ELIMINATE REDUNDANCY

FOSTER COLLABORATION

STIMULATE INNOVATION

State *of the* INFORMATION ANALYSIS CENTERS

2018

TABLE OF CONTENTS

03 LETTER FROM THE DIRECTOR

05 ABOUT THE DoD IAC
- 6 Service Overview
- 7 Value of the DoD IAC

07 CONTRIBUTIONS to the Science & Technology (S&T) Communities of Interest (COIs)

11 FY18 SUMMARY OF DoD IAC PRIME ACTIVITY

13 FY18 INNOVATIVE WORK

17 WHO USES THE DoD IAC

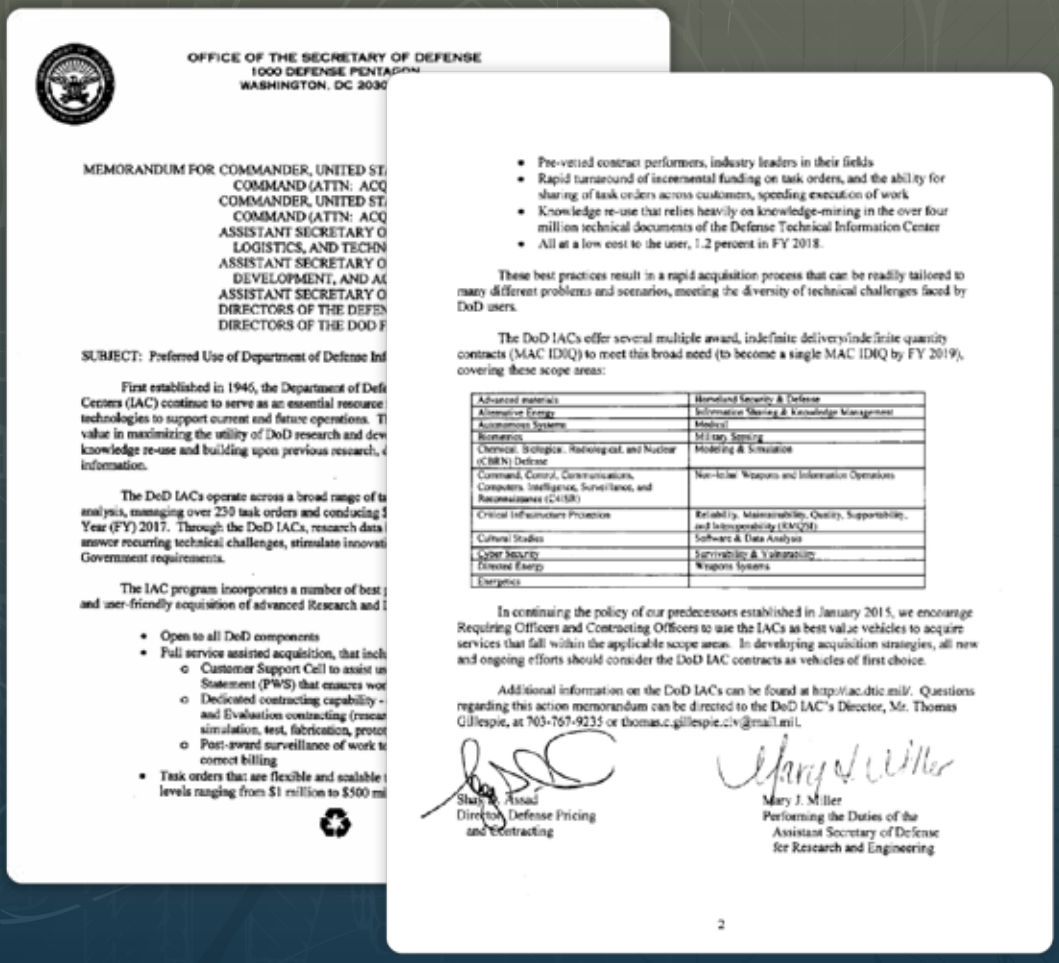
19 S&T FIELD ADVISOR PROGRAM

21 MULTIPLE AWARD CONTRACTS (MACs)

22 DoD IAC PMO

PREFERRED USE
OF DoD IAC CONTRACTS MEMO

A new Preferred Use of DoD IAC Contracts memo was signed by Mr. Shay Assad, Director, Defense Pricing and Contracting (DPAC) and co-signed by Ms. Mary Miller, Performing the Duties of the Assistant Secretary of Defense for Research and Engineering ASD (R&E) on 27 July 2018. Both Mr. Assad and Ms. Miller recognize the DoD IAC program as a model for rapid and customer friendly acquisition of advanced Research and Development (R&D) services that can be readily tailored to many different problems and scenarios, meeting the diversity of technical challenges faced by DoD customers.



OFFICE OF THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 2030

MEMORANDUM FOR COMMANDER, UNITED ST
COMMAND (ATTN: ACQ
COMMANDER, UNITED ST
COMMAND (ATTN: ACQ
ASSISTANT SECRETARY O
LOGISTICS, AND TECHN
ASSISTANT SECRETARY O
DEVELOPMENT, AND AC
ASSISTANT SECRETARY O
DIRECTORS OF THE DEFEN
DIRECTORS OF THE DOD F

SUBJECT: Preferred Use of Department of Defense Inf

First established in 1946, the Department of Defe
Centers (IAC) continue to serve as an essential resource
technologies to support current and future operations. T
value in maximizing the utility of DoD research and dev
knowledge re-use and building upon previous research,
information.

The DoD IACs operate across a broad range of t
analysis, managing over 250 task orders and conducting
Year (FY) 2017. Through the DoD IACs, research data
answer recurring technical challenges, stimulate innovati
Government requirements.

The IAC program incorporates a number of best
and user-friendly acquisition of advanced Research and

- Open to all DoD components
- Full service assisted acquisition, that inclu
  - Customer Support Cell to assist u
    Statement (PWS) that ensures wo
  - Dedicated contracting capability -
    and Evaluation contracting (resear
    simulation, test, fabrication, protot
  - Post-award surveillance of work t
    correct billing
- Task orders that are flexible and scalable
  levels ranging from $1 million to $500 mi

- Pre-vetted contract performers, industry leaders in their fields
- Rapid turnaround of incremental funding on task orders, and the ability for sharing of task orders across customers, speeding execution of work
- Knowledge re-use that relies heavily on knowledge-mining in the over four million technical documents of the Defense Technical Information Center
- All at a low cost to the user, 1.2 percent in FY 2018.

These best practices result in a rapid acquisition process that can be readily tailored to many different problems and scenarios, meeting the diversity of technical challenges faced by DoD users.

The DoD IACs offer several multiple award, indefinite delivery/indefinite quantity contracts (MAC IDIQ) to meet this broad need (to become a single MAC IDIQ by FY 2019), covering these scope areas:

Advanced materials	Homeland Security & Defense
Alternative Energy	Information Sharing & Knowledge Management
Autonomous Systems	Medical
Biometrics	Military Sensing
Chemical, Biological, Radiological, and Nuclear (CBRN) Defense	Modeling & Simulation
Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)	Non-lethal Weapons and Information Operations
Critical Infrastructure Protection	Reliability, Maintainability, Quality, Supportability, and Interoperability (RMQSI)
Cultural Studies	Software & Data Analysis
Cyber Security	Survivability & Vulnerability
Directed Energy	Weapons Systems
Energetics	

In continuing the policy of our predecessors established in January 2015, we encourage Requiring Officers and Contracting Officers to use the IACs as best value vehicles to acquire services that fall within the applicable scope areas. In developing acquisition strategies, all new and ongoing efforts should consider the DoD IAC contracts as vehicles of first choice.

Additional information on the DoD IACs can be found at http://iac.dtic.mil/. Questions regarding this action memorandum can be directed to the DoD IAC's Director, Mr. Thomas Gillespie, at 703-767-9235 or thomas.c.gillespie.civ@mail.mil.

