the dawn of a new millennium...

DTIC IACs

Simulation Based Acquisition (SBA) Support

Information Analysis Centers

Presented by:

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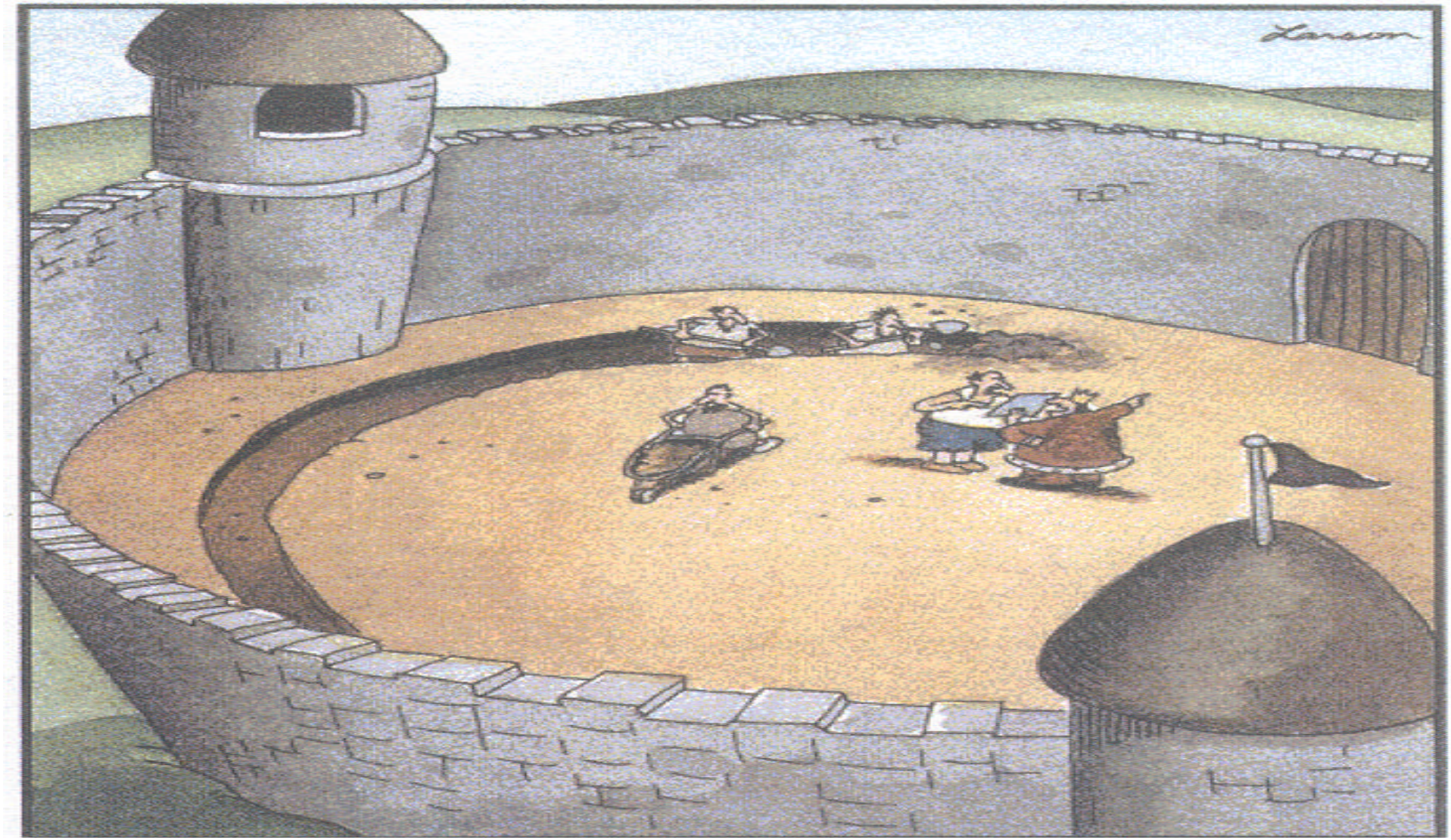
Defense Technical Information Center

IAC Program Office

17 May 2001

Looking for Scientific/ Technical Information ?



