Exhibit R-2, RDT&E Budget Item Justification						Date: February 2008	
Appropriation/Budget Activity RDT&E, Defense-wide Budget Activity BA: 3				R-1 Item Nomenclature: Microelectronics Technology Development and Support Program Element: 0603720S			
Cost ($ in millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	90.285	47.138	0.000	0.000	0.000	0.000	0.000
Defense Microelectronics Activity (DMEA)	90.285	47.138	0.000	0.000	0.000	0.000	0.000

A. Mission Description and Budget Item Justification:

DMEA was established in 1997 by the Office of the Secretary of Defense to act as the joint DoD Center for microelectronics acquisition, transformation, and support. The DMEA mission is to design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to extend the life of weapon systems and to solve operational problems (e.g., reliability, maintainability, performance, and assured supply). This includes providing for the development and long-term support structure necessary to ensure rapid prototyping, insertion, and support of microelectronics technologies into fielded systems. The Defense Microelectronics Activity **(**DMEA) provides technical and application engineering support for the implementation of advanced microelectronics research technologies from design through assembly and installation. The DMEA provides an organic capability to support these strategically important technologies within the DoD. These advanced technologies are translated into solutions for military needs. The DoD is increasingly reliant on the use of "smart" weapons based on microelectronics. All future engagement scenarios depend on the use of these systems. Likewise, the use of microelectronics has exploded in the commercial world, driving the semiconductor industry to supersede successive generations of semiconductor technologies with new technologies every 18 months. The growth in commercial products has driven DoD's share of the semiconductor market below 0.1%. DoD must rely on technologies that become obsolete every 18 months and an industry in which DoD has no influence due to low market share. This is a Defense-wide issue since many systems across the Department use the same microelectronic process technologies. Therefore, the DMEA mission includes providing for the development and long-term support structure necessary to ensure rapid prototyping, insertion, and support of advanced microelectronics technologies into fielded systems. The DMEA applies both available leading-edge technologies and innovative applied research and development (R&D) approaches to develop solutions to current problems. DMEA's RDT&E program is comprised of a mix of studies, investigations, planning efforts, developments, fabrications, and the insertions of solutions. This effort applies to all DoD systems using electronics e.g., F-22, B-2, Airborne Warning And Control System, F-16, F-15, F-14, Global Positioning System, USQ-113, Joint Strike Fighter, EA-6B, M-65, AN/TSC-93B, and AN/GSC-49 (V). Funds are required for technical and analytical support, equipment, supplies, travel, and publications.

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Total PE Cost	90.285	47.138	0.000	0.000	0.000	0.000	0.000
Defense Microelectronics Activity (DMEA)	90.285	47.138	0.000	0.000	0.000	0.000	0.000

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 07	FY 08	FY 09	FY 10
PB 08	92.554	0.000	0.000	0.000
Current BES	90.285	47.138	0.000	0.000
Total Adjustment	-2.269	0.000	0.000	0.000
Congressional Program Reductions	0.000	0.000	0.000	0.000
Congressional Rescissions	0.000	0.000	0.000	0.000
Congressional Increases	0.000	0.000	0.000	0.000
Reprogramming	0.000	0.000	0.000	0.000
SBIR PE 0605502S	-2.269			

Change Summary Explanation:
FY07: $2.269M was reprogrammed to PE0605502S to fund Small Business Innovative Research (SBIR)
FY08: $1.050M to fund Small Business Innovative Research (SBIR) is included in the total FY08 BES

C. Other Program Funding Summary: Provided at the Project Level.

D. Acquisition Strategy: N/A.

E. Performance Metrics: Included in the R2a.

Exhibit R-2a, RDT&E Project Justification							Date: February 2008
Appropriation/Budget Activity RDT&E, Defense-wide Budget Activity BA: 3				Microelectronics Technology Development and Support Program Element: 0603720S			
Cost ($ in millions)	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

