



Information Analysis Centers (IACs)

*In Support of Decision Making:
Document Collection, Community Building, and Human Analysis*

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Director, DoD IACs

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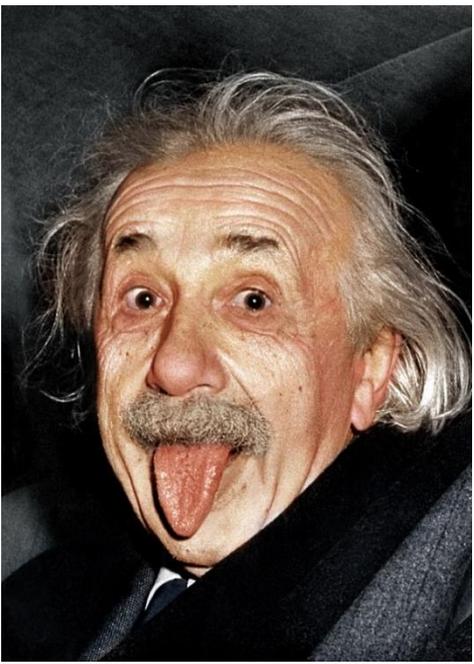
“Information is the only commodity that increases in value the more it’s used.”

-IAC Program Management Office

The IAC business model ensures that historical information is reused and enhanced with each new effort.



The IAC Equation



Subject Matter Experts



Review and Reuse Existing Information



Develop New Information and Allow Others to Reuse It

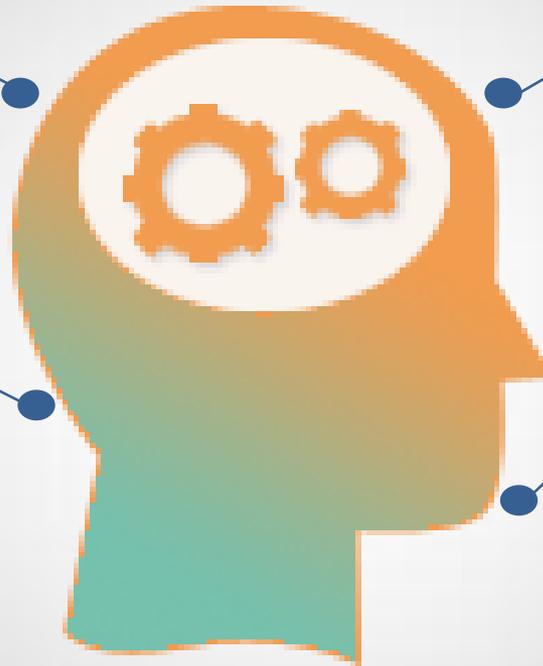
THE FACTS BEHIND THE IACS

ESSENTIAL RESOURCE

For over 65 years, the IACs have served as an essential resource to affordably access technical data and analysis in support of current operations.

SCOPE OF WORK

The IAC program is composed of nearly 6,000 scientists and engineers in 49 states. We handle more than \$1.5 billion in total funding for new and ongoing Technical Area Tasks (TATs).



RESEARCH DATA AND ANALYSIS

Through the IACs, research data is collected, reused to answer recurring challenges, and analyzed to identify long term trends and provide recommendations to the community. Over 6 million STI documents were viewed or downloaded from IAC websites last year.

