DRAFT 2.02

PART III – SECTION J
Attachment 2

STATEMENT OF OBJECTIVES

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Reviewed by:

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ISPAN

DRAFT 2.02

USSTRATCOM PLANNING SYSTEM MODERNIZATION

STATEMENT OF OBJECTIVE

1.0 Background.

1.1 The President and the Secretary of Defense have directed transformation throughout the Department of Defense (DoD). This directly affects USSTRATCOM, initially through the Nuclear Posture Review, and more recently through Change 2 to the Unified Command Plan (UCP) 2002. USSTRATCOM is directed to establish and provide capabilities established in the Nuclear Posture Review, full-spectrum global strike, and coordinated space and information operations capabilities to meet both deterrent and decisive national security objectives. USSTRATCOM is further directed to provide operational space support, integrated missile defense (IMD), global C4ISR, and specialized planning expertise to the joint warfighter.

1.2 In anticipation of these additional missions, an element in the President's budget for FY03 was the Strategic Capability Modernization (SCM). SCM includes the integration of an advanced network infrastructure that enables communications/intelligence/ surveillance, command decision support, and situational awareness to provide the necessary capabilities to support the New Triad missions. These missions may include, but are not limited to, holding at risk Hard and Deeply Buried Targets, special strike C2 systems, and countering Weapons of Mass Destruction (WMD).

1.3 A key capability necessary to meet these new critical missions is a robust planning and analysis system that is capable of both deliberate and adaptive planning, employing the full spectrum of kinetic and non-kinetic weapons in support of rapid execution. The Strategic War Planning System (SWPS), renamed the Integrated Strategic Planning and Analysis Network (ISPAN), is the nation's only strategic war planning system. However, it was developed and deployed for the Cold War and is not designed to handle the collaboration, information exchange, peacetime deliberate and crisis action planning, decision support, and complex strike options required of the modern strategic environment. Additionally, as a deliberate planning system, ISPAN is not sensitive to the improved speed of available surveillance, intelligence collection, and analyses; nor is it capable of utilizing a range of other U.S. system capabilities. USSTRATCOM must transform ISPAN to meet the new national objectives and assure the nation of a premier war planning system.

1.4 The new planning system will transform as USSTRATCOM's missions are matured, new systems are developed, and the threat changes. The new planning system must be innovative in its openness, flexibility, scalability, and extensibility so it can incorporate and develop tools to support the production of assigned OPLANS, to include OPLAN 8044; Theater Planning and Global Strike Support Documents; new UCP tasking and related products. The new planning system must advance USSTRATCOM's adaptive and collaborative planning capabilities to support UCP missions including Strategic Deterrence (nuclear, conventional, and non-kinetic); Global Strike; Information Operations (IO); IMD; Space Operations; global Intelligence, Surveillance, and Reconnaissance (ISR); and other advanced strategic missions as they are defined. It must support the capability to interface USSTRATCOM with other parties (national leadership, other combatant commanders, intelligence and system acquisition) via the modernized DoD global C2 addressed in other parts of the SCM and via the C2 Modernization program at USSTRATCOM.

Integrated Missile Defence

2.0 Administrative Notes.

2.1 Use of terminology. This SOO is intended to convey the government's vision as a guide to the contractor in developing a Performance Work Statement. The term "requirement" indicates the statement establishes, or is derived from, a validated requirement. The term "need" indicates the government's intent without establishing a separate requirement.

3.0 The new USSTRATCOM planning system—Vision.

3.1 In order to transform planning and analysis, USSTRATCOM has developed integrated and mission area concepts of operations and examined process simulation models for transforming the current system. Requirements derived from these activities are contained in a Technical Requirements Document (TRD). As the Command's concepts evolve, updated validated requirements will be incorporated into formal TRD changes through standard Engineering Change Proposal (ECP) processes. ~~The TRD will be updated as the Command's concepts evolve and remain the single new planning system requirements document throughout the project.~~ The overarching objectives identified for the program include the following:

3.1.1 The architecture will be expanded to integrate and/or interface additional and more sophisticated planning tools and analysis models. These planning and analysis capabilities will address the needs of the newly assigned mission areas, extending the analytical rigor of the current system to these new areas.

3.1.2 The analytical capabilities of the system will be enhanced by integrating or incorporating tools that not only address best-estimate performance and effects, but also plausible uncertainties in planning parameters. The system will be capable of conducting analyses at varying levels of detail using data at varying stages of completion.

3.1.3 The system will be fed by a revolutionary effects-based planning capability.

3.1.4 The system will incorporate a revolutionary new "executive function" that provides workflow management, increased automation, and a broad insight into the operation of the system and interface into the overall USSTRATCOM global C2.