A. Mission Description and Budget Item Justification: The Microelectronics Technology Development and Support efforts are to design, develop, and demonstrate microelectronics concepts, technologies, and applications to extend the life of weapon systems and to solve operational problems (e.g., reliability, maintainability, and performance) while addressing diminishing manufacturing sources. This includes providing for the development and long-term support structure necessary to ensure rapid prototyping, insertion, and support of microelectronics technologies into fielded systems. The Defense Microelectronics Activity **(**DMEA) provides technical and application engineering support for the implementation of advanced microelectronics research technologies from design through assembly and installation. The DMEA provides an organic capability to support these strategically important technologies within the DoD. These advanced technologies are translated into solutions for military needs. DMEA's RDT&E program is comprised of a mix of studies, investigations, planning efforts, developments, fabrications, and the insertions of solutions. This effort applies to all DoD systems using electronics e.g., F-22, B-2, Airborne Warning And Control System, F-16, F-15, F-14, Global Positioning System, USQ-113, Joint Strike Fighter, EA-6B, M-65, AN/TSC-93B, and AN/GSC-49 (V). Funds are required for technical and analytical support, equipment, supplies, travel, and publications.

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- The Advanced Beam Steering Program efforts are developing next generation beam steering technology. By combining existing technology with novel smart materials, a faster more robust technology will be available for insertion into numerous platforms for increased Warfighter capability. FY07 efforts investigated and developed proof of concept advance beam steering devices using both lenslet and ionorefractive technologies and demonstrated the applicability of these technologies to the beam steering problem. ($0.971)

- Advanced Dynamic Technology Optics Program efforts are developing a new class of smart materials that will provide nanosecond switching speed shutter devices and variable index of refraction devices. These devices will be operated with a microelectronics controller system to ensure that delay in signal processing within the microelectronics will not delay or hamper speed of the device operation. The FY07 efforts are continuing to develop, fabricate, characterize and demonstrate electronically tunable optical filters. ($0.971)

- Advanced Filter Program efforts are combining new materials with existing optic technology for a nanosecond speed switchable band block/band pass technology over a wide wavelength range. This will provide instantaneous band blocking of damaging radiation of rapidly varying intensity and rapidly varying wavelength to make a nanosecond speed switchable band block/band pass technology optical switch to provide an enhanced level of protection for numerous DoD and Homeland defense systems. The FY07 program is investigating and performing theoretical modeling of the Rapid Optical Shutter in order to provide a more thorough understanding of the quantum physics governing the performance of the devices ($0.971)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- Advanced Surface Radar Technologies efforts are to supporting development and adaptation of electronic components to new form factors by expanding surface ship radar electronics miniaturization and packaging methodologies to demonstrate low cost, scalable radar designs. Candidate electronics are being evaluated for potential benefit to supporting the Navy's next generation surface ship radar systems. Presently, the Navy's surface radar systems are monolithic in their design/implementation, requiring the Service to purchase new radar systems (or extensively upgrade existing systems) for any change in the threat they face. New innovations derived from DOD airborne radar development are promising lower cost, modular surface ship radar designs that can be quickly and inexpensively scaled to meet the Service's needs. ($5.391)

- Feature Size Migration efforts at DMEA's Foundry are providing the fabrication technology, infrastructure modifications and facilitization to build microelectronics with increased functional density using digital, analog and mixed signal processes for military systems in DMEA's foundry. ($4.420)

- Forbes Field Air National Guard (ANG) Regional Defense Command Integration Center efforts are performing a baseline survey and analysis of ANG capabilities and threats and to correct deficiencies, redundancies and technology gaps relating to emergency disaster management amongst the distributed mission systems of these ANG organizations. ($1.943)

- Foliage-penetrating Acoustically Cued Imagery Sensor efforts are developing a miniature digital acoustic array subsystem, imaging subsystem, sensor controller, Line Of Sight (LOS) and Non-LOS communications subsystem, Global Positioning System, chute and payout subsystem, and power subsystems that can be cued to take pictures automatically, compress, encrypt, and infiltrate the image for further analysis and situational awareness at a remote location. Miniaturization through advanced packaging and design of the prototypes to achieve covertness for the system. Conduct further jungle environment experiments to refine the design and expand the operational characteristics of the system. ($3.506)

