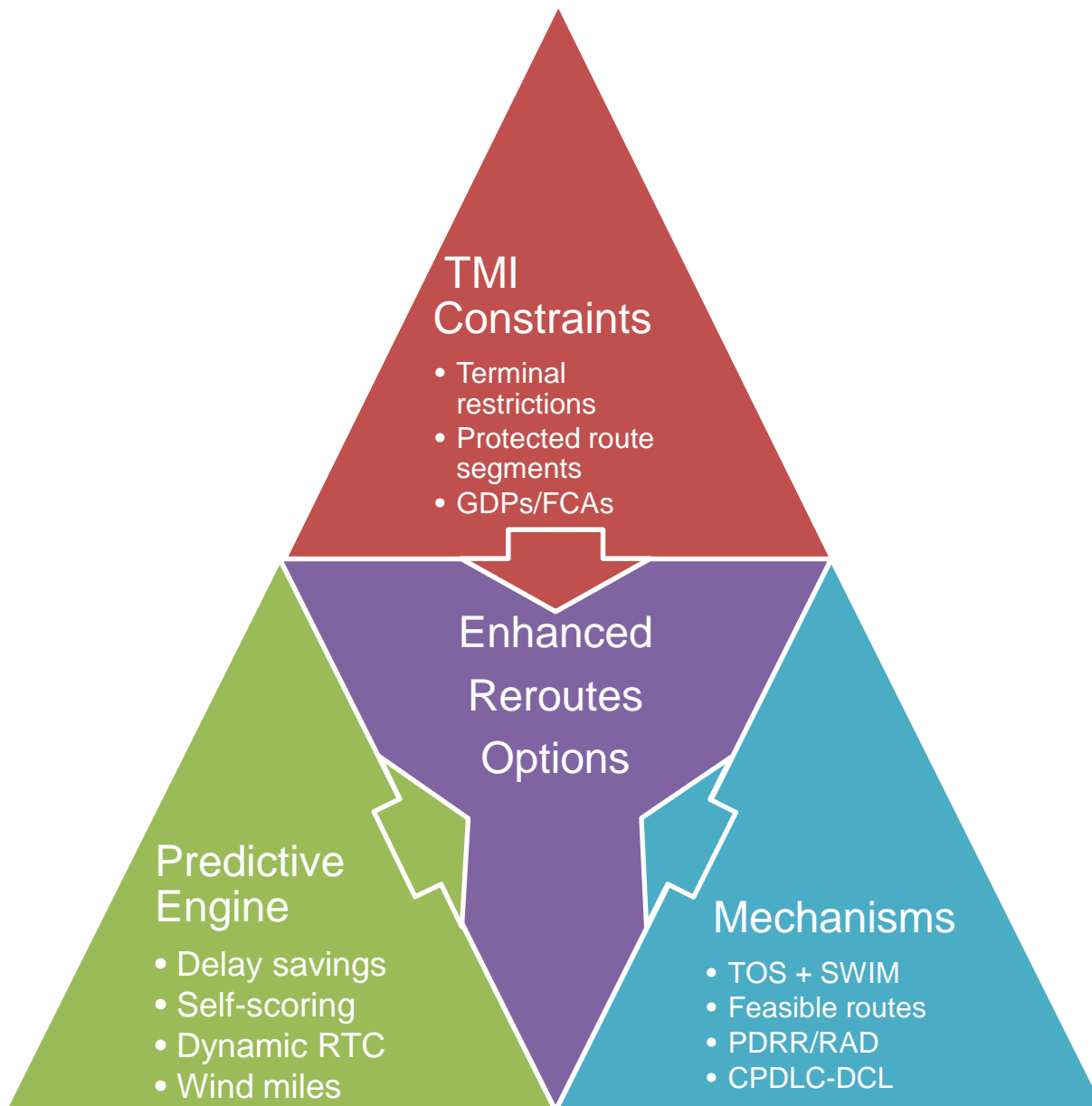


# Required Filtering to Optimize Use of TOS

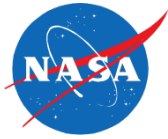
Briefing to SCT/FET  
February 20th, 2020



- Management of Exclusions of flights and TOS routes
  - ATC
    - Exclusions of flights under controlled times (EDCT, APREQ, GS)
    - Exclusions of CDR (TOS) routes and destinations
  - Flight Operators
    - Individual flight exclusion (ie. MX)
- Handling and parsing NTML restrictions
  - Update TMI Service to parse TfmFlow Data from NTML entries
    - Standardization of NTML entries with ZFW partners
      - Fix closures (incl. SWAP) and MIT
    - Handling of cancellations



TMI Types	Sources
Runway Utilization	User, Model
Runway Closure	User
Taxiway Closure	User
Ramp Closure	User
Surface Metering Program	User, Scheduler
APREQ/CFR	User, TFM, OIS
Ground Delay Program	TFM
Airspace Flow Program	TFM
Ground Stop	User, TFM
Route Advisories	TFM
Departure Fix Closure	User, TFM, OIS
MIT	User, TFM, OIS
TOS Exclusions	User



## ZFW TMU personnel enters restrictions in NTML

- ATD-2 system parses the TfmFlow data (SWIM)  
Looks for restrictions based on requesting and providing facilities
- ATD-2 system then populates the clients with the restriction information

# Entries in the National Traffic Management Log (NTML)



Use of RESTN tab

Use of the Qualifier field to:  
- indicate alternative fix  
- obtain consistent data

Use of the Remarks field to indicate inclusions or exclusions



- **East Gate**

- 1215-1345 10MIT over HANUH and THHOR
- 1400-1430 15MIT over HANUH and THHOR
- 1903-2035 TRRCH/ZERLU closed → alt HANUH 10MIT
- 2035-2122 TRRCH closed → alt ZERLU
- 2123-2236 HANUH closed → alt THHOR
- 2202-2333 EWR, LGA, JFK 30MIT

- **North Gate**

- 0145-0330 15MIT over AKUNA

- **West Gate**

- 1130-1400 TYGGR closed → alt ROOOO
- 1400-1435 TYGGR/PGLET closed → alt ROOOO



## EDCT

- 1319-1341 TUL
- 1400-1759 LIT
- 1730-0459 EWR
- 1800-0359 LGA
- 2005-0329 DEN
- 2130-0359 JFK

## Ground Stop

- 1437-1451 LIT
- 2222-0009 LGA
- 0013-0113 LGA (DELTA ONLY)