REALIGNED FOCUS

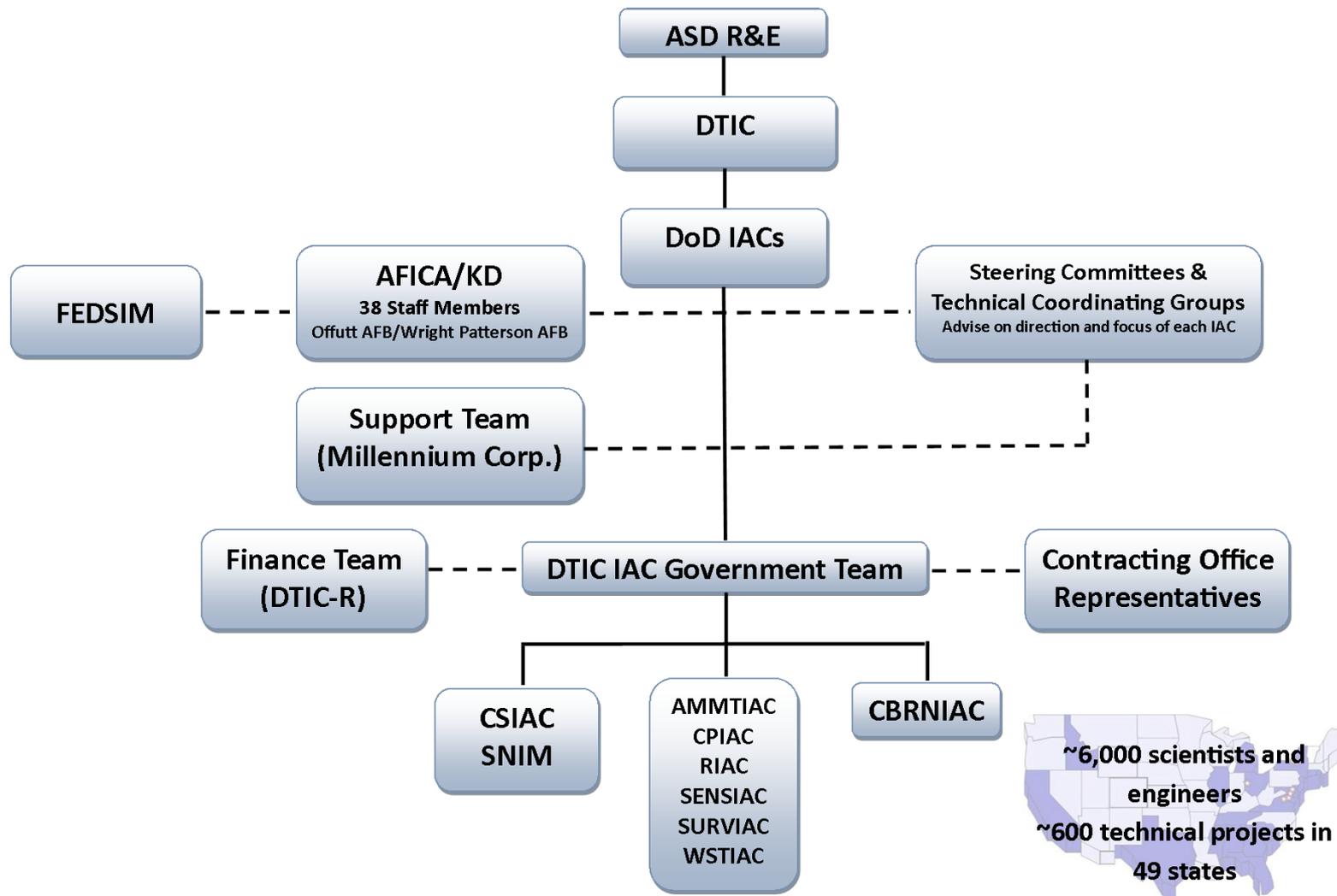
In 2008, the IAC program announced changes to our contract structure, in response to changes in legislation requiring enhanced competition. The ongoing effort to restructure the IACs will be completed by the summer of 2014, aligning to current priorities of the SecDef, including Better Buying Power.