Shay D. Assad
Director, Defense Pricing
and Contracting

Mary J. Miller
Performing the Duties of the
Assistant Secretary of Defense
for Research and Engineering

2

Furthermore, Mr. Assad and Ms. Miller encourage Requiring and Contracting Officers to use the DoD IAC as best value vehicles to acquire services that fall within the applicable scope areas and to consider the DoD IAC contracts as vehicles of first choice.

LETTER FROM THE DIRECTOR

THOMAS GILLESPIE,
Director, DoD Information Analysis Centers (IAC)

This past fiscal year has seen several noteworthy changes in the DoD R&D landscape. First and foremost is the re-organization of the former Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) into two co-equal USD positions: Research & Engineering (R&E) and Acquisition & Sustainment (A&S), headed by the Honorable Dr. Michael Griffin and the Honorable Ms. Ellen Lord, respectively. Within this new USD (R&E) two new Director of Defense positions were created: a Director of Defense, Research & Engineering, for Research & Technology (DDR&E, R&T) and a Director of Defense, Research & Engineering, for Advanced Capabilities (DDR&E,AC). The DoD IAC, along with DTIC, fall under the former of these, DDR&E, R&T, headed by Dr. Milan (Mitch) Nikolich. The DoD IACs operate under the auspices of USD(R&E) while reporting through DDR&E, R&T.

With this re-organization a heightened emphasis upon the Department's R&D efforts will result as the DoD strives to preserve, and grow, the nation's edge in developing and fielding innovative technologies in defense applications. The first fruits of this heightened emphasis are ten technology focus areas in which Dr. Griffin has a keen interest in tracking Department investment. Investment in these areas via the DoD IAC contract vehicles are represented on page 8.

Within the DoD IAC program itself a significant milestone in our structure was accomplished: the award of the DoD IAC MAC was completed in September 2018, finishing a two year effort to bring this $28 billion dollar contract to fruition. This is the culmination of a decades-long evolution of the DoD IAC's contract structure, from ten single-award contracts (with no Small Business primes), to three MACs, to one single MAC that covers the full range of DoD technologies and has Small Business primes and set-aside accommodations.

Another milestone reached by the DoD IAC program this year is the highest level of revenue processing to perform R&D work since 2012: $1.882 billion dollars of R&D work was funded through the DoD IAC contract vehicles in FY18, exceeding the 2012 level of $1.854 billion. Given the DoD IAC's consistent savings of approximately 11% on each Task Order, this represents savings to the Department of about $200 million dollars each year.

With this surge in R&D investment via the DoD IAC, the consolidation of three MACs into a single competitive MAC, and the increased interest in smart investment in innovative technologies, I expect the DoD IAC program to continue to grow in FY19.

The Facts Behind the IACs

ESSENTIAL STI RESOURCE

Established in 1946, the IACs have provided rapid access to relevant Scientific and Technical Information (STI) to answer critical questions in support of the DoD mission. Today, the DoD IAC helps customers utilize existing STI and drive innovation across the DoD with technical analysis and development of materiel solutions.

BROAD FOCUS AREAS

The DoD IAC established 22 Technical Focus Areas (TFAs), each critical to the needs of the DoD, and that are mapped to one of three domain areas: Defense Systems, Cyber Security and Information Systems, and Homeland Defense and Security.

UNPARALLED EXPERTISE

The DoD IAC provides customers with access to information, knowledge, and best practices via a network of Subject Matter Experts (SMEs) that are available to answer technical questions and perform specialized research and analysis.

COMPREHENSIVE SERVICES

The DoD IAC is chartered by the DoD to provide Research & Analysis and Agile & Scalable Contracting services through integrated Scientific and Technical Information (STI) development and dissemination, studies and analyses, and other scientific and technical activities.

STREAMLINED APPROACH

In 2018, the DoD IAC consolidated the three Multiple Award Contracts (MACs) into one IAC MAC with a $28B ceiling. Instead of three MACs divided into three domain areas, the IAC MAC is a single MAC encompassing all 22 TFAs. As a result, the IAC MAC will provide greater flexibility and benefits.

ABOUT
THE DoD IAC

SERVICES OVERVIEW

The DoD IAC is chartered by the DoD to provide Research & Analysis and Agile & Scalable Contracting services through integrated Scientific and Technical Information (STI) development and dissemination, studies and analyses, and other unique scientific and technical activities.

Today, the DoD IAC helps researchers, engineers, scientists, and program managers utilize existing STI to drive innovation across the DoD with technical analysis and development of materiel solutions to advance the DoD's warfighting capabilities. Through our unparalleled services, the DoD IAC has helped accelerate the acquisition lifecycle and enable customers to meet their needs in a cost-effective, efficient, and compliant manner.

RESEARCH & ANALYSIS (R&A) SERVICES

Our Research & Analysis services provide access to information, knowledge, and best practices from the Government, industry, and academia to fulfill the mission and objectives applicable to the DoD RDT&E (Research, Development, Test & Evaluation) and Acquisition communities' needs. These services are provided by the DoD IAC's three Basic Centers of Operation (BCO); Cyber-Security and Information Systems (CS), Defense Systems (DS), and Homeland Defense and Security (HD).

Technical Inquiry & Extended Technical Inquiry

The DoD IAC BCOs efficiently access the comprehensive repository of important STI that has been generated over the past half century and make it available on demand to the DoD and greater S&T community. The BCOs provide access to this knowledge and information via a consortium of Subject Matter Experts (SMEs) (scientists, engineers, and information specialists) that are available to answer technical questions and perform specialized research and analysis that includes:

LITERATURE SEARCHES	***ANSWER TECHNICAL QUESTIONS***	***DOCUMENT REQUESTS***	***REFERRAL TO SME(s)***

Technical Inquiry: the BCOs will provide up to four labor hours to answer customer's technical questions at no cost.

Extended Technical Inquiry: the BCOs will provide between five and 160 labor hours of research with a $25K maximum ceiling when funded by a customer via a MIPR, DD1155, or P-Card.

AGILE & SCALABLE CONTRACTING SERVICES

DoD IAC's Agile & Scalable contracting services are a role model for low cost, fast, and flexible contracting that support R&D efforts of varying size and scope going from solicitation to award in 3-4 months. These services offer technical capabilities which can be called upon to facilitate the use of existing STI as well as extensions and expansions thereof, which is then used to support studies,

> ***"The Navy continues to leverage the DoD IAC's contracts to meet aggressive design and integration schedules that could not easily be met by any other contracting solution."***
>
> MR. KIRK TALBOTT,
> NSWC CRANE

analyses, data gathering, and other unique R&D activities. They support all military Services, Combatant Commands (CCMDs), DoD Agencies, Federal Government partners, and offer vetted companies with proven accomplishment across the DoD IAC's 22 TFAs. These services encompass both classified and unclassified environments, with performance occurring in CONUS and OCONUS. Most importantly, these services result in the production of new re-useable STI, which is added to the appropriate DTIC / IAC STI collection, making it readily available to the DoD and greater S&T community.

IAC MAC Task Orders: support high-dollar R&D projects that provide studies, complex analysis, engineering, and technical services.

BCO Task Orders: designed to support R&D studies and analysis or prototyping requirements that are less than $1M and can be completed in 12 months or less.

VALUE OF THE IAC

In addition to a number of best practices outlined in the Preferred Use of the DoD IAC Contracts memo dated 27 July 2018, the DoD IAC program's services provide a significant value by eliminating redundancy, fostering collaboration, and stimulating innovation.