## APREQ/CFR

- 1335-1441 PHX
- 1939-0009 HOU
- 2209-0041 ORD
- 2313-0124 DEN

## Route Advisories

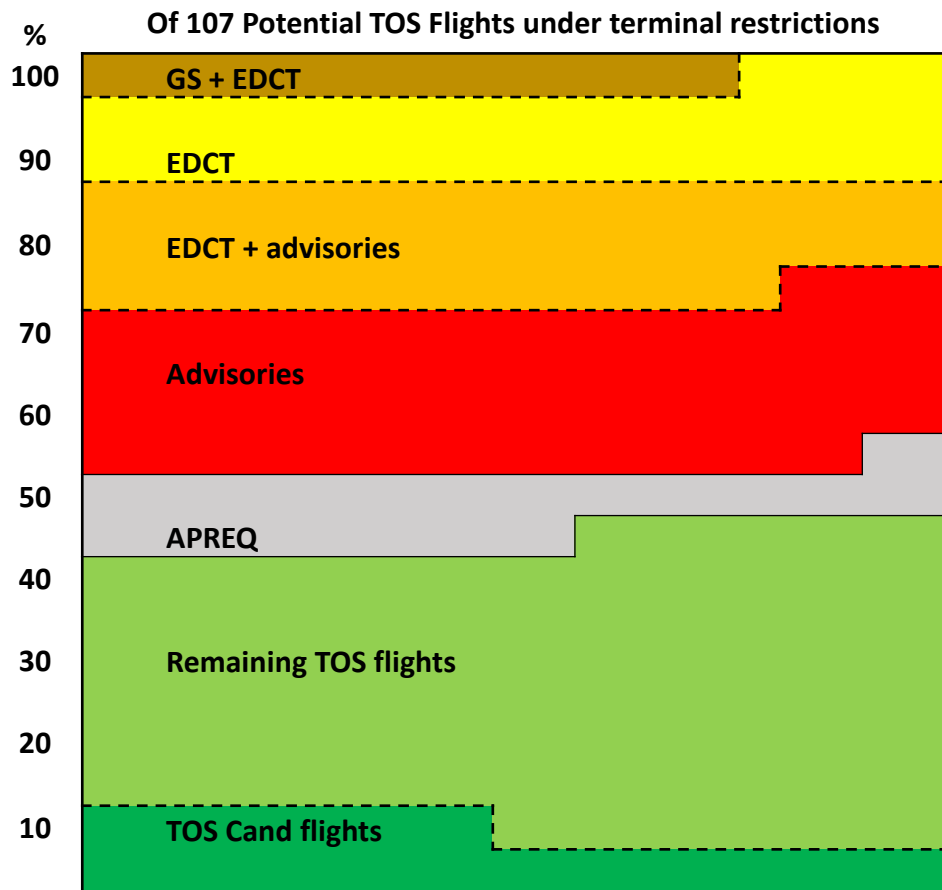
- 1600-0100 BWI, DCA, IAD, PHL
- 1600-2300 EWR, JFK, LGA
- 2115-0000 ORD
- 2115-0000 DTW
- 2130-0200 DEN



# August 8 – Multiple TMIs For Flights Under Terminal Restrictions



Potential Flights under terminal restrictions	N	Balance	% Flights	N Candidates	Balance Candidates	% Candidates	% Candidates within N
SWA, AAL (incl subs) flights		107	100.0%	15	15	100.0%	14.0%
Minus GS	-4	103	96.3%	-1	14	93.3%	25.0%
Minus EDCTs	-26	77	72.0%	-2	12	80.0%	7.7%
Minus Route advisory	-23	54	50.5%	-4	8	53.3%	17.4%
Minus APREQ	-9	45	42.1%	0	8	53.3%	0.0%
		<b>45</b>	<b>42%</b>		<b>8</b>	<b>53.3%</b>	





- Goal
  - Parse DCC route advisories to minimize manual entries in the TOS Operation tab made to filter destinations and routes
  
- Approach
  - Parsing RQD reroute (except FCAs)
  
- Parsing logic
  1. Determine origin facility
  2. Determine origin segment
  3. Determine if protected segment matches any CDRs
    - Matching CDR will remain in the TOS

Metroplex Planner - DAL TM Actions

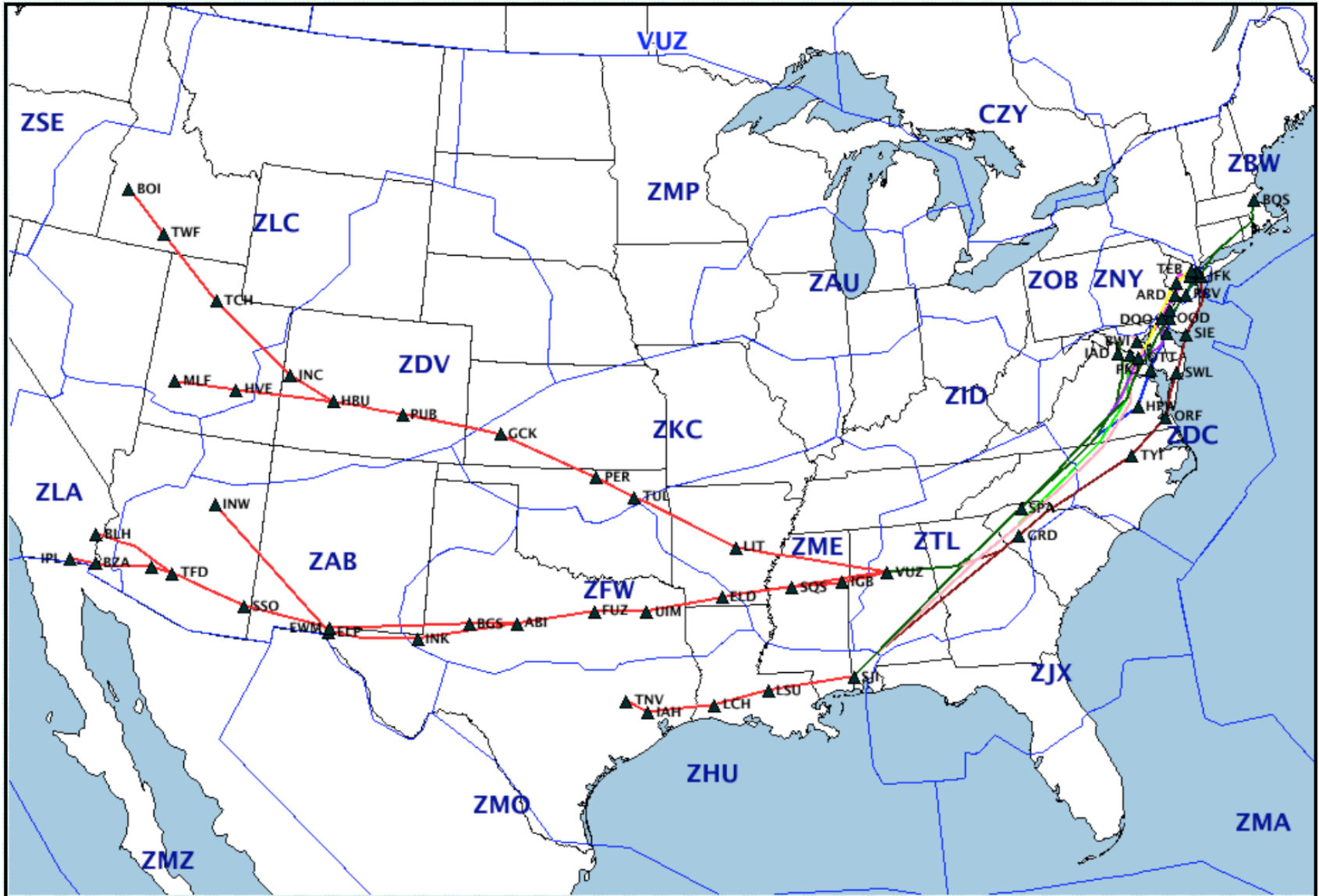
 Display Advisories with Matching CDR only

