

AIR FORCE AGENCY FOR MODELING AND SIMULATION



LINEAGE

Air Force Agency for Modeling and Simulation constituted and activated as field operating Agency of the USAF, 3 Jun 1996

STATIONS

Orlando, FL

ASSIGNMENTS

COMMANDERS

Col Jimmy H. Wilson, #1997
Col Ricky R. Ales, #2001
Col Grant F. Herring, #2002
Col David M. Votipka, #2004
Col Louis W. Olinto, #2007
Col James E. Dennis, #2008
Colonel Marcus A. Boyd, #2009

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

Per bend sinister Sable and Azure a lightning flash bendwise sinister Or, overall a mullet Argent charged with a torteau below and between a pair of wings expanded of the third, all between in chief four mullets in fess and a base nebully White, all within a diminished bordure Yellow.

Attached below the shield, a White scroll edged with a narrow Yellow border and inscribed “AF AGENCY FOR MODELING & SIMULATION” in Blue letters.

Significance

Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The divided shield with nebuly base simulates the earth and space environment of current and envisioned future primary theaters of Air Force operations. The lightning bolt reflects the striking capability of aerospace power and the unit’s efforts to maintain that strength. The four stars in chief represent the summit that established the Agency in 1995. The star and wings at center symbolize the history and dedication of unit personnel of the Agency’s parent organization.

EMBLEM SIGNIFICANCE

MOTTO

NICKNAME

OPERATIONS

The Air Force Agency for Modeling and Simulation is a field operating agency of the Warfighter Systems Integration and Deployment Directorate, Warfighting Integration and Chief Information Officer, Secretary of the Air Force. The Agency is located in Orlando's Central Florida Research Park, with DoD, Joint, service, contractor, and educational organizations focused on modeling and simulation. Proximity to these other agencies offers the Air Force the maximum leverage and advantage of the developing programs and technologies enhancing the Air Force ability to provide ready forces.

The Air Force Agency for Modeling and Simulation’s primary missions are to implement Air Force, joint and Department of Defense modeling and simulation policies, architectures, and standards. They support the development and use of the Realistic Global Battlespace for training, analysis, acquisition, test and evaluation, and operations; and support corporate Air Force modeling and simulation, planning, requirements and investments, and facilitate the establishment, transition and integration of major Air Force modeling and simulation, initiatives and programs.

Air Force Agency for Modeling and Simulation shapes Air Force decision making, mission rehearsal and execution; supports cross-cutting initiatives such as Distributed Mission Operations and the Air Force-Integrated Collaborative Environment; promotes and supports technology improvements; oversees the Air Force modeling and simulation, Force Development program and manages Air Force modeling and simulation. Information Services, which includes the Air Force modeling and simulation. Resource Repository, modeling and simulation. databases and

decision support vetting tools, document library, reflectors, Event Planning System, Air Force modeling and simulation. Calendar, and numerous other collaboration tools. The C4ISR Visualization Center is the Air Force Agency for Modeling and Simulation Pentagon Operating Location providing a portal into exercises, experiments, demonstrations, and real-world events occurring throughout the Air Force and DoD.

Air Force Agency for Modeling and Simulation is organized into three divisions: Operations Application Division; LVC Programs Division; and Foundations Division.

The Operations Application Division is divided into five functional areas: Distributed Mission Operations Air Operations Center Training Support, Event Support, Security and Live, Virtual, Constructive/Range Integration. Distributed Mission Operations connects geographically separated organizations using LVC simulations to meet Air Force, Joint, Interagency and Coalition training objectives. Air Operations Center Training Support assists the Warfighting Headquarters and Numbered Air Forces meet Air Operations Center training requirements through the use of modeling and simulation tools. Event Support includes operating and integrating models and simulations in support of planning and execution of Air Force, Joint, Interagency and Coalition events, exercises and mission rehearsals to train warfighters and battle staffs in the full spectrum of operations. Security addresses issues arising with networked simulations that transfer/receive data across varying levels of classification including multi-level security, multi-national information sharing, cross domain solutions, distributed training network guards, etc. Live, Virtual, Constructive Live, Virtual, /Range Integration promotes integrated Live, Virtual, solutions across the Air Force including the live test and training ranges.

The Live, Virtual, Programs Division is responsible for identifying requirements for modeling and simulation support to the warfighter, program oversight to the Air and Space, Cyber Constructive Environment, certification and accreditation efforts, and the identification and possible integration of environment generators across the Air Force to support training; the identification of requirements focus on capabilities to support Numbered Air Force/Air Operations Center, which includes Intelligence and Cyberspace. A focus is also placed on obtaining the necessary funding from various sources within the Air Force, other Services and Joint communities to address needed capabilities.

The Foundations Division is divided into two branches: Workforce Development/Outreach and Standards. The Workforce Development/Outreach Branch is responsible for growing a group of senior leaders that will understand, trust and is willing to exploit what modeling and simulation has to offer. The Standards Branch ensures the Air Force has interoperable standards, protocols, architectures and databases for our simulations supporting training, acquisition, experimentation and analysis.

Air Force Agency for Modeling and Simulation (AFAMS)

AFAMS was activated in June 1996 in Orlando, Florida. As a result of the 4-star M&S Summit in 1995, the Chief of Staff of the Air Force directed the establishment of a Field Operating Agency (FOA) to be named the Air Force Agency for Modeling and Simulation (AFAMS). The Secretary of Defense certified to Congress that the

FOA was required, and Congress authorized the establishment of AFAMS. Initially aligned under AF/XO, AFAMS was realigned under the AF/XI when the DCS for Warfighting Integration was established in April 2002.