“IACs serve as a proven resource for maximizing the value of each dollar the department spends.” –Pentagon spokeswoman



IAC Enterprise

Diverse Team of Government, Industry and Academia





IAC Approach

Move from “Data to Decisions”



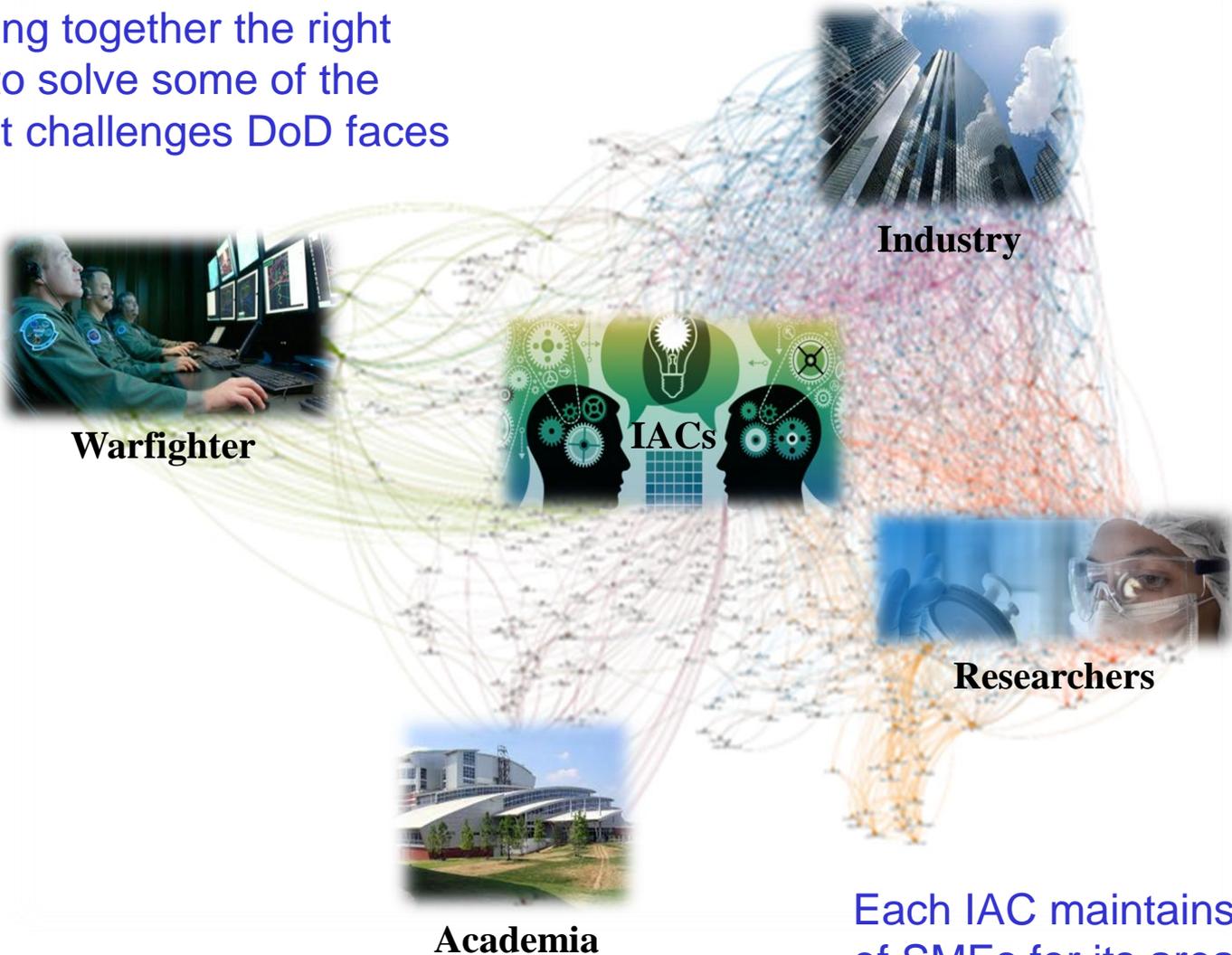
DoD scientists and engineers don't have time to sift through mountains of data



IAC Approach

Developing Communities of Practice

IACs bring together the right people to solve some of the toughest challenges DoD faces