ELIMINATE REDUNDANCY

The DoD IAC helps eliminate redundancy by providing our customers with relevant STI from historical and on-going research. Given a defined S&T effort, the DoD IAC will scour numerous data sources to identify and provide customers with relevant STI from historical and on-going research. This allows our customers to capitalize on available STI and maximize their budget by leveraging information, knowledge, and tools that were used in the development of similar solutions throughout the world. Additionally, the DoD IAC eliminates redundancy by finding important STI and uploading it to DTIC's expansive R&E Gateway where members of the DoD and greater S&T community can access it. By sharing the STI findings, those efforts are known and not needlessly repeated. The DoD IAC regularly communicates relevant S&T research efforts, findings, and trends to the DoD and greater S&T community to keep them informed, thus eliminating redundancy. For example, each month, the DoD IAC uploads more than 2,000 elements of STI to DTIC's R&E Gateway for reuse by the S&T community. Additionally, the DoD IAC shares S&T findings in publications such as bi-weekly newsletters, monthly podcasts, and quarterly journals. Lastly, the IAC MAC provides flexible terms that allow existing task order customers the ability to add teaming partners. This helps eliminate redundancy by allowing multiple organizations to benefit from the work performed by the DoD IAC.

FOSTER COLLABORATION

The DoD IAC helps foster collaboration among the DoD and greater S&T community by facilitating interactions between our customers and our consortium of SMEs who assist customers with technical questions and perform specialized research and analysis. Our SMEs provide customers with access to information, knowledge, and best practices from the Government, industry, and academia. Additionally, the DoD IAC develops information research products that serve as a collaborative forum to inform the DoD and greater S&T community about important S&T topics. For example, our quarterly journals regularly feature joint articles from across various DoD S&T COIs and State of the Art Reports (SOARs) are developed out of a collaborative panel of SMEs across various organizations. Finally, the DoD IAC participates in, hosts, and promotes key technical conferences, forums, and training that provides a platform for collaboration among the DoD and greater S&T community.

STIMULATE INNOVATION

The DoD IAC helps stimulate innovation by performing RDT&E services, other R&D-related analytical services, and development of doctrine, tactics, or plans on customer-funded task orders under our agile and scalable contracting platforms. Through these task orders, the DoD IAC is helping researchers, engineers, scientists, and program managers utilize existing STI to drive innovation and expedite the development and deployment of materiel solutions to the warfighters. Since Fiscal Year 2015, the DoD IAC performed over $4.6 billion in R&D support to the Department and other members of the S&T community.

CONTRIBUTIONS
TO THE S&T COIs

For the last seven decades, the DoD IACs have consistently provided expertise to the nation's toughest R&D challenges, brought speed and agility to meet urgent warfighter needs, and provided greater benefit to the S&T community-at-large by continually facilitating exchange, reuse, and innovative application of existing STI. The DoD IAC has evolved and kept up with the pace of the rapidly evolving S&T landscape by anticipating and responding to DoD IAC customer needs shaped by technological, political, and cultural changes throughout the years. The DoD IAC program has remained consistent in providing the same benefit to the DoD R&E community, while continuously assessing and advancing its capabilities as the DoD's threat landscape and S&T priorities evolve.

The DoD IAC's services currently support the ***22 Technical Focus Areas***, align to the DoD's S&T Thrust Areas under the ***OSD's Reliance 21 Operational Framework & COIs***

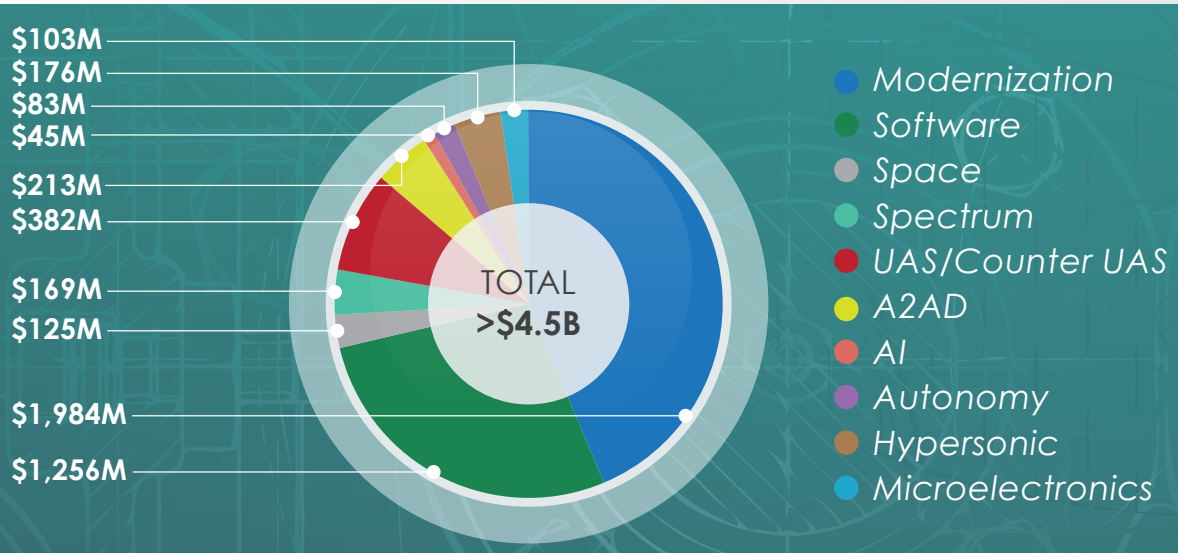
17 *Communities of Interest*

22 *Technical Focus Areas*

They are designed to bring speed, agility, and flexibility to advance technical superiority in existing and emerging priorities.

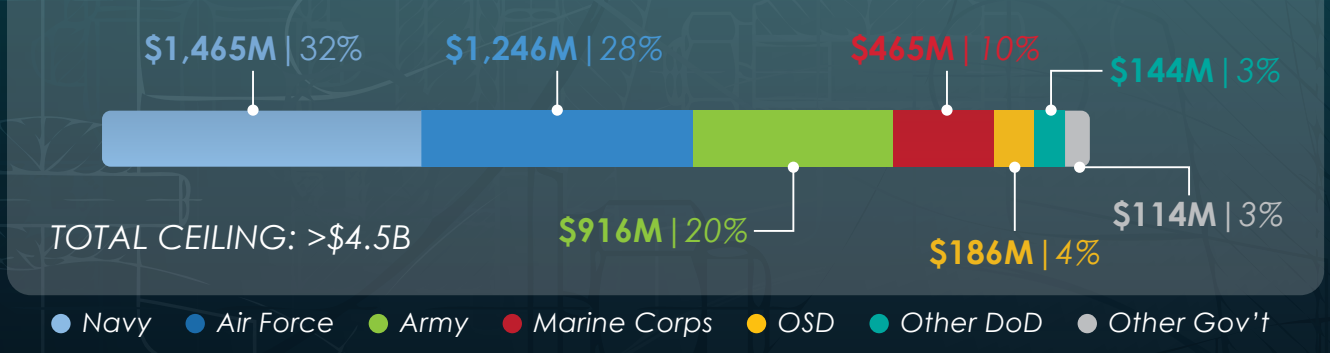
Since 2015, the DoD IAC program has awarded over $4.5B in R&D support across the following USD (R&E) identified Thrust Areas:
Illustrated in the figure below.

Awarded Ceiling by Thrust Area



The DoD IAC supports all military Services, the CCMDs, DoD Agencies, and other federal government partners. The following illustrates the awarded ceiling by customer across these Thrust Areas:
Illustrated in the figure below.

Awarded Ceiling by Customer



EXAMPLES OF CONTRIBUTIONS THAT THE DoD IAC IS MAKING TO THE IDENTIFIED THRUST AREAS:

Thrust Area: Anti-Access/Area Denial (A2/AD)

Customer: Office of Secretary of Defense, Strategic Capabilities Office

Summary of Effort: To address the expanding A2/AD threat, the DoD IAC program is assisting OSD Strategic Capabilities Office (SCO) in the development of alternative low cost/ease-of-entry solutions that provide additional capabilities to U.S. forces in blue water and littoral operating areas. Specifically, the SCO Sea Stalker project will help address these expanding capabilities by implementing low-cost persistent maritime platforms, such as buoyancy controlled instruments, with various payloads. The comprehensive goal is to demonstrate spatial and temporal presence in oceanic regions of interest that is continuous, autonomous, and actionable.

