

## **ATM Metrics & Indicators**

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## Metrics

Measuring to Improve



## **Good Morning! How are you?**

Buenos días! Como estás?

- ★ How are you feeling?
- ★ How did you sleep
- ★ How was your commute?
- ★ Have you had your first coffee?
- ★ Did you have a good breakfast?



## Why use metrics

- ★ To see where we stand
- ★ To track progress
- ★ To measure progress

 $\bigstar$  To see where improvements can be made

### ★ To challenge



## We have always measured success

★In kindergarten we received a + or -

★Later, it was an a-f system

★Next a numerical value 0-100%

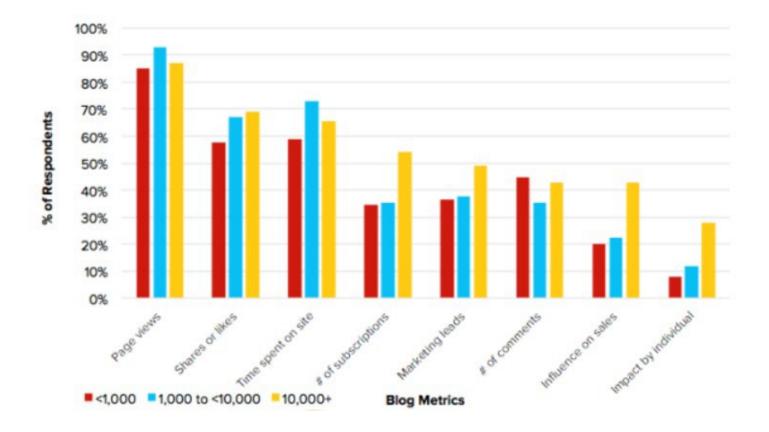


### We have always measured success





## We have always measured success





## **Henry Ford** Model T- "Any customer can have a car painted any color that he wants so long as it is black."

Rank	Color	Percentage Share
1	White	23.9%
2	Black	23.2%
3	Gray	15.5%
4	Silver	14.5%
5	Red	10.3%
6	Blue	9.0%
7	Brown	1.4%
8	Green	0.7%
9	Beige	0.4%
10	Orange	0.4%



## Colors matter ★Rental Cars- Silver retains higher re-sale

### ★By gender- Men prefer red, women silver

★Location-

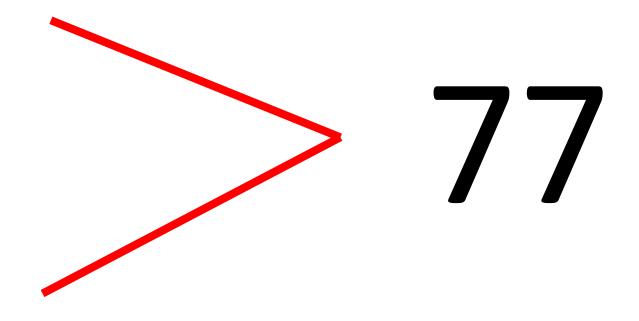
Colour distribution (%)														
Colour +	North A	merica	Euro	ope	Asia-P	acific	Woi	rld						
Colour V	PPG ¢	DP ¢	PPG ¢	DP ¢	PPG ¢	DP ¢	PPG ¢	DP ¢						
White	21	24	23	24	23	22	22	23						
Silver	16	16	13	14	23	14	20	18						
Black	19	19	21	23	19	21	19	21						
Grey	16	15	17	15	8	20	12	14						
Blue	8	7	7	8	7	5	7	6						
Red	10	10	7	6	9	7	9	8						
Brown	7	5	7	6	10	6	7	6						
Green	3	2	2	1	1	1	2	1						
Others		2	3	3		4	1	3						



#### ICAO CAPACITY & EFFICIENCY

## **Some Airline Metrics**

- General Airline Operations KPIs
- Passenger KPIs
- Operations Control KPIs
- Connex Management KPIs
- Weight & Balance KPIs
- Baggage Management KPIs
- <u>Airline Punctuality KPIs</u>
- Fuel & Environmental KPIs
- Maintenance KPIs
- <u>Crew KPIs</u>
- •General Performance KPIs
- •Crisis KPIs





#### **Passenger KPIs**

#### **Passengers en Route**

Passengers En-Route reflect a real-time performance figure. The KPI provides benefits in terms of corporate-wide awareness but is also used as a motivational factor. It's simply calculated as the sum of all boarded passengers for flights en-route.