3.1.5 Valuable parts of the existing planning functions will be reused and evolved to support the new mission areas and reengineered to increase speed and efficiency.

3.1.6 The system will incorporate revolutionary new optimization functions to examine and evaluate new and existing plans across a variety of Measures of Effectiveness (MOEs). These functions will be rules-based to allow for rapidly building various planning options in support of support different and varied scenarios, and to allow detailed analysis of higher-level Courses of Action (COAs).

3.1.7 The system will incorporate a new decision support capability that provides better insight into the increasing array of solutions being proposed. This insight will include the confidence or uncertainty bounds of the plans, and is to be understandable by commanders, planners, and systems and intelligence experts who support the planning process. The decision support capability will also feed display capabilities provided by other programs, to include USSTRATCOM's C2 Modernization.

3.2 Implementation of this transformation is aggressive, but not unprecedented, and, as such, could have multiple solutions. The system's architecture will be a key component to the successful achievement of the objectives. The architecture must be open, flexible, extensible and scalable to meet evolving USSTRATCOM and national decision requirements. The architecture design will be innovative in its approach to supporting current and future functionality and integration of that functionality. The architecture plan will present a reasonable migration strategy from the current architecture. The plan will take into consideration various integration strategies for subsystems based on USSTRATCOM's, possibly limited, ability to change the subsystem. The architecture will consider the security implications and needs of the system and will be compliant with the information assurance strategies of the Department of Defense.

4.0 Overarching Objectives.
The new planning and analysis system objectives are listed below. The capabilities associated with each objective, and their associated identified requirements, are further detailed in the Technical Requirements Document (classified SECRET).

DRAFT 2.02

4.1 Support the evolving nuclear war-planning mission. The new planning system must continue to provide the national leadership with a national nuclear war plan that fully supports national objectives, as it has for the past 30 years. The system must continue to be updated to meet evolving national guidance and objectives, and modifications resulting from the new planning system must not adversely impact the command's ability to create the national nuclear war plan.

4.2 Continue the current theater-support planning mission. USSTRATCOM must meet its commitment to the Regional and Functional Combatant Commanders' strategic and WMD planning needs.

4.3 Transform ISPAN, as a subset of the overall evolving global command and control (C2) USSTRATCOM mission. This will be accomplished by changing the ISPAN architecture from a federated-systems concept to a system-of-systems concept. The objective is an innovative, open, flexible, scalable and extensible war planning architecture to support USSTRATCOM's changing and increasing missions. As migration occurs, the software architecture shall achieve integrated Information Assurance and be designed with the goal of eventual full DoD Network-Centric Enterprise Services (NCES) and Global Information Grid Enterprise Services (GIG ES) compliance.

4.4 Support new mission areas and incorporate the strategic planning of conventional and emerging non-kinetic strike systems. New capabilities must be added to the existing system to enable creation of integrated plans in the compressed timelines directed. These capabilities will be integrated into the new architecture. The initial capabilities identified include an executive/workflow management function, an optimization function, a decision support services function, and an effects-based planning function.

4.5 Provide Systems Engineering, Architecture, and Integration (SEA&I) support to the government program office, through the Systems IPT, in order to effectively integrate newly developed software, the extant product line, the ISPAN legacy applications, and external software tools/programs, to include USSTRATCOM C2 software.

4.6 Establish management processes that will allow USSTRATCOM to evaluate impacts to cost, schedule and performance in both the baseline and development environment resulting from evolving requirements. These management processes will link together cost, schedule and requirements so USSTRATCOM will be able to examine changes to priorities and analyze impacts of these changes with minimal contractor involvement, prior to initiating formal change processes.

4.7 Ensure operators and maintainers obtain appropriate training to ensure the system can be utilized to its full capability.

5.0 Program Structure.

5.1 The new planning system program will incorporate evolutionary acquisition[1] and utilize spiral[2] and incremental[3] development, as appropriate. A multiple-year development contract with multiple, optional Operations and Sustainment (O&S) periods will be awarded to a single contractor.

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[1] Evolutionary Acquisition – An acquisition strategy that defines, develops, produces or acquires and fields an initial hardware or software increment or operation capability. It is based on technologies demonstrated in the relevant environments, time phased requirements and demonstrated manufacturing or software deployment capabilities.