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- Locust Miniature Air Vehicle (MAV) Enhancement efforts are upgrading the Locust's already exceptional capability to provide full digital communication and video link, ground control station interoperability, increased flight duration, and true multiple plane interoperability. The Locust is an 18 inch unmanned air vehicle (UAV) that is launched by hand. With a range of 5km (3mi) and a flight time approaching 1 hour, the Locust carries an onboard video camera for surveillance. The Locust is completely autonomous and requires no user interaction after launch. ($1.948)

- Mode 5/Mode S Identification Friend or Foe (IFF) System Technology Development efforts are accelerating technology development and planned implementation of the Mode 5/Mode S Identification Friend or Foe (IFF) System for the Navy's E-2D Advanced Hawkeye (AHE) aircraft. Accelerated technology development of this system in FY07 is helping to ensure that all deliverable IFF systems for the E-2D will have Mode 5/Mode S incorporated prior to delivery, significantly shortening the deployment cycle for this capability while allowing for synergy with all phases of program production. Early implementation of Mode 5/Mode S is benefiting program risk reduction through analysis and testing while realizing cost savings. ($0.971)

- Superlattice Nanotechnology efforts are developing and characterizing Silicon Carbide (SiC) wafers grown from SiC templates using low-temperature processes and molecular beam epitaxy with minimum defects that will form the basis for the next generation of radio frequency and radiation-hardened microelectronics. The researchers are developing growth techniques for fabricating 3C-SiC and 4H-SiC superlattices on Silicon substrates. In addition, they will characterize the material by fabricating and analyzing power devices using the SiC wafers. This will lead to developing large SiC epitaxial substrates with processes comparable in cost to standard Silicon wafers. ($1.943)

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- Semiconductor Photomask Technology Initiative efforts are accelerating the development of state-of-the-art mask making tools and the formation of a domestic mask blank source for future applications in the 45 nanometer and below regime. ($3.504)

- University Materials Characterization and Metrology Center efforts are identifying the chemical and structural elements of materials and devices, as well as chemical, optical, electrical, and physical principles in measurement science and to be an enabler to the nanotechnology industry by providing expertise, training, and making available shared diagnostics equipment. The FY07 efforts are researching advanced materials for semiconductor nanowire synthesis, characterization and device development for electronics, thermoelectric cooling and chemical sensing. ($0.971)

- DMEA Core Research efforts are designing, developing, and demonstrating microelectronics concepts, technologies, and applications to extend the life of weapon systems and to solve operational problems (e.g., reliability, maintainability, and performance).and to ensure rapid insertion of transformational technologies into fielded weapon systems by providing the necessary development, manufacturing engineering, and long-term support structure. Researching and assessing the potential impact to DoD operational systems caused by decreasing microelectronics feature sizes and increasing complexity and developing a mitigation or solution strategy; defining and executing a viable long-term solution strategy for access to technologies and processes that are key enablers in the strategy. Proactively determining and developing the potential benefits of utilizing advances in science and technology (e.g., microelectronics, optoelectronics, nanosciences, molecular electronics, etc) to solve DoD microelectronics support issues. Developing and testing advanced science and technology applications to acquire in-depth knowledge that is critical in developing solutions to weapons system performance and support problems. Evaluating, and integrating key commercial microelectronics foundry processes and innovative advanced engineering, design, and fabrication process tools to enhance the DMEA capabilities to provide solutions for weapon systems performance and support problems. ($15.541)

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- Ultra-High Energy Micro Fuel Cell efforts are evolving fuel cell components to reduce size and weight. The core fuel cell engine is being reduced by design optimization and advanced materials. Electrode materials are being developed to allow the use of advanced high energy liquid fuels to increase performance. The evolution will be focused to make the fuel cell manufacturable in high volume. ($2.525)

- Secure Digital Coherent Optical Communications efforts are developing secure optical/radio frequency architecture and operational concepts, study key performance-enhancing algorithms and protocols, and demonstrate key components leading to a secure, high-performance optical communications in fiber, air, and space. FY07 efforts are further developing architectures and operational concepts from prior phases into a functional transceiver prototype to demonstrate key sub-system concepts needed to meet the goals of a secure, high-performance optical communications approach for fiber, air, and space. ($2.326)