#### **Satisfied Passenger Quota**

The Satisfied Passenger Quota is an advanced but incredibly insightful KPI. The KPI calculates passengers' share that arrived ontime at the scheduled airport concerning all transported passengers.

#### **Unsatisfied Passengers Quota**

Like the above, the KPI calculates passengers' share arriving late or not at destination in relation to all transported passengers.

#### **Disruption Affected Passengers**

Another very insightful airline operations KPI. The indicator reflects the number of passengers affected by major (cancellation, diversion, etc.) or minor (delay) disruptions.



#### **Airline Punctuality KPIs**

#### **Block Time Recovery**

It calculates the share of flights with a delayed departure (ATD > STD) but on-time arrival. In other words: Flights that recovered a delay during flight time.

#### Average Taxi-In / Taxi-Out Time

The KPI represents the average time between a touchdown and on-blocks / off-blocks and airborne of aircraft. The KPI is usually only tracked for important hubs/home bases.



#### **Airline Performance KPIs**

#### **Aircraft Utilization / Productivity**

Aircraft utilization (or productivity) represents a common KPI of the industry. The KPI calculates total operated block hours and put them to available hours (depending on definition).

#### Profitability

Some airlines can calculate the profitability of each flight on-the-fly. The KPI is typically used to assess schedule changes. Moreover, the KPI is presented as overall profitability or clustered to aircraft types, routes, or traffic regions.

#### **Compensation Costs**

Compensation costs reflect another extremely valuable KPI. The indicator calculates the compensation costs due to delayed/canceled flights and related aspects (passengers, delay reasons, traffic region, etc.)



## **Some Airline Metrics**

- Misconnex Quota
- Arrival Punctuality
- Seat Load Factor
- Delay Reasons
- Regularity
- Departure Punctuality





# Playa Hermosa



## Questions











We will be right back... Regresaremos...

### ICAO CAPACITY & EFFICIENCY Aviation Metrics-Daily Slide

Facilit	у	OPSNET Ops	OPSN Delay				Average Taxi Out	Depart Delay		Airborne	Holding	Diversions		Completio n Rate		
					Departure	Arri	val				Events	Minutes				
		619	2		0	C	)	11.67	0		0	0	2		100	
		1,970	4		6	4	ŀ	18.42	0		0	0	1		99.59	
		812	1		1	1		15.96	0		0	0	0		99.75	
		518	0		0	C	)	9.94	0		0	0	0		100	
		1,072	0		1	2	2	16.93	0		0	0	0		99.61	
		514	0		0	C	)	11.46	0		0	0	0		100	
		862	0		2	1		14.06	0		0	0	0		99.75	
		1,821	8		4	7	,	20.5	7		0	0	0		99.18	
		1,149	2		1	1	[	14.17	0		0	0	0		99.8	
			TRA	CON							AF	TCC				
Facility	Ops	Seasonal Daily AVG	% VAR From AVG	Total Delays	Airborne Delays	Departure Delays	TMI Delays	Facility	Ops	Seasona Daily AVG		Total Delays	Airborne Delays	Departure Delays	TMI Delays	
	2,878	3,859	-25	0	0	0	0		4,516	4,796	-6	0	0	0	0	
	4,228	3,887	9	0	0	0	0		5,507	7,550	-27	1	1	0	0	
	1,215	1,625	-25	0	0	0	0		6,344	7,262	-13	4	0	0	4	
	2,970	2,859	4	0	0	0	0		6,016	7,089	-15	9	9	0	0	
	1,279	1,655	-23	0	0	0	0		5,358 6,62		-19	0	0	0	0	
	2,090	2,083	0	0	0	0	0		4,724	5,630	-16	1	0	0	1	
	669	967	-31	0	0	0	0		4,846	6,372	-24	2	1	0	1	
Total	15,329			0	0	0	0		4,319 7,48		-42	0	0	0	0	
								Total	41,630			17	11	0	6	

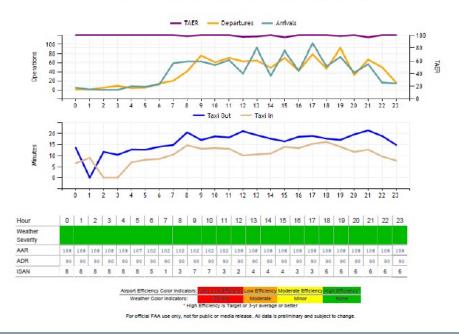






Key Performance Indicators	05/06/2021	Target or 3-Year Seasonal Average**	FYTD	90 Day Rolling Trend
TAER*	98.94	96.15	94.35	
Average Taxi In Time (Min)	12.79	8.93	12.20	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Average Taxi Out Time (Min)	18.45	14.17	20.71	
Go Arounds	0	3	2	
* TAER fo	r Reportable Hours Only			

" The TAER is compared to a target. Taxi-in and Taxi-Out Times and Go-Arounds are compared to a 3-year seasonal average.