[2] Spiral Development – A development process used in evolutionary acquisition in which the desired capability is identified, but end state requirements are not known at program initiation. Requirements for future increments may be dependant upon technology maturation and/or user feedback. Spiral development is the DoD-preferred development process under Evolutionary Acquisition strategies.
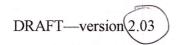
[3] Incremental Development – A development process used in evolutionary acquisition in which the end state requirement is known and the requirements will be met over time in one or more increments. Portions of an increment could utilize the spiral development process. For the purposes of matching existing OSD documentation,

DRAFT 2.02

5.2 The new planning system program will be divided into three development and production "Blocks," each of which will be divided into delivery "Increments." Software to be delivered for an incremental delivery may be created using Evolutionary Acquisition's spiral development or incremental development processes and then enter O&S, following completion of formal testing.

5.3 The initiation of a follow-on block will occur prior to the end of the current block in order to minimize disruption of development and testing during initiation of the next block. A single development period of performance will be utilized in the contract for the same reason~~; the single period of performance SHALL NOT obligate the government beyond Block I~~. The government expects a milestone decision will be required prior to initiation of follow-on blocks. ~~The contractor SHALL NOT be authorized to begin work on Block II or Block III without written authorization from the government Procuring Contracting Officer. The period of authorized work for each Block is structured to permit completion of ongoing work in the event a follow-on Block is not authorized.~~

5.4 Block I <u>development</u> will begin at contract award and continue through 30 September, 2007 (approximately 42 months). ~~The period of authorized Block I development will begin at contract award and continue through 31 January, 2008 (approximately 46 months), unless otherwise modified.~~ Block I also includes an initial O&S baseline for Data Management System, Document Production System, and Theater Integrated Planning System maintenance, enhancement, and development functions expected to start 1 October, 2004 and separate options for O&S of several software products also starting NET 1 October, 2004, if exercised.

5.5 Block II will begin on or about 1 October, 2006 (pending a milestone approval decision) and continue through 30 September 2009. ~~The period of authorized Block II development will begin on or about 1 February, 2007 and continue through 31 January, 2010 (approximately 36 months, with approximately 12 months overlapping the previous period of performance).~~ Block II includes the continuation of O&S and separate options for O&S of several software products.

5.6 Block III will begin on or about 1 October, 2008 (pending a milestone approval decision) and continue through 30 September, 2011. ~~The period of authorized Block III development will begin on or about 1 February, 2009 and continue through 31 January, 2012 (approximately 36 months, with approximately 12 months overlapping the previous period of performance).~~ Block III includes the continuation of O&S, separate options for O&S of several software products, and transition into ISPAN O&S phase. Additional development work beyond Block III would be dependent on further government approvals.

5.7 O&S will begin with the extant and optional product lines, and increase incrementally as each development product is completed and receives government approval to enter the ISPAN Production environment. Upon entry into the Production environment, life cycle cost will be managed by the contractor to maximize best value to the government and demonstrate efficiencies. A formal government DT/OT test will occur at the conclusion of each block. The O&S phase of this contract will continue through 31 January, 2014, unless otherwise extended.

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the term "Increment" will be used generically in the new planning system program to indicate a delivery within a larger program "Block," whether the software in the delivery is created using spiral or incremental development.

mission continuity. Describe the process for building reliability and maintainability into the system to minimize total cost of ownership/reduce life cycle costs.

3. Describe the approach to developing an open architecture that avoids proprietary or single-source solutions while accommodating the changing mission and the addition of new tools and capabilities. Include the rationale used to arrive at the proposed architecture, what evaluation factors were used in determining the proposed architecture, and why the proposed architecture was selected.

4. Explain how the proposed architecture shall be flexible and scalable to accommodate changes to the ISPAN computing environment, missions, and guidance as they evolve and mature. In the discussion, include how the architecture will accommodate changes in applications not controlled by this contract.

5. Describe how the proposed architecture is extensible through efficient integration of evolving technical capabilities (e.g., XML, distributed collaboration, guard technologies, data distribution), any risks associated with the technology, and any associated mitigation plans.

6. Describe the consistency of the proposed solution with DoD enterprise initiatives (e.g. Network-Centric Enterprise Services (NCES), Global Information Grid (GIG), Network-Centric Operational Warfare (NCOW)).

7. Describe the consistency of the proposed solution with USSTRATCOM's C2 Modernization Program (e.g. force status/readiness, fused battlespace vision, real-time collaboration, decision support presentation, etc.).

8. Describe the software development effort estimation process. Discuss linkage to systems engineering and change processes, standard methodologies and models, and how the software effort estimates shall be updated throughout the system life cycle. Explain how the estimates for extant and legacy applications were determined to be manageable. Explain why these estimates should be considered reliable (e.g. similarity to previous work in which estimates were reliable, use of industry processes demonstrating high maturity and reliability, etc.).

