



JERRY THOMPSON & ASSOCIATES, INC.

ASET

AVIATION SYSTEM ENGINEERING TOOLS

The JTA family of Aviation Tools.

JTA has an extensive suite of aviation tools that assist airspace analysts with a variety of air traffic and navigation analysis problems, such as:

- Air traffic operations
- Air traffic staffing
- Air traffic simulations
- Projected operating revenues/costs of Air Navigation Services
- Airspace system design
- Impact of aircraft noise in/around airports
- Air traffic through a specified airspace
- Air traffic operation analysis

JTA also has more than two decades of experience in cartography and Geographic Information Systems (GIS). Over time, JTA has acquired geospatial data from numerous sources that resulted in a unique collection of methods, processes, software and analytical mapping tools.

The JTA designed tools that make up the ASET portfolio are:

Master Mapper: The Master Map begins with a baseline layer of the physical world. Hundreds of political and aviation information layers can be added: sovereign and delegated airspace assigned by the International Civil Aviation Organization (ICAO); the world's flight information regions (FIRs); great circle routes between selected city pairs; airport locations; air routes; communication, navigation and radar facility coverage. The Master Mapper is the foundation upon which many of the other ASET tools can be built.

Communication, Navigation, Surveillance (CNS) Coverage Tool: CNS Coverage Tool calculates the theoretical coverage of ground-based CNS facilities. The CNS Coverage Tool accounts for elevation of the site, height of the antenna, and interference with signal propagation by terrain obstacles.

NAS Design Tool: NAS Design Tool enables the traceability of procedural, communication, and machine-functional requirements from an Operation Concept. The tool describes how people, procedures, and machines provide the required air navigation services to aviation users.

Aviation Analysis Models: Suite of analytical tools tailored to the needs of the aviation community. Includes Demand/Capacity Model, Revenue and Cost Model, Staffing Analysis Model, and the Integrated Noise Model.

National Traffic Management Log (NTML) Tool: Restriction Analysis Tool categorizes NTML information into useful Aviation System performance metrics. The system is linked with Aviation System Performance Metrics (ASPM) data allowing correlations with delay information.

Performance Analysis System (PAS): PAS provides the capability to analyze and report the performance of the National Air Space (NAS) utilizing relational GIS and Oracle databases and dynamic processes that can deliver results world-wide through the use of web-based automation.

Terminal Area Route Generation Evaluation Traffic Simulation (TARGETS): TARGETS incorporates data visualization capabilities with readily accessible design elements to enable designers to rapidly and easily develop Performance Based Navigation (PBN) procedures.

Flight Plan Management and Billing (FPM+B): Flight Plan Management and Billing Tool automatically captures flight data from sources and generates flight progress strips and invoices for airspace use and communications charges.