Warfighter

Industry

Researchers

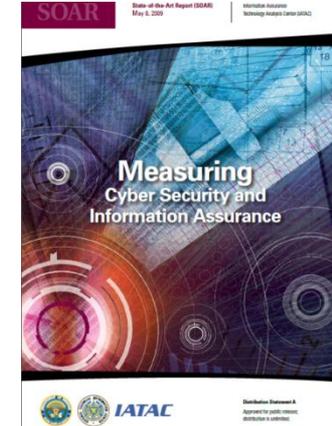
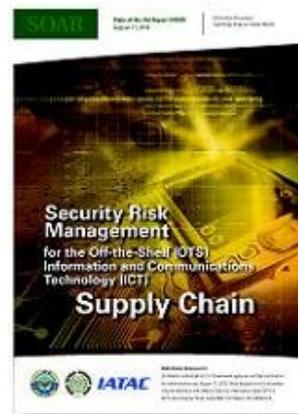
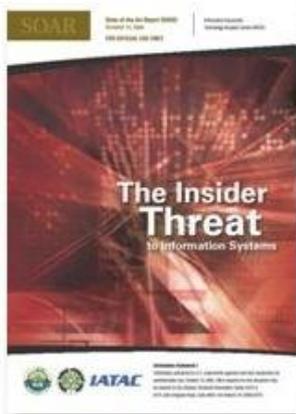
Academia

Each IAC maintains a community of SMEs for its areas of expertise



IAC Approach

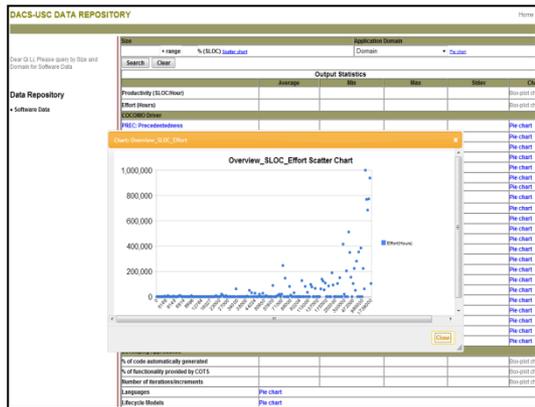
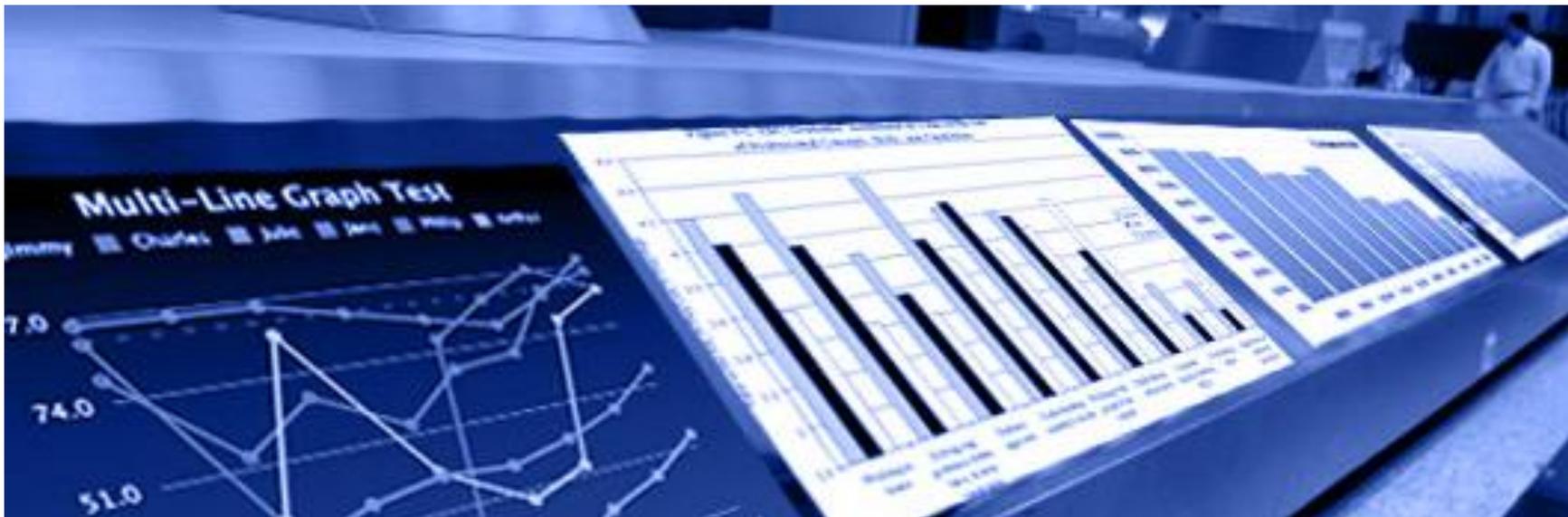
Informed Products for Operational Users





