

# **The IMPACT of the DOT REGULATIONS as to TARMAC DELAYS on AIR CARRIERS AND AIRPORTS**

*Katherine Staton  
Jackson Walker L.L.P.*

# Why did DOT suggest these Regulations?



- Air Carriers and Airports

# What do the Regulations Provide?

- **Air Carrier Adoption of a Contingency Plan for Lengthy Tarmac Delays:**
- **3 Hour Mark (US Carriers):**
  - **Domestic flights**--air carrier will not permit an aircraft to remain on the tarmac for more than three hours unless
    - Pilot-in-command determines if a safety-related or security-related reason prohibits the aircraft's return or
    - ATC advises the pilot-in-command that returning would significantly disrupt airport operations.
  - **International flights**-- air carrier will not permit an aircraft to remain on the tarmac for more than a set number of hours unless:
    - Pilot-in-command determines if a safety-related or security-related reason prohibits the aircraft's return or
    - ATC advises the pilot-in-command that returning would significantly disrupt airport operations.

# Plan Minimums

- **2 Hour Mark:**

- For all flights, air carrier will provide adequate food and potable water no later than two hours after the aircraft leaves the gate or touches down if the aircraft remains on the tarmac
  - (exception--safety or security considerations preclude such service).

- **All Flights:**

- For all flights, operable lavatory facilities, as well as adequate medical attention if needed, while the aircraft remains on the tarmac;
- Air carrier coordinates with airport authorities as to the Plan

# Implementation of the Regulations

- Air Carriers



# Air Carrier's Plan

- Air Carrier plans set forth time intervals of different alert modes up to and after the 3 hour mark
- The 60 minute mark usually results in the pilot speaking to:
  - ATC
  - Internal Dispatch
  - The flight crew

# SWA FOM Taxi Out Time Limits Chart

Time Away From Gate (Taxi Out)	Pilot Communication To/From ATC	Action by Pilots	Action by Dispatch/OCC	Action by Ground Operations	Action by Inflight
30 minutes	N/A	<ul style="list-style-type: none"> <li>Ensure information regarding delay communicated with Passengers (should occur every 15 minutes).</li> </ul>	N/A	N/A	<ul style="list-style-type: none"> <li>Ensure information regarding delay communicated with Passengers (should occur every 15 minutes).</li> </ul>
60 minutes	<ul style="list-style-type: none"> <li>Advise time since departure from gate.</li> <li>Request how long before takeoff.</li> <li>Advise of potential need for 20-30 minutes to complete food and beverage service. Must have parking brake set and no aircraft movement while this occurs.</li> <li>Request best location for food and beverage service.</li> </ul>	<ul style="list-style-type: none"> <li>Request information from Flight Attendants regarding operational issues and lavatory status.</li> <li>Send ACARS message to Dispatch noting expected length of delay, operational issues, and lavatory status.</li> <li>When total delay is expected to be greater than 90 minutes, provide food and beverage service as feasible.</li> <li>Ensure information regarding delay communicated with Passengers.</li> </ul>	<ul style="list-style-type: none"> <li>EAS issues HIGH alert.</li> <li>(D) Communicate with Flight Crew to assess situation.</li> <li>(D) Check and communicate with the SOD if a lavatory is inoperative.</li> <li>(D) Acknowledge alert.</li> <li>(S) Determine anticipated impact of the event.</li> <li>(S) Coordinate plan with station.</li> </ul>	<ul style="list-style-type: none"> <li>Notify Station Leadership and identify Station POC.</li> <li>Coordinate plan with SOD.</li> <li>Assess gate availability for possible gate return.</li> <li>Assess general staffing and brakeride qualifications.</li> <li>Assess inbound flight activity.</li> <li>Advise Employees of potential gate changes.</li> <li>Advise parents/guardians of UMs regarding the delay.</li> <li>Ensure mobile stairs available.</li> <li>Notify bus services to stand by, and confirm response time when/if needed.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure information regarding delay communicated with Passengers.</li> <li>Inform Pilots of any operational and lavatory issues.</li> </ul>

Rev 10-04

May 17-10

5.1.8  
FAA Approved

Southwest Airlines  
Flight Operations Manual

Passenger Issues  
General

# SWA FOM Taxi Out Time Limits Chart

Time Away From Gate (Taxi Out)	Pilot Communication To/From ATC	Action by Pilots	Action by Dispatch/OCC	Action by Ground Operations	Action by Inflight
90 minutes	<ul style="list-style-type: none"> <li>Advise time since departure from gate.</li> <li>Request how long before takeoff.</li> <li>If food/beverage service has not occurred, include wording that food and beverage service is beginning (unless takeoff is imminent) and that aircraft will be stationary for the duration.</li> </ul>	<ul style="list-style-type: none"> <li>Request information from Flight Attendants regarding operational issues and lavatory status.</li> <li>Send ACARS message to Dispatch noting expected length of delay, operational issues, and lavatory status.</li> <li>Ensure food and beverage service has been coordinated to be completed by 120 minute requirement (20-30 minutes for a full aircraft).</li> <li>Ensure information regarding delay communicated with Passengers.</li> </ul>	<ul style="list-style-type: none"> <li>EAS escalates to URGENT alert.</li> <li>(D) Send ACARS reminder to Flight Crew regarding food and beverage service and lavatories (if necessary).</li> <li>(S) &amp; (D) Discuss information received from Pilots (e.g., food and beverage service completion, lavatory status, time until takeoff) and any operational issues as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>Continue planning deplaning options with OCC.</li> <li>Communicate and coordinate information with Airport Operations.</li> </ul>	<ul style="list-style-type: none"> <li>Notify Passengers of peanut/pretzel and water service.</li> <li>Ensure food and beverage service has been coordinated to be completed by 120 minute requirement (20-30 minutes for a full aircraft).</li> <li>Ensure information regarding delay communicated with Passengers.</li> <li>Inform Pilots of any operational and lavatory issues.</li> </ul>

