant Command warfighter and intelligence analysts using the Intelligence Community System for Information Sharing (ICSIS).
- Prototyped initial set of net-centric horizontal fusion services to enable warfighters to achieve improved situational awareness by faster access to data.
- Integrated "edge applications" to enable imagery, networked language translation and sense making capabilities into selected warfighting C2 systems.
- Completed the initial design and development leading to the ability to post weapons system surveillance and reconnaissance data on the Global Information Grid (GIG).
- Selected a set of best of breed" fusion algorithms to support net-centric intelligence fusion and time sensitive targeting of hard targets.
- Conducted initial set of technology trade studies under "EdgeWarrior" leading to a tactical fusion capability for small SOF units of action and integration into the Army's Future Combat System (FCS).

FY 2004 Plans:

- Expand number of populated COI's within the HF environment (i.e., Coalition, HLS/D, etc.)
  - Expand number of ISR collection platforms that provide tactical data feeds into the HF environment (air, ground, marine. etc.)
  - Improve ISR/NTM interoperability and cross-functional operational processes at the JTF and below level
  - Refine and add capability to edge applications/tools
  - Identify and incorporate other applications to further enable information sense making
  - Continue assessment of security policy implementation and possible solutions for MLS/MSL utilizing commercially available tools.
  - Expand set of enterprise services provided to the users/COI's/applications
  - Expansion of fusion algorithms to address all intelligence data feeds

- Investigate commercially available products for secure wireless communications
- Investigate participation in DoD and Service live-fire and exercise events.

C. Other Program Funding Summary: N/A

<u>Acquisition Strategy.</u>

E.   Major Performers: DIA, DISA, NIMA, 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