Vision and Commitment

To provide quality information infrastructure that permits individual use and collaborative efforts by providing authorized access to information worldwide; to maintain a central repository of Defense information; and, working together, DTIC's staff is the momentum behind DTIC's technological advances.

Our Commitment to You. . .

The DTIC Code of Service reflects our intention to make clear to you, our customers, the level of service you can normally expect from us. We want you to be completely satisfied with the service provided.

What are IACs

- **Formal organizations chartered by DoD**
- **A value-added information exchange**
- **A central source of research, development, and testing information**
- **Our analytical services can contribute to the production of affordable systems**
- **Experts covering the full spectrum of Defense Science and Technology**

IAC Missions

- Improve productivity of researchers, engineers, and program managers in the DoD research, development, and acquisition communities
- Promote standardization within specific technical areas
- Provide in-depth analysis services
- Create specialized technical information products

DTIC Sponsored IACs

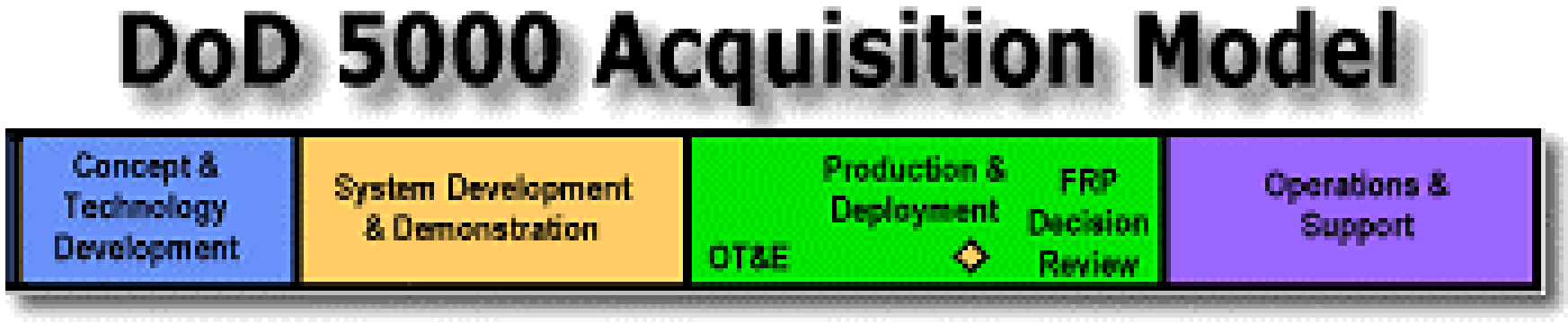
AMPTIAC	Advanced Materials and Processes Technology IAC
CBIAC	Chemical and Biological Defense IAC
CPIAC	Chemical Propulsion Information Agency
DACS	Data & Analysis Center for Software
HSIAC	Human System IAC
IATAC	Information Assurance Technology Analysis Center
IRAC	Infrared Analysis Center
MSIAC	Modeling and Simulation IAC
MTIAC	Manufacturing Technology IAC
NTIAC	Nondestructive Testing IAC
RAC	Reliability Analysis Center
SURVIAC	Survivability/Vulnerability IAC
WSTIAC	Weapon System Technology IAC

Service-sponsored IACs

APMIAC	Airfields, Pavements, and Mobility IAC
CEIAC	Coastal Engineering Defense IAC
CRSTIAC	Cold Regions Science and Technology IAC
CTIAC	Concrete Technology IAC
DTRIAC	Defense Threat Reduction IAC
EIAC	Environmental IAC
HEIAC	Hydraulic Engineering IAC
SAVIAC	Shock and Vibration IAC
SMIAC	Soil Mechanics IAC

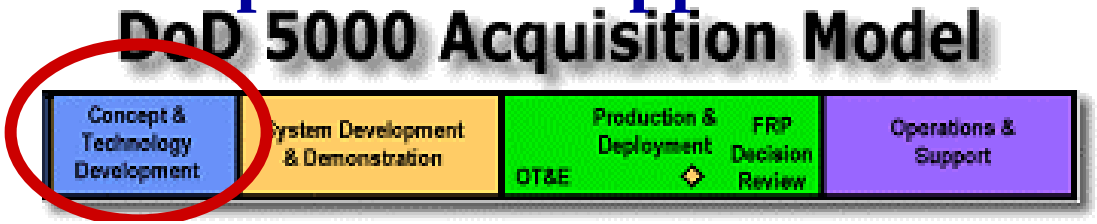
IACs Support the Acquisition Life-cycle

IACs support the acquisition life-cycle from concept to operations



IAC Support Throughout The Life Cycle

- **Scientific/Technical Information**
  - **Conceptual/research & Development**
  - **Successful Practices and Lessons Learned**
- **Activities**
  - **Technology Forecasts and Assessments**
  - **Concept Development 'Wargames'**
  - **Concept Analysis**
  - **Joint and Service Experiment Support**

