AVIAS™

Airport Management Platform & Decision Making Solutions

EMPOWERING PEOPLE TO MAKE
EXCEPTIONAL DECISIONS

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InfraSolutions®
by McFARLAND JOHNSON

ΛVIΛS™ AIRPORT MANAGEMENT PLATFORM

McFarland Johnson's extensive background in the aviation industry, coupled with our ability to foster responsive and inclusive relationships with our clients, allows us to create resilient and sustainable solutions to help solve important airport infrastructure challenges. Utilizing our knowledge and expertise, our technology division, InfraSolutions by McFarland Johnson, has developed a comprehensive airport management platform, AVIAS.

AVIAS is an innovative platform that revolutionizes airport management through its suite of seven specialized applications, each tailored to streamline operations, enhance strategic planning, and help ensure regulatory compliance. From dynamic analysis and inspections to real estate management, obstruction tracking, terminal planning, pavement condition monitoring, and comprehensive project planning, AVIAS offers a one-stop solution to optimize airport efficiency and development.

Each application is enhanced with **AVA, our AI-powered virtual assistant** that transforms the user experience by offering intuitive, natural-language access to data, real-time guidance through complex tasks, and seamless voice-enabled interactions—empowering faster, smarter decisions across the AVIAS ecosystem.

AEROCLEAR™	**CAPLAN™**	**DAT™**	**INSPECT™**	**RUMBLE™**	**SITES™**	**FLOW™**
OBSTRUCTION ANALYSIS APPLICATION	AIRPORT SYSTEM PLANNING APPLICATION	DYNAMIC ANALYSIS APPLICATION	AIRPORT INSPECTION AND ASSET MANAGEMENT APPLICATION	PAVEMENT MANAGEMENT APPLICATION	LAND DEVELOPMENT APPLICATION	TERMINAL PLANNING

Empower your airport with the AVIAS solution, **where advanced technology meets operational excellence,** enabling a future of seamless and sustainable aviation progress.

ΛVIΛS™

AEROCLEAR
OBSTRUCTION ANALYSIS

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Tracking and mitigating obstructions such as trees, light poles, fences, and temporary structures in and around your airport is crucial for ensuring safe operations. AEROCLEAR, a pivotal component of the AVIAS suite, is your comprehensive resource for visualizing, identifying, tracking, and analyzing obstructions, now enhanced with the capability for users to define and place their own obstructions. This new feature allows for an in-depth assessment of potential impacts to airspace surfaces, providing a dynamic and interactive approach to obstruction management.

Utilizing the latest GIS data and obstruction survey results, AEROCLEAR offers a robust platform that integrates 3D mapping to pinpoint obstructions within a defined radius of your airport, including a historical view of mitigated obstructions for a comprehensive understanding of airspace changes over time. The application also includes a growth rate tool to forecast the future growth of natural obstructions like trees, aiding in proactive planning and mitigation strategies.

Furthermore, AEROCLEAR's enhanced visualization capabilities allow for the generation of detailed imagery of current and potential obstructions. This feature is invaluable for airport meetings and public outreach, enabling stakeholders and residents to visually grasp the significance of obstruction mitigation efforts, thereby fostering a deeper understanding and support for necessary actions to maintain safety and compliance with FAA regulations.

This simple, map-based application has been a favorite of airports across the country in managing their current and future airport obstructions.
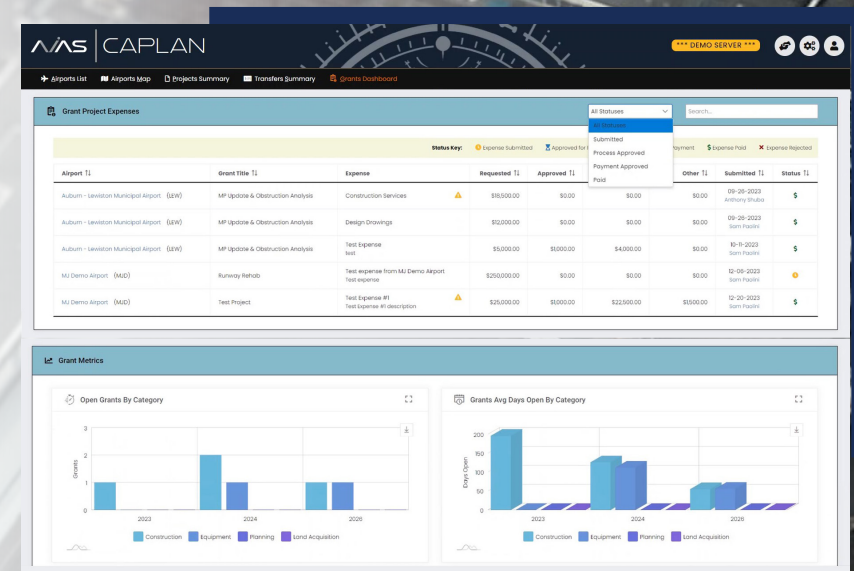
AVIAS