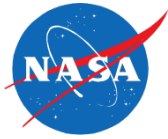
Runway Utilization
APREQ Schedules
MIT Restrictions
Dep Fix Closures
Runway Closures
Ground Stops
TOS Operation
DCC Route Advisories

Adv. num	Advisory Name	Reroute Action	Constrained Area	Start dd/hhmm	End dd/hhmm	Origin	Dest	Protected Segment	Matching CDR
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZHU	KBWI	>SJI J37 CATLN Q56 KELLN Q58 PEETT THHMP<	VS
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZFW	KBWI	>VUZ ATL KBLER Q56 KELLN Q58 PEETT THHMP<	VW
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZHU	KDCA	>SJI J37 CATLN Q56 KIWI WIVES<	VS
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZFW	KDCA	>VUZ ATL KBLER Q56 KIWI WIVES<	VW
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZHU	KIAD	>SJI J37 CATLN Q22 SPA Q60 JAXSN DORRN<	VS
177	VUZ MODIFIED	RQD	ZOB/ZIB/ZME	08/1600	09/0100	ZFW	KIAD	>VUZ ATL TWOUP Q22 SPA Q60 JAXSN DORRN<	VW
157	TEXAS TO ORD	RQD	ZID	08/2115	09/0000	ZFW	KORD	>TUL J25 MCI J26 IRK<	KK
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZFW	KEWR	>ELD MEI J4 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J51 FAK<	M3
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZHU	KEWR	>SJI J37 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J51 FAK<	--
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZFW	KLGA	>ELD MEI J4 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT<	M3
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZHU	KLGA	>SJI J37 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT<	--
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZFW	KJFK	>ELD MEI J4 MGM J40 TWINS PANDY BARTL J121 SIE<	M3
100	MGM3 PARTIAL	RQD	ZOB, ZID, ZME	08/1600	08/2300	ZHU	KJFK	>SJI J37 MGM J40 TWINS PANDY BARTL J121 SIE<	--

Close Window

Note: Mock-up of the Route advisory tab





**ATCSCC Advisory**

**ATCSCC ADVZY 177 DCC 08/08/2019 ROUTE RQD /FL**

RAW TEXT: **NAME: VUZ\_MODIFIED**  
**CONSTRAINED AREA: ZOB/ZID/ZME**  
**REASON: WEATHER**  
**INCLUDE TRAFFIC: ZFW/ZHU/ZME DEPARTURES TO KBWI/KDCA/KIAD/KPHL**  
**FACILITIES INCLUDED: ZDC/ZFW/ZHU/ZME/ZNY/ZTL**  
**FLIGHT STATUS: ALL\_FLIGHTS**  
**VALID: ETD 081600 TO 090100**  
**PROBABILITY OF EXTENSION: LOW**  
**REMARKS: REPLACES/EXTENDS ADVZY 132.**  
**ASSOCIATED RESTRICTIONS:**  
**MODIFICATIONS: ZFW DEPARTURES ROUTE SHORTER**  
**ROUTES:**

<b>FROM:</b>	
<b>ORIG</b>	<b>ROUTE - ORIGIN SEGMENTS</b>
----	-----
ZFW	>VUZ
ZHU	>SJI
ZME (-BNA)	>VUZ
<b>TO:</b>	
<b>DEST</b>	<b>ROUTE - DESTINATION SEGMENTS</b>
----	-----
KBWI	VUZ ATL KBLER Q56 KELLN Q58
	PEETT THMP< RAVNN6
KBWI	SJI J37 CATLN Q56 KELLN Q58
	PEETT THMP< RAVNN6

**Protected segment to BWI**

ZFW/ZME > **VUZ ATL KBLER Q56 KELLN Q58 PEETT THMP** <  
 ZHU > **SJI J37 CATLN KELLN Q58 PEETT THMP** <

**Matching CDR?**

<b>DXXBWIWV</b>	EAST	SID FORCK ELD SQS J52	<b>VUZ ATL KBLER Q56 KELLN Q58 PEETT THMP</b>	RAVNN6 KBWI	<b>MATCH</b>
<b>DXXBWIWS</b>	SOUTH	SID TNV J87 IAH J2 LCH J138	<b>SJI J37 CATLN Q56 KELLN Q58 PEETT THMP</b>	RAVNN6 KBWI	<b>MATCH</b>
<b>DXXBWI1S</b>	SOUTH	SID TNV IAH LCH J22 MEI BNA J42 BKW	RAVNN6 KBWI		NO MATCH
<b>DXXBWI1N</b>	NORTH	SID MLC RZC ARG BNA J42 BKW	RAVNN6 KBWI		NO MATCH
<b>DXXBWIJ3</b>	NORTH	SID MLC RZC STL VHP ROD APE KEMAN ANTHM3	KBWI		NO MATCH





ATCSCC Advisory	
<b>ATCSCC ADVZY 100 DCC 08/08/2019 ROUTE RQD /FL</b>	
RAW TEXT:	<b>NAME: MGM_3_PARTIAL</b> <b>CONSTRAINED AREA: ZOB/ZID/ZME</b> <b>REASON: WEATHER</b> <b>INCLUDE TRAFFIC: KLAS/KSAN/ZAB/ZFW/ZHU/ZLA DEPARTURES TO KEWR/KJFK/KLGA</b> <b>FACILITIES INCLUDED: ZAB/ZDC/ZFW/ZHU/ZJX/ZLA/ZME/ZNY/ZTL</b> <b>FLIGHT STATUS: ALL_FLIGHTS</b> <b>VALID: ETD 081700 TO 082200</b>

## Protected segment to LGA

ZFW > **ELD MEI J4 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT** < KORRY4 KLGA  
 ZHU > SJI J37 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT < KORRY4 KLGA

