

REQUESTS FOR INFORMATION (NON-NASA)

AIR FORCE MATERIAL COMMAND – Next Generation Sensor Concepts and Multi-Intelligence Sensor Technology

Solicitation Number: Reference-Number- BAA-06-06-IFKA

Posted Date: Dec 21, 2005

Response Date:

<http://www.fbo.gov/spg/USAF/AFMC/AFRLRRS/Reference%2DNumber%2DBAA%2D06%2D06%2DIFKA/listing.html>

It is recommended that white papers be received by the following dates to maximize the possibility of award: FY 06 should be submitted by 12 January 2006; FY 07 by 1 May 06 and FY 08 by 1 May 07. White papers will be accepted until 2pm Eastern time on 30 September 2008, but it is less likely that funding will be available in each respective fiscal year after the dates cited.

Next Generation Sensor Concepts. AFRL Rome Research Site is soliciting white papers for innovative approaches in the area of advanced radar technology that will overcome deficiencies in existing and planned radar systems to detect, track, and identify aircraft, missiles, spacecraft, space debris, ground vehicles, and subsurface complexes in clutter and countermeasure environments. The survivability of new and existing systems must also be improved without the use of decoys. Upgrades to existing Intelligence, Surveillance and Reconnaissance (ISR) Platforms and demonstrations to support transition to the next level of technology development, and evolutions to new sensors and concepts (Unmanned Air Vehicles, Space Based Platforms, etc.) need to be addressed. Sensor concepts should include multiple configurations with characteristics supporting diverse multimission requirements including Airborne Moving Target Indicator (AMTI), Ground Moving Target Indicator (GMTI) and Synthetic Aperture Radar (SAR), Multiband SAR/Tomographic Imaging features, and Foliage Penetrating (FOPEN) Radar. These concepts include both Monostatic and Multistatic solutions. Lookdown Bistatic concepts should include bistatic receivers using radiators of opportunity (TV, FM etc.) with large wideband receive antennas. Areas of interest include new and innovative advances in system architectures, hardware, software and/or signal processing algorithm improvements, diverse transmit waveforms, survivability, positional estimation improvements, unique concepts in radar system design, Multi-Basing Look Down Surveillance (Air and Space), Augmentation of Reconnaissance Capabilities (development of new surveillance capabilities in Reconnaissance sensors), Ground Penetrating Radar, Bistatic/Multistatic Radar (Non-cooperative emitter stand alone sensors and Cooperative augmentation of existing ISR Platforms through UAVs), the architecture and signal processing for expendable UAV radar probes and theater missile defense. Additional technology areas include the measurement, test, analysis and modeling efforts that are required to support the development of advanced radar systems. The primary emphasis is to identify and demonstrate promising technologies for both monostatic and multistatic radar sensors in the areas of Space Time Adaptive Processing, both Adaptive and Knowledge Based (KB), Multi-Channel Signal Processing Techniques, Innovative and Wideband Processing Techniques, Multi-Dimensional Processing Techniques, Improved radar system performance developments in spread doppler clutter environment for a theater application and, in general, technologies that may significantly improve the performance of advanced radar systems. The successful application of these approaches will require a broad spectrum of expertise, covering

hardware, software, and systems technology.

Multi-Intelligence Sensor Technology (MIST). AFRL Rome Research Site is also soliciting white papers that address the design, development, and execution of a multi-function, multi-mission demonstration involving an X-band radar, UHF radar, and an ESM system installed on an airborne test bed. At a minimum, the MIST should demonstrate real time sensor control of the following functions: UHF radar performing AMTI search and coarse tracking of airborne targets, X-band radar performing high accuracy tracking of airborne targets handed over by the UHF system via the sensor controller, X-band radar detecting and tracking ground moving targets, SAR imaging of stationary targets using X-band radar, the geo-location of ground targets by the X-Band radar based on a cue from the ESM system (RF emission from ground target) via the sensor controller, and the collection of sensor data to support automatic target cuing (ATC) and automatic target recognition (ATR) algorithm development/evaluation. Demonstration of additional capabilities, including true simultaneous SAR-GMTI and Combat ID, are also of interest.