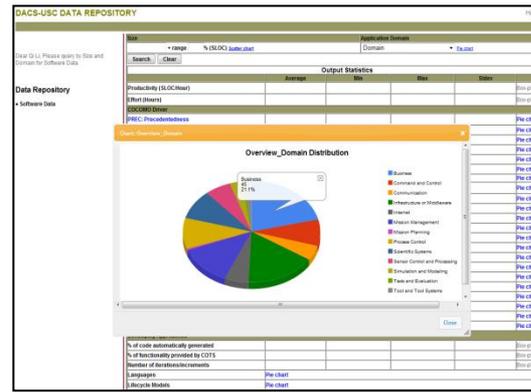
IAC Approach

Analytical Tools for Informed Decisions



CSIAAC

S2CPAT





IAC Approach

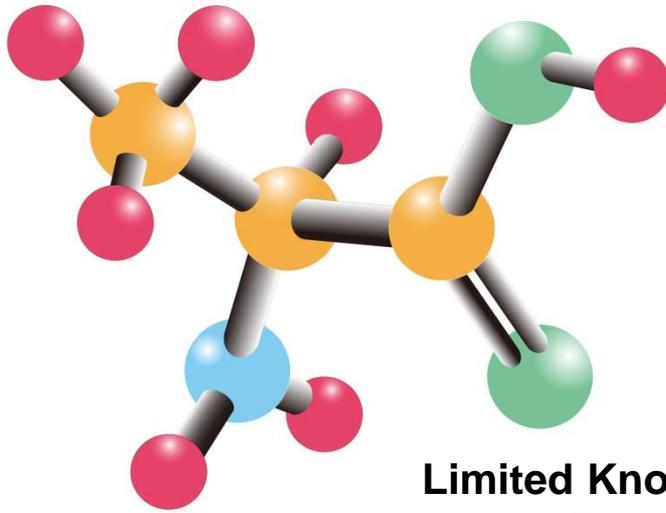
Bringing the "Think Tank" to the Battlespace



IACs provide technical analysis through approximately 600 ongoing Technical Area Tasks (TATs) by drawing on information collected by the Basic Center of Operations (BCO), bringing the latest research to the front lines.