9. Describe the process for managing the impacts of obsolescence of Non-Developmental Item (NDI) products (to include COTS/GOTS) on the architecture, and explain why this process is appropriate.

10. Explain which metrics, particularly technical management leading indicators, you propose to collect and how the metrics shall be computed, analyzed, used, and reported. Explain what decisions will be supported/driven by the selected metrics. Explain what other metrics were considered and why they were rejected. Explain how and when the metrics collected are expected to change, and the process for identifying the need for different metrics.

11. Describe how the Executive function shall facilitate interfacing, integration, and interoperability with other USSTRATCOM and non-USSTRATCOM systems. Provide examples of systems which provide high payoff from integration, and describe why they are considered high-payoff. (Identified examples of interest include Theater Battle Management Core System (TBMCS), Joint Mission Planning System (JMPS), Air Force Mission Support System (AFMSS) Mission Planning System (MPS), Tomahawk Land Attack Missile (TLAM) Planning System.) Provide planned incremental capability and delivery dates, based on TRD requirements, and explain why this order provides the best value to the government.

12. Describe how the Optimization function shall produce war plans that are accurate, near optimal[3], extensible, scalable, verifiable, and consistent within system quantitative performance requirements. Provide planned incremental capability and delivery dates, based on TRD requirements, and explain why this order provides the best value to the government.

13. Describe how the Decision Support Services function shall provide a flexible and standards-based approach to provide the decision maker with near real time insight into the planning process and plan status. Provide planned incremental capability and delivery dates, based on TRD requirements, and explain why this order provides the best value to the government.

14. Describe how and when the Effects-Based Planning function shall be integrated with the Executive, Optimization, Decision Support Service, and legacy planning functions. Explain why this order provides the best value to the government.

4.3.2.2 Integrated Processes, Personnel, and Subcontracting. The offeror shall provide details of its integrated processes:

1. Describe the processes to refine, analyze, and assess solutions based on stated requirements (e.g., implementing system functions into the software architecture). Explain how new requirements shall be assessed for their impact on scheduled and costed delivery performance. Describe the approach to evolutionary acquisition and development/delivery of mission capabilities using the SDIP process. Discuss some of the critical milestones and associated key entry and exit decision criteria for Block 1 in the Integrated Master Plan (IMP) and explain why the selected milestones will help ensure success. Provide a top level outline of these criteria for Blocks 2 and 3. Describe/briefly demonstrate how requirements/engineering use cases, linked to WBS and EVMS work packages/reports and the IMS, will be used to manage the program in an evolving CONOPS/evolving requirements environment. Explain the government's real-time visibility into those processes.

2. Describe how the offeror's proposed integrated development processes will operate seamlessly with stakeholders. Describe why these processes were selected over others, and why they will provide the government insight into the work being performed by the offeror's teaming partners/ subcontractors with the same level of fidelity and currency as that performed by the offeror itself.

3. Describe the most significant identified risks to the ISPAN program in terms of cost/schedule/performance impact, likelihood and severity, and describe how these risks were identified. Describe whether the identified risks are on the program's critical path(s), and how this determination was made. Describe the risk mitigation process that will be used to identify, evaluate, document, continually track and manage those risks that would significantly impact the Modernization program, and explain how the risk mitigation process ties to the offeror's other integrated processes. In particular, whether or not identified by the offeror as a most significant program risk, describe the process for system migration, integration, and test, to include identifying, managing, and correcting software defects. That is, describe how the migration strategy shall ensure a smooth, risk-managed transition with no loss in operational capability, overall performance, and mission continuity. Explain how test plans, test procedures and test cases are developed, documented, reviewed and controlled to ensure these processes occur with the level of rigor proposed.

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[3] "Near optimal" is a term of art in OR/optimization. In some cases (generally research), a true optimum solution is known; that solution is used as a benchmark to evaluate the goodness of other algorithms in terms of how close their solution is—in terms of the Measures of Effectivenes (MOEs) and objective function—to the optimum solution. In most practical cases, the true optimum solution isn't known and must be implied by such things as historical algorithm performance, convergence rate (i.e., rate of solution improvement), etc. In the case of ISPAN, the "near optimal" solution is likely to be evaluated by a combination of comparison with known solutions and planner judgment.

~~will be used for the later Block. The offeror is not restricted to these percentages, but shall include the actual percentages proposed. The offeror shall also include the estimated percentage of FY 2008 funding to be applied toward Increment 6, and the estimated percentage of FY 2010 funding to be applied toward Increment 10.~~

5.4.46 The offeror shall sequence the delivery of TRD and TDD requirements to meet the Block end state capabilities listed below. The offeror shall identify which TRD and TDD requirements it proposes to satisfy in order to achieve the end-state capabilities listed.