## Matching CDR?

<b>DXXLGAM3</b>	EAST	SID FORCK	<b>ELD MEI J4 MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT</b>	KORRY4 KLGA	<b>MATCH</b>
<b>DXXLGA1N</b>	NORTH	SID MLC RZC ARG BNA J42 GVE		KORRY4 KLGA	NO MATCH
<b>DXXLGAJ3</b>	NORTH	MLC RZC STL VHP ROD KLYNE Q29 WWSHR TEESY J146 ETG MIP4			NO MATCH
<b>DXXLGA1S</b>	SOUTH	SID TNV IAH LCH J138 <b>SJI J37</b> CATLN Q22 SPA Q60 JAXSN HPW J191 PXT		KORRY4 KLGA	NO MATCH
<b>DXXLGAVS</b>	SOUTH	SID TNV J87 IAH J2 LCH J138 <b>SJI J37</b> CATLN Q22 SPA Q60 JAXSN HPW J191 PXT		KORRY4 KLGA	NO MATCH

ZFW	>ELD MEI J4 MGM
ZHU	>SJI J37 MGM
ZLA(-LAS -SAN)	>BLH J169 TFD J50 ELP J86 IAH J2 LCH J138 SJI J37 MGM
TO:	
DEST	ROUTE - DESTINATION SEGMENTS
----	-----
KEWR	MGM J40 TWINS BLAAN Q99 POLYY TUBAS J51 FAK< PHLBO3
KJFK	MGM J40 TWINS PANDY BARTL J121 SIE< CAMRN4
KLGA	MGM J40 TWINS BLAAN Q99 POLYY TUBAS J52 ZITTO J208 HPW J191 PXT< KORRY4
TMI ID: RRDCC077	
081719-082200	
19/08/08 17:19 DCCOPS.lxstn20	

Metroplex Planner - D10 TM Actions

Runway Utilization | APREQ Schedules | MIT Restrictions | Dep Fix Closures | Runway Closures | Ground Stops | **TOS Operation**

TOS Submission:  Active  Inactive

Excluded Destinations (All Routes): Airport:

**CDR List**

NW	CDR	Fix	Parsed DCC Advisory	User
Via LOWGN	1N		DEN	<input type="button" value="Set"/>
Via PGLET	1W		DEN	<input type="button" value="Set"/>
Via ROOOO	GC			<input type="button" value="Set"/>

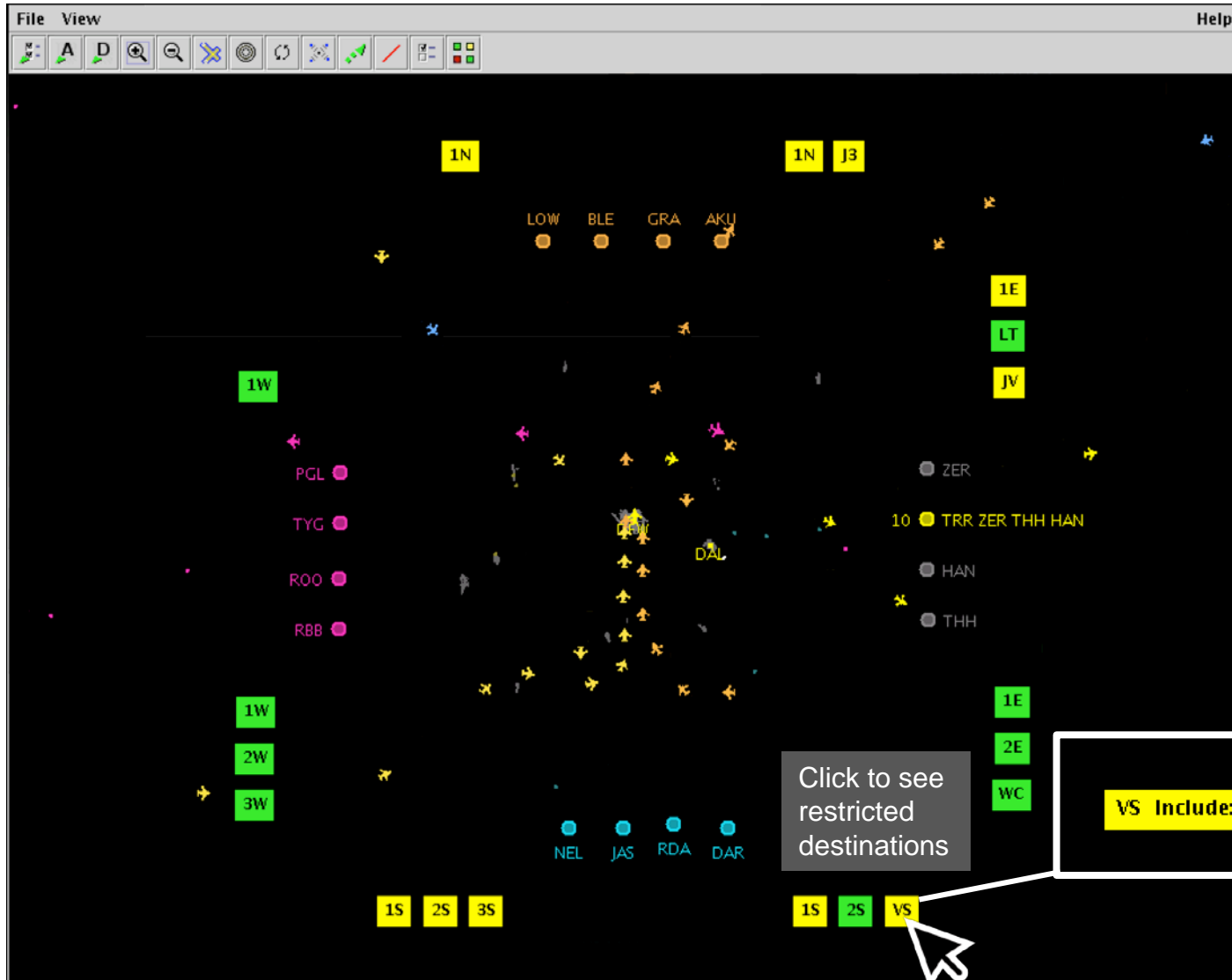
NE	CDR	Fix	Parsed DCC Advisory	User
Via AKUNA	1N		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	J3		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
Via TRRCH	JV		ORD	<input type="button" value="Set"/>
Via ZERLU	1E			<input type="button" value="Set"/>
	LT		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>

SW	CDR	Fix	Parsed DCC Advisory	User
Via NELYN	1S		DEN	<input type="button" value="Set"/>
	2W		DEN	<input type="button" value="Set"/>
	3S		DEN	<input type="button" value="Set"/>
Via RBBIT	1W			<input type="button" value="Set"/>
	2W			<input type="button" value="Set"/>
	3W			<input type="button" value="Set"/>

SE	CDR	Fix	Parsed DCC Advisory	User
Via DARTZ	1S		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	2S		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	VS		EWR,JFK,LGA	<input type="button" value="Set"/>
Via THHOR	1E			<input type="button" value="Set"/>
	2E			<input type="button" value="Set"/>
	WC			<input type="button" value="Set"/>

Note: Mock-up of the Route advisory tab







- Scenario when ZFW TMU may **exclude** destinations from TOS routes restrictions
  - Weather is impacting routes out of the East gate, but it is primarily in Central and Eastern Louisiana
    - East CDRs may be manually closed, except for SHV
- Scenario when ZFW TMU may **include** destinations in TOS routes restrictions
  - Weather is impacting the MRSSH route and destinations, like, MSY, BTR, etc., out of the East gate
    - South CDRs may remain open, except for MSY, BTR, etc.