CAPLAN
AIRPORT SYSTEMS PLANNING

The AVIAS CAPLAN Airport System Planning application is a centralized hub and document control system with built-in workflows for managing projects, grants, financials, and funding transfer data across a multi-airport system. Project summaries provide a high-level view of all airport projects, costs and funding, and the status of approvals. CIP funding requests can be generated and routed through the system for approval.

Built into CAPLAN is a full Grant Management System that provides customizable checklists to help ensure State and FAA reports and document requirements are filed on time.

Your staff, airport sponsors, and consultants can stay informed with the ability to receive notifications within the system or via email. Understanding the sensitivity of financial data, we built in permission settings for modifying data by your airports' staff and consultants.

Utilizing a full 3D GIS map, you can click on an airport and quickly view the airport's impact across your multi-airport system. The Avias platform allows you to integrate the CAPLAN with our DAT application for additional financial analysis and scenario-based forecasting.

AVIAS™

DAT
DYNAMIC ANALYSIS

DAT, now enhanced with the AI-powered feature AVA, is a robust and flexible application that not only analyzes both likely and unforeseen future airport scenarios with basic user inputs but allows for interactive querying of the airport's master plan. This AI element can perform sophisticated analysis based on user queries, providing airport sponsors with deeper insights into how changes in air traffic, cost structure, or even a shift in airport mission could influence future development and financial outcomes. It enables your airport staff to correlate ongoing operations with current forecasts and financials for a real-time, accurate picture, while its advanced AI capabilities offer customized scenario analysis, adjusting to predicted operational changes for comprehensive forecasting across all aspects of airport infrastructure.

Within the AVIAS DAT, the Airport Layout Plan presents an interactive 3-dimensional GIS map of your airport that automatically adjusts using the applied scenarios. Both the FAA approved, and the custom Airport Layout Plan drawings can then be exported to PDF. Additional custom reports can also be run to export all the data you need, giving you the tools to extend the life of your airport's master plan.

The growing popularity of MJ's dynamic master planning platform is a strong indication that our clients value the usefulness of the DAT.

INSPECT
AIRPORT INSPECTION & ASSET MANAGEMENT

The AVIAS INSPECT airport inspection application is an integral piece to maintaining smooth operations at your airport.

Your operations staff can use INSPECT to conduct, manage, and maintain self inspections, continuous surveillance inspections, periodic condition inspections, mobile fueler inspections, fuel storage area inspections and special inspections, and can be customized to provide elements specific to your airport.

Harnessing historical inspection data and approvals while utilizing real time elements on your airfield, airport staff will be able to track and analyze ongoing and past inspections. Work orders can be quickly generated and prioritized, and can be integrated with existing 3rd party work order systems for a cost effective, reliable, and seamless solution.

GPS orientation built into INSPECT pinpoints your real time location and allows your team to upload from their mobile devices any images, texts or attachments related to their current inspection. INSPECT also integrates with the FAA's NOTAM service notifying incoming pilots of runway conditions, weather, and other potential hazards.