BLOCK 1 END-STATE CAPABILITIES
Adaptive Planning & Analysis Vision--IOC
Theater/WMD Support--FOC
Workflow process management—Executive links to all applications (includes GIC/GOC collaborative planning interfaces)
S/W Architecture & IT development infrastructure
Initial versions of Decision Support & Effects-based planning tools
Automated COA construction—full Optimizer link to planning tools, automated target selection, & initial conventional weapons
Initial integration for IO, Space, C4ISR & Missile Defense (+ ODI)
Sustain and modernize DMS/DPS/TIPS; incorporate into baseline for efficiency per proposed architecture

BLOCK 2 END-STATE CAPABILITIES
Adaptive Planning & Analysis Vision—V2
Add conventional weapons
Improve IO, Space, C4ISR & MDI
Deliberate Planning--FOC
Modify S/W architecture to re-engineer and migrate existing applications
Respond to evolving requirements and technologies
Sustain & Modernize DMS/DPS/TIPS; incorporate into baseline for efficiency per proposed architecture
   --Automated data change analysis
   --Automated product distribution
Parallel task processing
System Integration & test services

BLOCK 3 END-STATE CAPABILITIES
Adaptive Planning & Analysis--FOC
Unit & Mobile Enhancements
IO, Space, C4ISR & MDI--FOC
Full Optimizer, Exec & DS integration
Respond to evolving requirements & integrate new technologies
Sustain modernized DMS/DPS/TIPS
System Integration & test services

5.5 The offeror's prices shall include a detailed Basis of Estimate (BOE) to include labor hours and direct labor rates in accordance with company practices for the base period and each option period for each CLIN, to include the optional priced CLINS. See, however, section 5.5.1. The BOE's associated with labor shall include application of Forward Pricing Rates, use of indices such as the Consumer Pricing Index (CPI), Employment Cost Index (EPI), or any other current industry-standard pricing practice. The offeror shall provide separate supporting data for estimated labor hours, Travel, Material, and all Other Direct Cost items (type and quantity) in order to allow for adequate understanding and evaluation. BOEs shall be complete and detailed to substantiate the resources proposed to perform the work, and map to a WBS as specified in paragraph 5.9.

5.4.1.1 Executive/workflow management
5.4.1.2 Optimization functions
5.4.1.3 Decision support services
5.4.1.4 Effects-Based Planning
5.4.1.5 Conventional Weapons Integration
5.4.1.6 Missile Defense Integration (to include Offensive/Defensive Integration)
5.4.1.7 Other Mission Areas
5.4.1.8 Systems Engineering, Architecture, and Integration (SEA&I)
5.4.1.9 Travel
5.4.1.10 Material/ODC
5.4.1.11 Program Management

5.4.2 Any increments proposed for delivery in conjunction with an Enterprise Database (EDB) cutover shall use the following identifying numbers (e.g. a December, 2005 delivery would be titled Increment 2, whether or not a June 2005 delivery was proposed). The date indicates the government's currently scheduled EDB cutover. These dates are referred to as "delivery opportunities" for the purpose of these instructions.

    5.4.2.1 Block 1

December, 2004:	Increment 0
June, 2005:	Increment 1
December, 2005:	Increment 2
June, 2006:	Increment 3
December, 2006:	Increment 4
June, 2007:	Increment 5
~~December, 2007~~	~~Increment 6~~

    5.4.2.2 Block 2:

December, 2007	Increment 6
June, 2008	Increment 7
December, 2008	Increment 8
June, 2009	Increment 9
~~December, 2009~~	~~Increment 10~~

    5.4.2.3 Block 3

December, 2009	Increment 10
June, 2010	Increment 11
December, 2010	Increment 12
June, 2011	Increment 13
December, 2011	Increment 14

    5.4.2.4 O&S following Block 3

June, 2012	Increment 15
December, 2012	Increment 16
June, 2013	Increment 17
December, 2013	Increment 18

5.4.3 The offeror shall specify whether each delivery will be to the USSTRATCOM Production environment, as defined in the TRD, or to a different environment. The offeror shall complete the Section B requirements of the Cost/Price Volume accordingly.

~~5.4.4 Contract periods of performance are synchronized with, but not identical to, government program Blocks. Both include overlapping time periods. After the final planned delivery for each Block, the government will test against the Block exit criteria. The period of performance extends beyond the final planned Block delivery in order to permit corrective changes, if necessary.~~

~~5.4.5 Fiscal years 2007 through 2010 include multiple ongoing Block development. The government assumes approximately 50% of funding in FY 2007 and 2009 will be used for the earlier Block, and 50%~~