Thrust Area: Artificial Intelligence

Customer: Air Force Life Cycle Management Center (AFLCMC) Development Planning

Summary of Effort: The DoD IAC program provides AFLCMC with developmental planning support in the areas of research, development, and experimentation with tactical cloud technologies focused on delivering artificial intelligence and autonomy to operational assets within the A2/AD environment. This includes experimentation of automated target recognition capabilities, space situational awareness, open source intelligence, and battle damage assessments. These technologies are being experimented with in first of a kind proof-of-concept live-fly airborne tests. This effort is also providing data science expertise to bring artificial intelligence and process efficiencies to intelligence analysts in ground stations. Preliminary ventures in this field have resulted in streamlining a six hour analyst processing into nine second automated processing.

Thrust Area: Autonomy

Customer: Air Force Institute of Technology Autonomy and Navigation Technology (ANT) Center

Summary of Effort: The DoD IAC program is assisting the ANT Center with advanced research in navigation, autonomy, and cooperative controls with the goal of developing navigation technologies to allow U.S. forces to "navigate anywhere, anytime, using anything". This effort focuses on developing autonomy and navigation algorithms, continuous performance of autonomy and navigation research requirements, development of autonomy navigation software, providing software tool development and technical support, building research prototypes, conducting prototype testing, providing UAS flight test support, and providing technical support for the Autonomy and Navigation Technology Center Laboratory.

Thrust Area: Hypersonics

Customer: Program Executive Office Missiles and Space (PEO MS)

Summary of Effort: The DoD IAC program provides PEO MS's Lower Tier Air and Missile Defense Sensor program with continuous monitoring of current threat sets for the PATRIOT weapon system to include: Tactical Ballistic Missile, Aircraft, Cruise Missile, Unmanned Air Vehicle, Anti-Radiation Missile (ARM), and helicopter threats. This effort also provides capability options for technologies such as hypersonic threats. Such analysis will ensure the future sensor to be developed with all applicable threat data to increase performance.

Thrust Area: Microelectronics

Customer: Air Force Research Laboratory, Aerospace Components & Subsystems Technology Division, Optoelectronic Technology Branch and Electro-Optic Components Branch

Summary of Effort: The IAC program assists AFRL's Optoelectronic Technology Branch and Electro-Optic Components Branch with analyses of military and commercial developmental semiconductor devices with emphasis on emerging electronic, plasmonic, and photonic technology. Scientific and technical information produced under this effort includes technical analyses related to specific device materials such as gallium phosphide (GaP), zinc selenide (ZnSe), and boron

nitride (BN), and more broadly, semiconductor device applications. The benefits of this research include applications for nearly every airborne platform including the Joint Strike Fighter and Long Range Strike Bomber, spacecraft such as Wideband Global SATCOM and the Global Positioning System satellites, as well as ground-based and modular sensing packages as it pertains to size, weight, and power considerations.

Thrust Area: Software

Customer: The Department of Homeland Security Chemical Security Analysis Center

Summary of Effort: The DoD IAC program developed probabilistic software tools that allow Government and Government-approved analysts to estimate the potential impacts of CBRN terrorism attacks, as well as evaluate potential mitigation strategies. The impact of this work is that a range of Government entities, including the Department of Homeland Security, the Defense Threat Reduction Agency, the Centers for Disease Control, the Federal Bureau of Investigation, the Food and Drug Administration, and Department of Energy National Labs, rely on a combination of these software tools and the expertise of DHS analysts using these software tools to help protect our nation in areas ranging from Infrastructure Security, to Event Planning, to Food Defense, to Medical Countermeasure Stockpiling. The probabilistic software tools have been used to efficiently accelerate Material Threat Determinations and Material Threat Assessments in support of the Public Health Emergency Medical Countermeasures Enterprise efforts to plan the formulation and deployment of the Strategic National Stockpile, as well as provide risk-based information for the regulation of the chemical industry under the Chemical Facility Antiterrorism Standards program. The software tools and associated CBRN Terrorism Risk Assessments developed under this effort also have an international impact, as evidenced by ongoing interactions with both the Canadian and British Governments.

Thrust Area: Space

Customer: U.S. Strategic Command (USSTRATCOM)

Summary of Effort: The DoD IAC program is supporting the Capability and Resource Analysis Division with space campaign modeling, simulation and analysis, and the Mission Assurance Division with assessing the survivability of the assets that support space situational awareness and space launch. Survivability primarily focuses on electromagnetic pulse threat environments and assessments include evaluation of engineering design, construction, and maintenance of facilities.

Thrust Area: Spectrum

Customer: Army Spectrum Management Office (ASMO)

Summary of Effort: The DoD IAC program provides engineering analysis and research to the U.S. Army Chief Information Officer/06 (CI0/06) to define and defend the Army's present and future, national and international need for access to the Radio Frequency (RF) spectrum. This is to enable the operation of Army capabilities such as the Joint Tactical Radio System and the Warfighter Information Network- Tactical. This effort provides analysis and research efforts to substantiate the Army's need to retain economically valuable spectrum for exclusive/primary military use.

Thrust Area: Unmanned Aircraft Systems (UAS) / Counter UAS

Customer: Naval Air Systems Command, Program Executive Office, Unmanned Aviation and Strike Weapons (PEO (U&W))

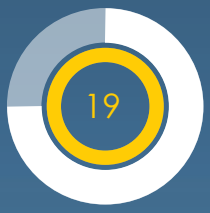
Summary of Effort: The DoD IAC program supports the following PMAs within PEO (U&W): PMA266 – Navy & Marine Corps Tactical Multi-Mission Unmanned Air Systems (UAS), PMA268 – Navy Unmanned Combat Air System; PMA263 – Navy & Marine Corps Small Tactical Unmanned Air Systems, and PMA262 – Persistent Maritime Unmanned Aircraft Systems. PMA266 is the primary user, and we provide engineering and logistics SMEs. Our SMEs are integrated with every IPT and provide key expertise in such areas as systems engineering, avionics engineering, sensor development and integration, manufacturing, UAS sense and avoid, technical publications, and cybersecurity. The PMA's primary program of record is the MQ-8 UAS system with the MQ-8C nearing the beginning of Operation Testing (OT). Other current projects include integration of the ZPY-8 radar onto the MQ-8C, fielding of the ZPY-4 radar on the MQ-8B, and OT of the COBRA multi-spectra sensor for MIW. Other UAS systems the PMA is currently responsible for include MUX (follow on ISR platform for USMC) and MQ-9 Reaper ISR services for the USMC.

FY18 SUMMARY

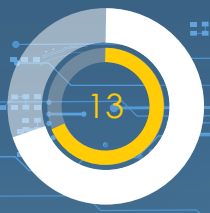
OF DoD IAC PRIME ACTIVITY

The DoD IAC contracts are populated by a select group of prime contractors who are industry leaders in their respective fields and who have been competitively screened for placement within the DoD IAC program.

