

Delta Air Lines, Inc.

How Airports and Airlines Can Enhance Collaboration in Operations

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Delta Internal Perspective

“The next area that can produce the most gains in Aviation Safety is in the area of communication/coordination between Airport Operators and Airlines”

Quote from Delta's Integrate Safety Roundtable Briefing, July 2014

What drove this perspective

- **Aircraft Damage Events from in Pavement Lighting System – Runway Center Line Lights**
- **Aircraft Accidents/Incidents at Designated Airport Engine Run Up Location**
- **Audit Findings from our Delta Stations indicated various communication methods used across the airport operators – Timeliness and Variations lead to station reporting errors**
- **Taxiway/Runway/Ramp Conditions during winter operations contributed to aircraft slipping/sliding**
- **General Aviation Accident where presence of a utility pole constructed by the local utility company met criteria for reporting to the FAA for vicinity to a local airfield.**

Engagement with All Airport Operators –

Delta B747-400 Damage From Runway Center Light

- No abnormalities observed during taxi, takeoff or climb
- During cruise, the flight crew observed the cabin altitude at approximately 8,000 feet and climbing. Delta Maintenance personnel recommended selecting high flow, which resolved the pressurization issue.
- Upon arrival at destination damage to the left hand pack bay access door was observed. Maintenance inspection revealed additional damage inside of the pack bay.
- Maintenance personnel discovered a runway centerline light inside of the pack bay.
- Departing airport confirmed that a centerline light was missing from departure runway.
- A similar event was recorded one month earlier at same airport on a B737-800.
- Airport Responded with Inspection and Replacement of Lights/Attaching Hardware
- FAA has issued a CertAlert on June 25, 2014, titled "Preventive Maintenance of In-Pavement Lighting Systems", to airport operators and FAA Airport Certification Safety Inspectors.



Engagement with All Airport Operators

Delta did not know how to engage with all of our airport business partners on how they reacted or if they reacted to the Cert Alert?

Complications:

1. We have 230 US and Canadian Airports that Delta or Delta Connection serves
2. How do we engage our international airports – another 120 airports
3. How do I know who or who doesn't operate the same in pavement lighting system
4. Is there a location I can access that tells me what each airport did with the cert alert?

Today, I really don't have enough information to determine operational risk to Delta aircraft from this condition

How can airports and airlines work together on safety issues like this so we both know the risk has been mitigated?

Engagement with Select Airport Operators – Airline Human Factor

Delta has identified a hazard in that taxi/run mechanics have missed a checklist item to insure sufficient fuel is on board when accomplishing high power engine runs

Event 1: A 737-700 Aircraft slipped on wet surface and departed the taxiway run up area, slid down the ravine and incurred significant airframe and engine cowl damage.



Photograph of where aircraft came to rest.

Engagement with Select Airport Operators – Airline Human Factor

Delta has revised our Engine Run Checklist to require specific call out for Fuel on Board and added emphasis to this critical step in Engine Run Up Training

Event 2 – A 757-300 aircraft was pointed toward an active runway with water on three sides. Aircraft slipped on the surface and made a runway incursion 15 feet past the hold line.



Should we partner with the airport community to reassess designated run up areas such that requirements are established to allow for aircraft slippage during high speed run-up to allow for sufficient stopping before encountering a hazard?

Engagement with All Airport Operators – Adopting a Field Conditions Standard

Delta has identified a hazard with Field Conditions Used by our Flight Control and Dispatchers being incorrect or out of date

Like many airlines, Delta depends upon our field station personnel to communicate to our Operations Control Center runway condition, runways in use, and taxiway/runway closures

Sources of our Station Personnel for field condition data

- **PASSUR**
- **Local Airport Website**
- **Email**
- **Faxes**

DeltaNet - Field Condition Websites

Field Condition Websites

[PASSUR National OPSnet Website](#)

[\(OAK SEA SLC DEN MKE IAD EWR JFK LGA HPN BOS\)](#)

Username: DALOCC

Password: deltaocc15

[Chicago-Midway, IL \(MDW\)](#)

Username: OHMANAGER or OHOPERATIONS or OHOCC

Password: MDW24 or MDW27 or MDW29

[Cleveland, OH \(CLE\)](#)

Click "Active FCRS" link.

[Bismark, ND \(BIS\)](#)

[Bozeman, MT \(BZN\)](#)

[Fargo, ND \(FAR\)](#)

[Flint, MI \(FNT\)](#)

username: bishop

password: airport1234

[Grand Forks, ND \(GFK\)](#)

[Green Bay, WI \(GRB\)](#)

[Jackson Hole, WY \(JAC\)](#)

[Kalispell, MT \(FAC/GPI\)](#)

[LaCrosse, WI \(LSE\)](#)

[Madison, WI \(MSN\)](#)

[Minot, ND \(MOT\)](#)

[Providence, RI \(PVD\)](#)

[Rapid City, SD \(RAP\)](#)

[Rochester, MN \(RST\)](#)

[Sioux Falls, SD \(ESD\)](#)

