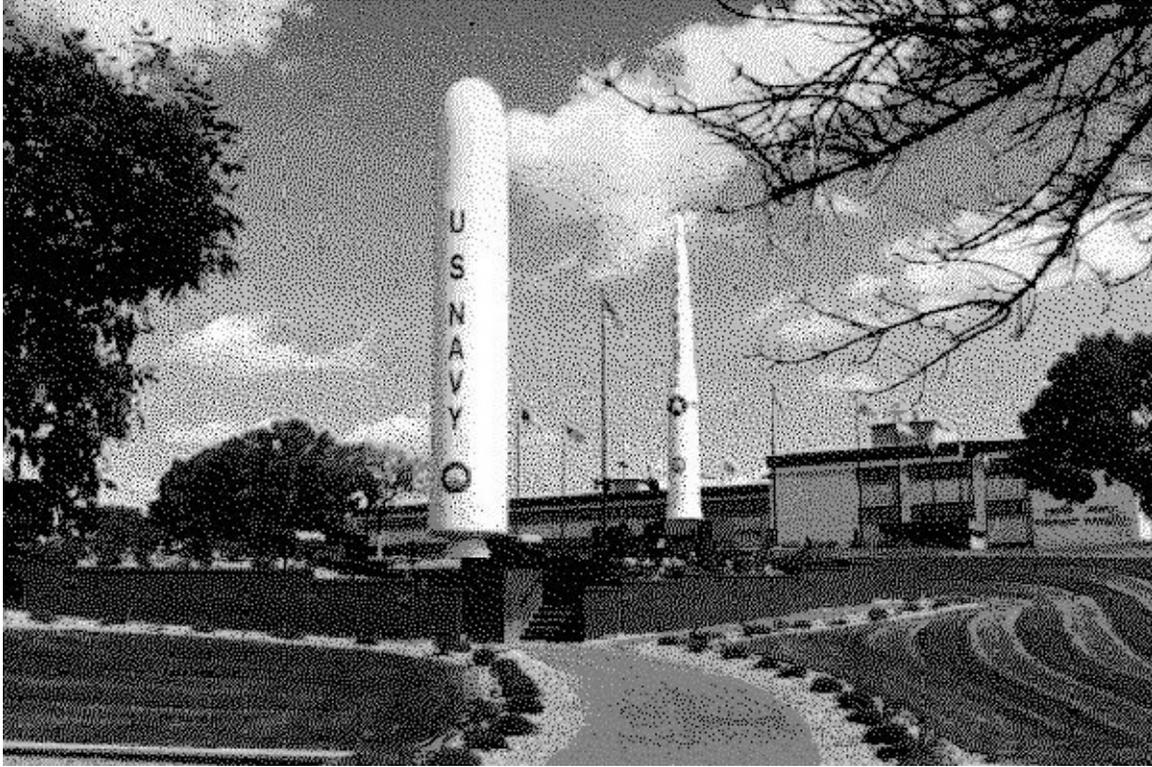


STRATEGIC WAR PLANNING SYSTEM (SWPS)



Air Force ACAT IAM Program

Total Number of Systems:	1
Total Program Cost (TY\$):	\$188M
Average Unit Cost (TY\$):	\$188M
Initial Operational Capability:	October 1998
Full Operational Capability:	3QFY02

Prime Contractor

STRATCOM (Systems Integrator);
Principal subcontractors: TRW,
Marconi/LOGICON, SAIC

SYSTEM DESCRIPTION & CONTRIBUTION TO JOINT VISION 2010

The Strategic War Planning System (SWPS) will provide the National Command Authority with *information superiority* contributing to the *full-dimensional protection* of the nation. SWPS is a modernization effort designed to transition applications from mainframe architecture to client-server architecture. Additionally, the war planning process is evolving to a "Living SIOP" (Single Integrated Operational Plan) concept based on continuous analysis of guidance, forces, and target changes with a graduated war planning process equivalent to the magnitude of the changes. Major objectives of the SWPS Modernization Program include the reduction in SIOP development and implementation time from 18 to 6 months, the development of limited options in as little as 24 hours, and the implementation of platform-compatible common, deliberate and crisis planning tools in both fixed and mobile planning environments. Additionally, the increased computational workload from the incorporation of new, low observable weapon systems had to be accommodated without impacting the new requirements for system responsiveness.