### SE Via DARTZ CDR: VS

**Restricted Destinations:**

**All Destinations Restricted (CDR Closed)**

**Except:**

**Restrictions**

Active	Restricted	Advz#	Source
<input checked="" type="checkbox"/>	EWR	100	TFM
<input checked="" type="checkbox"/>	JFK	100	TFM
<input checked="" type="checkbox"/>	LGA	100	TFM
<input type="checkbox"/>	MSY		USER
<input type="checkbox"/>	BTR		USER

Metroplex Plan

**Runway Utilization**

**TOS Submission**

- Active
- Inactive

**NW** CDR

- Via LOWGN **1N**
- Via PGLET **1W**
- Via ROOOO **GC**

**SW** CDR Fix Parsed DCC Advisory User

Via NELYN	1S		DEN	<input type="text"/>	<input type="button" value="Set"/>
	2W		DEN	<input type="text"/>	<input type="button" value="Set"/>
	3S		DEN	<input type="text"/>	<input type="button" value="Set"/>
Via RBBIT	1W			<input type="text"/>	<input type="button" value="Set"/>
	2W			<input type="text"/>	<input type="button" value="Set"/>
	3W			<input type="text"/>	<input type="button" value="Set"/>

**SE** CDR Fix Parsed DCC Advisory User

Via DARTZ	1S		BWI,DCA,EWR,IAD,JFK...	<input type="text"/>	<input type="button" value="Set"/>
	2S		BWI,DCA,EWR,IAD,JFK...	<input type="text"/>	<input type="button" value="Set"/>
	VS		EWR,JFK,LGA	<input type="text"/>	<input type="button" value="Set"/>
Via THHOR	1E			<input type="text"/>	<input type="button" value="Set"/>
	2E			<input type="text"/>	<input type="button" value="Set"/>
	WC			<input type="text"/>	<input type="button" value="Set"/>

TOS Submission

Active

Inactive

Excluded Destinations (All Routes)

Airport:

**CDR List**

**NW**

	CDR	Fix	Parsed DCC Advisory	User
Via LOWGN	1N		DEN	<input type="button" value="Set"/>
Via PGLET	1W		DEN	<input type="button" value="Set"/>
Via ROOOO	GC			<input type="button" value="Set"/>

**NE**

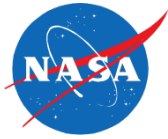
	CDR	Fix	Parsed DCC Advisory	User
Via AKUNA	1N		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	J3		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
Via TRRCH	JV		ORD	<input type="button" value="Set"/>
Via ZERLU	1E			<input type="button" value="Set"/>
	LT		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>

**SW**

	CDR	Fix	Parsed DCC Advisory	User
Via NELYN	1S		DEN	<input type="button" value="Set"/>
	2W		DEN	<input type="button" value="Set"/>
	3S		DEN	<input type="button" value="Set"/>
Via RBBIT	1W			<input type="button" value="Set"/>
	2W			<input type="button" value="Set"/>
	3W			<input type="button" value="Set"/>

**SE**

	CDR	Fix	Parsed DCC Advisory	User
Via DARTZ	1S		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	2S		BWI,DCA,EWR,IAD,JFK...	<input type="button" value="Set"/>
	VS		EWR,JFK,LGA	MSY, BTR <input type="button" value="Set"/>
Via THHOR	1E			<input type="button" value="Set"/>
	2E			<input type="button" value="Set"/>
	WC			<input type="button" value="Set"/>



- ZFW TMU personnel has full control over whether CDRs (TOS routes) are restricted or available
- Sources restricting a CDR (order of precedence)
  1. Terminal Fix/Gate closure impacting the CDR route
  2. User limits the CDRs to certain destinations
  3. DCC Route Advisory restricts the use of certain CDR Routes outside of the mandatory routes



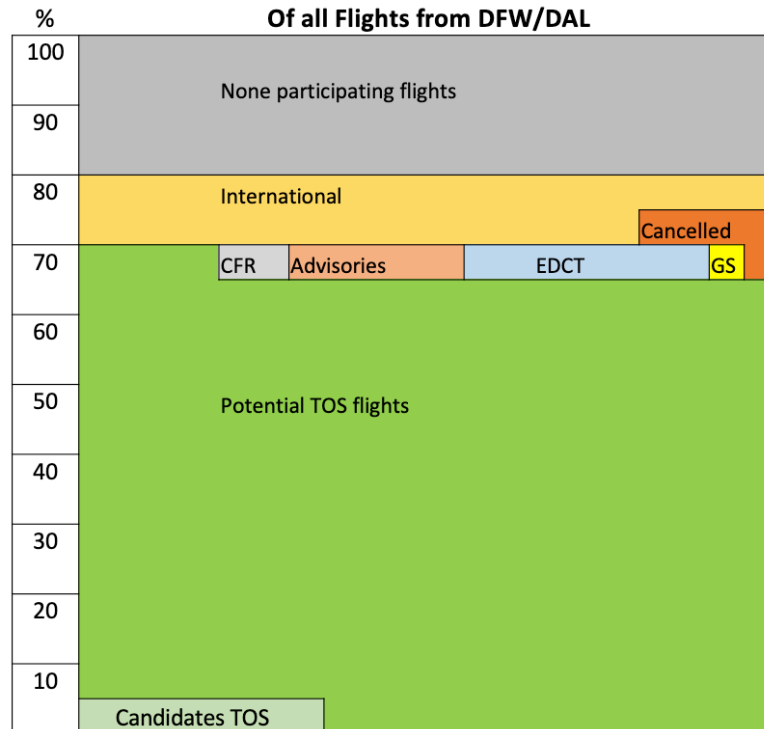
- TOS flights will be automatically filtered based on EDCT, GS, APREQ and Route Advisories
- The ZFW TMU will have the ability to control TOS CDRs
- The goal is to provide a list of TOS flights that can be effectively evaluated, submitted and rerouted

# Back-Up

# August 8 TOS Flights



Potential TOS Flights	Balance	% Flights	Candidate TOS	Balance Candidate	% Candidates	% Candidates within row
SWA, AAL (incl subs) flights	997	100.0%	50	50	100.0%	5.0%
Minus GS	993	99.6%	-3	47	94.0%	75.0%
Minus EDCTs	967	97.0%	-12	35	70.0%	46.2%
Minus Route advisory	944	94.7%	-9	26	52.0%	39.1%
Minus APREQ	935	93.8%	0	26	52.0%	0.0%
Potential flights for TOS	<b>935</b>	<b>93.8%</b>		<b>26</b>	<b>52.0%</b>	
Minus Terminal restrictions	828	83.0%	<b>-15</b>	<b>11</b>	22.0%	14.0%
Potential Flights	828	83.0%	<b>Term Rest ↑</b>	<b>No TMI ↑</b>		







Potential Flights by individual TMI	% of 997		Candidate TOS	Cand % Flights	
	N	Flights			
Under terminal restrictions	107	11%	15	14.0%	← actionable TOS routes
Under Routes Advisories	38	4%	17	44.7%	← actionable TOS routes ?
Under GS	4	0%	3	75.0%	Non-actionable TOS routes
Under APREQ	11	1%	2	18.2%	Non-actionable TOS routes
Under EDCT	30	3%	15	50.0%	Non-actionable TOS routes?