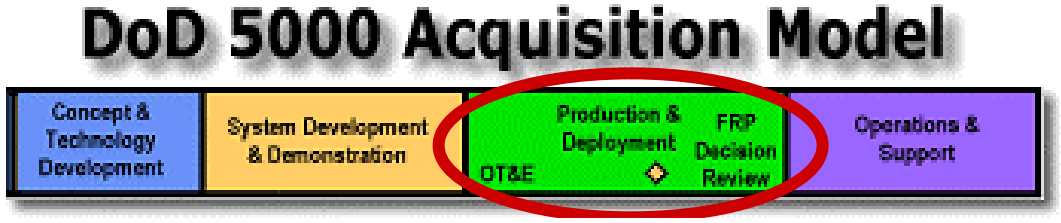


IAC Support Throughout The Life Cycle

- **Scientific/Technical Information**
  - **Return on Investment Information**
  - **Successful Practices & Lessons Learned**
  - **Commercial standards (e.g. factory data exchange standards, interface requirements to existing software or hardware, etc.)**
- **Activities**
  - **Provide Technology Forecasts & Assessments**
  - **Investigate commercial software (COTS) that may provide core capability for the 'to be' systems**
  - **Cost As an Independent Variable (CAIV) Studies**
  - **Provide Modeling and Simulation Support**
  - **Prototyping**
  - **Human Interaction with technology/Environment**

IAC Support Throughout The Life Cycle

- **Scientific/Technical Information**
  - **Reliability Studies**
- **Activities**
  - **Process Analysis**
  - **Independent Test Support**



IAC Support Throughout The Life Cycle

- **Scientific/Technical Information**
  - **Reliability Information**
- **Activities**
  - **Support for Engineering Changes**
  - **Configuration Management**
  - **Reliability Studies**
  - **Human Systems/Environmental Studies**

IAC Support for SBA

IATAC

RAC

NTIAC
Nondestructive Testing Information Analysis Center

DACS
DoD Data & Analysis Center for Software

Chemical and Biological Defense
CBIAC
Information Analysis Center

SURVIAC
Survivability/Vulnerability Information Analysis Center

IRIA
Infrared Information Analysis Center

MTIAC
Manufacturing Technology Information Analysis Center

IAC

msiac
MODELING AND SIMULATION
INFORMATION ANALYSIS CENTER

Human Systems Information Analysis Center

WSTIAC

AMPTIAC

CPIA

Advanced Materials and Processes Technology IAC

AMPTIAC
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WSTIAC

AMPTIAC

- MatPro Database
- Corrosion Predictive Modeling for Aging Aircraft - Critical Review & Technology Assessment
- Life Prediction and Performance Assurance of Structural Materials in Corrosive Environments

DoD 5000 Acquisition Model

Chemical Warfare and Chemical Biological Defense IAC

AMPTIAC
CBIAC
CPIAC
DACS
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IATAC
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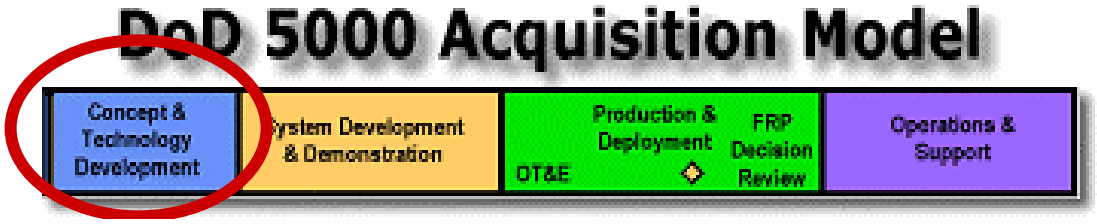
SURVIAC
WSTIAC

Chemical and Biological Defense CBIAC Information Analysis Center

Chemical-Biological Weapons of Mass Destruction: Understanding the Problem.