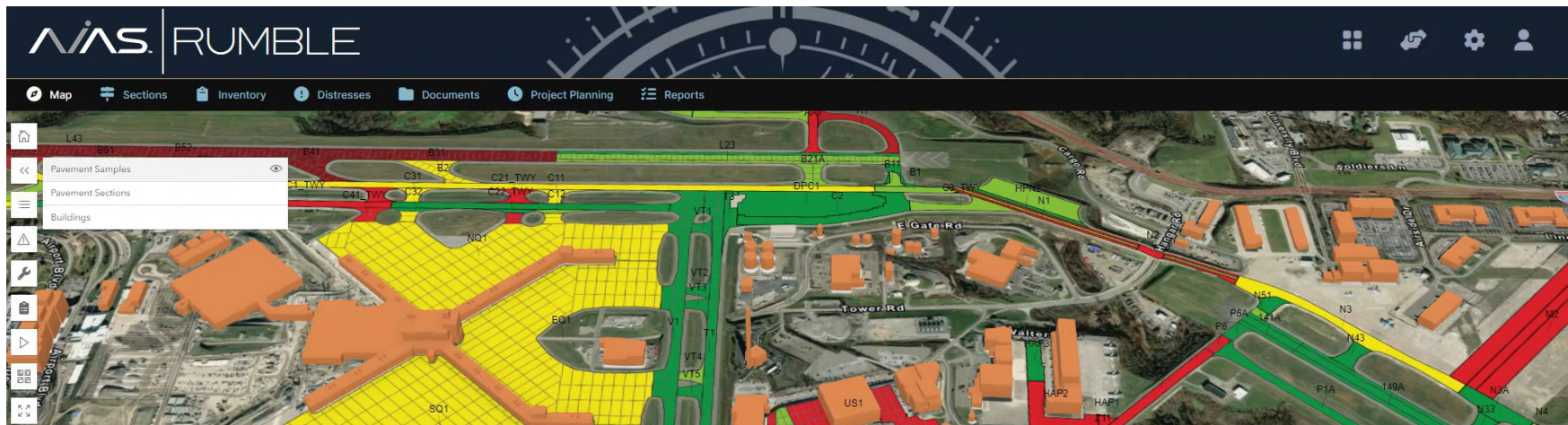**AVIAS**

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RUMBLE
PAVEMENT MANAGEMENT

The AVIAS RUMBLE Pavement Management application combines the GIS portion of an interactive map with data McFarland Johnson collects to conduct timely and cost saving pavement studies.

The unique ability to toggle individual pavement sections at your airport allows your staff instant access to current and historical information on deterioration rates, pavement conditions, distresses associated with the pavement, work history, notes, and any related photographs or attachments relevant to the related pavement section. RUMBLE has a customizable pavement inventory of runway, surface area, taxiways, and aprons and will display the current, as well as historical Pavement Condition Index Value data. With the provided data, airport staff will optimize their short- and long-term capital planning initiatives. This is made easier with our Project Planning feature, built so your airport management can add, remove, and prioritize projects in the years and dates they see fit. The project planning feature breaks down costs by square foot for preventative, minor, moderate, and major projects and can compare repair costs by time if not completed. RUMBLE has the ability to adjust for inflation rates, so your team will have access to the current costs associated with your project.

SITES
LAND DEVELOPMENT

The AVIAS SITES application allows your staff to manage your real estate portfolio of assets. SITES provides an auto updated map of all the parcels that the airport has available for both aviation and non-aviation development. The application allows you to inventory and create a portfolio of real estate assets and can be updated for lease management if needed.

SITES optimizes land utilization, customized to your airport, breaking down properties into various development types. It can be developed into a Strategic Real Estate Master Plan. This allows your staff to run financial scenarios on various opportunities or by land parcel to quickly manage your portfolio, provide analysis, generate proformas to show returns on investments on possible developments.

SITES manages complex sets of data, such as environmental and utility information, highest and best use analysis, development concepts, and instantly displays information on property cards. Your team can quickly create and download marketing materials to send to potential tenants and developers.

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FLOW
AIRPORT TERMINAL PLANNING

AVIAS FLOW is a comprehensive, spatial demand and capacity planning application designed specifically for airport terminals. From curbside check-in to gate hold areas, FLOW delivers detailed insight into infrastructure needs and level-of-service performance across all components of the terminal environment. What sets FLOW apart is its integration of industry standards and planning guidelines from leading authorities including the FAA, TRB/ACRP, TSA, CBP, IATA, ICAO, and ADA. These references are seamlessly embedded into the application's engine—no need to manually cross-reference spreadsheets or PDFs.

Say goodbye to sprawling, error-prone spreadsheets. FLOW uses a flow-based, graphical user interface (GUI) designed for planners, by planners. Users can quickly assess time-based scenarios, analyze future activity levels, model planning triggers, and instantly see results - no complex coding or manual recalculations required. Whether you're assessing the impact of aircraft fleet changes, up-gauging of aircraft types, or adding new demand, FLOW delivers immediate clarity:

- Determine gate and holdroom requirements
- Identify restroom and concession space needs
- Evaluate TSA checkpoint lanes and queue areas
- Test scenarios against Level of Service (LOS) targets using our stoplight-style optimization matrix

FLOW enables airport operators and planners to make confident, data-driven decisions about terminal development and space allocation. With its real-time analysis capabilities, FLOW answers the "what if" questions in seconds—empowering faster, smarter terminal planning from day one.

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AVIAS SUITE OF APPLICATIONS

The AVIAS Airport Management platform improves your strategic planning, consolidates your airport data, correlates forecast and financials, and provides scenario-based forecasting to more accurately adjust plans to help meet your airports' infrastructure challenges.

Make it OBVIOUS with AVIAS.

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