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# SWA FOM Taxi Out Time Limits Chart

Time Away From Gate (Taxi Out)	Pilot Communication To/From ATC	Action by Pilots	Action by Dispatch/OCC	Action by Ground Operations	Action by Inflight
120 minutes	<ul style="list-style-type: none"> <li>Advise time since departure from gate.</li> <li>Request how long before takeoff.</li> <li>Request how long it would take to return to gate.</li> </ul>	<ul style="list-style-type: none"> <li>Document the following information for the required IR: time out; time of food and beverage service completion; operational issues; whether the use of PEDs was permitted; and number of lavatories operational.</li> <li>Estimate amount of time to actually return to gate (time from ATC plus an ample margin). This estimation may result in having to make the return-to-gate determination before reaching 150 minutes.</li> <li>Send ACARS message to Dispatch noting expected length of delay, operational issues, lavatory status, and estimated time to return to gate.</li> <li>Notify station of possible return to gate.</li> <li>Ensure information regarding delay communicated with Passengers.</li> </ul>	<ul style="list-style-type: none"> <li>(D) Coordinate course of action with Flight Crew if unable to depart prior to 180 minutes.</li> <li>(S) Notify Chief Dispatcher on Duty of situation.</li> <li>(S) Document information regarding the flight in the SOD Log, including time out, time of food and beverage service completion, operational issues, and how many lavatories are operational.</li> <li>(S) Notify the station of the potential need to initiate the return-to-gate plan and/or the alternate deplaning plan.</li> <li>(S) Consider other actions (e.g., internal ground stop) to reduce the risk of multiple tarmac delay issues.</li> <li>(S) Send an ENS.</li> <li>(C) Notify the Director of Dispatch, the Senior Director of OCC, and the Vice President Director of Operations.</li> </ul>	<ul style="list-style-type: none"> <li>Assess need for designating a gate to be used for multiple returns.</li> <li>Discuss with OCC the towing of aircraft that have not begun boarding away from the gate; reducing inbound traffic; and deplaning the aircraft at an alternate site.</li> </ul>	<ul style="list-style-type: none"> <li>Advise Flight Crew of the completion of food and beverage service, any operational issues, and lavatory status.</li> <li>Ensure information regarding delay communicated with Passengers.</li> </ul>

# SWA FOM Taxi Out Time Limits Chart

Time Away From Gate (Taxi Out)	Pilot Communication To/From ATC	Action by Pilots	Action by Dispatch/OCC	Action by Ground Operations	Action by Inflight
150 minutes	<ul style="list-style-type: none"> <li>Advise time since departure from gate.</li> <li>Request how long before takeoff.</li> <li>Request amount of time to return to gate.</li> </ul>	<ul style="list-style-type: none"> <li>Determine if aircraft is to remain on tarmac. Takeoff must be imminent or ATC must have advised that returning to gate would cause significant disruption. The aircraft must be either at the gate with the door open or airborne by 180 minutes. See information above table for situations when this may be exceeded.</li> <li>Send ACARS message to Dispatch noting expected length of delay, operational issues, and lavatory status.</li> <li>Ensure information regarding delay communicated with Passengers.</li> <li>Advise station whether aircraft is returning to gate or remaining on tarmac.</li> </ul>	<ul style="list-style-type: none"> <li>(S) Coordinate return to gate (unless takeoff is imminent or ATC advises this would cause a significant disruption) with Flight Crew, Dispatcher, and station.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate return to gate and deplaning with OCC.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure information regarding delay communicated with Passengers.</li> <li>Inform Pilots of any operational and lavatory issues.</li> </ul>

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# SWA FOM Taxi Out Time Limits Chart

Time Away From Gate (Taxi Out)	Pilot Communication To/From ATC	Action by Pilots	Action by Dispatch/OCC	Action by Ground Operations	Action by Inflight
180 minutes and greater	<ul style="list-style-type: none"> <li>Advise time since departure from gate.</li> <li>Request how long before takeoff.</li> <li>Request amount of time to return to gate.</li> </ul>	<ul style="list-style-type: none"> <li>Send ACARS message to Dispatch noting expected length of delay, operational issues, lavatory status, time of food and beverage service completion, and reason why 180-minute limit exceeded. See information above table for situations when this may be exceeded.</li> <li>Document required IR information: time out; time of food and beverage service completion; number of lavatories operational; whether use of PEDs was permitted; operational issues; and why limit was exceeded.</li> <li>Ensure information regarding delay communicated with Passengers.</li> </ul>	<ul style="list-style-type: none"> <li>(S) Submit an ENS followup report for any delay exceeding the 180-minute limit.</li> <li>(D) Complete an IR for the event.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate return to gate and deplaning with OCC.</li> <li>Complete a SOPI report for any aircraft that returns to the gate and cancels the flight or taxis to an alternate site for deplaning.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure information regarding delay communicated with Passengers.</li> <li>Inform Pilots of any operational issues and lavatory status.</li> </ul>