AIR FORCE MATERIAL COMMAND - Advances in Biotechnology and the Biosciences for Warfighter Performance and Protection

Solicitation Number: Reference-Number- BAA-05-02-HE

Posted Date: Nov 17 2005

Response Date:

<http://www.fbo.gov/spg/USAF/AFMC/AFRLWRS/BAA-05-02HE/Attachments.html>

The Human Effectiveness Directorate of the Air Force Research Laboratory (AFRL) is soliciting white papers under this announcement for innovative technologies and scientific and programmatic services to support advanced biosciences research. The objective of this BAA is to address highly unique and innovative Science and Technology areas in Biosciences and Protection. The technology research in the BAA will be primarily focused in the following five research and technology areas: 1) Applied Biotechnology, 2) Fatigue Countermeasures, 3) Aircrew Performance and Protection, 4) Biomechanics, and 5) Counterproliferation. The objective of this BAA is to support and augment core research activities and facilities/equipment developing and exploiting advances in biotechnology and the biosciences to protect the force by providing the necessary essential infrastructure, personnel, administrative, and programmatic services to capitalize on biological systems to provide radically new military capabilities that improve warfighter performance and combat effectiveness. Such assistance will provide for a broad range of revolutionary and evolutionary technologies to meet the critical needs of the warfighter for full dimensional protection, survivability, and performance enhancement. Scientific and programmatic services include the hiring of personnel, provision of research support services, the administration and facilitation of research proposals/grants, provision of administrative, management, financial, and programmatic services, and purchase equipment and supplies. Research support may include development and submission of research grants, execution of meeting and conferences, and Clinical Trial support.

REQUESTS FOR PROPOSALS (NON-NASA)

AIR FORCE MATERIAL - Sensor Technology Research, Development, Test & Evaluation Open-Ended Broad Agency Announcement (STROEB) Amendment 11

Solicitation Number: Reference-Number- 04-03-SNK

Posted Date: Dec 21, 2005

Response Date:

<http://www.fbo.gov/spg/USAF/AFMC/AFRLWRS/BAA%2D04%2D03%2DSNK/listing.htm>

This announcement does not request any proposals at this time. This amendment announces anticipated requirements for FY06, incorporates the Ombudsman requirement, modifies the Contracting POC, and adds additional support subcontractor notification language. The following topics, listed by applicable technology thrust, are anticipated requirements for AFRL/SN for fiscal year 2006. Solicitation calls requesting proposals against these topics are anticipated to be published in FY06.

The anticipated funding listed reflects estimated funding only. This estimate is not a promise of funding. Funding is uncertain and is subject to change. Changes in availability may occur as a result of the exercise of Government discretion.

- A. Automatic Target Recognition (ATR)
- B. Electro-Optics/Infrared (EO/IR)
- C. Radio Frequency (RF)



Joint Science and Technology Office Chemical and Biological Defense - Physical Science and Technology

Solicitation Number: Reference-Number- HDTRA1-06-CBT BAA

Posted Date: Dec 6, 2005

Response Date: The registration deadline is 6:00 AM EST on January 18, 2006. The proposal submission deadline is 6:00 AM EST on January 24, 2006.

For additional information refer to

<http://fs2.fbo.gov/EPSTData/ODA/Synopses/7006/HDTRA1-06-CBT-BAA/CBT-BAA.doc>

The purpose of this Broad Agency Announcement (BAA) is to solicit proposals for the Department of Defense (DoD) Physical Science and Technology (S&T) Chemical and Biological Defense Program (CBDP). The goal is to explore new and innovative ideas to fill identified technology gaps. The solicitation is specifically for experimental and theoretical development of technologies for chemical and biological defense. Potential offerors are advised to read this announcement carefully. It explains the agency's research needs upon which the topic is based and the terms and conditions of the solicitation.

