

## Latest Generation Architecture and IP Technology

Northrop Grumman's BattleSpace Command™ is hosted on the latest generation system hardware architecture. Its N-tier, IP architecture employs COTS equipment and dual redundant UNIX servers with all data stored on RAID 5 arrays. It uses Windows operator positions and boasts the latest in integrated system security, network monitoring and information assurance.

BattleSpace Command's™ advanced IP technology seamlessly connects anywhere in the battle space using our advanced IP network design. It provides communications paths by automatically rerouting data to redundant network paths and dynamically allocating network resources.

## State-of-the-Art Security and Encryption



Photo courtesy of Department of Defense

BattleSpace Command's™ architecture provides the latest in integrated system security, network monitoring and information assurance. Security and monitoring solutions are applied to every server and workstation. BattleSpace Command™ provides auditing utilities and multi-level access security, as well as network protection via firewalls, intrusion and anti-virus detection and centralized monitoring and control.

BattleSpace Command™ contains state-of-the-art communications encryption for all wired and wireless communication channels.

## Situational Awareness from Data Integration

BattleSpace Command's™ architecture is DII COE compatible and provides highly scalable software as well as powerful capabilities for integrating data from multiple sources. The interface layer of the system architecture supports application programming interfaces, messaging protocols and data links that enable easy integration of internal and external sources such as radars, video, messaging, tactical radios and other types of sensors. This integration produces a Common Operational Picture (COP) that provides enhanced situational awareness. BattleSpace Command's™ fail-safe UNIX servers assure that the COP stays up-to-date and integrated data can be filtered according to the needs of a specific echelon.

## BattleSpace Command™ C4ISR Solutions



### Northrop Grumman's BattleSpace Command™ Solution: Rapid Response for Crisis Situations

Providing secure data and voice communication networks that allow for timely and accurate delivery of critical intelligence information to military commanders in the field.



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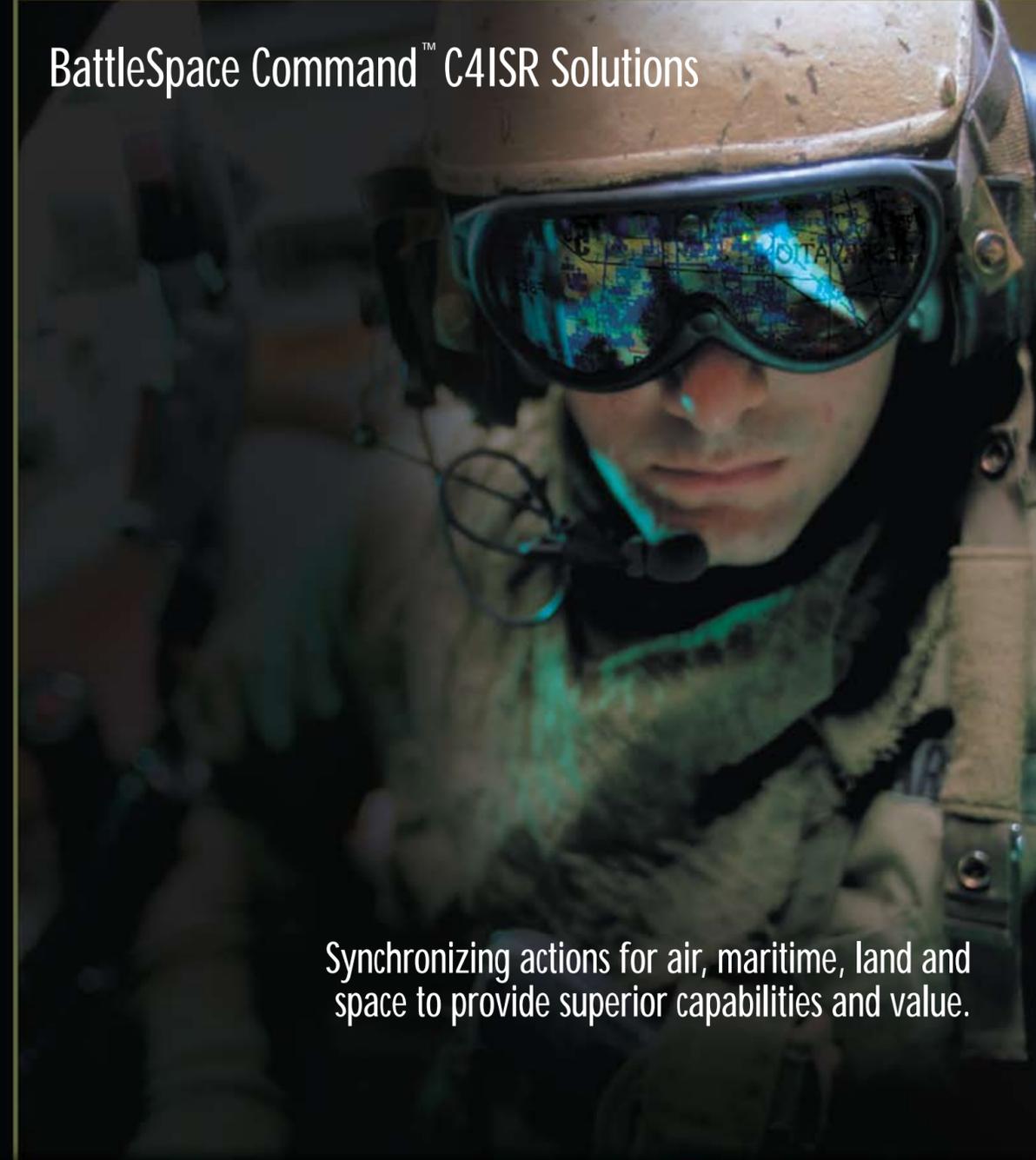


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## BattleSpace Command™ C4ISR Solutions



Synchronizing actions for air, maritime, land and space to provide superior capabilities and value.