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# Tools Air Carriers Developed to Address Tarmac Delays

- Tracking Systems that Provide Real Time Data of Aircraft Delays on Tarmac
- Station Capacity and Gate Occupancy/Staffing Tracking Programs



OPERATIONS COORDINATION CENTER

Home

Station Dashboard

Alert Summary

Reports

Admin

Show All Stations

Show Selected Stations

Alert Summary - 13 Snoozed Alerts - 0 Resolved Alerts - 60

TYPE	ID	LEVEL	STATION	MESSAGE DETAIL	FLIGHT	IMPACT	DURATION	CREATE	ACK BY	ACI
Taxi In Time Single AC	73	HIGH	PHX	Flight:2507	2507	8/12/2008 174	30	8/12/2008 1741		
Taxi In Time Single AC	72	URGENT	MDW	Flight:1472	1472	8/12/2008 162	91	8/12/2008 1724		
Taxi In Time Single AC	8	HIGH	PDX	Flight:2200	2200	8/12/2008 115	164	8/12/2008 1339	Kathy Buttor	8/1
Taxi In Time Single AC	26	URGENT	PHL	Flight:3136	3136	8/12/2008 143	199	8/12/2008 1436		
Taxi Out Time Single AC	25	URGENT	HOU	Flight:2438	2438	8/12/2008 143	231	8/12/2008 1434	Kathy Buttor	8/1
Taxi Out Time Single AC	3	URGENT	MDW	Flight:3308	3308	8/12/2008 132	298	8/12/2008 1339	Kathy Buttor	8/1
Taxi Out Time Single AC	4	URGENT	DEN	Flight:2886	2886	8/12/2008 130	319	8/12/2008 1339	Kathy Buttor	8/1
Taxi In Time Single AC	7	URGENT	SLC	Flight:2194	2194	8/12/2008 114	375	8/12/2008 1339	Kathy Buttor	8/1
Taxi In Time Single AC	5	URGENT	MCO	Flight:3049	3049	8/12/2008 112	387	8/12/2008 1339	Kathy Buttor	8/1
Taxi In Time Single AC	6	URGENT	DEN	Flight:3342	3342	8/12/2008 112	393	8/12/2008 1339	Kathy Buttor	8/1
Taxi Out Time Single AC	2	URGENT	DTW	Flight:1575	1575	8/12/2008 112	416	8/12/2008 1339	Kathy Buttor	8/1
Taxi Out Time Single AC	1	URGENT	BWI	Flight:3050	3050	8/12/2008 110	436	8/12/2008 1339	Kathy Buttor	8/1
Taxi In Time Single AC	9	URGENT	BWI	Flight:3049	3049	8/12/2008 085	537	8/12/2008 1339	Kathy Buttor	8/1



Upline flights arriving beginning at

- Select - for - Select - Submit

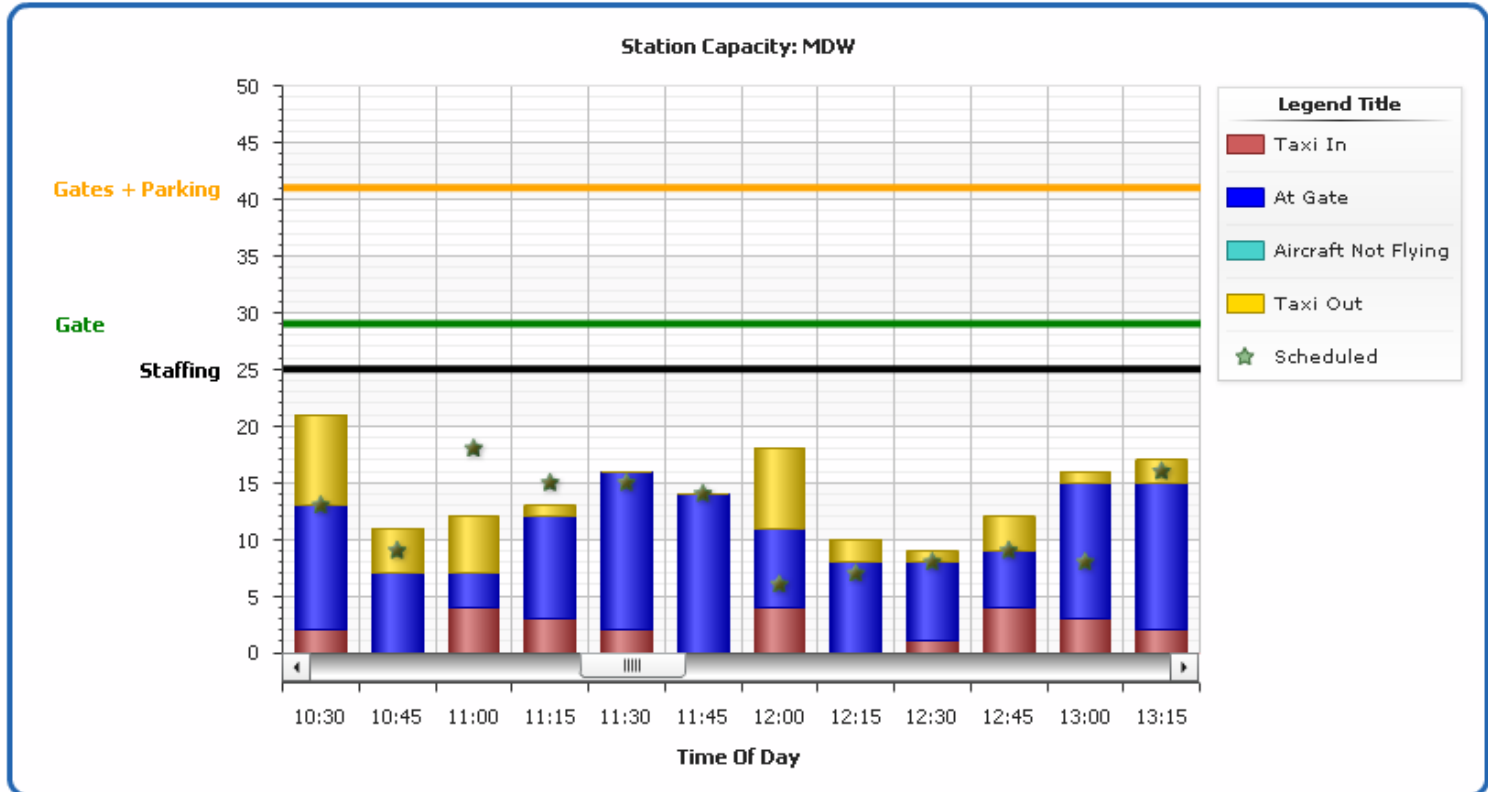
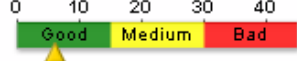