Proposals are being sought to identify viable solutions to technology gaps in the following CBD S&T areas: Detection; Modeling & Simulation/Battlespace (MSB); Protection; Decontamination; and Threat Agent Science.



DEFENSE ADVANCED RESEARCH PROJECTS AGENCY - MEMS/NEMS S&T Fundamentals

Solicitation Number: Reference-Number- RA06-07

Posted Date: Dec 20, 2005

Response Date: Jan 31, 2006 (Abstract-Only), April 4, 2006 (Full-Proposal)

For additional information refer to http://iam-solutions.com/docushare/dscgi/ds.py/Get/File-3380/DARPA_040406.doc

The Defense Advanced Research Projects Agency (DARPA) is soliciting research proposals in the area of Microelectromechanical/Nanoelectromechanical (MEMS/NEMS) S&T Fundamentals. The MEMS/NEMS S&T Fundamentals effort is seeking research by means of multi-performer (university/ nonprofit/industry/other) focus centers dedicated to advancing a number of core technologies considered essential to the advancement of MEMS/NEMS technology for applications important to the Department of Defense (DoD). Proposed research should investigate innovative approaches capable of having a pervasive impact on continuing technology advances with significant potential for contributing to the transition of MEMS/NEMS technology into DoD systems. The contemplated program is intended to foster the creation of multiple and highly interactive MEMS/NEMS focus centers composed of university, industrial, and government laboratory organizations.

DARPA seeks innovative proposals for focus centers in the following fundamental technology areas:

- Surface Physics: Understanding the chemical and physical nature of MEMS/NEMS surfaces, interfaces, and how bonds terminate. Approaches directed toward enhancing fundamental understanding of the role of surfaces and materials interfaces during processing, device operation, and long-term reliability are desired.
- Noise Mechanisms: Understanding noise limitations in MEMS/NEMS devices. Approaches directed toward enhancing fundamental understanding of the ultimate limitations of all sources of noise to the performance of individual devices and more complex microsystems are desired.
- Reliability Physics: Understanding the physical basis for failure in all types of MEMS/NEMS. Fundamental work in this area might include scientific studies of fatigue of materials and interfaces at micro- and nano-scales.
- Scaling Physics: Understanding dimensional scaling trade-off spaces in electrical, mechanical, optical, chemical, and biological MEMS, as well as limits to the dynamic range of scaled devices and systems.
- Microfluidics: Understanding and controlled manipulation of fluids in micro- and nanosystems. Issues related to the reliability physics and compatibility of fluidic components such as valves, pumps, capillaries, etc.
- Interconnections: Interfacing the nano-to-macro world; impedance matching between the macro, micro, and nano domains.
- Single-Molecule Methods: Bottom-up construction of MEMS/NEMS structures and devices, surface functionalization, atom-by-atom engineering; self-replicating MEMS/NEMS.

- Modeling: New methods for simulating MEMS/NEMS performances (e.g., understanding the limits in quality factor (Q) in vibrating micro- and nanomechanical resonators.
- Signal Processing Methods: Frequency domain versus time domain computation.
- Other Areas: Any fundamental technical issues critical to continuing development of NEMS/MEMS technology.

Focus centers must develop a balance between basic long-term research requirements in the MEMS/NEMS area and the more common industry focus on short-term specific technical problems. All research conducted as part of the effort will be considered pre-competitive and must be openly shared among all participants through annual reviews. A web site - http://teaming.sysplan.com/RA_06_07/ has been established to facilitate formation of teaming arrangements between interested parties.



DEFENSE THREAT REDUCTION AGENCY - Chemical and Biological Defense Medical Science and Technology

Solicitation Number: Reference-Number- HDTRA1-06-CMB-BAA

Posted Date: Dec. 27, 2005

Response Date: Feb. 10, 2006

<http://www.fbo.gov/spg/ODA/DTRA/DTRA01/HDTRA1-06-CMB-BAA/Attachments.html>

The purpose of this Broad Agency Announcement (BAA) is to solicit proposals for the Department of Defense (DoD) Chemical and Biological Defense Medical Science and Technology (S&T) Extramural Program. The express focus of this BAA is on the development of medical pretreatment and therapeutic countermeasures to chemical, biological, and radiological threats and associated medical diagnostics systems.