Potential flights under multiple TMIs	N	% of 107 Flights	Candidate TOS	Cand % Flights	
<b>Terminal Restrictions</b>	<b>107</b>	<b>100.0%</b>	<b>15</b>	<b>14.0%</b>	← actionable TOS routes
<b>Term Rest + Route Advisory</b>	<b>9</b>	<b>8.4%</b>	<b>7</b>	<b>77.8%</b>	← actionable TOS routes ?
Term Rest + EDCT	4	3.7%	3	75.0%	Non-actionable TOS routes?
Term Rest + Route Advisory + EDCT	4	3.7%	3	75.0%	Non-actionable TOS routes?
Term Rest + Route Advisory + GS + EDCT (LGA)	1	0.9%	1	100.0%	Non-actionable TOS routes
Term Rest + Route Advisory + EDCT + APREQ (DEN)	1	0.9%	1	100.0%	Non-actionable TOS routes
Route Advisory + EDCT	15	14.0%	8	53.3%	Non-actionable TOS routes?
Route Advisory + APREQ	2	1.9%	2	100.0%	Non-actionable TOS routes
Route Advisory + GS	3	2.8%	3	100.0%	Non-actionable TOS routes
EDCT + APREQ	1	0.9%	1	100.0%	Non-actionable TOS routes
EDCT + GS	4	3.7%	3	75.0%	Non-actionable TOS routes

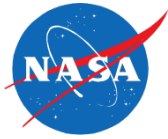


Dep to East terminal gate	Total	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6
N Potential TOS Flights	<b>388</b>	3	12	37	17	30	22	19	19	28	23	25	18	21	16	25	24	36	9	6	1
<b>TMIs</b>																					
Rwy closure				6m	13m	24m															
N under terminal restrictions				19	10	10					12	14	9	2		1					
N under GS					1											3					
N under EDCT				0 (2)		2	1	1	2	1	2	1	1			0 (3)	2	1			
N under Advisories							2	3 (4)	3 (5)	3 (4)	1 (3)	4 (5)	0 (1)	2	2 (3)						
<b>Balance Potential TOS Flights</b>		<b>3</b>	<b>12</b>	<b>37</b>	<b>16</b>	<b>30</b>	<b>20</b>	<b>16</b>	<b>15</b>	<b>23</b>	<b>19</b>	<b>22</b>	<b>13</b>	<b>20</b>	<b>14</b>	<b>20</b>	<b>22</b>	<b>35</b>			
% of TOS Flights		100%	100%	100%	94%	100%	91%	84%	79%	82%	83%	88%	72%	95%	88%	80%	92%	97%	0%	0%	0%
<b>N Candidate Flights</b>								<b>1</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>3</b>				
Minus EDCT GS or Advzy									-1		-3	-2	-4		-1	-3	-2				
<b>Balance TOS Cand Flights</b>								<b>1</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>				



Dep to EWR JFK LGA	Total	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6
N Potential TOS Flights	<b>24</b>	2	2		2	2	1	1	3	1	2	1	1		3	2	1			
<b>TMIs</b>																				
Rwy closure			6m	13m	24m															
N under terminal restrictions			1		1					1	1		1		1					
N under GS															3					
N under EDCT							1	1	2	1	2	1	1		0 (3)	2	1			
N under Advisories								0 (1)	1 (3)	1 (2)	0 (2)	0 (1)	0 (1)							
<b>Balance Potential TOS Flights</b>		<b>2</b>	<b>2</b>		<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>		
% of TOS Flights		100%	100%		100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%		
<b>N Candidate Flights</b>								1		1	1	1			3	2				
Minus EDCT GS Advzy								-1		-1	-1	-1			-3	-2				
<b>Balance TOS Cand Flights</b>								<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>				

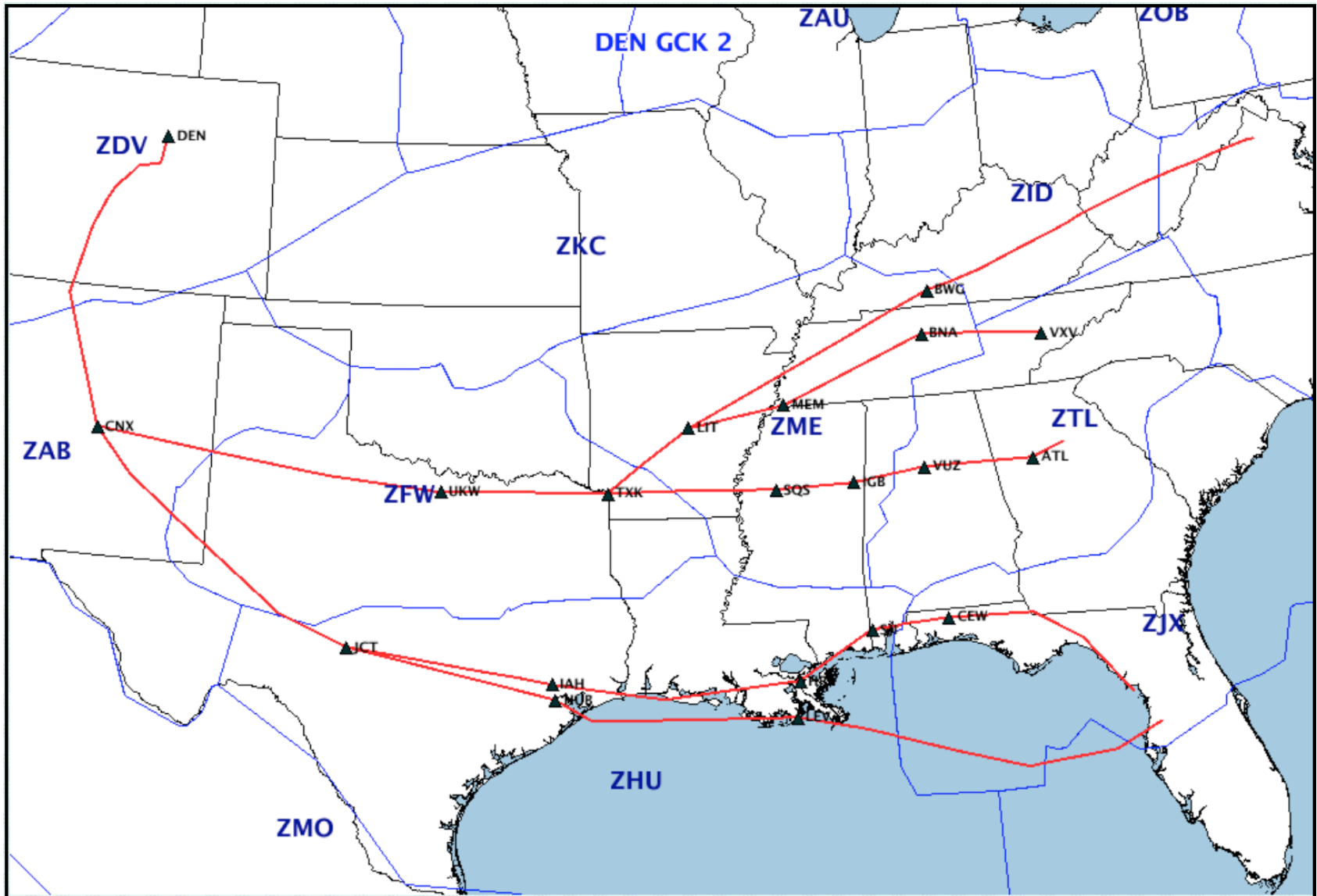
Note: numbers in parentheses are actual occurrences, the number is in addition to those that are already counted in the above TMI