Chart Zoom (Hrs)

- Select -

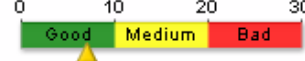
Taxi In Average Time



Single AC:0

Trending

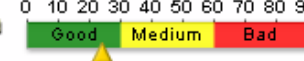
Turn Average Time



Single AC:0

Trending

Taxi Out Average Time



Single AC:0

Trending

# Diversion Tracker

- American Airlines developed a web based software program that captures all information when an aircraft is on ground for lengthy delays



# Effects of Regulations

- Few flights on tarmac more than 3 hours since April 2010





# Effects of Regulations

- Aircraft stay at gates longer (gate holds) with the door open to delay the start of the clock
- Some airlines have increased their gate staffing as spare gates are being used to accommodate longer time aircraft are at gates

# Effects of Regulations

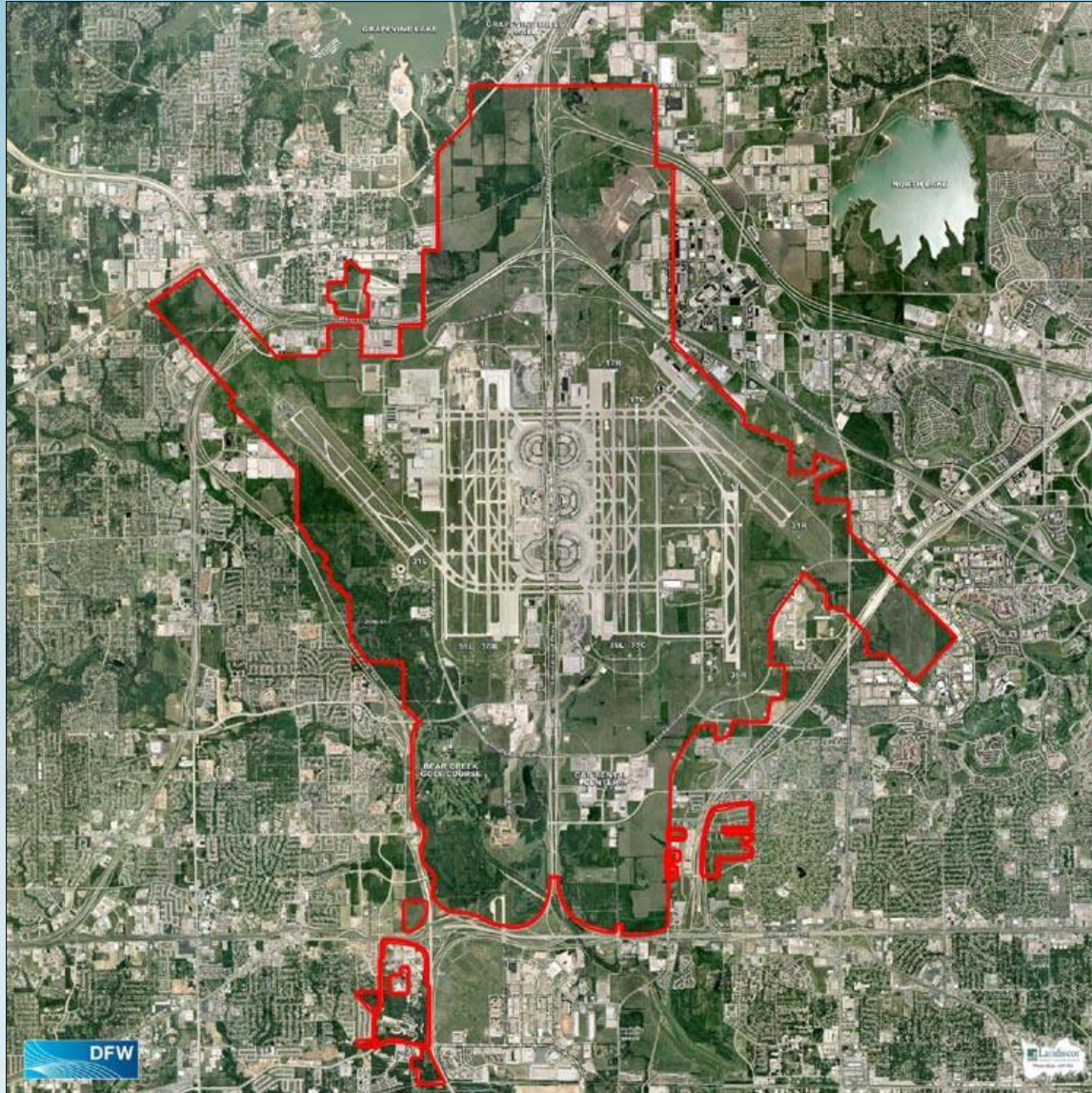
- Aircraft returns to gates increased
- Flight cancelations have increased or will increase due to delay time limits and gate congestion
- Airlines having to revise manuals and train in-flight crews and ground crews to address the regulations
- Airline provisioning required for 2 hour rule