- Chameleon Miniaturized Wireless Communications System Efforts are developing a covert self-contained microsensor package with on-board real-time mission critical information processing and an ultra-sensitive high temperature super-conducting transceiver. FY07 efforts include another spiral of major sensor miniaturizations; e.g. reduce by a factor of 10 to 20. To achieve a focused product; three aspects of the Chameleon software are being addressed; 1) the software must be transitioned from a demonstration prototype to field quality product; 2) the data link reliability must be addressed to communicate sensor findings to the command and control; 3) addition of a real-time data streaming mode to augment the current store and forward strategy. ($8.725)

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2007 Accomplishments

- Ultra-low Power Battlefield Sensor Communication System (ULBPSCS) efforts are developing a netted battlefield sensor system with a combination of ultra-sensitive receivers, ultra-low power miniature sensors, advanced manufacturing processes, and a real-time mission critical distributed information system. Transitioning prototype hardware and software to a production ready status. Completing all qualification testing, and supporting the execution of a military utility assessment to ensure the system is ready for transition to a military user. Coordinating with military user on the interface of the system into the existing C4ISR network. Developing training and operation material for the military user. ($14.540)

- Spintronics Memory Storage Technology efforts are to achieve a breakthrough in magnetic random access memory (MRAM) technologies together with companion programs in electronics packaging and advanced materials in order to develop a technology that will be produced domestically and will transition from the lab to the battlefield in a timely and cost effective manner ($7.755)

- California Center for Nanoscience Innovation for Defense (CalCNID) efforts are to systematically clarify the feasibility of applying nanoscience and technology to defense requirements. The universities are conducting advanced technology research on nanoscale material and devices with applications in electronics, spintronics, nanophotonics, nanosensors and nanobiology. They are investigating the feasibility of applying nanoscience and technology to defense requirements. ($9.306)

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Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- 3D Electronics efforts are to increase the density of interconnects (pins) between stackable 2-D chip packages and focus on advanced chip packaging and thermal interface materials in order to dissipate the heat resulting from device densification. This will allow us to take advantage of recent advances in nanomaterials and nanodevices to begin to address the issue necessary to take the electronics industry beyond the two-dimensional silicon based devices and wiring that have served it so well for the last 60 years and to develop 3D electronics technology together with associated packaging and thermal interface materials. FY 2008 funds are required to increase the pin count in packaging technologies, to implement Random Access Memory on processor technologies and construct devices, circuits and thermal solutions based on carbon materials. ($0.969)

- Advanced Dynamic Technology Optics Program efforts are continuing development of a new class of smart materials that will provide nanosecond switching speed shutter devices and variable index of refraction devices. These devices will be operated with a microelectronics controller system to ensure that delay in signal processing within the microelectronics will not delay or hamper speed of the device operation. The FY08 efforts are to continue system integration, field demonstration, and prototype testing of electronically tunable optical filters. ($1.162)

- Advanced Surface Radar Technologies efforts are to supporting development and adaptation of electronic components to new form factors by expanding surface ship radar electronics miniaturization and packaging methodologies to demonstrate low cost, scalable radar designs. Candidate electronics are being evaluated for potential benefit to supporting the Navy's next generation surface ship radar systems. Presently, the Navy's surface radar systems are monolithic in their design/implementation, requiring the Service to purchase new radar systems (or extensively upgrade existing systems) for any change in the threat they face. New innovations derived from DOD airborne radar development are promising lower cost, modular surface ship radar designs that can be quickly and inexpensively scaled to meet the Service's needs. ($5.325)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- Forbes Field Air National Guard (ANG) Regional Defense Command Integration Center efforts are performing a developing an architecture and beginning development of improved mission systems to enhance ANG capabilities and to correct deficiencies, redundancies and technology gaps relating to emergency disaster management amongst the distributed mission systems of these ANG organizations. The FY08 plan is to evolve the demonstrated Proof of Concept design for the Eisenhower Center, developed in FY07 into an Operational/Deployed system of systems. ($0.968)