Traditional Contracts

IAC Contracts

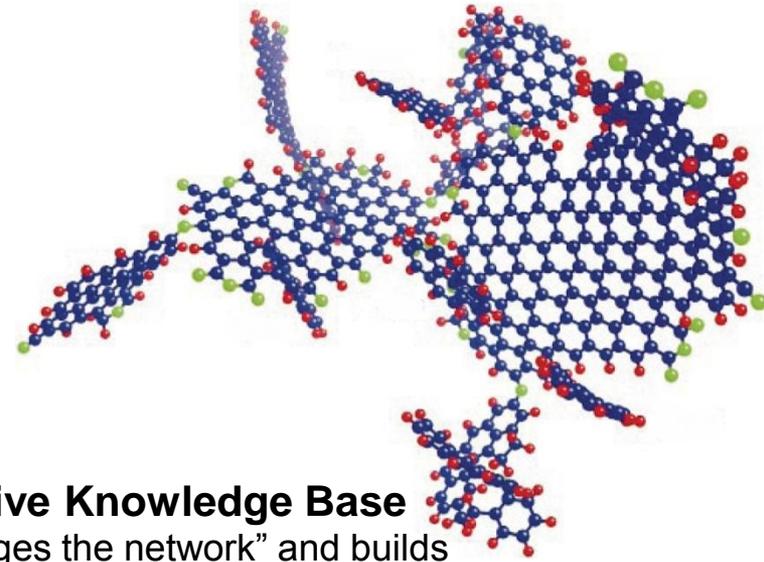


Limited Knowledge Base

(Internal and Sub-contract)

Extensive Knowledge Base

“Leverages the network” and builds on existing work at DTIC/IACs. Maintains a broad network that spans government/industry/academia.)

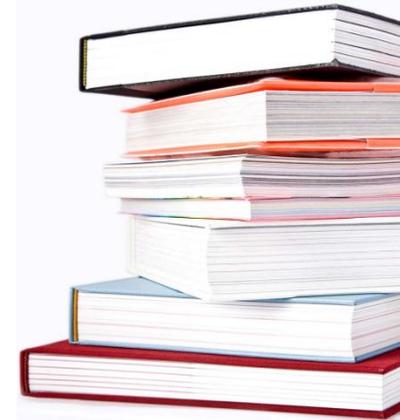


Deliverables Flow ONLY to Customer

(Usually unavailable to others)

Deliverables Flow to DTIC

(Become available to the broadest possible audience for reuse. The IAC Process requires each effort to build on this historical foundation.)



Best Case Scenario: Information is reused within the company or program.

Best Case Scenario: Information is reused across the government (including contractors).



GAO Report (April 2013)* – “We have identified a total of 162 areas with actions...to address fragmentation, overlap, and duplication or achieve cost savings. Collectively, these reports show that, if the actions are implemented, the government could potentially save tens of billions of dollars annually.”

**GAO Report: Actions Needed to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits (April 2013)*



The restructuring of the IACs is intended to accomplish these objectives:

- ✓ **Increase synergy across related technology areas**
- ✓ **Increase opportunities for small businesses on both BCOs and TATs acquisitions.**
- ✓ **Lower cost and improve quality through enhanced competition (17-25% savings over historical costs)**
- ✓ **Expand the industrial base accessible through the IACs**

“In a time of shrinking budgets and increasing responsibility, IACs are a valuable resource for accessing evaluated Scientific and Technical Information (STI) culled from the efforts to solve new and historic challenges.”



IAC Program Way-Ahead

Expanding Scope and Adapting Structure

Former Structure

10 Single-award IDIQ contracts for all requirements for each IAC

| | | | | |
|------------------------|------------------------|------------------------|------------------------|-----------------------|
| AMMTIAC Core & TATs | CBRNIAC Core & TATs | CPIAC Core & TATs | DACS Core & TATs | IATAC Core & TATs |
| MSIAC Core & TATs | RIAC Core & TATs | SENSIAC Core & TATs | SURVIAC Core & TATs | WSTIAC Core & TATs |

Way-Ahead

3 Single-award contracts for the IAC Core (BCO)

S&T Priorities Mapping:

| | | |
|--|---|--|
| Cyber Security & Information Systems IAC (CSIAC) DACS, IATAC, MSIAC + new scope Data to Decisions Cyber Science & Technology | Defense Systems IAC (DSIAC) WSTIAC, SURVIAC, RIAC, AMMTIAC, CPIAC, SENSIAC + new scope Engineered Resilient Sys, EW, Autonomy, Human Systems | Homeland Defense & Security IAC (HDIAC) CBRNIAC + new scope Counter WMD |
|--|---|--|

