Visualizing data to improve decision-making and communication

Volans, Tetra Tech’s proprietary 3D airspace visualization and environmental software tool, is a major worldwide player in air space planning and flight procedure impact analysis. BridgeNet International, A Tetra Tech Company, developed Volans, which is used on projects around the world.

The software is visually stunning, easy to use, and functionally rich in aviation and air traffic knowledge. Volans’ features include the ability to:

- Support advanced data analytics
- Determine aircraft impact on population data
- Analyze optimized profile descent (OPD), filter, and smooth radar data
- Produce real-time noise footprints
- Animate flights in 3D from any perspective, including the pilot’s
- Integrate with base maps (street, aerial, navigational), including open source maps
- Import, create, and modify flight procedures (AIRINC)
- Calculate and analyze navigational obstructions

Volans—3D Airspace Visualization

Volans information is easily shared for public viewing through its 3D visualization website, videos, and boards of air traffic data for public meetings.
Large Air Traffic Data Repository

Volans maintains terabytes of worldwide air traffic data, including airport runway configurations, aircraft types, engine models, aircraft 3D shapes, airline liveries, population data, air space restrictions, Aircraft fuel and emission data, obstruction data, flight track data for airports, and en route and published flight procedures (SiDs, STARS, and Instrument Approaches).

Volans is a visually stunning, easy to use, responsive, and functionally rich data visualization tool.

Volans at Work

U.S. Federal Government
The U.S. Federal Aviation Administration (FAA) uses Volans for air space planning, flight public outreach meetings, educational videos on FAA websites, and social media. FAA clients include the Performance Based Navigation (PBN) and MetroPlex offices. Volans integrates with the FAA’s Aviation Environmental Design Tool (AEDT) to streamline processing for noise contours, fuel burn, and emissions data for major airports.

U.S. Customs and Border Protection has used Volans to help track low-flying and radar-evading aircraft illegally crossing the Canadian border.

Major U.S. Airports
Volans provides analysis for airports including public, web-based displays of 3D flight data with integrated noise decibel values from noise monitoring stations for clients including San Francisco International Airport, Chicago’s O’Hare and Midway International Airports, John Wayne Airport, Jackson Hole Airport, and Aspen Airport.

International Aviation
Volans is licensed by Air Navigation Service Providers such as NAV CANADA, Airservices Australia, and DGAC France to assist in environmental analysis for airports in their respective countries. Volans also supports London Heathrow International Airport’s Noise Office.