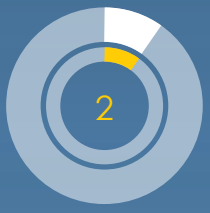
$599.6M
ALION



$497.3M
BOOZ ALLEN HAMILTON



$418.7M
WYLE



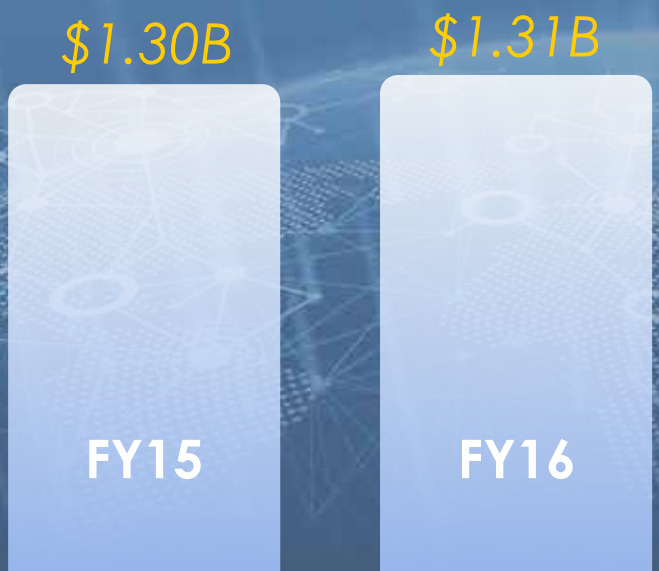
$58.7M
GTARC

$23.3M
URS

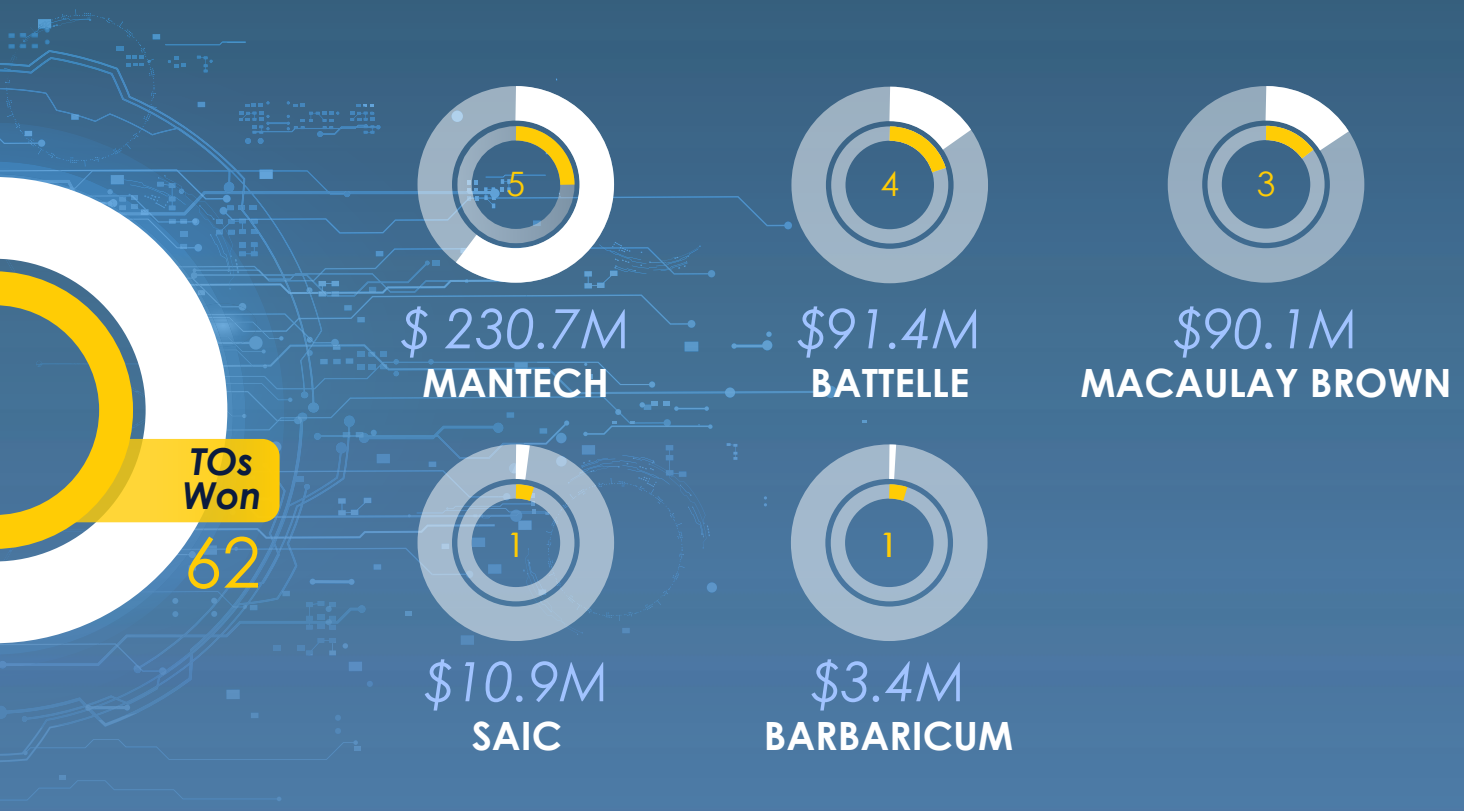
FY18 FINANCIAL

SUMMARY

The DoD IAC performed over $1.88 billion in R&D work throughout FY18, exceeding both the initial estimate for the year and the past three fiscal years



By competitively pre-screening vendors for a contract with the DoD IAC program, we ensure that government users of the MACs will get the best performers the U.S. defense industry has to offer. This substantially reduces the risk of non-performance and other problems.



"The most outstanding feature of the IAC PMO was the Customer Support Cell (CSC) Team. The CSC served the purpose of being my ombudsman, advocate and facilitator. The CSC answered all my questions, provided exceptional advice and helped guide me in the development of all required documents. The result was eliminating process delays due to incomplete or insufficient submissions. Without a doubt, the CSC made the contracting experience much more effective and efficient."

MR. KIRK TALBOTT, NSWC CRANE

FY18
INNOVATIVE WORK

DS TAT MAC
QUAD FOR SQUADS - INSTANTEYE (AECOM)

Team AECOM (Evolving Resources, Inc) was instrumental in helping the Marine Corps achieve the Commandant's goal to provide every deploying Marine Corps squad a quadcopter. This involved developing training to educate Marines on the latest operational procedures for small Unmanned Aircraft Systems (sUAS). The Navy and Marine Corps sUAS Program Office's Group 1 Integrated Product Team (IPT) is responsible for several fielded small ISR systems such as RQ-IIB Raven, RQ-12A Wasp IV, RQ-20B PUMA, and Vertical Take-Off and Landing (VTOL) systems, such as SkyRanger and InstantEye. These systems support Navy and Marine Corps forces at home and abroad during routine, contingency, and combat operations. These systems are primarily commercial off-the-shelf and are being used in new and innovative ways with rapidly progressing sensing technologies available in increasingly smaller packages. To react quickly and effectively to users' needs, PMA-263 must continue to evolve its products and support strategies. Team AECOM, in partnership with PMA-263, developed training to educate individual users on the latest operational procedures for small Unmanned Aircraft Systems.

INNOVATION ON THE MODERN BATTLEFIELD - A US MARINE GETTING HANDS-ON TRAINING ON THE INSTANTEYE QUADCOPTER

Team AECOM provides a multitude of specialized services. These services include entry-level and unit-level training, capabilities briefs, demonstrations, fleet assistance, as well as on site subject matter expertise. Training occurs at the established Training and Logistics Support Activities (TALSA) located at Camp Pendleton, CA and Camp Lejeune, NC as well as Mobile Training Teams (MTTs) throughout CONUS & OCONUS, as directed. This training allows the user community to stay up-to-date with the most current changes and be knowledgeable in the latest technologies available. In response to the Commandant of the Marine Corps' goal to provide every deploying Marine Corps squad with a quadcopter, Team AECOM rapidly developed and conducted the first Quad for Squads training from 26 Feb – 2 Mar 2018 in 29 Palms California. In five days the TALSA team successfully certified 40 Marines from primarily infantry military occupational specialties in the employment of the Mk-2 Gen3 InstantEye system. This newly developed method of training, in partnership with Team AECOM, is still in place today and utilized by our Marine Expeditionary Force (MEF) on the west coast out of Camp Pendleton. The 1st Marine Division Public Affairs team and a CBS correspondent from San Diego observed the training and created videos that appeared on television and the internet in support of the Quad for Squads training.