- Foliage-penetrating Acoustically Cued Imagery Sensor efforts are developing a miniature digital acoustic array subsystem, imaging subsystem, sensor controller, Line Of Sight (LOS) and Non-LOS communications subsystem, Global Positioning System, chute and payout subsystem, and power subsystems that can be cued to take pictures automatically, compress, encrypt, and infiltrate the image for further analysis and situational awareness at a remote location. Miniaturization through advanced packaging and design of the prototypes to achieve covertness for the system. Conduct further jungle environment experiments to refine the design and expand the operational characteristics of the system. ($2.327)

- Superlattice Nanotechnology efforts are developing and characterizing Silicon Carbide (SiC) wafers grown from SiC templates using low-temperature processes and molecular beam epitaxy with minimum defects that will form the basis for the next generation of radio frequency and radiation-hardened microelectronics. The FY08 plans are to advance the infusion of superlattice nanotechnology into the growth of SiC substrates; minimize growth defects; grow crystalline, defect-free SiC-on-Si, utilizing superlattice and superlattice-like atomic layer growth control; produce full wafer, full thickness SiC with device-appropriate dopants for high-voltage applications; fabricate and test large-area power devices, with performance targets of 5-10 kV and 50,000 Amps. ($1.549)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- Semiconductor Photomask Technology efforts are accelerating the development of state-of-the-art mask making tools and the formation of a domestic mask blank source for future applications in the 45 nanometer and below regime. ($2.327)

- University Materials Characterization and Metrology Center efforts are identifying the chemical and structural elements of materials and devices, as well as chemical, optical, electrical, and physical principles in measurement science and to be an enabler to the nanotechnology industry by providing expertise, training, and making available shared diagnostics equipment. The FY08 efforts are continuing research in advanced materials for semiconductor nanowire synthesis, characterization and device development for electronics, thermoelectric cooling and chemical sensing. ($1.162)

- Spintronics Memory Storage Technology efforts are to achieve a breakthrough in magnetic random access memory (MRAM) technologies together with companion programs in electronics packaging and advanced materials in order to develop a technology that will be produced domestically and will transition from the lab to the battlefield in a timely and cost effective manner ($2.324)

- Network Micro-Sensors Technology Testbed efforts are to establish a national testbed asset to develop and test large-scale sensor network protocols and applications. In FY08, the team will fabricate hardware and develop software necessary to implement the completed system design. A universal interface will be designed to accommodate many different micro-sensor types. Special consideration will be given to storage of data generated by the test bed because this data will in all likelihood be ITAR controlled. ($1.549)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- End to End Semiconductor Fabrication Alpha Tool efforts are to develop a novel semiconductor processing capability to manufacture semiconductors in a single tool. This new, non liquid chemical, multi-activation processing technique allows high resolution patterns of process layered material to be fabricated directly on semiconductor wafers in a single step. This industry disruptive process eliminates the need for billion dollar facilities and million dollar mask for each chip design. The FY08 funds are to ($1.549)

- Demonstrations, Test and Evaluation of Mini-Sensor efforts are to support demonstrations, operational tests and evaluations of state-of-the-art sensor technology. One technology uses microsensors to improve the military's awareness of potential threats and the defense of high-value targets. The other features miniature wireless components that collect and transmit information using very little power. ($4.647)

- Electronics and Materials for Flexible Sensors and Transponders (EMFST) efforts are to employ state-of-the-art materials and manufacturing processes to design and create prototypes of flexible, low-cost, disposable radio-frequency sensors and transponders. Such components can be used covertly in the war on terrorism. ($2.904)

- Feature Size Migration efforts at DMEA are providing the fabrication technology, infrastructure modifications and facilitization to build microelectronics with increased functional density using digital, analog and mixed signal processes for military systems in DMEA's foundry. ($3.877)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- Rapid Prototyping / Low Rate Production of Mini-Sensor efforts are to develop and prototype advanced wireless components for U.S. government customers to facilitate their transition into operational use. This includes developing a netted battlefield sensor system with a combination of ultra-sensitive receivers, ultra-low power miniature sensors, advanced manufacturing processes, and a real-time mission critical distributed information system. Transitioning prototype hardware and software to a production ready status. Completing all qualification testing, and supporting the execution of a military utility assessment to ensure the system is ready for transition to a military user. Coordinating with military user on the interface of the system into the existing C4ISR network. Developing training and operation material for the military user. ($3.485)

