

# Air Vehicle Planning System

- 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

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# **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.

### Autorouting

- · Flight simulations
- Navigation analysis
- · Clobber analysis
- · Air refueling
- · Timing and conflict resolution
- · User friendly displays

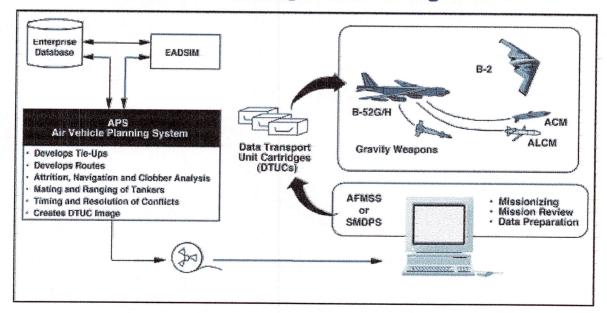
#### **Features**

- · Manipulation of CADRG background
- Color-banded sun angle shaded relief DTED backgrounds
- Interactive and automatic radar terrain masking
- · Near real-time response
- · Surgical route maintenance
- · Distributed Processing
- · Very fast route generation

## **Technical Specifications**

	Server	Workstation
Hardware	Sun 6000 1 GByte RAM (Up to 30GB) 100 GByte Disk Storage Ethernet/ATM	Sun Ultra II Creator 2 CPU 256 MByte RAM 4.2 GByte Disk Storage Ethernet/ATM
Software	UNIX, Solaris Sybase C, C++, PL/I, FORTRAN & LSF	UNIX, Solaris Sybase C, C++, PL/I, FORTRAN & LSF

## **Strategic Air Breathing Assets Planning Process**



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