# Effects of Regulations

- Airlines having to work more closely with airports as to delays
- Airline goal—get passengers to their destination.
- DOT fine--\$27,500 per passenger or aircraft—solely on the airline.
- Customer relations

- **The Airport Response to the Tarmac Delay Regulations**

# DFW



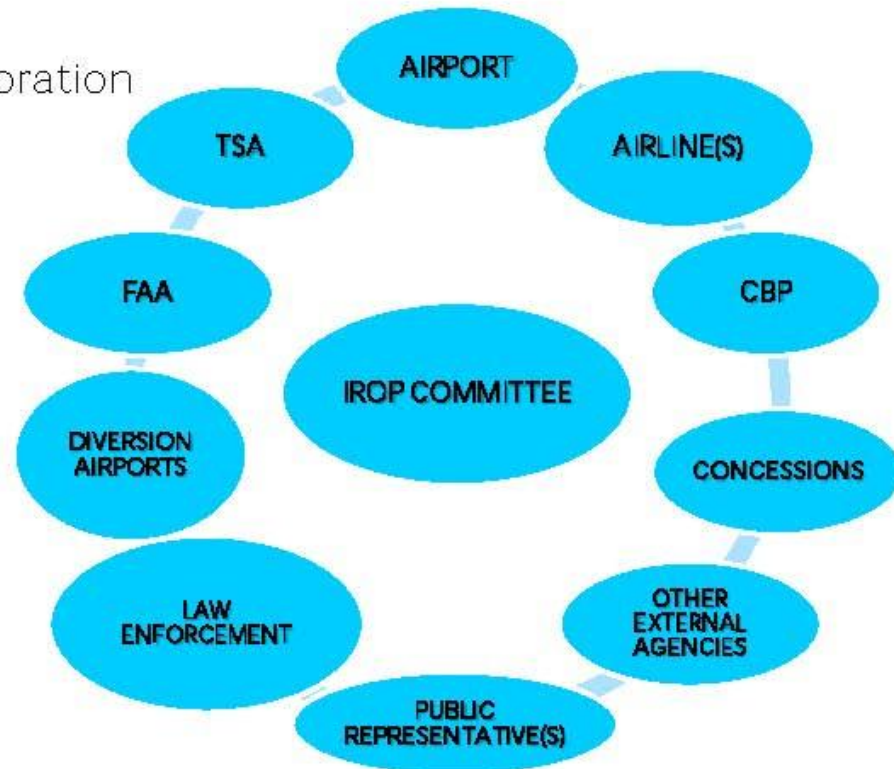
- Airports like DFW prepared program for tarmac delays well in advance of the enactment of Tarmac Delay Regulations
- Airports partner with carriers and other airports –Communicate, Collaborate and Coordinate