Proposals are being sought in basic, applied, and advanced research and development in the following research areas:

1. Pretreatments:
 - a. Investigations into the development and application of novel adjuvant formulations to enhance the delivery/efficacy of vaccines/immunogens
 - b. Evaluation of novel mechanisms for enhancing the immune response to intracellular bacterial pathogens
 - c. Human immune response to biothreat agent pathogens T and B-cell epitope mapping studies
 - d. Genetic immunization as an approach for rapid development of vaccines and vaccine platforms
 - e. Address operational need to provide pretreatment for chemical threat agent exposure
2. Diagnostic Technology:
 - a. Detection of metabolites, adducts, or other biomarkers of chemical weapons

exposure

- b. Technologies improving sample concentration prior to sample extraction. These should be able to be performed manually and on an automated sample processor. They should target bacteria, toxins and viruses toxins in the appropriate matrix for the agent.
- c. Technologies maintaining biological sample integrity/viability for bacteria, toxins and viruses from collection of the sample until testing. This period should extend to seven days when the sample is stored at 0 degrees centigrade to 50 degrees centigrade. The method should also allow for preserving the sample, once tested, until its delivery to a reference laboratory.
- d. Assay based technologies for the development of an integrated diagnostics platform for nucleic acid and immune detection of bacteria, viruses and toxins.
- e. Development of bioinformatics software programs to accurately interpret diagnostic-based array data for biological agents and toxins.
- f. Technologies that reduce needs for agent-specific reagents yet offer broad capabilities for multiplexing and broad agent coverage.
- g. Technologies seeking to simplify, miniaturize and integrate sample processing and testing platforms
- h. Assays for early markers of exposure adapted to new and existing test platform
- i. Novel technologies for development of new and improvement of immunodiagnostic reagents
- j. Rapid diagnostic tests to identify antibiotic resistance markers.

3. Therapeutics:

- a. Proteomic and/or genomic approaches to support rapid identification of suitable therapeutics and therapeutic targets to treat or prevent adverse effects of CBW agents
- b. Investigations into combined use of FDA-approved drugs to treat patients with symptoms from CBW agents; Accelerate the path to FDA licensure of new products
- c. Design and development of small molecule therapeutics to treat the adverse effects of CBW agents
- d. Design and development of broad spectrum therapeutics to defend against CBW agents
- e. Development of adjunctive detoxification or mitigation/prevention of effects from CBW agents using gastrointestinal therapeutic
- f. Address operational need to minimize systemic, neurologic, ocular, and cutaneous injury due to chemical threat agent exposure

4. Radiological Countermeasures:

Non-clinical toxicological and pharmacokinetic analysis, assessment of drug mechanisms, and initial determination of formulation and preclinical efficacy in a large-animal model to treat or prevent adverse effects of exposure to radiological agents

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY/SPECIAL PROJECTS OFFICE

Solicitation Number: Reference-Number- BAA06-02

Posted Date: Nov 16, 2005

Response Date: Nov 15, 2006

DARPA will employ an electronic upload process for abstract/proposal submissions for BAA 06-02. Abstracts will be submitted via <http://www.tfims.darpa.mil/baa>. Performers may find guidance for abstract/proposal submission at: <http://www.darpa.mil/spo/solicitations.htm>. This announcement and the PIP may be retrieved via the WWW at URL <http://www.darpa.mil/> in the solicitations area.

