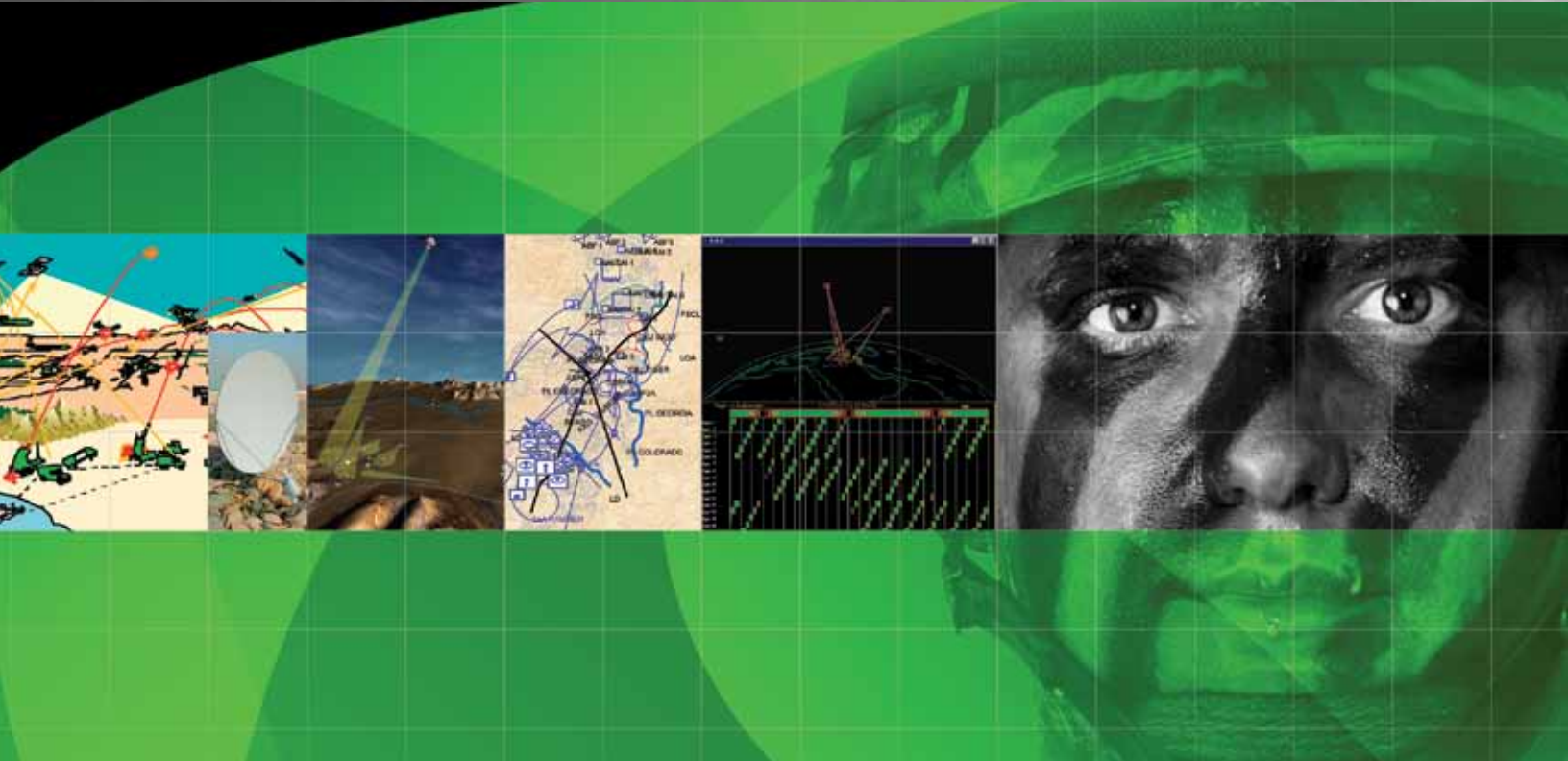




S&A

Studies and Analysis Division



Summary

- Technical personnel with operational knowledge
- Analysis experience with constructive force-on-force simulations
- Proficiency in experimental and analytic design
- In-depth statistical data analysis skills
- Proficiency in executing Cost-Benefit Analysis

Determining the military utility of space, missile defense, high altitude, and cyber operations to the current and future ground warfighter through studies, analyses, and wargaming.