# DFW Airport Irregular Operations Committee



## DFW IROP COMMITTEE

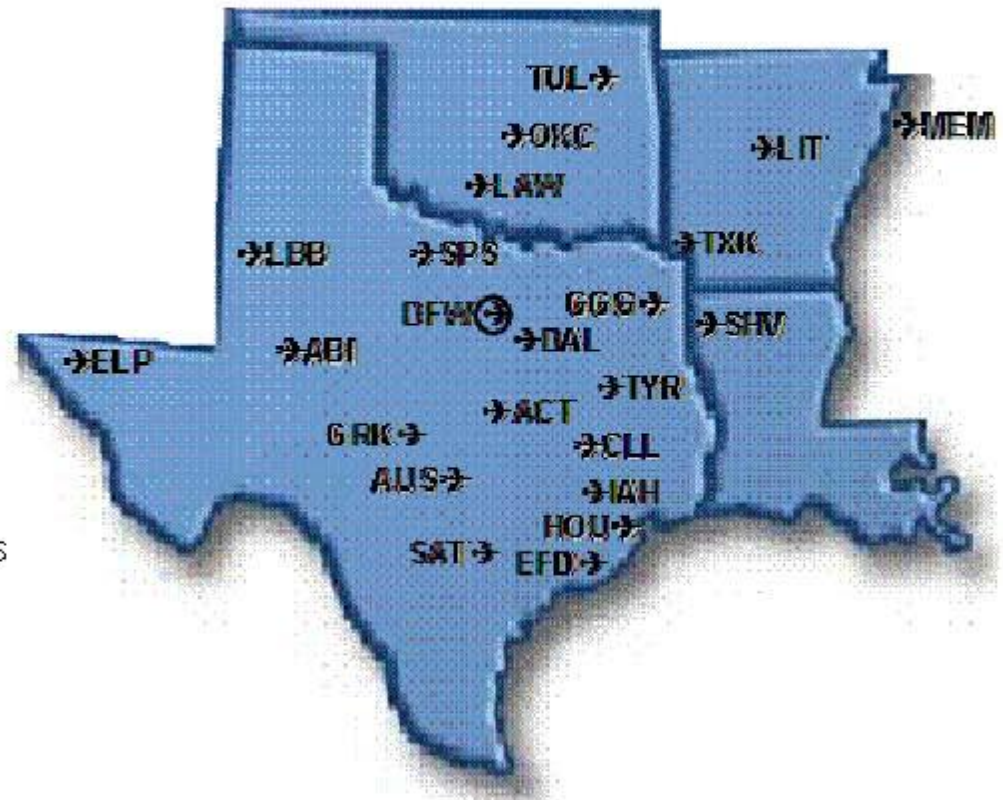
- A large focus on Communication, Collaboration and Coordination





## Regional Diversion Airport Planning

- Regional Airports can be directly or indirectly impacted when IROP events occur at DFW Airport
- Communication is key to ensure customer core needs are addressed
  - Established relationships
  - DFW AOC in contact with airports during IROP events
  - DFW AOC can facilitate coordination for airlines, TSA, FAA and CBP



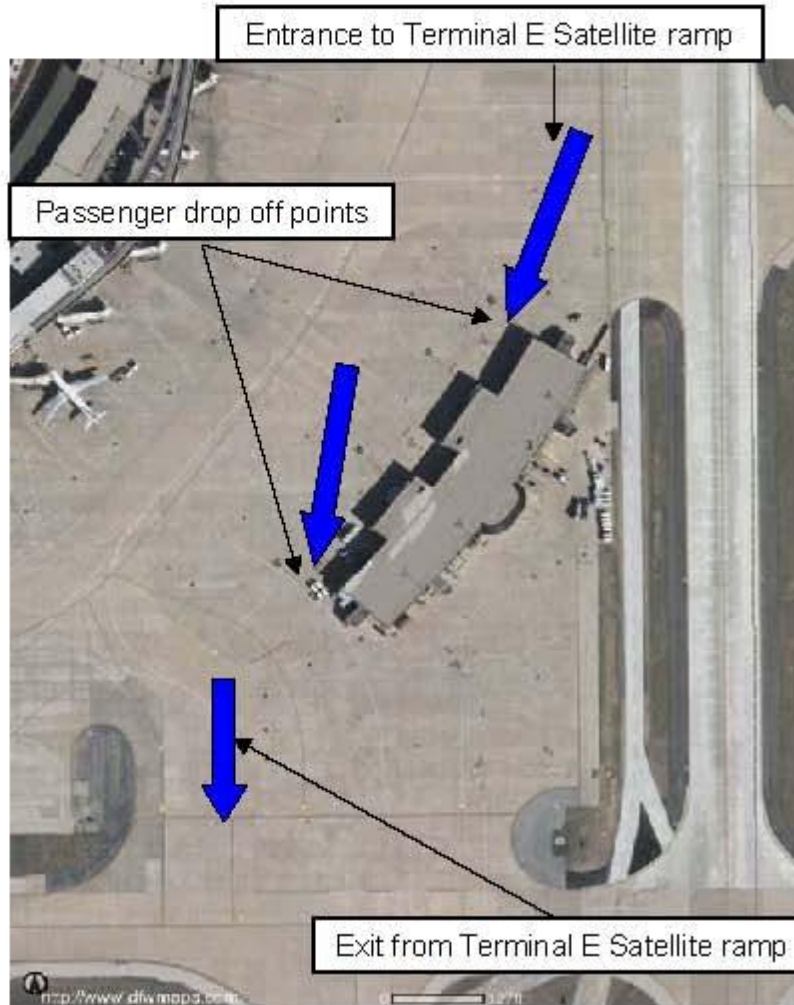




## Deplaning Passengers during extended tarmac delays Terminal Gates/Ramps

- Main focus is to return aircraft to terminal gates
  - Safe Gate
    - Installed at 90 gates in Terminals A, C and D
- Use Board gates during IROPS if airline gate is not available
- Return aircraft to airline ramp for hard stand operations

# Hardstand Location: Terminal E Satellite





## Deplaning Passengers during extended tarmac delays

### Passenger Ground Support Equipment for deplaning passengers

- Airport People Moving Bus
- Covered Passenger Air Stairs
- Disabled Passenger Lift Vehicle
  - Used for deplaning mobility impaired passengers
  - Could potentially use equipment for other services
    - Replenish delayed aircraft on tarmac with food and beverages