DS TAT MAC

NETWORKING ON-THE-MOVE-AIRBORNE INCREMENT II (ALION SCIENCE & TECHNOLOGY)

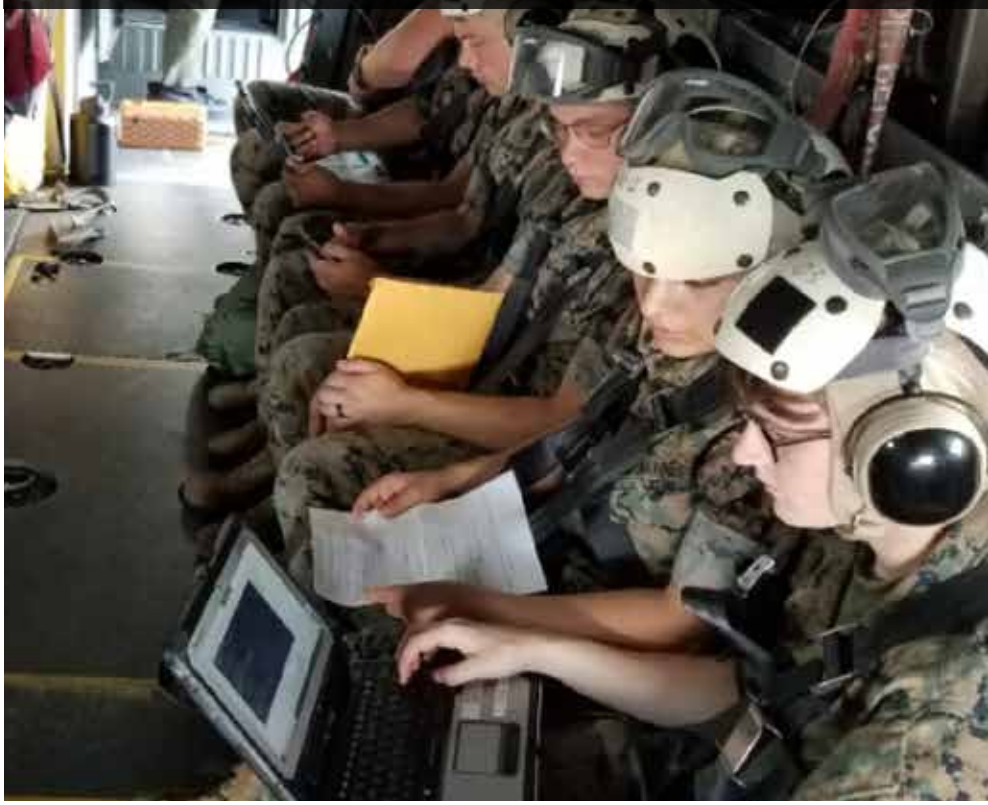
In response to a U.S. Marine Corps Urgent Universal Need Statement for Special Purpose Marine Air Ground Task Force - Crises Response en-route Command, Control, Communication and Computer on the Marine Corps MV-22 Osprey, Alion Science and Technology, in partnership with DS TAT and Space and Naval Warfare Systems Center Pacific (SSC PAC), supported Marine Corps Systems Command and Naval Air Systems Command by enabling the Satellite Communication capability on the MV-22 to provide network voice, email, video, and chat.

These capabilities would give the operational customers the ability for real-time mission planning, collaboration, and situational awareness during their missions. This effort includes prototype design and test to meet MV-22 MIL-STD-810G, 704 and 461 requirement; ground and over-the-air testing support, and operator training course development and training support.

"The support and technical guidance provided by the DoD IAC was above board. DoD IAC provide exceptional advice and guidance on the logistics of ensuring our task order attained final award. Our task order is an agency wide initiative that is being leveraged by our agency and other federal mission partners."

RABINA MOORE, OCIO

GROUND COMMUNICATIONS SPECIALIST MARINES USE THE NETWORKING ON-THE-MOVE-AIRBORNE INCREMENT II SYSTEM ON AN MV-22 OSPREY DURING A FLIGHT AT MARINE CORPS AIR STATION NEW RIVER, NORTH CAROLINA. (U.S. MARINE CORPS PHOTO COURTESY OF CHRIS WAGNER)



HD TAT MAC

PROGRAM ON IRREGULAR WARFARE AT THE NATIONAL DEFENSE UNIVERSITY

Under HD TAT, Strategic Analysis, Inc. supports the Program on Irregular Warfare (PIW) at the Institute for National Strategic Studies of the National Defense University. The purpose of PIW is to strengthen the relationship between academic research and the Special Operations Forces (SOF) community, with the intent of developing human capital, applying non-traditional processes and analytic methodology to current problem sets. PIW does that by conducting in-depth research coordinated with academic institutions that drive discussion on the policy related to irregular warfare and SOF, as well as conducting workshops and training modules on emerging topics of interest in order to more fully educate the relevant community of practitioners and help in the development of U.S. strategies and policy. The research Strategic Analysis has provided to PIW includes regular trend analysis, issue briefings, workshops, and reading lists. Topics include new technologies such as big data, blockchain technology, and cyber, as well as detailed case studies and regional studies. Demand is high for PIW products within their community of interest, and consistently receive positive feedback from consumers.

CS TAT MAC

FRIGATE PROGRAM OFFICE CYBERSECURITY AND ENGINEERING - (ENGILITY)

Engility, in partnership with the CS TAT MAC, is helping the Navy build cybersecurity into the core network architecture of ships. Naval Sea Systems Command's PMS-515 is developing new capabilities for the future Frigate, including support for distributed lethality in a multi-mission environment. As this is the first full and open shipbuilding competition for the U.S. Navy in the last 30 years, PMS-515 had to incorporate architecture requirements never before included in the original shipbuilding specifications. This is in keeping with the Navy's mandate to affordably integrate cybersecurity into all future products. In order to develop a survivable platform to support a variety of sensor, processing, and combat systems, PMS-515 must establish a platform cybersecurity architecture that is capable of preventing, detecting, characterizing, and mitigating cyber-attacks on our shipboard networks. Therefore, as part of its cybersecurity strategy, PMS-515 is incorporating secure systems engineering from the keel-up for the first time instead of bolting on cyber defenses after the ship and its networks have been built. Engility took a model-based systems engineering approach to convert architecture requirements into digital models that can be easily represented in a variety of viewpoints from a viewpoints from a single source digital repository. By maintaining a data-oriented model, PMS-515 is able to verify proposed designs against the model and validate requirements. The model-based environment also helps PMS-515 to assess the architecture impact on mission effectiveness of any proposed design/requirements/architecture changes. PMS-515 can also conduct design trade-off analyses using modeling and simulation data, rather than relying on paper-based studies.

DEFENSE SYSTEMS IAC (DSIAC)

THE AIR FORCE SCIENCE & TECHNOLOGY 2030 INITIATIVE

In September 2017, Secretary of the U.S. Air Force, Heather Wilson, launched an initiative to update the Air Force's science and technology strategy. DSIAC is engaged in the strategy, geared toward identifying, developing, fielding, and maintaining superior warfighting capabilities in 2030 and beyond. A key goal of the initiative is to research and analyze scientific and technical information from multiple data sources to identify specific U.S. academic and industry Research and Development (R&D) organizations with expertise to address Air Force mission challenges. DSIAC was tasked with using data-mining tools, techniques, and processes to make recommendations on related industry best practices. In addition, DSIAC is providing ideation design, facilitation, and ideation outcome capture of associated pilot outreach activities with academia and industry at strategic regionalized locations within the US. This pilot program targets cross-sector research efforts to accelerate the impact of basic and applied research knowledge on key Air Force (AF)challenges and capability gaps.

HOMELAND DEFENSE & SECURITY IAC (HDIAC)

SOLDIER SUSTAINABILITY, PERFORMANCE OPTIMIZATION, PROTECTION, AND HEALTH

Throughout FY18, HDIAC supported DoD efforts regarding soldier sustainability, performance optimization, protection, and health in the Medical focus area. The U.S. Army Natick Soldier Research, Development, and Engineering Center's (NSRDEC) is redefining the future of combat by developing new and innovative ways to protect the Soldier through advanced research that supports countering ever-evolving threats.