(Need more detail)



Human Systems IAC

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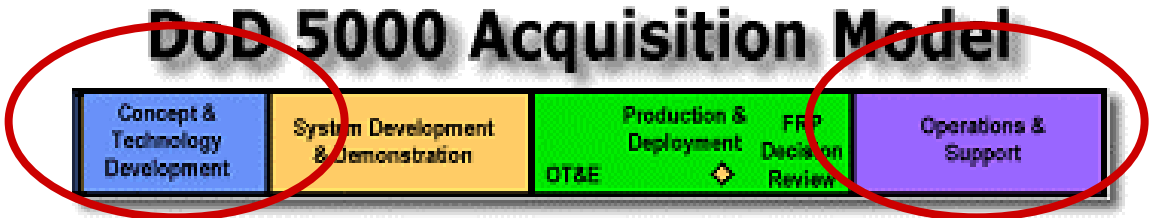
CPIAC
DACS
HSIAC
IATAC
IRAC
MSIAC
MTIAC
NTIAC
RAC
SURVIAC
WSTIAC

Human Systems Information Analysis Center

- **Evaluation of the B-2 engine repair facility and process.**
- **Cost-benefit analysis for the Army's Air Warrior Program (life support gear for aviators).**

(Need more detail)



Modeling and Simulation IAC

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MODELING AND SIMULATION
INFORMATION ANALYSIS CENTER

Solutions

- Air Force Electronic Systems Command
  - Joint Synthetic Battlespace development
- Naval Air Systems Command
  - wake turbulence models for KC-135 and KC-10 aircraft.
- US Army Night Vision Lab
  - info on M&S of tactical night vision sensors.
- Joint Strike Fighter Program
  - M&S configuration management
- CIA
  - information on models that predict aspects of missile performance.

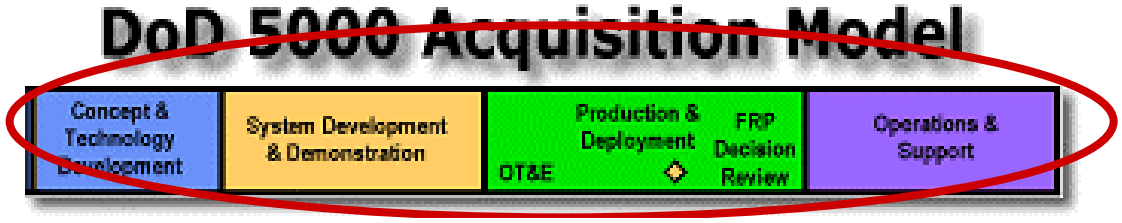
Services

Education

- Program Manager's Workshop
- T&E Tutorial
- Sim Support Plan Tutorial

Planning and Assessing

- Simulation Support Plans
- IV&V



Manufacturing Technology IAC

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- **Manufacturing Process Flow for Patriot Advanced Capability (PAC-3) missile -- MTIAC developed a high level model of the manufacturing process flow at Communications and Power Industries (CPI) to support the manufacture of microwave power tubes.**

Nondestructive Testing IAC

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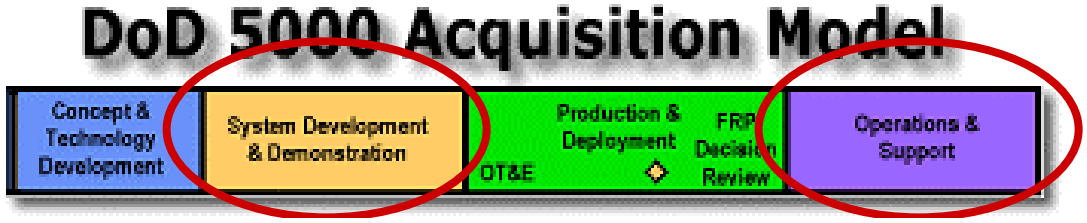
RAC
SURVIAC
WSTIAC

NTIAC
Nondestructive Testing Information Analysis Center

- **Conducting a Technology Assessment on computer simulation of nondestructive inspection techniques**
- **Developing a program plan for Probability of Detection of Nondestructive Evaluation techniques and applications**



