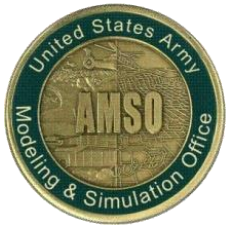


The Role of Army Modeling & Simulation

Brazilian Defense Industrial Base Conference

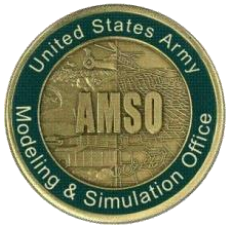
03 September 2015

Joseph M. Nolan
Colonel, FA57 Simulation Operations (Infantry)
United States Army
U.S. Army Modeling and Simulation Office



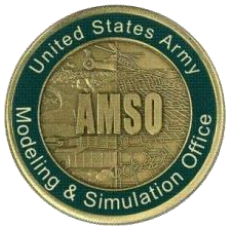
Agenda

- **Purpose**
- **Introduction**
- **The U.S. Army Modeling and Simulation Office**
- **Modeling and Simulation (M&S)**
 - **Use in the Army**
 - **Policy and Governance**
 - **Acquisition and Coordination**
 - **Workforce**
 - **Military, Civil Service**
 - **Training and Education**
- **Coordination Opportunities**
- **Conclusion**



Purpose

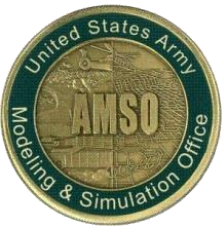
- **To provide a greater understanding of modeling and simulation use in the U.S. Army and to describe the approach to supporting the communities of interests in terms of policy, workforce management and training**