- High Specific Energy Rechargeable Battery efforts are to improve the delivered energy and cycle life of Li-S cells and optimizing cathode primer to lower cell resistance to generate higher power. The DoD relies heavily on microelectronics for the effectiveness of its combat systems (Ex: Unmanned Aerial Vehicles (UAVs), unattended ground sensors, etc). These systems, inturn have increased demands for power to operate. While there has been exponential growth in integrated circuit performance since 1970, battery technology has been lagging and has reduced growth potential of digital devices. This new work, creates a new battery technology, utilizing lithium sulfur (Li-S) and implementing improvements in cell chemistry and cell design. ($1.551)

- Carbon Nanotube Thin Film Near Infrared Detector efforts are to build on the revolutionary discovery of the broad spectrum bolometric response of carbon nanotube thin films to develop a new generation of near infrared detectors. FY 2008 funds are to refine the production, processing and purification of single-walled carbon nanotubes (SWNT). In order to optimize the temperature coefficient of resistivity which is an important parameter in the bolometric performance of these films, techniques will be developed to chemically process and functionalize the SWNTs. The thin film technology will be developed for the demonstration focal plane arrays. ($0.969)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- Self-Sensing Array Container Pre-Screening Sensor System efforts are to develop robust, compact, low-cost, low-power sensor units for unattended sensing applications. The microcantilever-based Self-Sensing Array (SSA) technology is a strong candidate for such units. SSA technology is expected to provide the selectivity, sensitivity, durability, low cost, and low power needed for unattended sensors and sensor networks. The FY08 funds will be used to develop a combined system prototype of a chemical sensor system to be evaluated in laboratory and field tests and analyze the data. ($1.394)

- Agile JTRS Integrated Circuits program efforts are to develop electrically tunable circuits integrated monolithically with wireless circuits. The resultant circuits will provide a significant new capability to the military and enable tunable wireless circuits on a single chip. Systems such as the Joint Tactical Radio System (JTRS) require significant frequency tunability and could make immediate use of this technology to both improve performance and reduce cost of the systems. This capability will significantly increase the ability of the military to provide high-performance and cost-effective communications systems to the warfighter. ($1.549)

- Next Generation Supercomputer IA Prototype for the NRL efforts has not been identified at this time. A request has been made to either move the funds to an NRL PE or to obtain further direction from the responsible congressional office. ($4.500)

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RDT&E Articles Quantity - N/A							

B. Accomplishments/Planned Program

FY 2008 Plans

- Small Business Innovative Research (SBIR) efforts are to use the SBIR community to address the challenges of current and emerging microelectronics issues which adversely impact the reliability, performance, maintainability, or operational life of DOD weapon systems, and to investigate opportunities for application of advanced microelectronics technologies in DOD weapon systems. DMEA will generally participate in one or two SIBR solicitations per year depending on the quality and quantity of responses received. The mission of the DMEA is to research current and emerging microelectronics issues, with a focus on warfighters needs, and to leverage advanced technologies to extend the life of weapon systems by improving their reliability, maintainability and performance, while addressing the problem of diminishing manufacturing sources. This mission includes providing for the development and long-term support structure necessary to ensure rapid prototyping, insertion, and support of advanced microelectronics technologies into fielded systems. ($1.050)

Exhibit R-2a, RDT&E Project Justification							Date: February 2008
Appropriation/Budget Activity RDT&E, Defense-wide Budget Activity BA: 3				Microelectronics Technology Development and Support Program Element: 0603720S			
Cost ($ in millions)	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Defense Microelectronics Activity	90.285	47.138	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Quantity - N/A							

C. Other Program Funding Summary : N/A

D. Acquisition Strategy: N/A

E. Major Performers: N/A