## BattleSpace Command™ C4ISR Solutions

Northrop Grumman, the world's premier designer of network-centric Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) solutions, introduces BattleSpace Command™, a completely integrated, state-of-the-art national security solution.

BattleSpace Command™ is a set of advanced C4ISR software and intelligence tools that provides a common operating picture that is fully synchronized with all echelons of your military's command structure. It is a proven technology built on the experience gained as a leading supplier to the United States Department of Defense that merges data from air, maritime, land and space surveillance systems, providing informational superiority and enhanced situational awareness — the keys to decisive action and battle supremacy.

## Flexibility and Affordability for Customer Needs

BattleSpace Command™ has many features and tools that are easily adaptable and can be customized to meet the needs of a specific user. Its software is highly scalable based on the Defense Information Infrastructure Common Operating Environment (DII COE) core framework and can be configured according to customer needs, from an individual branch of service to national joint operations.

Database query and analysis tools, as well as planning and 3-D visualization tools, are easily tailored for each force and their specific needs. In addition, available commercial off-the-shelf (COTS) tools for intelligence, logistics and simulation are available.

## Humanitarian Assistance

BattleSpace Command™ can also fully integrate with national civil security and emergency management agencies to respond immediately to natural and man-made disasters. When lives are at stake, BattleSpace Command's™ mobility, interoperability and scalability help to facilitate the coordination, planning and action that are crucial between civilian and military organizations.



Photo courtesy of Department of Defense

## Critical Reports and Planning Tools

BattleSpace Command™ can manage a high volume of requests for information and generate detailed reports and briefings. It contains a computerized planning toolset that provides users with tools required to quickly and efficiently prepare for any peacetime or conflict scenario. The toolset consists of:

- Course of Action Analysis
- Correlation of Forces
- Force Deployment Lists
- Orders and Guidance
- Collaborative Planning

Collaborative planning allows interaction between geographically dispersed users and provides a shared, synchronized view of a planned tactical situation. During planning sessions, users can exchange text messages and utilize drawing and annotation tools. Users can also store and re-convene sessions without loss of any display information.

The course of action planning tool provides an interactive, computer-assisted simulation that models multi-sided air, ground and naval combat. This tool can simulate logistics, special operations forces and intelligence and assist with joint and coalition operation plan development. BattleSpace Command's™ course of action planning tool also helps train your military's senior-level staff.

## Advanced Visualization and Communications

BattleSpace Command™ provides 2-D and 3-D map data and overlays. It provides air tasking order and air-space control means visualization. It offers defense condition, air and missile defense warnings, maritime and ground attack status.

With its fixed and mobile operations centers, BattleSpace Command's™ end-to-end Internet Protocol-based (IP) communications system design provides forces from headquarters through platoons with a comprehensive picture of a military situation.



Photo courtesy of Department of Defense

## Superior Capabilities and Value

- Hosted on the latest generation system architecture
- DII COE core framework
- Advanced IP technology
- State-of-the-art communications encryption
- Fail-safe UNIX servers
- 2-D and 3-D map data
- Vertically integrated
- Scalable
- Tailored to individual customer needs
- Affordable and supportable COTS tools
- Backed by the full support of Northrop Grumman

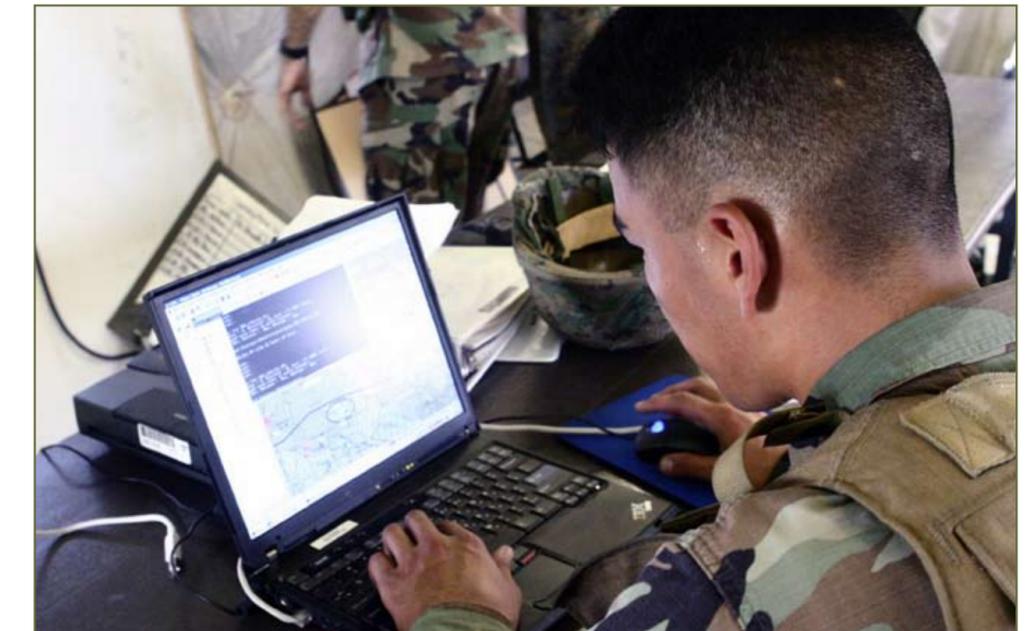


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