The Defense Advanced Research Projects Agency/Special Projects Office (DARPA/SPO) researches, develops, demonstrates and transitions technologies focused on addressing present and emerging national challenges. SPO investments range from the development of enabling technologies to the demonstration of large prototype systems. Innovative concepts are sought for research efforts to enable U.S. dominance over the proliferating threat posed by our adversary's use of underground structures. Emphasis is on the development and demonstration of technologies to find unknown facilities on both strategic and tactical timescales; to identify facility function, to monitor pace of activity, to determine structural layout or locations of specific vulnerabilities; and to enhance post-attack bomb damage assessment (BDA). Prospective innovations include: exploitation of novel observables or substantially improved methods of detecting/analyzing observables, including active source methods; improved deployable ground and airborne sensors; improved communications across rugged terrain among assets, and for exfiltration uplinks; new methods for sensor and system modeling; exploitation algorithms and signal processing; and new methods for characterizing activities associated with tunnels and caves. These include small and unimproved sites, including those in urban areas. Both close-in and standoff sensor concepts are of interest. Innovative concepts for space systems, sensors, structures, components and materials are sought to support next-generation tactical space operations including rapid access, space situational awareness, space control, robust anti-jam SATCOM, and persistent tactical grade sensing approaches including extremely large space apertures and structures. Of particular interest are large distributed array remote sensing systems, both space based and ground based, for space object location and identification and concepts that support affordable access and thus proliferation of high-performance space control sensors and systems; novel access and propulsion concepts; innovative sensor systems concepts in support of the spectrum of space control applications including extremely large, yet lightweight and stowable aperture technologies; lightweight and low-mass active/passive membranes; large space structures that have extremely small payload volumes (e.g., rigidized inflatables, isogrid composites, etc.); active damping and smart materials for precision control of space structures; self assembly and/or manufacture; novel space-based sensor modalities and systems; high performance micro- and picosat systems; and next generation power generation systems including electrodynamic and momentum tethers, and advanced solar systems. Innovative sensor system and technology concepts are sought across all phases of conflict. Specific technologies of interest include: highly adaptive remote sensing systems that employ externally and internally cued localized onboard processing (i.e. foveated vision) to optimize bandwidth utilization for high frame rate and time critical persistent surveillance applications; very large, low cost, lightweight, and low power density, active phased arrays applicable to space-, airship-, and ground-based radar systems; highly integrated platform-sensor systems with ultra long endurance and minimal logistics tails; stratospheric airship platforms and support systems for large phased array radars and communication systems; efficient and lightweight solar cell and power storage technologies; station-keeping concepts and technologies; lightweight materials and construction methods including inflatable structures; ultra-wideband