The Studies and Analysis (S&A) Division is focused on determining the military utility of space, missile defense, high altitude, and cyber systems, as well as the associated Concepts of Operation (CONOPS) for the current and future ground warfighter. S&A evaluates the utility of systems and CONOPS through tabletop wargames and experiments; Analysis of Alternatives (AoAs) in support of material development activities and capabilities requirements determination; assessments of advanced concepts; and analyses that define space, missile defense, high altitude, and cyberspace operations for the ground Warfighter. Bottom line: S&A has conducted major studies that supported decisions made at the Army and higher levels – both in determining the best way ahead in support of the Army Joint Capabilities Integration and Development System (JCIDS) process and in influencing joint development efforts of the other services and Homeland Defense that impact the current and future ground Warfighter.

S&A has developed and sustained the core competencies required to execute these functions: operational experience, force-on-force simulation expertise, statistical analysis skills, Cost-Benefit Analysis (CBA) proficiency, and design of experiments expertise. These competencies, combined with an extensive in-house suite of models and simulations, have enabled S&A to conduct studies and analyses that have impacted major decisions made at the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, Department of the Army, Department of the Air Force, Joint Staff, U.S. Strategic Command, and Office of the Secretary of Defense levels.

Operational Analysis — S&A analytically supports USASMDC/ARSTRAT, DA, and the Department of Defense in all operational aspects of space, missile defense, high altitude and cyber operations support to the ground Warfighter. S&A is able to conduct analyses for the full warfighting spectrum based on a staff of professional operations research analysts who have extensive experience in the areas of space, missile defense, high altitude, cyber, and military combat operations. S&A has modified, as well as created, scenarios; developed measures of performance and effectiveness and other critical metrics; and has directed studies involving multiple organizations. S&A also collaborates with the U.S. Army Training and Doctrine Command to develop scenarios and maintain force-on-force simulations.

Experimental and Analytic Design — S&A designs experiments and analyses from planning and execution to synthesis and reporting. S&A has broad experience in the design of experiments to ensure that the collection of data supports all Essential Elements of Analysis (EEAs). S&A has developed the methodology for experiments and analyses for numerous efforts and has assisted other DoD organizations in designing their experiments and analyses.

Statistical Data Analysis — S&A has the internal capability to perform a complete range of statistical data analysis. S&A consists of analysts who have an extensive background in mathematical and simulation modeling – both operational and cost based – utilizing the latest methodologies and tools.

Force-on-Force Simulation — S&A maintains an in-house suite of force-on-force simulations that include engineering, tactical, theater and operational-level simulations. S&A maintains a staff fully dedicated to maintenance, sustainment and operation of these tools, which enables the execution of quick turnaround analyses as well as long-term studies.

Cost-Benefit Analysis — S&A conducts cost benefit analyses to identify solutions that address Army and organizational objectives by quantifying potential financial impacts and performance improvements. S&A consist of analysts with experience and training in the execution of CBAs and CBA-related assessments.

Past and Ongoing Studies

- Tactical Space Protection Study (study lead)
- Space Impacts on Precision Fires Study (study lead)
- Terrestrial Communications Study (study lead)
- Ballistic Missile Defense System Military Utility Analysis (MUA) (analytical contributor)
- Joint Capabilities Mix Study (analysis support)
- Countermeasure Implication Study (Army analysis lead)
- TRADOC Experimentation (USASMDC/ARSTRAT analysis lead)

- Ballistic Missile Defense Experimentation – Nimble Fire (analysis coordinator)
- Analytic Support to Regional Combatant Commands and Homeland Defense (study lead)
- Army Space Control Analysis (technical study director)
- Army Space Control Analysis of Alternatives (technical study director)
- Tactical Satellite III Joint Military Utility Analysis (analysis lead)
- Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System Sufficiency Study (analysis support)
- Surface Based Interceptor Study (analysis lead)
- Rapidly Deployable Space Capabilities Based Assessment (Army study lead)
- OSD Decision Support Center Swarming Entities Study (analysis lead)
- DA G-8 Army Equities in Space – Intelligence, Surveillance, Reconnaissance Study (technical study director)
- National Security Space Office Protection for Space Mission Assurance Architecture Study (Army study lead)
- Precision Guided Mortar Munition Effectiveness in Urban Terrain Study (analysis lead)

In-House Simulation Tools

- Satellite Tool Kit (STK)
- One Semi-Automated Forces (OneSAF)
- Systems Effectiveness Analysis Simulation (SEAS)
- Extended Air Defense Simulation (EADSIM)
- Joint Conflict and Tactical Simulation (JCATS)
- Tactical Operations Workstation (TOWS)
- Command and Control Battle Management and Communications (C2BMC) Planner
- Joint Theater Level Simulation (JTLS)
- Advanced Warfighting Simulation (AWARS)
- Extend



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