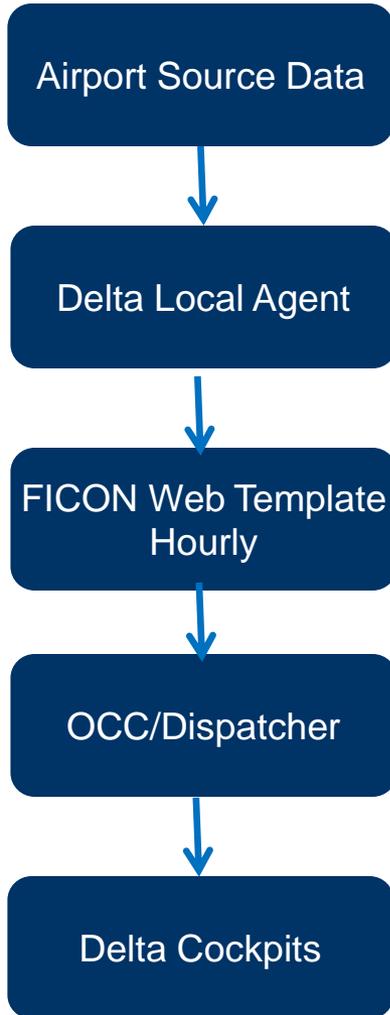
[All Canadian Field Conditions](#)

Enter 4-letter ICAO airport code (CY??), click the box for the last choice (Local NOTAM only), Canadian airport.

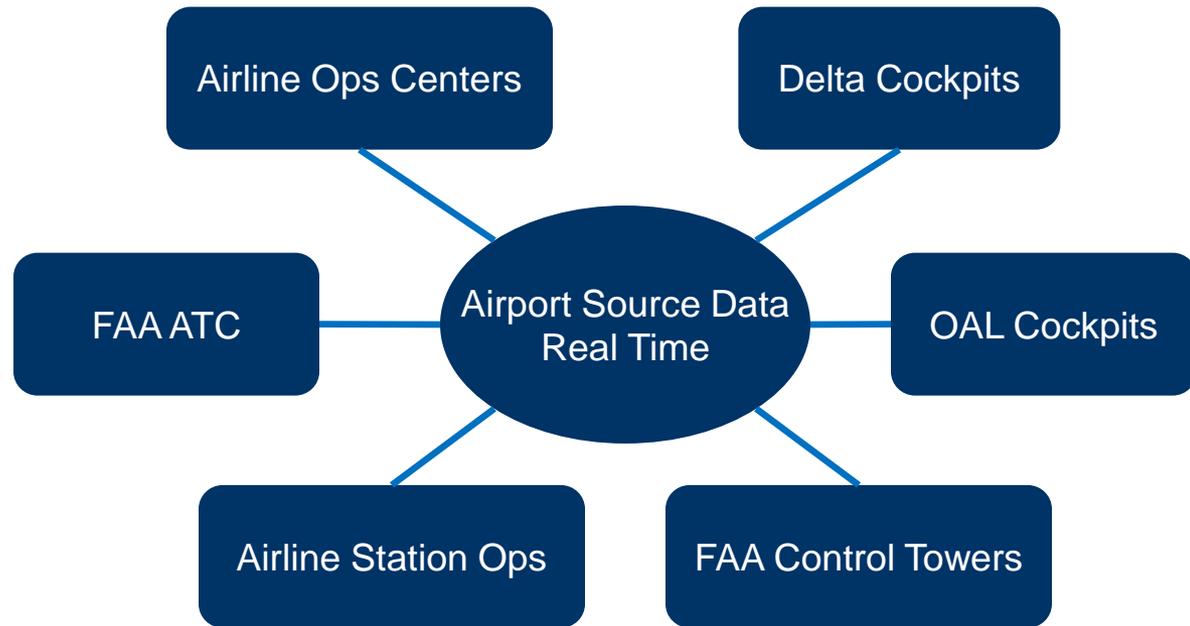
Engagement with All Airport Operators – Adopting a Standard

Linear w/ Manual Entries

T
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A
Y



FUTURE



Centralized and Automated

Collaboration with Airport Authorities – Winter Operations

Delta is in a Learning Mode of How Airports Manage Winter Ops

- Selected 3 Airports to Engage With on Best Practices this winter
 - Airport A – Excellent Winter Ops/Snow Plan; Execution to the plan had gaps DL had 3 Near Miss Excursions this winter (2 Taxiway; 1 Runway);
 - Airport B - Overall Winter Ops/Snow Plan is Weak; Execution to the plan was strong
 - Airport C – Improving staffing plan during IROPS; Runway Plowing Techniques/Training
- When does an airport assess runway conditions, answers given:
 - Plan gaps in the arrival sequence to allow airport ops access to the runway
 - Based on weather conditions
 - Whenever the arrival traffic stops

Delta Special Winter Ops Airports (SWOA) Program

- Current Program identifies 35 airports as higher risk operations during winter weather
 - Assessment uses 12 operational equipment answers on runway and approach path factors
 - Assessment factors in event history at the airfield
 - Delta conducts meetings with each affected airport to discuss preparedness
- Evaluating expansion to program to risk rate all airports in terms of Runway/Taxiway/Ramp Excursions and Incursions

Delta sees many good ideas and best practices in place across the airport community. Is there already a standard/ideal or should airlines and airports partner in developing these?

Collaboration with Airport Authorities – Beyond Airport Perimeter Obstacles

Obstacle Auditing – Periodic Assessment of New Obstacle Hazards

- Right Up SMS Alley
- Good processes on the airfield, but what about the Utility Company Example where the obstacle was just off the airfield infringing upon the glideslope in the GA Airport example. Are our processes good enough to catch those?
- How dependent are we on non aviation industries in recognizing the need to report the construction to the FAA?

Should we jointly assess new obstacles observed beyond the airport perimeter on a periodic base to cover those obstacles where the FAA notification requirement was not known?

Two Final Thoughts

The most important thing to communicate is the importance of the timing of the field condition report. It is just as critical to know when the report was made as the report itself

A request for standardization of winter operations processes as much as possible across the airport community.