(greater than 10:1) phased arrays and shared aperture architecture concepts; innovative calibration and alignment methods; low-loss packaged RF phase shifters, switches and T/R modules; lightweight beamformer, control, and power distribution concepts; highly integrated, compact sensor systems amenable to low logistics support deployments; close-in deployment schemes including unattended ground and air sensors; through-wall sensing and building interior mapping; self-geolocation and LPI comms; advanced intelligent signal processing methods that maximize sensor performance and robustness in hostile operating environments; real-time exploitation of environmental/situational knowledge bases; novel, knowledge-aided, adaptive waveform methods leveraging the emergence of software programmability especially those amenable to real-time embedded computing architectures; model-based reasoning for deconvolving radar signals; radar operation in high multipath or dispersive environments. Innovative concepts are sought in systems and component technologies to address a variety of chem/bio/rad/nuclear threats, including threats to buildings and urban environments. Technologies of interest include those appropriate to the protection from, detection of, neutralization of, or decontamination of such agents, either during a release (aerosolized agent), after a release (deposited on surfaces) or prior to release (in containers). Systems of particular interest are those that support real-time, dynamic response of buildings; wide-area urban surveillance for pre-symptomatic detection of releases; protection of areas/spaces with high concentrations of people; high-throughput techniques for quantifying residual contamination levels in the wake of a Bio-Warfare Agent (BWA) attack (e.g., on building surfaces, documents, etc.); studies and modeling of protective systems, protective components, or the transport of agents; Advanced lightweight personal protective systems that do not increase the soldier's heat burden; and data collections to support component development, modeling, and system validation. New technologies in support of assured urban operations are sought. Particular areas of interest include networked and highly distributed emplaced urban sensor systems that have the potential to provide highly responsive, adaptive and even predictive awareness for urban ops; extremely rapid barrier deployment and removal (both for personnel and vehicle applications, sealing off buildings); non-lethal weapons; persistent and ubiquitous intelligence, surveillance and reconnaissance (including building penetration techniques and standoff detection of explosives); asymmetric weapons countermeasures (such as methods to counter Improvised Explosive Devices or IEDs); detection of weapons caches; and methods for infrastructure protection and rapid replenishment; signature reduction technologies for urban combat; reduction of visible, IR, olfactory, and auditory signatures; novel sensor architectures and innovative algorithms for operating in dense urban clutter. New technologies in support of combat casualty care are sought. Particular areas of interest include battlefield portable high resolution imaging tools; automated tools that allow for the delivery of first aid such as IVs by untrained personnel or by the soldier himself; and advanced methods for treating injuries on the battlefield. Innovative concepts are sought for research efforts that lead to significant military capability improvement in the area of guidance and navigation. Of particular interest are technologies that allow precision navigation in GPS denied scenarios including jamming environments, building interiors, underground facilities, etc. Methods are sought that employ both natural and/or manmade signals of opportunity as well as novel next generation extremely compact INS technologies. In all of these areas, SPO efforts encompass the full range of activities required to develop complete prototype systems, from hardware development and characterization to algorithms, exploitation techniques, and full-scale system experimentation. Proposed efforts may address the development of prototype components, or systems; studies and modeling of

existing or proposed systems; and data collections that will overcome deficiencies in existing data.

**ARMY - NEW AND INNOVATIVE IDEAS FOR ADVANCED TECHNOLOGY
EXPLOITATION BROAD AGENCY ANNOUNCEMENT (BAA)**

Solicitation Number: Reference-Number- W9113M-05-0009

Posted Date: Nov. 9, 2004

Closing Date: Nov. 9, 2006

The U.S. Army Space and Missile Defense Command (USASMDC) Defense Advanced Research Projects Agency (DARPA) Office, Huntsville, AL, announces interest in receiving research and development proposals with technical and cost presentations. Proposals submitted should include new ideas and advanced and innovative concepts for current and emerging principles. A copy of the BAA may be accessed at <http://www.smdc.army.mil/Contracts/Contracts.html>

The technology proposal categories are:

a. Sensor Technologies Including:

1. Seismic/Radionuclide/Infrasound
2. Remote Sensing
3. Hyperspectral
4. Acoustics
5. RF
6. IR
7. Optics and Mirrors
8. Dual or Multiple Applications

b. Systems Technologies Including:

1. Development/Integration/Test
2. Space/Space Exploitation
3. Power/Propulsion
4. Guidance/Navigation/Control
5. Robotics/Miniaturization
6. Acquisition/Pointing/Tracking
7. Simulation/Modeling
8. Military Operations in Urban Terrain
9. BMC3I
10. Dual/Multiple Application

c. Hardware/Software Technologies Including:

1. Development
 2. Integration
 3. Dual/Multiple Application
 4. Simulation/Modeling
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ARMY - NEW AND INNOVATIVE IDEAS FOR FOR SPACE SCIENCE AND TECHNOLOGY BROAD AGENCY ANNOUNCEMENT (BAA)

Solicitation Number: Reference-Number- W9113M-05-0011

Posted Date: Dec. 21, 2005

Closing Date: Dec 21, 2006

1. The U.S. Army Space and Missile Defense Command (USASMDC) Space Division, Technology Directorate, Huntsville, AL, announces interest in receiving research, development and technology maturation proposals with technical and cost presentations. Proposals submitted should include new ideas for advanced and innovative concepts as well as prototype hardware and software for current and emerging space science and technology. The proposal categories below are based on the space operations mission areas:

a. Space Force Enhancement:

