

# COMSTAT



COMBINED OPERATIONS MODELING,  
SCHEDULING, AND TRACKING ANALYSIS TOOL

SMART DECISION SUPPORT FOR COMPLEX  
PLANNING AND OPERATIONAL CHALLENGES.

COMSTAT's consolidated capabilities help decision  
makers meet challenges with informed solutions.  
Optimize planning. Simulate reality. Quantify tradeoffs.

## FLEXIBLE MODELING

Customize schedules for different forces, a variety of requirements, and time ranges from hours to decades.

## DYNAMIC SCHEDULING

Replace manual, time-consuming processes with tools that optimize goals while staying within rules.

## INTEGRATED TRACKING

Streamline schedule creation and management. Modify schedules to respond to new or changing events while monitoring the effects on goals and requirements.

## PROVEN METHODS WITH 25+ YEARS OF APPLIED EXPERIENCE

→ **Analyze** force structure questions with a schedule-based approach

→ **Create** usable and detailed plans

→ **Model** the interaction and coordination of forces and individual assets

→ **Fully customize** requirements, planning factors, and goals

→ Mathematical processes **save time** and improve outcomes



OBJECTIVE | RESPONSIVE | TRUSTED



## COMSTAT QUANTIFIES OPERATIONAL TRADEOFFS BY SIMULATING REALITY AGAINST OPTIMIZED SCHEDULES.

### → OPTIMIZE PLANNING

Mathematical methods with 70+ years of theory and applications are used to connect goals, requirements, and rules to produce "best possible" schedules.

### → SIMULATE REALITY

Monte Carlo methods inject schedules with random "disruptions" based on historically informed factors to replicate operational challenges.

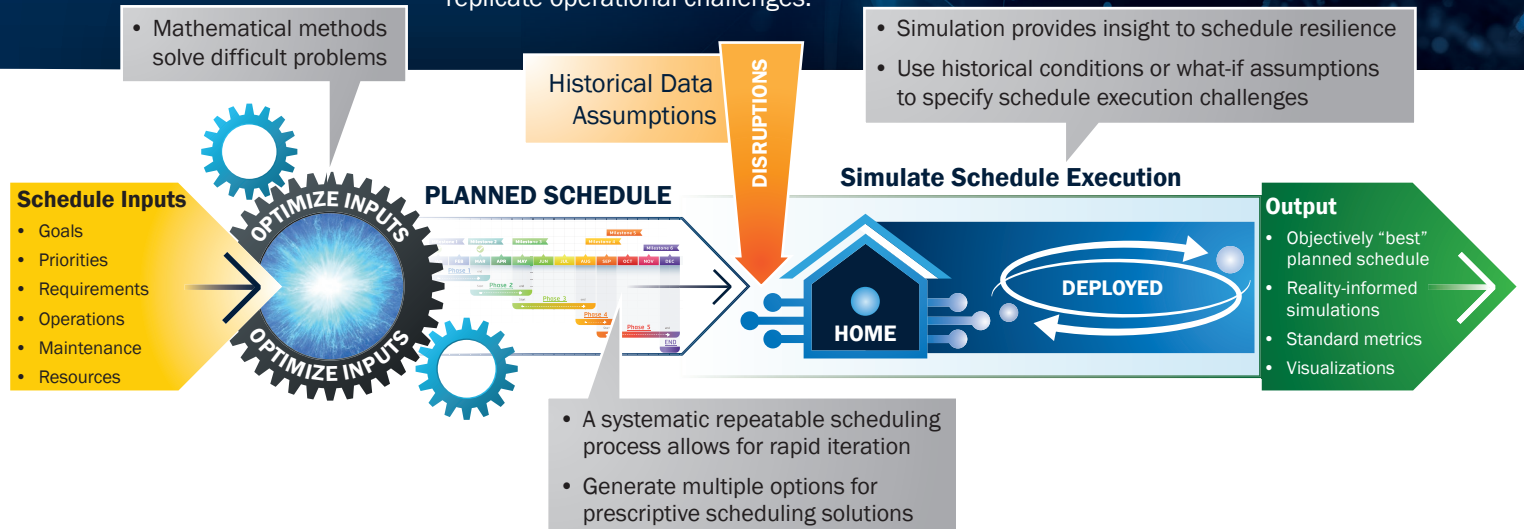
### → QUANTIFY TRADE-OFFS

Schedule-based metrics integrated with visualizations present complex scenarios and interactions consistently and intuitively.

• Mathematical methods solve difficult problems

Historical Data Assumptions

• Simulation provides insight to schedule resilience  
• Use historical conditions or what-if assumptions to specify schedule execution challenges



→ **COMSTAT EQUIPS PLANNERS AND DECISION MAKERS WITH FLEXIBLE ANALYTIC CAPABILITIES THAT SAVE TIME AND DELIVER SOLUTIONS TO COMPLEX PROBLEMS.**

**Optimize Planning:** Create detailed schedules that coordinate goals, force-level requirements, operational priorities, maintenance needs, and other factors. Metrics provide guarantees for consistent schedule quality with measurable, traceable, rigorous mathematical certainty.

**Simulate Reality:** Simulate to understand the range and likelihood of outcomes that result when a plan encounters real-world challenges. Quantitatively assess resilience under historical conditions and what-if case assumptions.

**Quantify Trade-offs:** Construct and analyze different scenarios to understand interactions between requirements and resources. Schedule-based outputs provide metrics that are comparable across all scenarios.

## DECISION SUPPORT FOR NATIONAL SECURITY

Systems Planning & Analysis, a leading global provider of advisory services supporting national security objectives, provides deep domain expertise, problem-solving capabilities, and a results-driven approach to program lifecycles, reaching a wide spectrum of market areas.

With over 50 years of experience, SPA successfully manages large, integrated professional service projects in engineering, analytics, modeling and simulation, and financial and scientific services for clients worldwide.



COMSTAT POC: [comstat@spa.com](mailto:comstat@spa.com)  
2001 N Beauregard Street  
Alexandria, VA 22311  
703.931.3500

To learn more about SPA, please visit [spa.com](http://spa.com) and connect with us on **LinkedIn, YouTube, and Facebook.**



[www.spa.com](http://www.spa.com)

OBJECTIVE | RESPONSIVE | TRUSTED

# COMSTAT



COMBINED OPERATIONS MODELING,  
SCHEDULING, AND TRACKING ANALYSIS TOOL

**SMART DECISION SUPPORT FOR COMPLEX  
PLANNING AND OPERATIONAL CHALLENGES.**

COMSTAT's consolidated capabilities help decision  
makers meet challenges with informed solutions.  
Optimize planning. Simulate reality. Quantify tradeoffs.

## FLEXIBLE MODELING

Customize schedules for different forces, a variety of requirements, and time ranges from hours to decades.

## DYNAMIC SCHEDULING

Replace manual, time-consuming processes with tools that optimize goals while staying within rules.

## INTEGRATED TRACKING

Streamline schedule creation and management. Modify schedules to respond to new or changing events while monitoring the effects on goals and requirements.

**PROVEN METHODS WITH 25+ YEARS OF APPLIED EXPERIENCE**

- **Analyze** force structure questions with a schedule-based approach
- **Create** usable and detailed plans
- **Model** the interaction and coordination of forces and individual assets
- **Fully customize** requirements, planning factors, and goals
- Mathematical processes **save time** and improve outcomes



**OBJECTIVE | RESPONSIVE | TRUSTED**