In Dec. 1999, the Theater Battle Arena (TBA) became the AFAMS Pentagon Operating Location. AFAMS achieved full strength in calendar year 2000 with 33 government (18 military and 15 civilian) and 33 contractor personnel in Orlando and 4 government (3 military and 1 civilian) and 12 contractor personnel at the TBA. AFAMS is recognized as the AF leader and focal point for M&S, and as a result, six organizations sponsor liaisons at AFAMS working key M&S issues. The organizations providing liaisons are the National Security Agency (NSA), United States Special Operations Command (USSOCOM), Air Intelligence Agency (AIA), Electronic Systems Command (ESC), Air Force Research Laboratory (AFRL), and the Office of the Chief of AF Operations (AF/XOQ).

AFAMS works closely with its sister Services, OSD, JCS and Combatant Commanders throughout the world. It is conveniently located in the Florida Center for Simulation, near other DoD organizations: the Joint Simulation System (JSIMS) Joint Program Office; Army Program Executive Office for Simulation, Training, and Instrumentation; Naval Air Orlando Training Systems Division; Marine Corps Program Manager for Training Systems; and Institute for Simulation and Training of the University of Central Florida.

Mission

AFAMS's mission is to lead, advocate and focus upon the realization of the integrated seamless, realistic environment by implementing Air Force, Joint, and Department of Defense Modeling and Simulation policy and standards; supporting corporate Air Force M&S planning, requirements, and investment; supporting establishment, transition, and integration of major Air Force M&S initiatives and programs; and supporting Air Force decision making and mission execution.

Distributed Mission Operations (DMO)

DMO is an Air Force readiness initiative to achieve a seamless environment for training of individual, team, and inter-team skills, culminating in improved combat capability for the war fighter. Its primary focus allows war fighters to train as they would expect to fight and to maintain primary combat readiness at home or deployed. DMO will enable operational units to practice their combat skills on a daily basis by using primarily operational systems in a realistic training environment; Aerospace Expeditionary Force or Joint Force Commanders (JFC) will prepare and assess their forces for real-world missions. DMO will link current and future weapons systems and high fidelity simulators and simulations with other command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems to create an interactive operational environment to provide distributed training, rehearsal, or operations support for any war fighter in the global battlespace, whether operational or synthetic.

Air Force Modeling and Simulation Resource Repository (AFMSRR)

AFMSRR is part of a DoD-wide system of Modeling and Simulation (M&S) databases that allows users to discover, access, and obtain M&S resources in support of military assessments, training, and acquisition. It is a web-based application that provides users the ability to search or browse a catalog of records

containing descriptions of models, simulations, databases, tools/utilities, standards, publications, points of contact, and related web sites. The AFMSRR was developed to foster the reusability and interoperability of M&S applications and databases, and thereby serve to reduce redundancy and developmental costs.

Air Force M&S Training Toolkit (AFMSTT)

The AFMSTT represents the Air Force approved modeling and simulation tools for portraying air and space operations in the battle staff training environment. It is an aggregate set of computer simulation models and interfaces used to facilitate the training of senior commanders and their battle staffs in the execution of joint and combined operations. The Toolkit is comprised of the following models and interfaces:

Air Warfare Simulation (AWSIM) is used for team skills development and as nonscripted command post exercise driver.

AWSIM to Theater Battle Management Core System (TBMCS) Interface (ATI) provides an interface between AWSIM and TBMCS. It provides for correlation between the two systems and AWSIM order generation based upon the Air Tasking Order release from TBMCS.

AWSIM Analysis Tool (AAT) provides the capability of performing real-time analysis of the air war as modeled by the AWSIM simulation. The primary purpose of the tool is to help troubleshoot problems before they impact the training audience.

Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS) is a virtual simulation capable of providing commanders, staffs and operators with a common training system for the employment tasking, processing, exploitation, and dissemination of imagery

Logistics Simulation (LOGSIM) enhances AWSIM realism by logistically constraining air operations without impeding exercise-training objectives. It is primarily an aircraft maintenance model.

Graphical Input Aggregate Control (GIAC) provides a distributive simulation environment that can be used to create a realistic atmosphere for training.

Air Force Modeling and Simulation Professional Development (AFMSPD)

The goal of Air Force Modeling and Simulation Professional Development is to increase M&S expertise and understanding. An Advanced Distributed Learning Modeling and Simulation Introductory Course for AF personnel assigned to M&S jobs is available along with information about M&S awards program, education and training, courses, conferences, documents, and other resources to facilitate learning.

Decision Support to the Warfighter

The Decision Support to the Warfighter is an effort to identify decision support related efforts in other Services, Joint Agencies, and OSD. AFAMS is teaming with the AC2ISRC and the Air Force C2 Battle Lab to help identify programs that can be leveraged, expanded into multi-Service efforts, nominated for initiatives at AF Battlelabs, or used to improve battlespace knowledge and prediction for Joint Force components in future military operations. The goal of this effort is to field improved tools for the commander to complete crisis action planning, to build battlespace knowledge and stay within the enemy's decision cycle.

Air Force Order of Battle
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Sources
AFHRA