1. C4ISR across multiple echelons
2. Civil/commercial/foreign national space assets integration / interoperability
3. All weather early warning
4. Exploitation of space based imagery
5. Kill Assessment
6. POS/NAV systems
7. Integration with other Battlefield Systems
8. Space to Future Force interoperability

b. Space Control:

1. Space situational awareness
2. Software/system security
3. Information Operations Tools

c. Space Force Application:

1. Platforms
2. Sensors (including multi spectral/hyper spectral)
3. C4ISR

d. Space Support:

1. Sensors
 2. Communications
 3. Micro-satellites
 4. Mission configurable satellites
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NRL - WIDE BROAD AGENCY ANNOUNCEMENT

Solicitation Number: Reference-Number-BAA05-01

Posted Date: Dec. 29, 2005

Closing Date: This BAA is a continuously open announcement valid through Dec. 31, 2006.

The Naval Research Laboratory is interested in receiving innovative proposals that offer potential for advancement and improvement in the technical topic areas listed. The complete BAA including proposal preparation instructions, technical points of contact for each topic, and evaluation criteria is available at:

<http://heron.nrl.navy.mil/contracts/baa.htm>

LIST OF BAA TOPICS

- [BAA 53-05-01](#) HIGH FREQUENCY RADAR
- [BAA 53-05-02](#) RADAR TECHNOLOGY
- [BAA 55-05-01](#) ARTIFICIAL INTELLIGENCE TECHNOLOGIES
- [BAA 55-05-02](#) HIGH FREQUENCY RADIO WAVES IN SPACE
- [BAA 55-05-03](#) ADVANCED INFORMATION TECHNOLOGY
- [BAA 55-05-04](#) SCALABLE SOLUTIONS TO SCIENTIFIC PROBLEMS
- [BAA 56-05-01](#) VIS-IR GLASS WINDOWS AND HEAVY METAL OXIDE GLASSES
- [BAA 56-05-02](#) LOW LOSS, NEAR AND MID-IR TRANSMITTING FIBERS
- [BAA 56-05-03](#) LASER THREAT COUNTERMEASURE TECHNOLOGY
- [BAA 56-05-04](#) IMAGING SEEKER ADVANCED COUNTERMEASURES
- [BAA 56-05-05](#) FIBER OPTICS TECHNOLOGY
- [BAA 56-05-06](#) OPTICAL SCIENCES R&D
- [BAA 56-05-07](#) FIBER OPTICS SENSOR TECHNOLOGY
- [BAA 57-05-01](#) ELECTRONIC WARFARE OPTICAL PROCESSING TECHNIQUES AND DEMONSTRATION MODULES **TOPIC CANCELLED FOR 2006**
- [BAA 57-05-02](#) ADVANCED WEARABLE COMPUTING TECHNOLOGIES