A SOLDIER PUTS ON AN EQUIVITAL CHEST HARNESS TO RECORD HEART RATE CHANGES OVER TIME. THE HEART RATE INDICATES HOW MUCH BLOOD FLOWS TO MUSCLES AND THE SKIN, FROM WHICH RESEARCHERS CAN EXTRAPOLATE HOW MUCH HEAT IS BEING GENERATED AND LOST BY THE BODY. (U.S. ARMY PHOTO BY DAVID KAMM, RDECOM)

The NSRDEC plays a vital role in maximizing the effectiveness of America's military, developing new technologies and products that work, saving money, and benefitting Soldiers in the field. Through an HDIAC Task Order, and in collaboration with NSRDEC, HDIAC SMEs performed and provided scientific developments regarding enabling capabilities (physiological and environmental); haptic interfaces; situational awareness and performance detection (mobility and communication); and risk reduction technologies (physical injury, environmental, and operational). Additionally, HDIAC leveraged relevant R&D advances from across the Services, COIs, Department of Energy, National Aeronautics and Space Administration, academia, and industry to enhance R&D efforts and efficiencies for current and future NSRDEC research. HDIAC's subject matter expertise, research, and analysis provided NSRDEC with a comprehensive resource that will aid future project development, broaden DoD collaboration, reduce duplication of effort, aid warfighter performance, and offer best value to the government for future NSRDEC R&D efforts.

CYBER SECURITY & INFORMATION SYSTEMS IAC (CSIAC)

COLLABORATION WITH THE US AIR FORCE

Throughout FY18, CSIAC collaborated with the U.S. Air Force 375th Communications Squadron (375 CS) to develop an open source software (OSS) prototype application that leverages the existing DoD server environment/services without additional, or proprietary software to reduce tedious (often overwhelming) manual searches. Facing regulatory pressure, such as the Health Insurance Portability and Accountability Act, General Data Protection Regulation, and Payment Card Industry security standards, the CSIAC OSS prototype could assist with satisfying the regulatory compliance to preserve the security and confidentiality of personally identifiable information on its systems. Based on a set of pre-defined parameters, the tool can search large email batches and other binary types to provide an output in both .csv (spreadsheet) or XML which is customizable depending on mission needs. CSIAC has provided the prototype to the 375 CS for operational testing, using the reported feedback to refine the tool's capabilities. This source code could pave the way for DoD units to more efficiently identify this information and prevent potential exploitation, without unnecessarily impeding the operational mission which the information supports.

WHO USES
THE DoD IAC

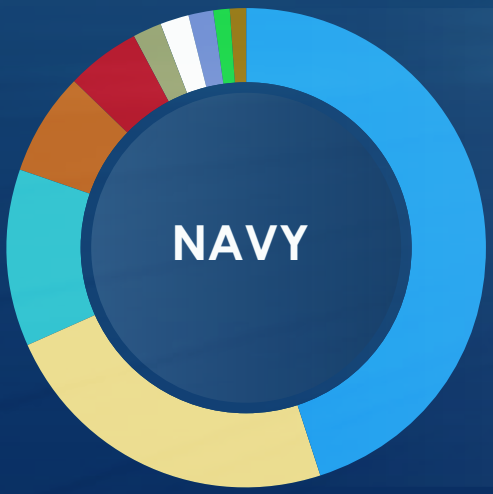
Funding by Service

30%

Navy

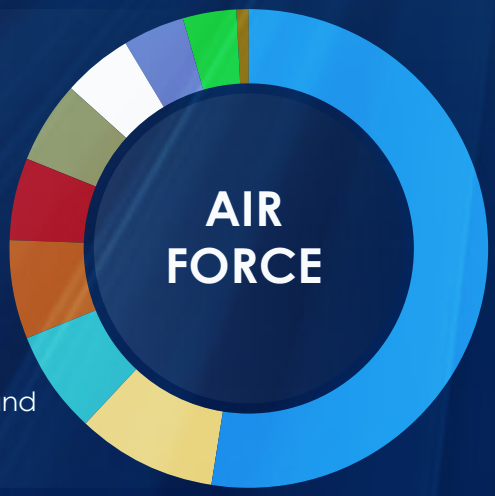
Top 10 by Service

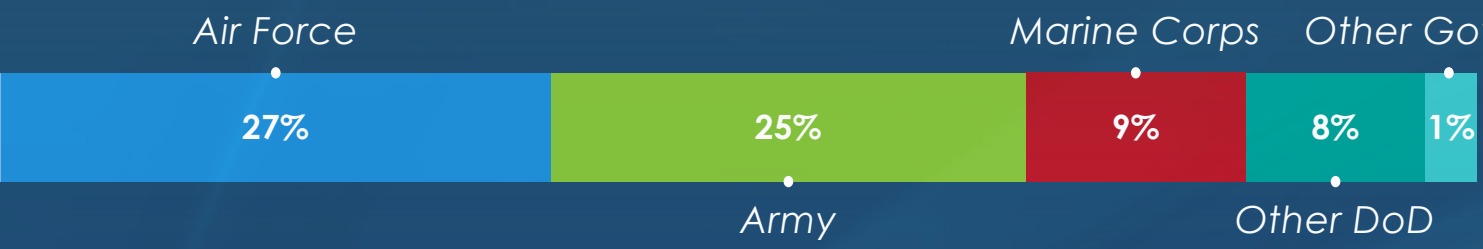
The DoD IAC Program continues to maintain a diverse customer base. Here is a sampling of the most prominent users of the DoD IAC MACs in FY 18 divided by Service.

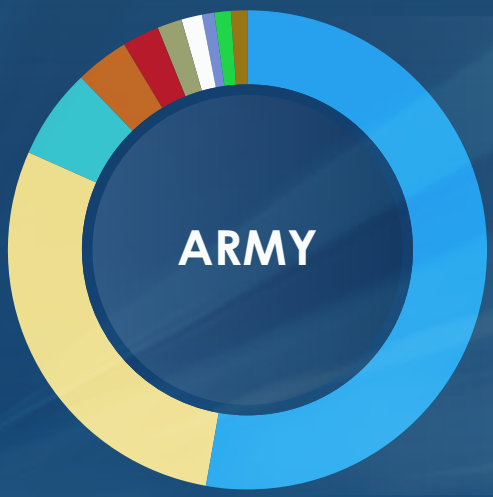


- **45.27%** Naval Air Systems Command
- **23.35%** US Fleet Forces Command
- **11.83%** Naval Sea Systems Command
- **6.99%** Space and Naval Warfare Systems Command
- **5.06%** Chief of Naval Operations
- **1.95%** Chief of Naval Research
- **1.78%** US Pacific Command
- **1.58%** Navy Systems Management Activity
- **1.17%** Bureau of Medicine and Surgery
- **1.02%** Secretary of the Navy

- **52.69%** Air Force Materiel Command
- **9.44%** Air Force District of Washington
- **7.07%** Air Combat Command
- **6.46%** Air National Guard
- **5.74%** Air Force Education and Training Command
- **5.39%** Air Force Space Command
- **4.81%** Air Force HQ
- **4.19%** Pacific Air Forces
- **3.64%** Air Mobility Command
- **0.57%** North American Aerospace Defence Command

