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Flock HORROR

Techniques to avoid the ever-present
danger of bird strikes



Vancouver 2010
WORLD ROUTES

Go with the flow

Founded in 1995, **Metron Aviation** pioneered the advancement of air traffic flow management, working with the Federal Aviation Administration to develop the industry's first collaborative decision making platform for optimising system-wide traffic flow.

Metron Aviation provides concept engineering, advanced research, software development, traffic flow management, surface operations management, airspace design, and environmental research and analysis solutions to the global aviation industry. The company uses its expertise to turn groundbreaking air traffic management research concepts into next-generation operational capabilities.

The efficiency and optimisation benefits of air traffic flow management (ATFM) are measurable, verifiable and undeniable. For more than ten years, the Federal Aviation Administration (FAA) command centre has relied on Metron Aviation to support its core systems and deliver innovations including the industry's first real-time advanced ATFM platform, collaborative decision making (CDM)-based slot substitution and airspace flow programmes.

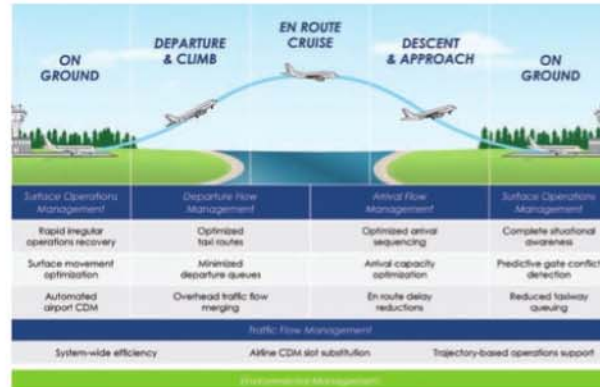
Since its deployment in 1999, the FAA's ATFM system has saved more than 68 million minutes that would have been lost to delays, 186 million litres of fuel, 573,000 metric tons of CO₂ emissions and \$6.3 billion in operating costs.

Proven processes

In June 2010, Metron Aviation was awarded the ten-year contract for System Engineering 2020 (SE-2020), the FAA's strategic programme for implementing the next-generation air transportation system (NextGen). The contract is worth \$1.15 billion, making it the largest single award to a small business in FAA history. As prime contractor, the firm has assembled a proven team of industry leaders with unmatched domain expertise in all aspects of the National Airspace System, capable of providing the full breadth and depth of aviation expertise across all SE-2020 functional areas.

South Africa's Air Traffic and Navigation Services (ATNS) began live operations with Metron Aviation's ATFM solution earlier this year. The solution provides the ATNS Central Airspace Management Unit with comprehensive ATFM capabilities to model and implement all traffic flow initiatives for the aerodrome/airport and airspace volumes in South Africa. The system interfaces with air traffic management production systems, including Thales' airspace-monitoring tool, EUROCAT, through a scalable, event-driven data gateway.

Airservices Australia is also in the process of deploying Metron Traffic Flow to support its long-term gate-to-gate CDM vision. It will use the solution to provide the foundation for ATFM and regional coordination to enhance the capacity, efficiency and safety of the Australian airspace. The contract covers a 15-year period, with all options exercised, and provides a framework for future collaboration.



Gate-to-gate air traffic flow management with all stakeholders involved.

The solution will be used to manage traffic flow and capacity in all controlled airspace, including flights originating from outside of Airservices Australia's area of responsibility but entering Australian airspace, and will also provide CDM capabilities for Airservices Australia's operations groups, airlines and regional stakeholders. It will be deployed at the National Operations Center in Canberra, control towers, area control centres and airline operations centres, as well as being used by Australian military units.

Harmonious solutions

Metron Harmony, Metron Aviation's complete Integrated-ATFM (I-ATFM) solution, provides proven products for strategic planning, pre-tactical and tactical management of traffic flows to maximise the available capacity of system-wide operations. The full-spectrum I-ATFM solution includes:

- strategic, pre-tactical and tactical traffic flow management through slot allocations and calculated take-off times
- pre-tactical and tactical departure management for merging into an en-route stream or a common departure fix
- pre-tactical and tactical aircraft sequencing, scheduling and runway allocations to meet airport arrival operating constraints
- pre-tactical and tactical airport surface management for optimising operations
- fuel, emissions and noise impact modelling, monitoring and reporting. ■

Further information

Metron Aviation
www.metronaviation.com

