Business Areas

Program Profiles

Product Profiles

Technologies

Capabilities

GSA Schedule

Search

CAPABILITY : Enterprise Wide Data Modeling : PROGRAM : Air Vehicle Planning System
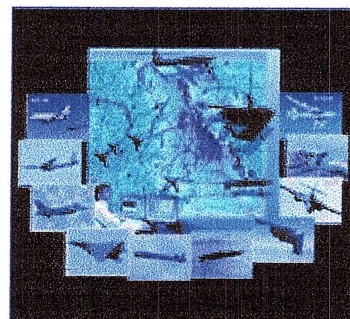

As the U.S. strategic mission evolves in the post-Cold War environment, increased demands for flexibility are being placed on the strategic planning process of USSTRATCOM. The Air Vehicle Planning System (APS) provides USSTRATCOM with this flexibility. Under contract since 1985, APS has evolved to become USSTRATCOM's primary tool for aircraft and cruise missile mission planning solutions.

Through a streamlined, efficient planning process, APS is used to develop SIOP and theater, deliberate and crisis action planning scenarios automatically, semi-automatically or manually depending on planner preference. To do this, planners define or select Mission Scenarios consisting of sortie tie-up(s), entry points, flight modes, targets, and damage requirements. APS then completes the planning, simulation, analysis, and production of battle management plans. APS employs a number of techniques to automatically evade threats and achieves survivable routes within available fuel budgets. APS is also used to provide timing and resolution of conflicts. Air Refueling requirements are automatically computed and tanker flights are generated. Completed mission data are provided to main or forward operating bases and stored awaiting execution.

The APS program is hosted on an open architecture workstation environment and remains dynamic. Addition of new air vehicles can be easily accommodated. APS is also used to support Conventional Air Launched Cruise Missile (C-ALCM) planning for the Air Combat Command.

Features

- Automated routing and automated route maintenance for air-breathing strategic weapon systems
- Primary USSTRATCOM tool for aircraft and cruise missile route development
- Considers all types of relevant threats (e.g., SAMs, SAGs, AWACS, EW, GCI, AAA, airborne interceptors)
- Provides automatic timing and resolution of conflicts
- Develops solutions for SIOP and theater, as well as deliberate and crisis action planning scenarios
- Capable of planning Dual Capable Aircraft (DCA) missions
- Unique data management approach

eliminates redundancy of data base
- Generates detailed information and output data to complete planning, simulation, analysis and production of battle management plans
- Provides automated air refueling
- Timing and deconfliction

For more detailed information please download and print a PDF of Air Vehicle Planning System.

Technologies in Air Vehicle Planning System
Autorouting
Mission Planning Algorithms
Mission Planning Displays
Reconnaissance Planning
Vehicle Simulation

Capabilities of Air Vehicle Planning System
Distributed & Collaborative Planning
Enterprise Wide Data Modeling
Mission Planning
Software Engineering
System/Mission Analysis
Systems Integration
Year 2000 Engineering Development