

ManTech International Selects STK for Training, Exercise, and Simulations

Modeling/Simulation of a Degraded Environment

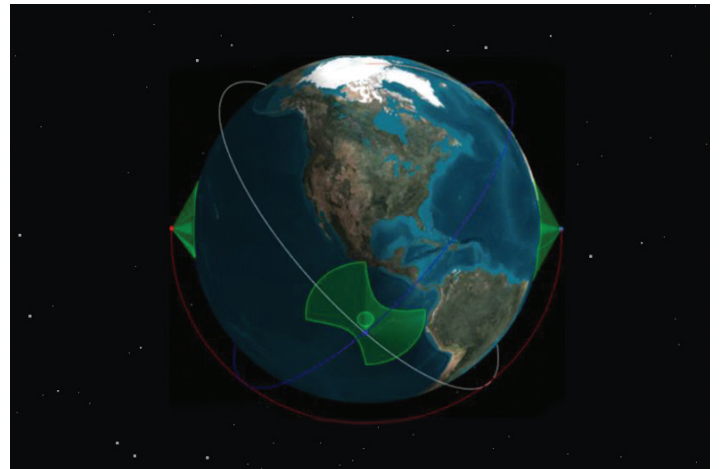
ENVIRONMENTS FOR TESTS, TRAINING, AND EXERCISES:

ManTech International—a Virginia-based provider of technology solutions in information systems, environment, telecommunications, defense, and aeronautics—selected Systems Tool Kit (STK) from AGI for their training, exercise, and simulation needs. The software allowed them to input such environmental factors as position, velocity, time-and-space, field-of-view, and line-of-sight. It also incorporates technological factors. These include frequency, required bandwidth, system/sensor performance, antenna size and gain, communications parameters, transmitter power, receiver sensitivity, and data-transfer rates. System output produces such valuable information as data integrity, potential corruption, collection time, signal-to-noise ratio, propagation rate, latency, and bit-error rate.

MODELING OF REAL-WORLD CYBER EFFECTS:

The STK network model simulates a network environment, allowing engineers to access a virtual instance of a real-world environment. It incorporates both servers and workstations, virtual actors, message traffic, and application manipulation. Used for training exercises, STK can quickly generate multiple identical instances for easy extraction of network metrics. The value added has enhanced decision-making capabilities—providing an integrated package for simulation, modeling, and course-of-action analysis.

When ManTech International selected Systems Tool Kit (STK) from AGI for their training, exercise, and simulation needs; the system showed significant potential in a number of areas. These include testing and evaluation, training and exercise, analysis, and R&D. As a result; the company now has access to better-quality information in detect-to-edge, physically variable, overcast sky, and oblique-run conditions.



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When ManTech International needed to examine performance of satellite assets in a potentially degraded environment, they relied on AGI's Systems Tool Kit (STK). STK has simplified their training, exercise, and simulation needs in transport, event-planning, and rapid-repositioning scenarios. As a result; they now have access to better-quality information in detect-to-edge, physically variable, overcast sky, and oblique-run conditions.

RESULTS OF SCENARIO CONFIGURATION: The system shows significant potential in a number of areas. These include testing and evaluation (including iterative testing, C&A, IV&V, and net-centric sensors/systems), training and exercise (including new equipment, CNO, staff/operator, and wargaming), analysis (including technology integration, capability-based assessment, AoA, DoDAF artifact creation/validation, CONOPS development, and effectiveness quantification), and R&D (including rapid prototyping, SOS/FOS, and offensive/defensive IO tool development).