Dep to BWI DCA IAD PHL	Total	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6
N Potential TOS Flights	<b>35</b>	3	3	1	2	2	2	3	2	3	1	4		2	2	2	3			
<b>TMIs</b>																				
Rwy closure		6m	13m	24m																
N under terminal restrictions				1	2					3	1	1								
N under GS																				
N under EDCT																				
N under Advisories *							2	3	2	3	1	4		2	2					
<b>Balance Potential TOS Flights</b>		<b>3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>		<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>			
% of TOS Flights		100%	100%	100%	100%	100%	100%	100%	100%	33%	0%	25%		50%	100%	100%	100%			
<b>N Candidate Flights</b>										2	1	4		1						
Minus EDCT GS Advzy **										-2	-1	-4		-1						
<b>Balance TOS Cand Flights</b>										<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>						

\* Advisory allowed for 2 CDR routes

\*\* Candidate routes didn't match the 2 allowed routes in the advisory





**ATCSCC Advisory**

**ATCSCC ADVZY 178 DCC 08/08/2019 ROUTE RQD /FL**

RAW TEXT: NAME: DEN\_GCK\_2\_MODIFIED  
 CONSTRAINED AREA: ZKC ZDV  
 REASON: WEATHER  
 INCLUDE TRAFFIC: KBWI/KCLT/KDCA/KIAD/ZDC/ZFW/ZHU/ZID/ZJX/ZKC/ZMA/ZME  
 /ZTL DEPARTURES TO KDEN  
 FACILITIES INCLUDED: ZAB/ZDC/ZDV/ZFW/ZHU/ZID/ZJX/ZKC/ZMA/ZME/ZTL  
 FLIGHT STATUS: ALL FLIGHTS  
 VVVV: FFF 08110 00 00000

### Protected segment to DEN

- From ZFW > **CNX BRAZO** < LDORA2
- From ZHU > JCT Q20 CNX BRAZO < LDORA2
- From ZKC > IRW HNKER CNX BRAZO < LDORA2
- From ZME > TXK BYP UKW HNKER CNX BRAZO <

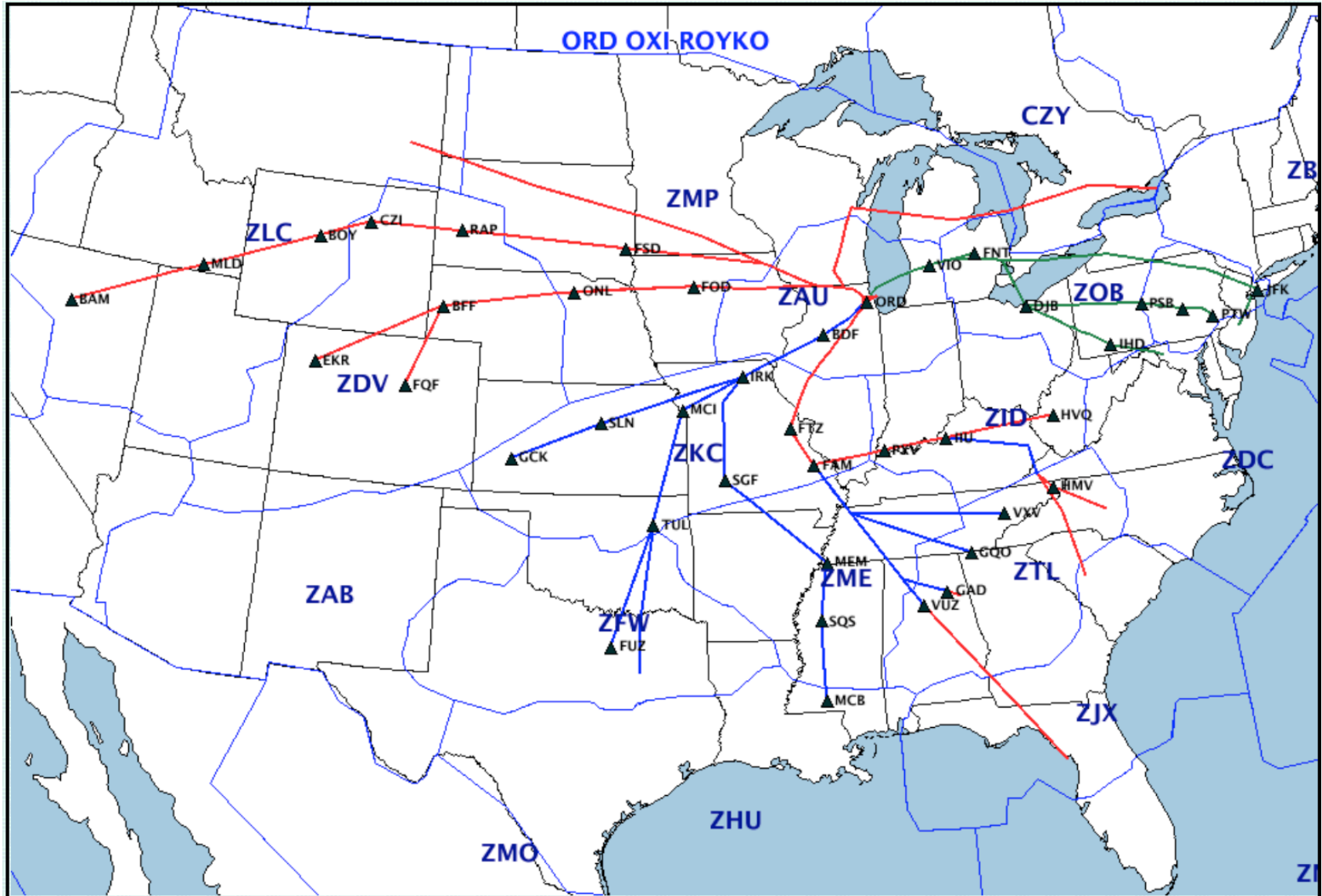
### Matching CDR?