- [BAA 57-05-03](#) INNOVATIVE ANTI-SHIP MISSILE - ELECTRONIC WARFARE SIMULATION TECHNOLOGY
- [BAA 57-05-04](#) ADVANCED SIMULATION FOR ELECTRONIC WARFARE
- [BAA 57-05-05](#) LARGE SCALE ORGANIC LIGHT EMITTING DIODE DISPLAYS
- [BAA 57-05-06](#) SHIPBOARD ELECTRONIC WARFARE
- [BAA 57-05-07](#) HIGH POWER MICROWAVE TECHNOLOGY
- [BAA 57-05-08](#) TOPICS IN ELECTRONIC WARFARE TECHNIQUES DEVELOPMENT
- [BAA 61-05-01](#) DEVELOPMENT OF MICROMACHINED SENSORS FOR PHYSICAL, CHEMICAL AND BIOCHEMICAL APPLICATIONS
- [BAA 61-05-02](#) COMBUSTION DYNAMICS - SUPPRESSION
- [BAA 61-05-03](#) APPLICATIONS OF MOLECULAR BIOLOGY, BIOCHEMISTRY, ANALYTICAL CHEMISTRY AND ADVANCED LASER TECHNIQUES
- [BAA 61-05-04](#) INNOVATIVE APPLICATIONS OF MAGNETIC RESONANCE
- [BAA 61-05-05](#) FABRICATION, CHARACTERIZATION AND STRUCTURAL ANALYSIS OF AMORPHOUS, NANOSCALE MATERIALS FOR POWER SOURCES
- [BAA 61-05-06](#) COMPUTATIONAL CHEMISTRY
- [BAA 61-05-07](#) MONITORING NUCLEAR WASTE IN THE ARCTIC
- [BAA 63-05-01](#) SPINS IN SEMICONDUCTORS
- [BAA 63-05-02](#) QUANTUM INFORMATION SCIENCE AND TECHNOLOGY
- [BAA 63-05-03](#) CHEMICAL, BIOCHEMICAL, AND PHYSICAL SENSING MATERIALS, TRANSDUCERS, AND SENSOR SYSTEMS
- [BAA 63-05-04](#) MATERIALS SCIENCE OF ENERGETIC THIN-FILM DEPOSITION PROCESSES
- [BAA 63-05-05](#) SUPERCONDUCTING MATERIALS
- [BAA 63-05-06](#) MATERIALS PERFORMANCE, PROCESSING, AND MODELING
- [BAA 63-05-07](#) COMPUTATIONAL MATERIALS SCIENCE
- [BAA 63-05-](#) TUNABLE ELECTROMAGNETIC DIELECTRICS

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- BAA 64-05-01 HIGH PERFORMANCE COMPUTING ON MASSIVELY PARALLEL ARCHITECTURES
- BAA 67-05-01 BASIC AND APPLIED RESEARCH IN HIGH TEMPERATURE PLASMAS
- BAA 68-05-01 RF VACUUM ELECTRONICS
- BAA 68-05-02 RADIATION EFFECTS RESEARCH
- BAA 69-05-01 RESEARCH IN BIO/MOLECULAR SCIENCE AND ENGINEERING
- BAA 71-05-01 PHYSICAL/STRUCTURAL/ACOUSTICS
- BAA 71-05-02 ACOUSTIC SIMULATION, MEASUREMENTS AND TACTICS
- BAA 71-05-03 ENVIRONMENTAL IMPACT ON ACTIVE ACOUSTIC SYSTEMS
- BAA 71-05-04 ACTIVE SONAR SIGNAL PROCESSING BASED ON TIME-REVERSAL OR PHASE-CONJUGATION
- BAA 72-05-01 REMOTE SENSORS AND IMAGING SYSTEMS
- BAA 72-05-02 OPTICAL INTERFEROMETRY
- BAA 72-05-03 OPTICAL REMOTE SENSING OF THE COASTAL REGIME
- BAA 72-05-04 LOW FREQUENCY RADIO INTERFEROMETRY
- BAA 72-05-05 COASTAL REMOTE SENSING CLASSIFICATION
- BAA 72-05-06 OCEANOGRAPHIC REMOTE SENSING
- BAA 72-05-07 REMOTE SENSING OF THE LITTORAL ZONE
- BAA 72-05-08 PASSIVE MICROWAVE REMOTE SENSING
- BAA 73-05-01 OCEAN DYNAMICS AND PREDICTION OCEANOGRAPHY
- BAA 74-05-01 SEAFLOOR SCIENCES
- BAA 74-05-02 AIRBORNE AND SHIPBOARD DATA ACQUISITION AND ANALYSIS
- BAA 74-05-03 MAPPING, CHARTING, AND GEODESY

- [BAA 75-05-01](#) ATMOSPHERIC EFFECTS, ANALYSIS, AND PREDICTION
- [BAA 76-05-01](#) RESEARCH INTO SPACE - ITS IMAGING AND MODELING
- [BAA 82-05-01](#) SPACECRAFT TECHNOLOGY
- [BAA 82-05-02](#) TACTICAL COMMUNICATIONS