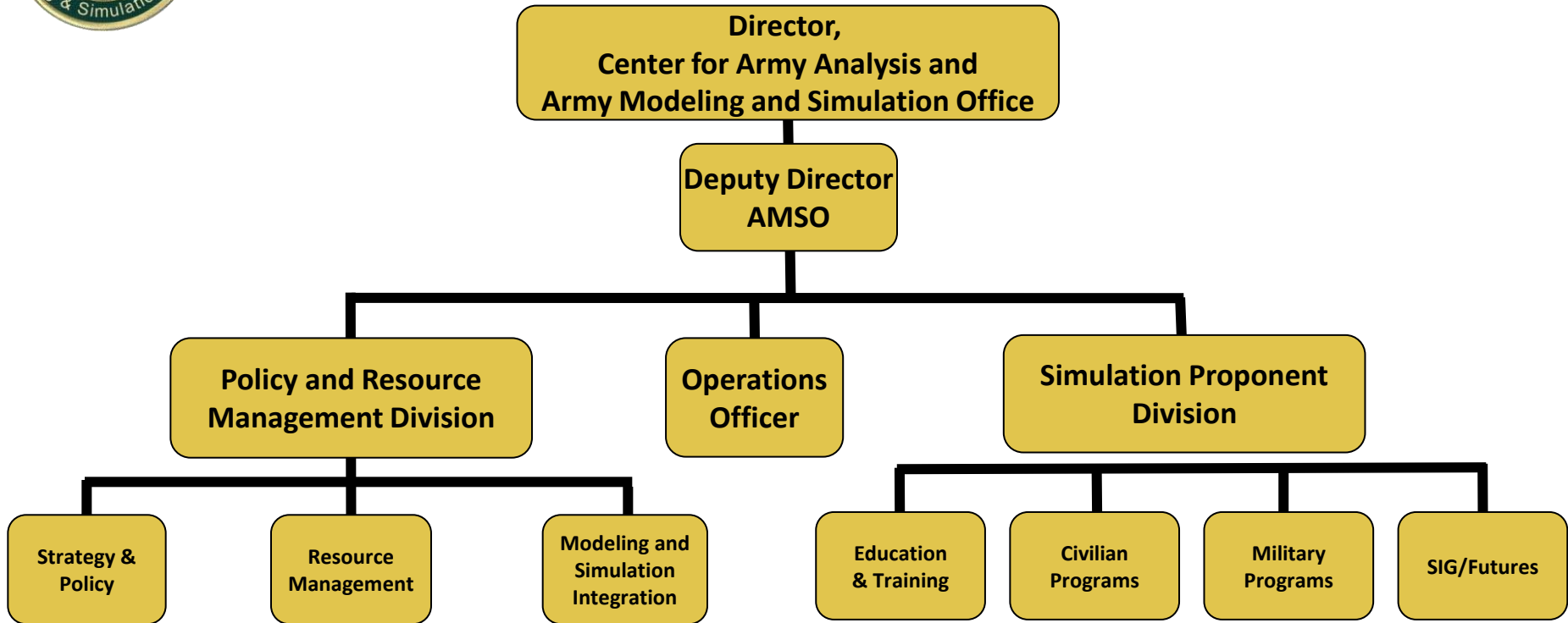
The Army Modeling and Simulation Office

Center for
Army
Analysis

- The U.S. Army Modeling and Simulation Office (AMSO) is the lead organization for the entire modeling and simulation community of the U. S. Army.
- Vision: An Army that effectively and efficiently employs modeling and simulation capabilities and tools, within and across all Army organizations, in support of both the Operating and Generating Forces.
- Mission: The Army Modeling Simulation Office
 - Develops the strategy and policy for Army Modeling and Simulation Enterprise
 - Executes effective governance and resource management through leadership and synchronization
 - Leads coordination of the Army modeling and simulation enterprise and cross-community areas including Joint, Intergovernment, Interagency, and Multinational environments
 - Trains, Educates and Manages the Army Analysis, Modeling & Simulation M&S Workforce (Military and Civilian)



Army Modeling & Simulation Office

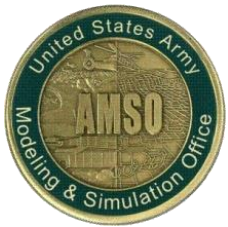


Key Tasks:

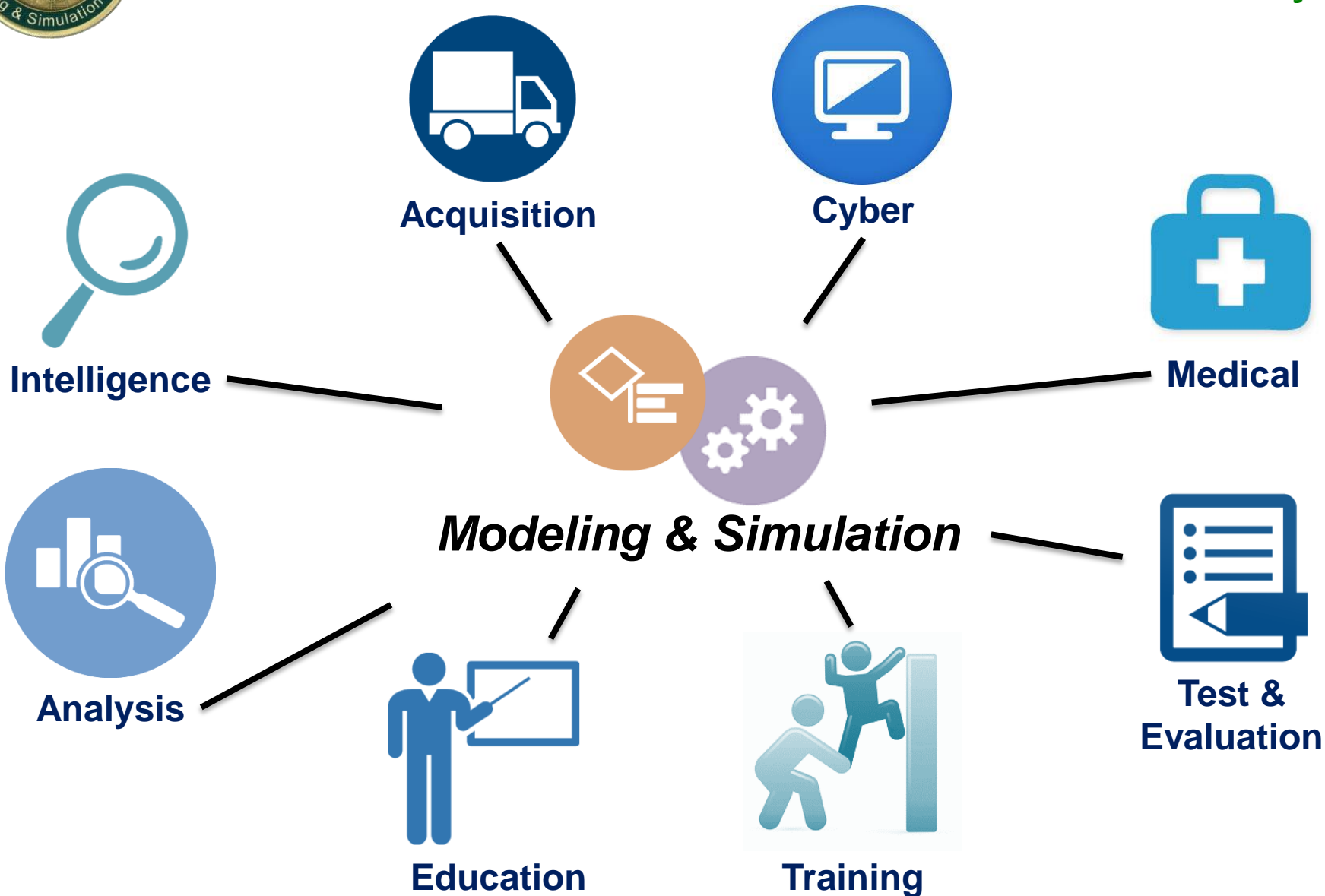
- M&S policy development
- M&S Enterprise Governance Management
- M&S strategic planning
- M&S Enterprise Resource Management
- M&S Integration: capabilities, environment, enablers
- Joint and U.S. Service Component engagement
- NATO and multi-national engagement
- M&S future concepts

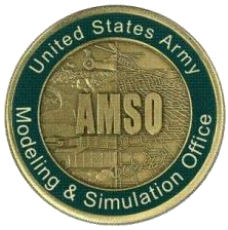
Key Tasks:

- Career management support
- M&S workforce life cycle management
- Education and training development
- Career management and assignments
- Acquisition and Sustainment
- Structure and concepts
- Workforce integration
- Assessments



M&S Use in the Army

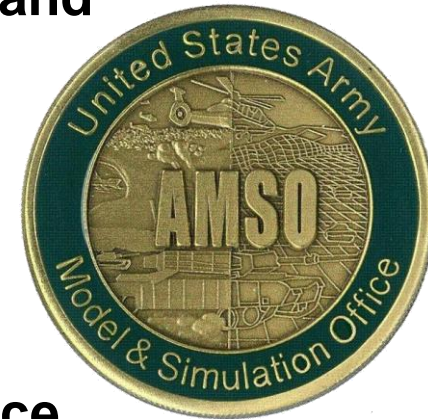


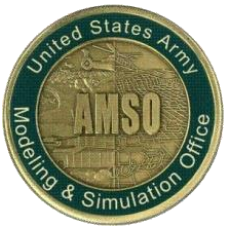


M&S Policy and Governance

Center for
Army
Analysis

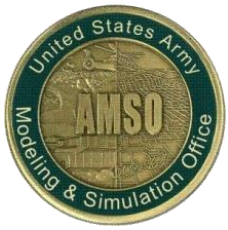
- **Develop Regulations and Policy that support:**
 - **Reuse Data, Data Structures, Data Standards, and Digital Terrain**
 - **Common Tools and Systems**
 - **Architectures**
 - **System Integration**
 - **Coordination with Navy, Marine Corps, Air Force and other Government agencies**
- **Provide Visibility of On-going efforts across the Army**
- **Manages Army M&S investments**
- **Provides Guidance for relationship between the end-user and developer**





