

PRODUCT OVERVIEW

METRON DEPARTURES DEPARTURE FLOW MANAGEMENT

IMPROVING DEPARTURE EFFICIENCY, WHILE ENHANCING SAFETY

Metron Departures, deployable as a stand-alone solution or as part of the Metron Harmony integrated Air Traffic Flow Management (ATFM) solution, increases departure efficiency by streamlining the coordination of departures from runways to congested airspace resources (e.g., fixes, Flight Information Region (FIR) boundaries, destination airports, jet routes), through automation, decision support and web-based interface capabilities between the Air Traffic Control Towers (ATCT) and Area Control Centers (ACC). Metron Departures provides functionality to assist the re-routing, flow management and monitoring capabilities that allow both the ATCT and ACC facilities to track Calculated Takeoff Time (CTOT) compliance and the state of the overhead traffic flow through time. Flexible features and procedures take into account uncertainty on the surface and in en route airspace.

Currently, these functions are overwhelmingly manual and communication intensive. With automated calculation, communication and assignment of departure times, Metron Departures increases departure flow efficiency by

FEATURES

COORDINATES DEPARTURES INTO AN OVERHEAD STREAM

COORDINATES DEPARTURES TO COMMON FIXES, EN ROUTE METERING POINTS AND DESTINATION AIRPORTS

AUTOMATES COORDINATION BETWEEN TOWER AND ACC STAFF

WEB-BASED GRAPHICAL INTERFACE



Metron Departures allows controllers and supervisors to assign release times to departures at their facilities.



more effectively utilizing available capacity while merging aircraft into a common merge fix, an overhead flow and/or a destination airport. Capabilities include:

- Coordinating runway departures from multiple airports into an overhead stream of flights;
- Coordinating runway departures from multiple airports to common fixes and destination airports.

Metron Departures assists in the release of aircraft departures from an airport. These functions include the timing of runway departures, the sequencing of departures, departure fix load balancing, merging departures into the overhead en route stream, and coordinating arrival and departure operations.

A STREAMLINED INTERFACE FOR MAKING COMPLEX DECISIONS QUICKLY

Metron Departures provides a web-based user interface that improves the efficiency of several common procedures used in the ACC. The user defines which flows to monitor for departure and en route demand, initiates departure procedures when a flow of traffic reaches a level that requires management and creates restrictions on the previously defined flows using the web-based user interface. Metron Departures determines flight list and entry times for the defined flow, identifies all gaps in the restricted flow and presents a timeline for the user to monitor and/or assign release times.

With improved flight release coordination between the ACC and ATCT, along with more efficient management of downstream airspace constraints, Metron Departures provides a smoother, more orderly flow of traffic, which equates to a reduction of vectoring and directed speed changes. For example, field trials at Los Angeles Air Route Traffic Control Center (ZLA), in the U.S., indicate that Metron Departures would produce substantial delay reductions, fuel savings, decreased emissions and reduced workload for controllers and flight crews. Additionally, the smoothing of traffic flow leads to significant increases in the throughput of constrained airspace elements.

ABOUT METRON HARMONY

Metron Harmony is an advanced, integrated Air Traffic Flow Management (ATFM) solution with capabilities that provide strategic, pre-tactical and tactical efficiency, post operations metrics and performance analysis of air traffic operations for Air Navigation Service Providers (ANSP), aircraft operators and airport authorities. With a focus on improving system efficiency and predictability while enhancing safety, Metron Harmony delivers the necessary information to stakeholders for the benefit of the entire air traffic system.

BENEFITS

ENHANCES
AIR TRAFFIC
OPERATIONAL
EFFICIENCY WHILE
IMPROVING SYSTEM
SAFETY

REDUCES
WORKLOAD FOR
DEPARTURE RELEASE
COORDINATION

REDUCES
ENVIRONMENTAL
EMISSIONS

DECREASES SURFACE
CONGESTION
THROUGH MORE
EFFICIENT USE OF
AVAILABLE AIRSPACE



THE SCIENCE OF HARMONIZING AIR TRAFFIC

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