## IROP Ground Support Equipment



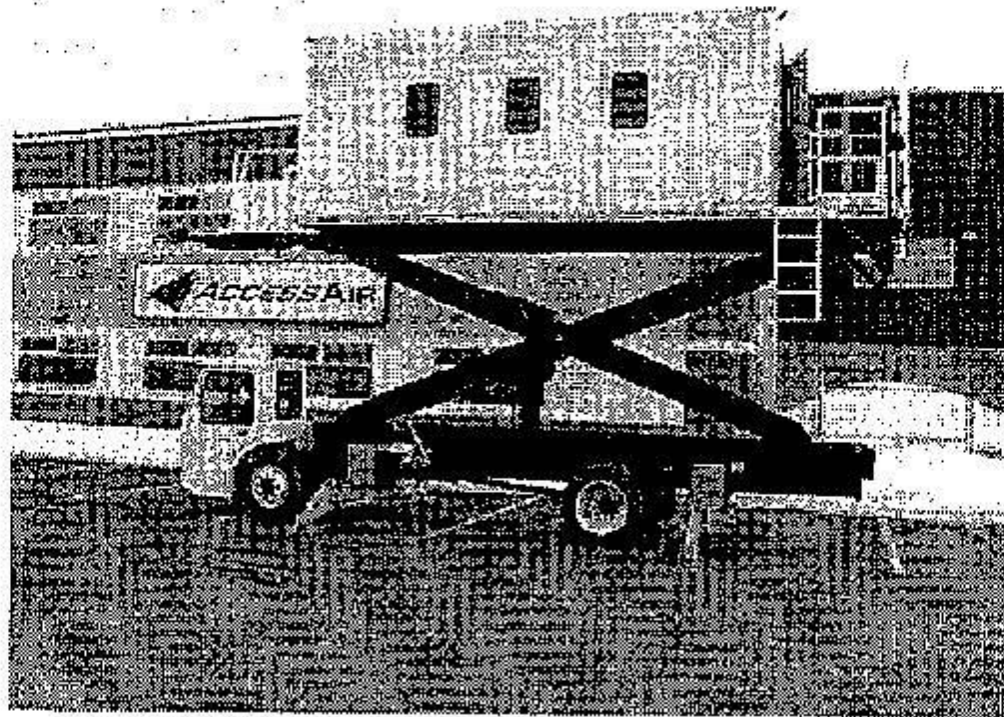
Airport People Mover Bus

Passenger Air Stairs



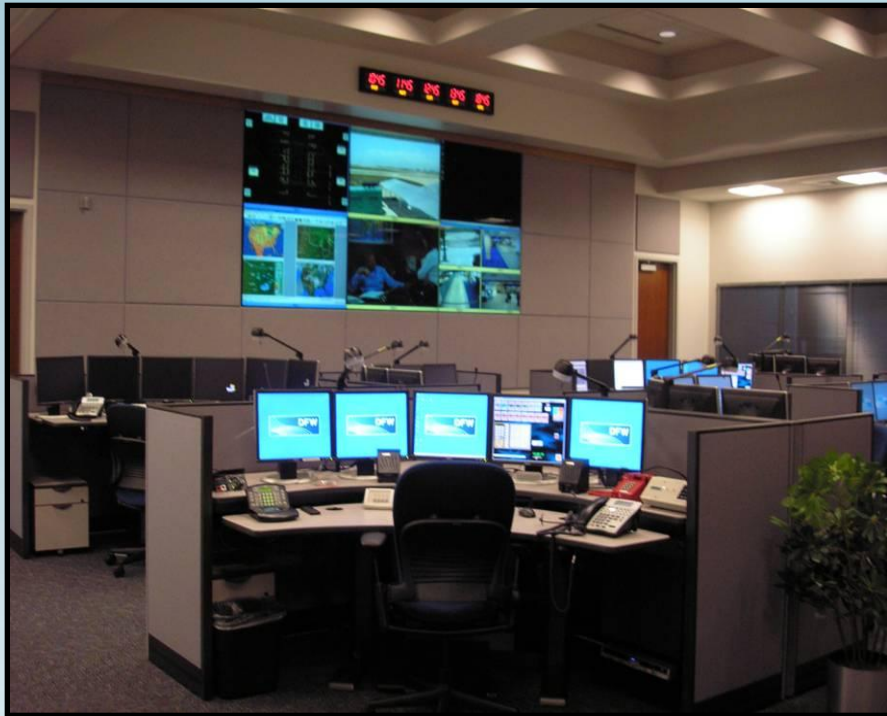
## IROP Ground Support Equipment

### Disabled Passenger Lift Vehicle



# DFW Airport Operations Center/ Emergency Operations Center Communication, Collaboration and Coordination (C<sup>3</sup>) – across all airport stakeholders