Reliability Analysis Center

AMPTIAC
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NTIAC
RAC
SURVIAC
WSTIAC

- **Waiting for Input**

RAC

DoD 5000 Acquisition Model

Survivability/Vulnerability IAC

AMPTIAC
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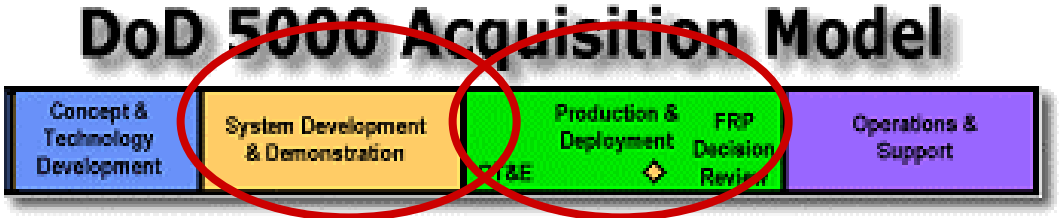
RAC
SURVIAC
WSTIAC

SURVIAC
Survivability/Vulnerability Information Analysis Center

- **A-10 Program**
  - **analysis of armor required to improve survivability for the warfighter.**
- **Joint Strike Fighter**
  - **computer analysis of survivability tradeoffs.**
- **DOT&E Live Fire Test**
  - **Front-end simulation in support of live fire testing.**



Weapon System Technology Analysis Center

AMPTIAC
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SURVIAC
WSTIAC

WSTIAC

- **VV&A of the Genesis BAT Area denial (modeling of performance and characteristics of minefields)**
- **Modeling of the SWORD Interferometer (ground-base air defense radar)**
- **Air and Missile Defense Experiments and joint exercises.**

DoD 5000 Acquisition Model

Obtaining IAC Services

Basic IAC Services

- Available at little or no cost

Technical Area Tasks

- Separated funded work efforts
- Very flexible
- Simple contracting process

Contact Information

Internet

http://iac.dtic.mil/

Email

iac@dtic.mil

Help Desk

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DSN: 427-9120
Fax: (703) 767-9119

Program Manager

Ronald E. Hale
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8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-6218

We are the answer people

- *Providing* easy access to essential, timely information.
- *Solving* complex problems.
- *Reducing* duplicated efforts.
- *Identifying* and applying best practices.
- *Saving* you time and money.
- *Boosting* collaboration.
- *Delivering* innovative solutions.

- **We've made finding the right information, at the right time, fast and easy! See what we're doing now. Imagine what the IACs can do for you!**

Questions?

Backups

Modeling and Simulation IAC

AMPTIAC
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CPIAC
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IATAC
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NTIAC
RAC
SURVIAC
WSTIAC

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- **Planning & Employing**
  - **M&S Master Plans**
  - **Sim Support Plans**
- **VV&A – Experts, SOAR**
- **On-site liaisons**
  - **Hanscom AFB**
  - **Norfolk**
  - **Orlando**
  - **Wright-Patterson AFB**
- **Education**
  - **Acquisition M&S Workshop**
  - **RDA Tutorial**
  - **T&E Tutorial**

Modeling and Simulation IAC

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- HELP DESK
- M&S FAQs
- M&S CALENDAR
- M&S NEWS
- M&S JOURNAL
- M&S EDUCATION
- M&S LINKS
- MSRR
- DMSO
- DTIC

Special Interest Areas

Special Interest Areas (SIA) are a place for people interested in specific areas of M&S to exchange information.

- Acquisition
- DoD M&S Master Plan Revision (MSMP)
- Experimentation
- Human and Organizational Behavior Modeling (HOBM)
- Impact Assessment (IA)
- M&S Needs
- MSRR Board of Directors
- Operations Other Than War (OOTW)
- Simulation Based Acquisition (SBA)
- Training
- Weapons of Mass Destruction (WMD)

www.msiac.dmso.mil

Summary

IACs provide:

- **Valued added information exchange among researchers, developers and warfighters**
- **Central source of research, development and testing information**
- **Program managers with affordable short- and long- term analytical services**
- **Access to the full spectrum of Defense S&T information**