



NAVAL SIMULATION SYSTEM (NSS) MARITIME OPERATIONS COURSE OF ACTION ANALYSIS TOOL

Quantitatively Evaluating
Task Force Effectiveness



EVALUATE OPERATIONAL PLANS

Simulate OPLAN execution vs. assessed threat to identify gaps and seams.

ANALYZE EXERCISES/ EXPERIMENTS

Simulate planned/actual maneuver & CONOPS to maximize confidence building and investigate alternative approaches.

EXAMINE OPERATIONAL CONCEPTS

Simulate innovative warfighting concepts in demanding tactical environments to evaluate their relative efficacy.

PRIORITIZE FORCE IMPROVEMENTS



Simulate alternative force capability mixes and rank according to quantitative impact on force operational effectiveness.



NSS EFFICIENTLY ASSESSES ALTERNATIVE FORCE STRUCTURES, CAPABILITIES, CONCEPTS OF OPERATIONS, AND SCHEMES OF MANEUVER

Review scenario activity at the mission and engagement levels to **confirm appropriate operational behaviors**.

Investigate statistical results outliers **for critical insight into complex interrelationships**.

Rapidly **trace top-level warfighting effectiveness results to key drivers** and driver combinations in force behavior and environmental conditions.



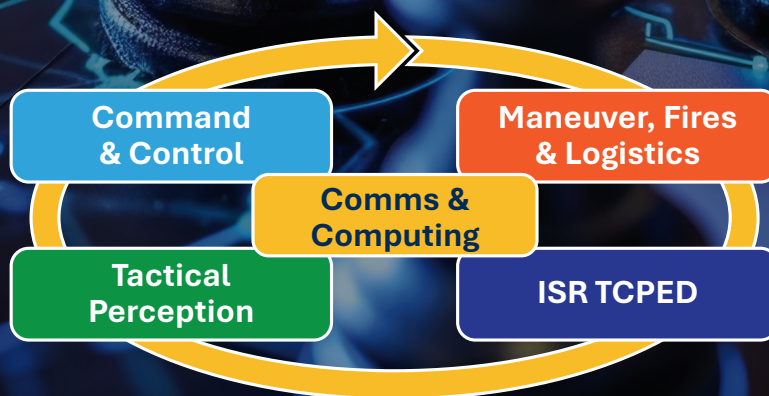
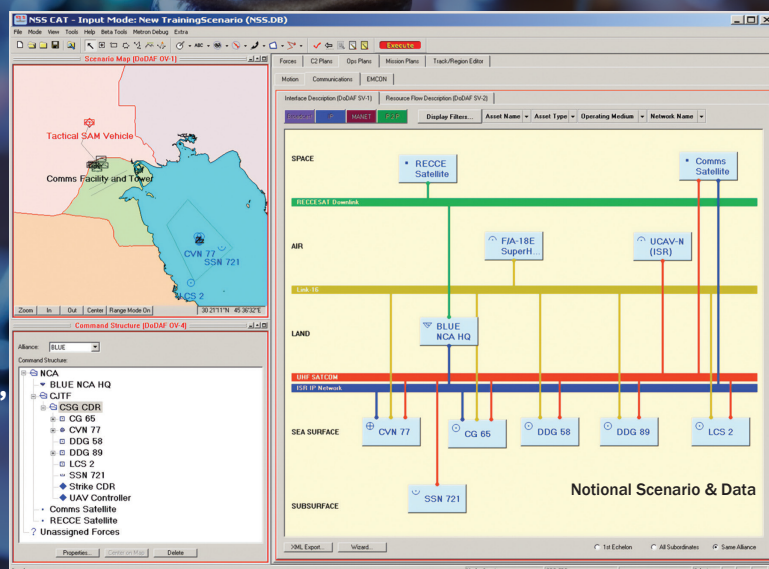
NSS QUANTITATIVELY EVALUATES THE RELATIVE IMPACT OF COAs ON FORCE OPERATIONAL EFFECTIVENESS

C4ISR-Centric Explicit Modeling of campaign to engagement-level plans including branches & sequels; individual group/mission/asset commanders, command relationships and control constraints; internal and external communications architectures; command/intel center data processing and Kalman filter fusion-driven perception based on tactical decision making.

Multisided, Full-Spectrum Maritime Operations, with extensive coverage across surface, subsurface, land, air, and space domains, including ISR TCPED, kinetic/non-kinetic engagement, logistics consumption and replenishment, operator proficiency, system reliability and damage/malfunction & repair.

Comprehensive Template Repository for commanders, plans, tactics, platforms, systems, adjudication arbiters, and metrics.

Intuitive User Interface, with map, editor, or file input modes and an extensive wizard toolbox for rapid entity library building and scenario development; powerful interactive run/playback mode for in-depth scenario review and cause/effect traceability; rapid batch processing setup and automated runtime error debugging; automated results data post-processing.



NSS Sponsors: US Department of Defense, US Navy, US Marine Corps, US Coast Guard

- Chairman of the Joint Chiefs of Staff
- US Navy, Commander US Pacific Fleet
- US Navy, Chief of Naval Operations
- US Navy, Warfare Development Center
- US Navy, Naval Air Warfare Center
- US Navy, Undersea Warfare Center
- USMC, Combat Development Command
- US Coast Guard

◆ Decision Support for National Security

Systems Planning & Analysis (SPA) delivers data-driven analytical insight and engineering expertise that advance national security priorities. With more than 50 years of experience, SPA's differentiated capabilities and mission engineering tools drive outcomes across the most complex defense and security challenges.



For more information, email: info@spa.com.
2001 N Beauregard Street,
Alexandria, VA 22311
703.931.3500

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