The conceptual SWPS computing environment consists of graphics workstations as the predominant application-processing platform. A global server provides access to printers and global data (data used by more than one SWPS application). The global server controls external links through guard processors. The communications backbone contains four rings supporting TOP SECRET SIOP/Extremely Sensitive, TOP SECRET, SECRET, and UNCLASSIFIED information processing.

SWPS supports *Joint Vision 2010* in the area of *precision engagement*. The improved responsiveness and reduced SIOP cycle time, coupled with the potentially higher effectiveness, make SWPS a direct warfighting asset for tactical and strategic commanders.

BACKGROUND INFORMATION

The SWPS Modernization Program is a consolidation of several upgrade projects. The modernization program responds to major objectives identified in the May 1992 DoD Defense Guidance and the August 3, 1993 USSTRATCOM SWPS Mission Need Statement. A February 1994 system decision memorandum established the acquisition program and initiated OSD oversight of the program.

The SWPS Modernization program declared IOC on October 1, 1998. At that time, the mainframe computer was shut down and all planning activities were migrated to the client-server-computing environment of the modern SWPS. Subsequent increments of the modernization program will add capability to the targeting system, the air vehicle planning system and combine theater planning capabilities into an integrated system. Full Operational Capability is currently scheduled for 3QFY02.

The test and evaluation strategy has been structured to evaluate the system throughout the course of entire SIOP cycles, as major applications are ready for evaluation. A decision to accelerate the modernization effort resulted in a test program that conducted its first operational test in 1997. A full system operational assessment was conducted in FY98. A full system operational test began in July 1998 and continued through September 1999, evaluating the ability of SWPS to produce and field a full SIOP.

TEST & EVALUATION ACTIVITY

In accordance with the DOT&E-approved TEMP (January 1997), AFOTEC conducted QOT&E in July 1997 on the SWPS Missile Application using the Single Integrated Operational Plan process. The primary criteria for measuring missile application system performance consisted of time-to-plan requirements and field abort percentages. QOT&E revealed no major problems. The missile planning subsystem demonstrated required performance throughout the test. The users thought the system was a significant improvement over the legacy system; however, there were some shortcomings. Shortcomings fell in the area of suitability—primarily document production, error abatement, and complexity. Software documentation also needed improvement. These shortcomings were examined closely in FY99 OT&E.

A system-wide operational assessment was conducted during FY98, which was intended to identify and assess major impacts affecting potential mission accomplishment by the SWPS in preparation during QOT&E that ended in September 1999.

The core system OT&E evaluated the development of a SIOP for the year 2000 (SIOP 2000). Data collection began in July 1998 and continued through September 1999. During this period,

AFOTEC evaluated the full SWPS systems regarding Deliberate Planning, Adaptive Planning, and Theater Planning, as well as SWPS interfaces and overall mission accomplishment. The production cycle of the war planning process at USSTRATCOM was tracked, as well as crisis action planning capabilities and interoperability capabilities.

TEST & EVALUATION ASSESSMENT

The six-month OA conducted during FY98 concentrated on identifying problems and issues that needed addressing prior to the scheduled QOT&E in FY98-99. The assessment evaluated the progress of the SWPS program toward readiness for QOT&E in five principal mission areas. In each of these areas, appropriate progress was demonstrated. However, several issues were detected that required improvement. Most such issues were relatively minor, such as the currency of the maintenance data base, although there were several concerns of more significance, such as problems in the air vehicle planning software. These issues were communicated to program management, and were resolved prior to QOT&E.

The system underwent full QOT&E for 14 month during FY98-99. It examined the performance and suitability of the complete SWPS in developing and fielding the 2000 SIOP. AFOTEC employed its new Combined Task Force concept, using the task-based evaluation methodology. QOT&E was structured to evaluate over 80 measures of effectiveness (MOE) across five Mission Essential Tasks: Deliberate Planning, Adaptive Planning, Theater Planning, Strategic War Planning, and Information Exchange. Based upon the evaluation results, the SWPS core system is operationally effective and suitable. Although the core system did demonstrate the capability to adequately support all five USSTRATCOM's mission essential tasks, the system failed to meet specific requirements established for force timing and de-confliction and generation of war planning products. The few shortcomings noted have since been resolved.