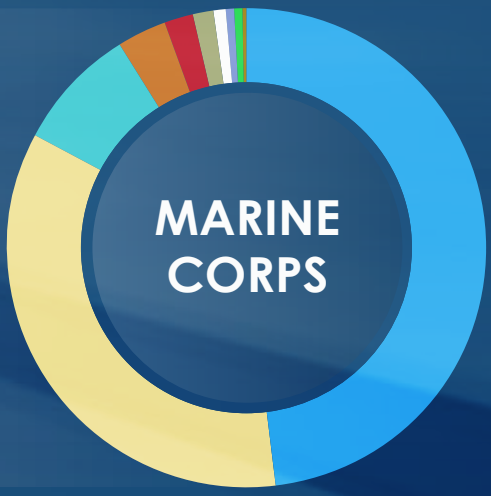


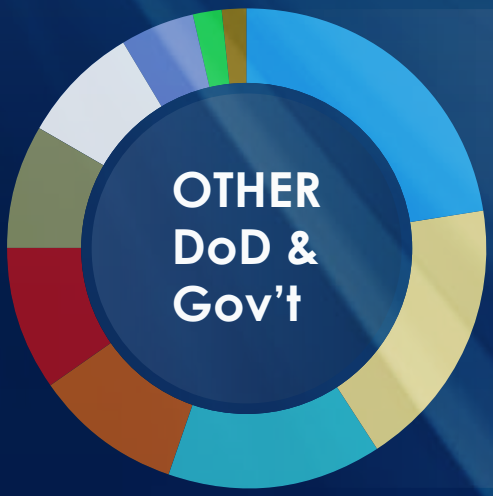




52.96%	Office of the Assistant Secretary of the Army
28.73%	Army Materiel Command
6.22%	US Army Acquisition Support Center
3.53%	US Army Corps of Engineers
2.51%	Army Space and Missile Defense Command
1.61%	US Army Pacific Command
1.44%	US Army Research, Development, & Eng. Command
1.01%	National Guard Bureau
1.00%	Office of the Secretary of the Army
0.99%	Chief of Staff of the Army

48.08%	Marine Corps Systems Command
34.72%	Marine Corps HQ
8.20%	I Marine Expeditionary Force
3.31%	Marine Corps Installation Pacific
1.87%	III Marine Expeditionary Force
1.52%	Marine Corps Forces Command
0.87%	Marine Corps Forces Pacific
0.49%	Training and Education Command
0.70%	II Marine Expeditionary Force
0.24%	Marine Corps Logistics Command





23.82%	Office of the Assistant Secretary of Defense
14.73%	OASD Research and Engineering
13.22%	Department of Homeland Security
11.84%	Missile Defense Agency
8.08%	National Security Agency
7.83%	Joint Chiefs of Staff
6.86%	National Geospatial Intelligence Agency
6.45%	Defense Logistics Agency
4.03%	Defense Security Cooperation Agency
3.14%	National Oceanographic & Atmospheric Admin

DoD IAC S&T
FIELD ADVISOR PROGRAM

Field Advisor support to the Combatant Commands (CCMD)

The DoD IAC Field Advisor program represents the R&D community to the CCMDs by fostering awareness of DoD IAC Research & Analysis and Agile & Scalable contracting services, as well as familiarity with the full range of R&E Gateway tools, research, and collaborative methods through outreach efforts. The Field Advisors also facilitate the submission of STI from all DoD funded research.

Field Advisors are embedded in the following CCMDs:

STRATEGIC COMMAND
Tim Fowler
timothy.n.fowler4.ctr@mail.mil

SPECIAL OPERATIONS COMMAND
Joseph Haack
joseph.haack.ctr@socom.mil

CENTRAL COMMAND
David Rios
david.h.rios.ctr@mail.mil

INDO-PACIFIC COMMAND
Lee Stewart
lee.g.stewart.ctr@pacom.mil

Field Advisor Initiatives:

- Perform outreach activities with existing and potential DoD IAC and DTIC customers via meetings, conferences, presentations, and symposiums (attending, participating, and presenting)
- Build relationships across the DoD and greater S&T community to capture state of the art technology which can be used to close capability gaps
- Provide tailored, customer-specific training on relevant DoD IAC services and DTIC tools

"The DoD IAC S&T Field Advisor is a valued, engaged, and motivated member of our S&T team. They are executing our J8 Director's guidance to host many finished technical documents in the R&E Gateway. Poor Information management is a DoD-wide problem, these efforts allow the entire DoD research enterprise to access vital and highly desired "warfighter feedback"

MS. CYNTHIA HOLLAND,
SCIENCE AND TECHNOLOGY ADVISOR
TO COMMANDER, USINDOPACOM

MULTIPLE AWARD CONTRACTS

IAC MAC

Awarded on 30 September 2018, the IAC MAC is an Indefinite Delivery Indefinite Quantity MAC for RDT&E services, other R&D-related analytical services, and the development of doctrine, tactics, or plans. It has a $28B ceiling, nine year ordering period, and covers all 22 Technical Focus Areas. This contract will phase out use of the legacy MACs. (CS TAT, HD TAT, and DS TAT).

POOL 1 UNRESTRICTED/FULL AND OPEN COMPETITION

Task orders (TOs) valued above $15M, based on the Independent Government Cost Estimate (IGCE) will be competed under Pool 1 and are full and open competition, without consideration for small business set-asides.

TOs competed among Pool 1 contractors may include CBRN Defense requirements, but will not include a requirement for a CBRN Laboratory or facility.

Acer	ALION SCIENCE AND TECHNOLOGY	BAE SYSTEMS
BATTELLE	Booz | Allen | Hamilton	CSRA
ENGILITY	Georgia Tech Research Institute	leidos
MacB	ManTech	Raytheon
SwRI	URS	KBRwyle

POOL 2 PARTIAL SB SET-ASIDE (CONTRACTORS TBD)

TOs valued at or under $15M will be competed under Pool 2 and are set-aside for exclusive Small Business (SB) competition.

TOs competed among Pool 2 contractors may include CBRN requirements, but will not include a requirement for CBRN Laboratory or facility.

POOL 3 UNRESTRICTED/FULL AND OPEN COMPETITION CBRN DEFENSE – CBRN LABORATORIES

BATTELLE	SwRI	MRIGlobal

TOs competed among Pool 3 contractors must include a CBRN task that requires the use of a CBRN Laboratory or facility, but may also include non-CBRN focus areas that predominately support the CBRN effort. The TO shall specify the requirement for use of a CBRN Laboratory or facility.

TAT MACs (Legacy)

Large Business:

AECOM (URS), Alion Science and Technology, Battelle Memorial Institute, Booz Allen Hamilton, Engility (TASC), Georgia Tech Research Institute, Jacobs Technology, Inc., KBRwyle (Wyle), Leidos, Inc., MacAulay-Brown, Inc., ManTech. MRI Global, Northrop Grumman, Peraton (Harris Inc.), SAIC (Scitor Corp.)

Small Business:

Barbaricum, BRTRC, DSA, EOIR Technologies, National Security Information Assoc., Prescient Edge Corp, Pro2Serve, SMS, Solers, Strategic Analysis Inc.

DoD IAC PROGRAM MANAGEMENT OFFICE

Under Secretary of Defense, Research and Engineering

Director, Defense Research and Engineering for Research and Technology

Administrator, of the Defense Technical Information Center

Director, DoD IACs
thomas.c.gillespie.civ@mail.mil

Director Contracting, AFICA/KD
jared.dostal@us.af.mil

Deputy Director, DoD IACs
brent.j.Ishizaki.civ@mail.mil

CSBCO DSBCO HDBCO

CSTAT DSTAT HDTAT IACMAC

COR
peggy.wagner@us.af.mil

PA/COR
emese.i.horvath.civ@mail.mil

PA/COR
jennifer.j.heddings.civ@mail.mil

PA/COR
patricia.s.coulter4.civ@mail.mil

PA/COR
harvey.r.bullock.civ@mail.mil

PA/COR
melinda.l.rozga-moore.civ@mail.mil

Customer Support Cell (CSC)

Program Analysis Cell (PAC)

Financial Management Cell (FMC)

LEGEND

- DoD IAC Staff
- AFICA Staff
- CTR Support Staff

CHECK OUT THE

NEW & IMPROVED

DoD IAC WEBSITE

PLEASE VISIT US AT:

https://dodiac.dtic.mil