## AOC

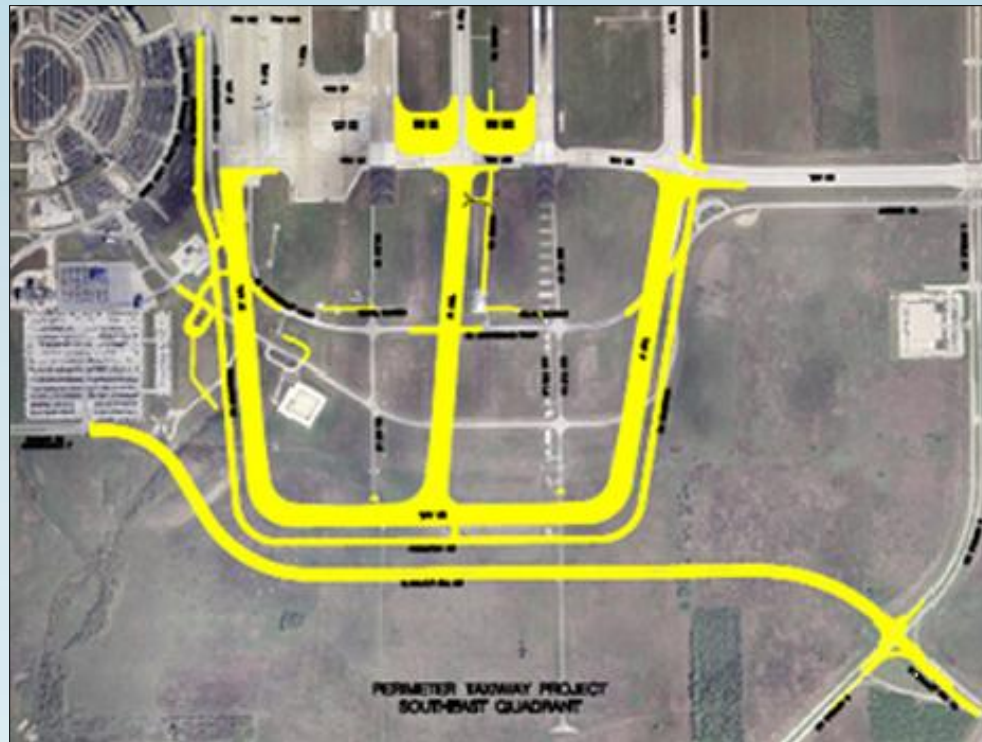


## EOC



# DFW Airport Tools

- DFW Airport Software and Manual Observations—monitors aircraft on tarmac
- Perimeter Taxiway Project 35L/35C



# JFK Bay Runway Construction & Surface Management





# THE PLAN

- **Promote Culture Change –Exit First Come First Served**
- **Ration by Schedule through Equitable Allocation of Bucket Times**
- **Focus on getting aircraft off the ground instead of back to the gate**
- **Communicate and leverage strategic support from FAA**
- **Maximize surface efficiency by allocating bucket times based on true departure rate for the configuration, first fix availability**
- **Enable more seamless configuration changes by reducing AOA congestion**

# THE TOOLS

- **Passur Iropsnet**
- **RAPT (Wx)**
- **Sensis Aerobahn**
- **Ground and Tower Frequencies for situational awareness**
- **Human Factor**





# SENSIS Aerobahn—Surface Surveillance

# THE CALCULATOR

## -Ration by Schedule-- IROPSNET

HOME	IROPSnet	Powered by Passur	JFK	DEPARTURE SLOT CALCULATOR													
EDIT	Departures by Airline (Scheduled / Allocated)											Slot Summary (Non Pool and Pool)					
	Total / New Alloc Hourly	AAL	AAR	AEW	AFL	AFR	AIC	AJM	AMX	ANA	AUA		AAL	DAL	JBU	Pool	
▲	14:00	21/22	3/3.14	0/	0/	0/	0/	0/	0/	0/	0/	14:00	3/3	7/7	7/7	4/4	
▲	15:00	26/24	10/9.23	0/	0/	0/	0/	0/	0/	0/	0/	15:00	10/9	7/6	7/6	2/2	
●	16:00	39/32	5/4.10	0/	0/	0/	1/0.82	0/	0/	0/	0/	16:00	5/4	20/16	8/7	6/5	
	17:00	37/32	13/11.24	0/	0/	0/	0/	1/0.86	0/	0/	0/	17:00	13/11	9/8	7/6	8/7	
	18:00	45/32	6/4.27	0/	0/	0/	1/0.71	0/	0/	1/0.71	0/	1/0.71	18:00	6/4	17/12	7/5	15/11
	19:00	44/32	3/2.18	0/	1/0.73	1/0.73	1/0.73	0/	0/	0/	0/	19:00	3/2	24/17	4/3	13/9	
	20:00	22/32	2/2.91	0/	0/	0/	0/	0/	0/	0/	0/	20:00	2/3	7/10	8/12	5/7	
	21:00	25/32	5/6.40	0/	0/	0/	1/1.28	1/1.28	0/	0/	0/	21:00	5/6	4/5	8/10	8/10	
▼	22:00	18/0	4/0.00	0/	0/	0/	0/	0/	0/	0/	0/	22:00	4/	3/	5/	6/	
▼	Total Daily	492/	88/	2/	1/	1/	5/	3/	3/	2/	1/						
												▶▶					



# What Is Next?

Today's debate: Air travel

## The tarmac rules work. Now, extend them to foreign carriers

After a blizzard buried the East Coast, shutting down major airports from Boston to Philadelphia last week, more than two dozen plane-loads of passengers were stranded for hours on tarmacs at New York's John F. Kennedy International Airport.

agents together. And, despite a 2008 task force recommendation, the JFK spokesman said he knows of no plan for busing arriving international passengers to hold them inside a terminal, pending processing.

The snow will be long melted by the time all this is



# Thanks

- The Port Authority of New York and New Jersey
- The Dallas/Fort Worth International Airport
- Southwest Airlines Co.
- American Airlines, Inc.
- United Airlines