3 Multiple-award IDIQ contracts for TATs

SCOPE

IAC PMO (DTIC)

| | | |
|--|--|---|
| SNIM TATs Software Analysis Information Assurance Information Sharing <i>Knowledge Management</i> Modeling & Simulation Some existing coverage New Area for IACs | Defense Systems TATs Weapon Systems Survivability/Vulnerability RMQSI Advanced Materials Military Sensing <i>Energetics</i> <i>Autonomous Systems</i> <i>Directed Energy</i> <i>Non-lethal Weapons</i> | Homeland Defense TATs Homeland Security & Defense Critical Infrastructure Protection Weapons of Mass Destruction CBRN Defense <i>Biometrics</i> <i>Medical</i> <i>Cultural Studies</i> <i>Alternative Energy</i> |
|--|--|---|

COMPLETE

IN PROGRESS

A REPORT OF THE CSIS
DEFENSE-INDUSTRIAL
INITIATIVES GROUP

A Case Study for Better Buying Power

INFORMATION ANALYSIS CENTERS OF THE
DEFENSE TECHNICAL INFORMATION CENTER

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David J. Berteau

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April 2012



CSIS | CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

IACs “will be positioned to create and sustain a focus on the Better Buying Power Initiative to improve affordability, productivity, and standardization within defense acquisition programs.”

CSIS case study highlights enhanced IAC alignment with DoD Better Buying Power

“With multiple avenues to support USD(AT&L), IACs represent an essential tool for cost-effectively fielding superior warfighting capabilities in today’s ever-changing high-technological environment.”



“They (IACs) are asking questions I never would have thought to ask and providing me with answers I never would have had.”

– SOCOM Customer



Innovation, Speed, Agility...



“We are in a period of remarkable change. Innovation, speed, and agility have taken on greater importance to our efforts given today’s globalized access to knowledge and the rapid pace of technology development.”

HON Zachary Lemnios, Former Assistant Secretary of Defense for Research & Engineering

Statement before the US House of Representatives Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, Mar 1, 2011

- Evolving requirements necessitate innovation, speed, and agility
- IACs respond by providing:
 - Innovation through timely access to cutting-edge information
 - Speed through efficient contracts and reuse of existing information
 - Agility through close connection to technical community and forward-looking role of IAC scientists and engineers



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IACs Enhance MRAP Availability



Detailed Analysis Saves Time / Money

Need

The Mine Resistant Ambush Protected (MRAP) Joint Program Office (JPO) is responsible for the design, procurement and fielding of approximately 35,000 armored vehicles designed to increase the survivability of members of the armed services and other military personnel operating in hazardous areas. Due to the pressing operational need, the vehicles were fielded before the technology was mature. The challenging environment in which they operate requires minimal downtime to meet their mission - countering the constant improvised explosive device threat. The MRAP program is now in the sustainment phase and a key component is how to determine and develop the maintenance and support required for the Fleet of Vehicles (FOVs) while ensuring they can continue to meet their critical mission parameters.

Approach

Reliability Information Analysis Center (RIAC) experts are currently conducting Reliability-Centered Maintenance (RCM) evaluations for the FOVs and have completed nearly 66% of the systems on the 13 variants in the FOVs. The RCM Team consists of RIAC RCM experts vendor system experts, Soldier/Sailor/Airman operators, vendor field service representatives and engineering members of the JPO. These teams evaluate the maintenance program component by component based on observed field failures or other failure rate data obtained from RIAC databases.

Key Participants

MRAP Vehicle Joint Program Office (JPO)



Value

- Current cost avoidance if all recommendations are implemented in maintenance procedures for the completed vehicle systems is **\$8.542 Billion**.
- This equates to a savings of **\$79.6 million** in reduced material cost and a reduction of **192.8 million man-hours**.
- RIAC work has also improved Operational Availability of the MRAP fleet, with an increase of nearly **3,300 hours / year** in mission availability, ensuring these critical systems are operational, functional, and available during the mission.