<b>DXXDENG</b>	WEST	SID BRHMA <b>CNX BRAZO</b> LDORA2 KDEN	<b>MATCH</b>
<b>DXXDEN1S</b>	SOUTH	SID HOARY <b>JCT</b> BGS PNH TBE HGO QUAIL9 KDEN	NO MATCH
<b>DXXDEN3S</b>	SOUTH	SID SAT FST PEQ CME <b>CNX</b> ALS LARKS9 KDEN	NO MATCH
<b>DXXDEN0P</b>	NORTH	SID ROLLS J52 LAA HGO QUAIL9 KDEN	NO MATCH

ZHU	KDEN	>JCT Q20 CNX BRAZO< LDORA2
ZJX	KDEN	>CABLO DEFUN J2 SJI J37 PEKON J86 JCT Q20 CNX BRAZO< LDORA2
ZJX	KDEN	>CAMDT KNOST REMIS Y280 LEV J86 JCT Q20 CNX BRAZO< LDORA2
ZMA	KDEN	>DOLIE Y280 LEV J86 JCT Q20 CNX BRAZO< LDORA2
ZMA	KDEN	>SMELZ Q116 JAWJA CABLO DEFUN J2 SJI J37 PEKON J86 JCT Q20 CNX BRAZO< LDORA2
ZME	KDEN	>TXK BYP UKW HNKER CNX BRAZO< LDORA2
ZTL(-CLT)	KDEN	>VUZ J52 TXK BYP UKW HNKER CNX BRAZO< LDORA2
ZID(-EVV)	KDEN	>LAJUG J6 LIT TXK BYP UKW HNKER CNX BRAZO< LDORA2
ZKC	KDEN	>IRW HNKER CNX BRAZO< LDORA2

TMI ID: RRDCC178  
 082210-090200  
 19/08/08 22:10 DCCOPS.lxstn21

# ORD OXI ROYKO





# TEXAS TO KORD (ORD OXI ROYKO Partial) on Aug 8



**ATCSCC Advisory**

**ATCSCC ADVZY 157 DCC 08/08/2019 ROUTE RQD /FL**

MESSAGE: NAME: TEXAS\_TO\_KORD  
 CONSTRAINED AREA: ZID  
 REASON: WEATHER  
 INCLUDE TRAFFIC: KAUS/KSAT/ZFW DEPARTURES TO KORD  
 FACILITIES INCLUDED: ZAU/ZFW/ZHU/ZKC  
 FLIGHT STATUS: ALL\_FLIGHTS  
 VALID: ETD 082115 TO 090000  
 PROBABILITY OF EXTENSION: LOW  
 REMARKS: ROUTES BASED ON ORD\_OXI\_ROYKO REROUTE TO SUPPORT SE\_TO\_KORD  
 REROUTE. ZAB MAY BE ADDED LATER. MSY/ZME WILL BE HANDLED  
 TACTICALLY.  
 ASSOCIATED RESTRICTIONS:  
 MODIFICATIONS:  
 ROUTES:

ORIG	DEST	ROUTE
----	----	-----
KAUS KSAT	KORD	>FUZ TUL J25 MCI J26 IRK< BENKY5
ZFW	KORD	>TUL J25 MCI J26 IRK< BENKY5

**Protected segment to ORD**

ZFW > TUL J25 MCI J26 IRK < BENKY5

**Matching CDR?**

DFWORD1W	WEST	SID HUDAD PNH J26 IRK BENKY5 KORD	NO MATCH
DFWORDKK	NORTH	SID TUL J25 MCI J26 IRK BENKY5 KORD	<b>MATCH</b>
DFWORD1E	EAST	SID BSKAT LIT J180 FTZ TRTLL5 KORD	NO MATCH
DFWORDJV	EAST	SID LOOSE MEM J42 BNA HELUB Q118 MZZ VEECK4 KORD	NO MATCH



## ATCSCC Advisory

### ATCSCC ADVZY 152 DCC 08/08/2019 ROUTE RQD /FL

MESSAGE: NAME: SOUTH\_TO\_DTW  
 CONSTRAINED AREA: ZID ZAU  
 REASON: WEATHER  
 INCLUDE TRAFFIC: AUS/HOU/IAH/KSTL/SAT/ZFW/ZHU/ZKC/ZME DEPARTURES TO  
 KDTW  
 FACILITIES INCLUDED: ZAU/ZFW/ZHU/ZKC/ZME/ZOB  
 FLIGHT STATUS: ALL\_FLIGHTS  
 VALID: ETD 082110 TO 090000  
 PROBABILITY OF EXTENSION: LOW  
 REMARKS: BASED ON DTW\_HANBL PLAYBOOK.  
 ASSOCIATED RESTRICTIONS:  
 MODIFICATIONS:  
 ROUTES:

ORIG	DEST	ROUTE
----	----	-----
KSTL	KDTW	>BDF SAMPL HAYLL< VCTRZ1
ZFW	KDTW	>TUL J87 IRK MZV SAMPL HAYLL< VCTRZ1
ZHU(-IAH -HOU -SAT -AUS)	KDTW	>MEM SGF IRK MZV SAMPL HAYLL< VCTRZ1
IAH HOU SAT AUS	KDTW	>FUZ TUL J87 IRK MZV SAMPL HAYLL< VCTRZ1
ZKC(-STL)	KDTW	>IRK MZV SAMPL HAYLL< VCTRZ1
ZME	KDTW	>SGF IRK MZV SAMPL HAYLL< VCTRZ1

### Protected segment to DTW

ZFW > TUL J87 IRK MZV SAMPL HAYLL< VCTRZ1  
 ZFW > MEM SGF IRK MZV SAMPL HAYLL< VCTRZ1  
 ZME > SGF IRK MZV SAMPL HAYLL< VCTRZ1  
 ZKC > IRK MZV SAMPL HAYLL< VCTRZ1

### Matching CDR?

<b>DXXDTW1N</b>	NORTH	SID MLC RZC ARG PXV WWODD HANBL1 KDTW	NO MATCH
<b>DXXDTWMZ</b>	NORTH	SID <b>TUL J87 IRK</b> IOW DBQ BAE PORZL RKCTY1 KDTW	NO MATCH
<b>DXXDTW1S</b>	SOUTH	SID TNV IAH LCH J22 MCB J35 MEM J29 PXV WWODD HANBL1 KDTW	NO MATCH