

by Atech

Makron

AIR TRAFFIC MANAGEMENT

ATFM
SKYFLOW

FLOW MANAGEMENT BEYOND YOUR LIMITS

SKYFLOW brings together all air traffic information, including FPL, RPL, flight schedule, surveillance data and meteorological information, to forecast demand accurately and provide reliable feedback about possible imbalances concerning any airspace element. With its tactical, pre-tactical and strategical views, SKYFLOW offers the most advanced traffic management features for each phase of the flow management. The post analysis module offers to users the intelligence necessary to allow you to evaluate the management efficiency. Developed by Atech, an Embraer Group Company with decades of expertise developing high technology solutions to support decision-making processes, SKYFLOW is part of Makron, a complete set of robust, secure and consistent ATM solutions.

THE EASIEST WAY TO BALANCE AIR TRAFFIC MANAGEMENT

The balance of demand and capacity is a key aspect of Atech ATFM. It considers system-wide traffic flows and aerodrome capacities to allow the airspace users to determine when, where and how they show operate, while mitigating conflicts among demand and airspace and aerodrome capacity. SKYFLOW also provides the evaluation of flows and capacities, weather data and available assets to plan the necessary actions in a timely manner.

In the 1990's, conflicting needs for airspace and airport capacity in Brazilian air traffic scenario brought around the need for a fully established Air Traffic Flow Management designed to reduce constraints. In the 1990's, conflicting needs for airspace and airport capacity in the Brazilian air traffic scenario brought around the requirement for a fully established Air Traffic Flow Management, mainly designed to minimize constraints in traffic flows due to bottlenecks.

Makron SKYFLOW empowers ATFM Unit managers offering situational awareness and options to support decision-making, enabling the implementation of a broad range of measures, including strategic, pre-tactical and tactical air traffic scenarios.



THE EVOLUTION OF PUNCTUALITY OF OPERATIONS IN AIRPORTS AND AIRSPACE

SKYFLOW provides information regarding the capacity and demand for every airspace element in tactical, pre-tactical and strategical levels. It receives flight information of FPL, RPL and Flight schedules, and calculates the demand for each airspace segment from gate to gate. Makron AFTM can also receive surveillance data from automation systems in ASTERIX Cat-62 format and keep the estimated time up to date, ensuring all the predictions are right. Through the message server interface that supports AMHS and AFTN protocols, SKYFLOW can receive flight information via ATS messages and meteorological information, such as METAR, TAF and SPECI, and NOTAMs.

The SKYFLOW Collaborative Decision-Making is a state-of-art feature that implements the fully set of traffic measure initiatives for all flow management phases, Ground Stop Program, Ground Delay Program, Blanket Delay Program, In-Trail Programs (miles, minutes), Airborne Holding Program, Sequencing Programs (from departure to arrival). Its workflow allows all stakeholders engaged in the CDM process to collaborate. The Situation Display brings together real time flight information to define capacity and demand for airspace sectors. It can present a simulation of flights, allowing the Flow Management specialist to analyze what-if scenarios.

SKYFLOW also integrates meteorological information, providing weather visualization to the Flow Management Specialist. The trajectory predictor uses wind information provided by GRIB files to optimize the calculation of the estimated time, presenting a full 4D Profile for every flight. Atech's Makron AFTM is a web-based application, not requiring any desktop installation or configuration procedures. It can be supplied as a turnkey solution or as a service, reducing the deploying time and operational and maintenance costs.

TECHNICAL DESCRIPTION

Airspace Management; Flight Plan Management; Operational Capability Management; Security Control Management; Situation Display; Route Library; Time based separation; Collaborative Decision Making Traffic Monitor; Demand prediction; Strategic Airport Slot Data Integration System-to-System Data Platform and Exchange Integrated Weather Overlay What-if Modeling for ATFM Measures Technical Supervision Airline database Aircraft Performance database Auditing database Special User Airspace Processing Post-analysis