IACs Develop New Technology

Fast Tint Eyewear Protects Soldiers / Supports Mission



Challenge

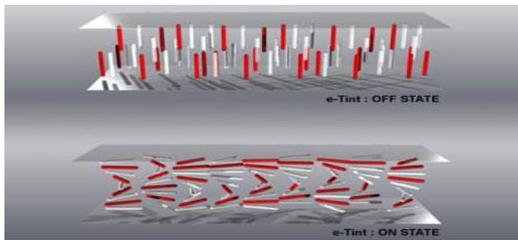
SEAL and Special Warfare Combatant-craft Crewmen (SWCC) are required to use protective ballistic eyewear in a variety of lighting scenarios. Current equipment requires warfighters to manually change their fix-tint ballistic lenses in response to varying light conditions. However, during combat when time is limited and changing lenses is impractical, operational personnel often opt to simply remove their ballistic eyewear. This often occurs during the most critical points in battle. Worse yet, some warfighters rely on non-ballistically protected commercial off the shelf (COTS) items. Both scenarios can significantly affect the warfighter by compromising visual acuity, when moving from light to dark spaces and increasing the chance of eye injury due to the removal of the eye protection.

Approach

WSTIAC provided core science and technology research to develop a liquid crystal display (LCD) fast tinting lens that automatically senses and changes its tint based on lighting conditions. WSTIAC aided in establishing an organic manufacturing capability to produce sheets of liquid crystals between two clear plastics for lens development and production. WSTIAC then built the first prototypes, performed environmental testing, conducted research and analysis to determine specifications for user requirements, and also conducted early user assessments.

Customer

Office of Naval Research (ONR), Naval Special Warfare Command (NSWC)



Value

WSTIAC's work allowed NSWC to connect with the proper researchers quickly, providing for rapid prototyping; which accelerated the delivery of a useful device. Operators may now choose between an automatic or manual mode and select one of four different color shades at the push of a button. As compared to a general COTS transition lens change taking three to five minutes, the transition between shades of the Fast Tint Protective Eyewear (FTPE) occurs at the speed of 1/10th of a second. The lens transition and durability make them an essential tool for the warfighter. NSWC has confirmed that this will save millions in research and development (R&D) dollars.

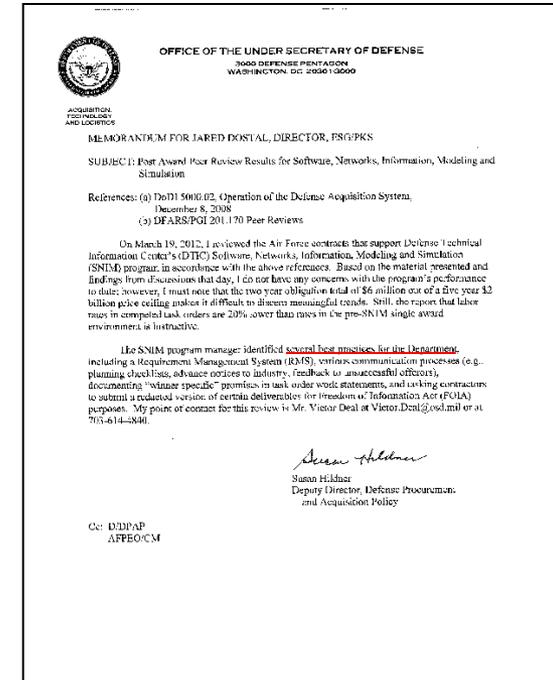


Multiple Award TAT Contracts

Best Practices Incorporated from other MACs



- On-line Requirements Management System
 - Documents development of requirements package
 - Easy access for geographically separated team
- Advance Planning Matrix for upcoming requirements
- Draft task order RFP for review/comment as applicable
- Compete TAT among MAC prime contract holders
 - Full tradeoff, LPTA
- Obtain and post redacted task order award
 - Promotes information sharing; reduces burden of FOIA requests on contractor and government
- Document “winner specific” proposal promises in contract award
- Provide feedback to unsuccessful offerors
- Maintain open dialogue on “no-bid”s from contractors
 - Recognize that industry won’t bid on all requirements
 - Work with industry to reduce barriers to effective competition



DPAP peer review recognized these “best practices”