M&S Acquisition and Coordination

- **Army M&S system development and acquisition is balanced by three major organizations:**
 - **Combat Developer (Government):**
 - **Develops requirements for new and existing systems**
 - **Serves as the Voice of the Soldier and Commander**
 - **Material Developer (Government):**
 - **Works with Industry to find, develop and deliver solutions**
 - **Focuses on cost, schedule and performance**
 - **Technology Companies (Industry):**
 - **Works with Government to develop and deliver solutions (manpower and materials)**
 - **Assists Government with understanding of new technology**



M&S Workforce

Center for
Army
Analysis

- U.S. Army has created both a military and civilian workforce to support M&S needs:

— Military: Functional Area 57 – Simulation Operations

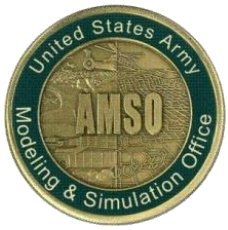
- Operationally grounded and experienced Officer (Major and above)
- Typically Infantry, Armor, Artillery or Aviation
- Reclassified and Trained to provide commands with M&S expertise



— Civilian: Career Program 36 – Analysis, Modeling and Simulation

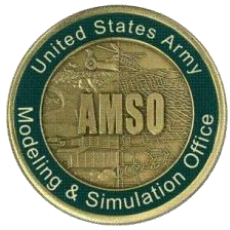
- Government civilian who is trained and educated in M&S use
- Provides continuity for commanders to monitor long duration M&S programs





M&S Training and Education

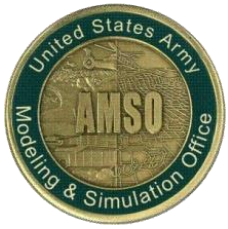
- **AMSO runs several courses to develop military and civilian M&S professionals**
 - **8-week Simulation Operations Qualification Course**
 - **2/3-week Simulation Professional Course**
 - **Online training courses**
- **Coordinate to send military and civilians to graduate school for M&S Certifications, Masters and PhD degrees**
 - **University of Central Florida, Naval Postgraduate School, Old Dominion University, Columbus State University**
- **Host M&S workshops to update the workforce on new developments, tools and methods of use**
- **Provide resources for our workforce to seek self-improvement**



M&S Coordination Opportunities

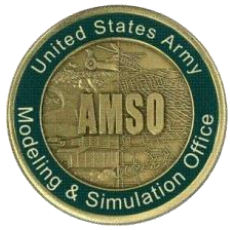
Center for
Army
Analysis

- **Partnership with Academia: Science, Technology, Engineering, Mathematics Programs**
- **Cooperative Research And Development Agreements**
- **Participation in Allies M&S events (Training, Experimentation, etc...)**
- **Conference Attendance**
 - **Partners Government and Industry together**
 - **Vendor displays, professional paper presentations, coordination**
 - **International and Inter-Service Training, Simulation, and Education Conference (I/ITSEC)**
 - ✓ **Annual Event in Orlando, Florida (USA) in early December**
30 November – 04 December 2015
 - **ITEC - Defence Training, Simulation & Education**
 - ✓ **Annual Event in Europe (UK or Germany, Alternates Annually)**
17-19 May 2016, London, UK



Conclusion

- **Modeling and Simulation meets a critical need for the U.S. Army**
 - Training, Education, Analysis, Test & Experimentation, Medical, Cyber, Intelligence, Acquisition, and many more
 - Saves time, effort and money
 - Growing field with limitless applications
- **The U.S. Army needs both policy and a workforce to manage this growth and support commanders requirements**
- **We need to support coordination opportunities that links**
 - Government
 - Industry
 - Academia
- **By working together as an M&S Community, we can exploit the best of technology to support the warfighter while saving time and resources**



Questions?