CANSO Global ATM Operations Conference

MADRID | SPAIN | 8-9 MARCH

How will future aircraft technology affect and drive ATM ground technology and procedures?

Chip Meserole

Boeing

Director, Advanced Air Traffic Management

Aviation Eco-System

Application of Connectivity Is Key to Future ATC and Flight Ops

NextGen Priorities

Recent Accomplishments and Operational Outcomes

Multiple Runway Operations

- Wake Recategorization implemented in 16 TRACONs and 30 airport locations throughout the US
- FAA completed its assessment of the potential benefits of transitioning Recategorization Phase 1.5 sites to Phase 2

• • •

JAT Results: Wake Recategorization saved airlines more than $70 million, allowing for safe decreases in separation and leading to fewer delays, time and fuel burn savings.

Performance-Based Navigation

- Metroplex: Atlanta, Charlotte
- Traffic Flow Management Tools at three locations
- Single site implementation OPDs -- BOS, GYY
- RNP 1 Departures at Burbank and John Wayne Airports

• • •

JAT Results: *ATL metroplex* enabled safer and more efficient flight paths. BOS OPD's saved approximately 10 gallons of fuel per flight. GYY OPD's eradicated TCAS events improving safety

Surface

- Surface Departure Management Demonstration Charlotte
- FAA made available surface surveillance MLAT CAT 10 data to industry via the FAA's System Wide Information Management (SWIM) at 35 airports

• • •

JAT Results: FAA and Industry made significant advancements in sharing data via SWIM. Delta Air Lines and American Airlines are providing surface data improving surface efficiency

Data Communications

- Delivered tower services to 9 more sites across the country since October 2016, completing all 55 planned sites
- 3,000 aircraft are Data Comm-equipped, the total count is nearly 4,000 if DoD aircraft are included

• • •

JAT Results: The FAA delivered controller-pilot data link communications departure clearances to 55 airports resulting in taxi-out time savings between 0.2 and 8.5 minutes per rerouted flight

PBN

- RNAV
- RNP
- RNP-established
- FIM
- GLS

GPS Landing System (GLS)

- Single system at airport – single VHF frequency
- Provides corrections to enhance accuracy and integrity of navigation position
- Supports multiple runway ends
- Multiple approach designs (glideslope, touchdown point) – up to 48 procedures
- Guidance signals steadier than ILS (no interference from buildings or aircraft)
- Eliminates ILS holding area
- Less frequent flight inspections than ILS

ATS Data Comm

- FANS 1/A maturity to support oceanic and North America operations
- ATN Baseline 2 and ATN/OSI optimizations to support European Deployment Plan
- Future transition to Internet Protocol Suite

SWIM

SEA: SWIM Enabling Agent

SWIM@Door2Door EFB

SWIM@737 FMS

CANSO Global ATM Operations Conference

MADRID | SPAIN | 8-9 MARCH