ICAO CAPACITY & EFFICIENCY



	Federal Aviation Administration										Back to main FAA website You are logged-in as ERNIE SNYDER. [Logout]
Main Page	Airport City Pair <u>Taxi Time</u>	Individual Flights	Efficiency	Throughput	Wx Factors	Download	CP Enroute	AA Enroute	AERO	Cancellations	FAA Operations & Performance Data

#### Aviation System Performance Metrics (ASPM)

Aviation System Performance Metrics (ASPM) Web Data System

#### ASPM Data Load Status

Metric	Efficiency	Enroute	Dashboards	Other
Airport Analysis	Airport Efficiency	City Pair Enroute	AERO	Weather Factors
City Pair Analysis	Throughput	Arrival Airport Enroute	ATO Metric Reports	Diversions
Taxi Times				Advisories
Individual Flights				Baselines
Cancellations				Data Download

#### Diversion data is currently under review.

Additional Resources	Notices
About Aviation System Performance Metrics (ASPM) Manual for using this website Contact Us Feedback	04/15/2021   ASPM Enroute System Monthly Update     04/12/2021   ASPM Enroute System Monthly Update     More Notices   Email Notifications   Missing Data Log!



#### **ASPM : Airport Efficiency : ATCSCC Metrics Report**

From 5/13/2021 To 5/13/2021 ; Airport=DFW

Facility	OPSNET	OPSNET	Cancellati	ions	Average	OPSNET Local		Groun	d Stop	Airborne	Holding	Diversions	Go	Average	TAER	Completion	
Facility Operations		Delays	Departure Arrival		Taxi Out	Departure Delays	Taxibacks	Events	Events Minutes		Events Minutes		Arounds	Taxi In	RH	Rate	
DFW	2,004	31	5	10	19.54	31	NR	0	0	0	0	1	2	12.77	96.81	98.99	
Total	2,004	31	5	10	19.54	31	NR	0	0	0	0	1	2	12.77	96.81	98.99	

NR - Not Reportable. This report only includes data for the ASPM 77 Airports.

Report created on Sun May 16 18:54:28 EDT 2021 Sources: Aviation System Performance Metrics (ASPM)



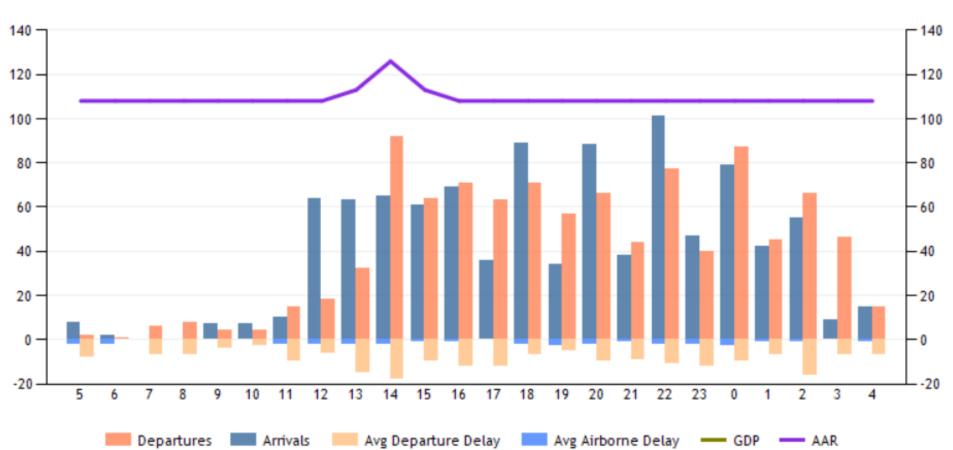
#### Central DDSO Daily Report for Thursday, May 13, 2021

								AI	l data is	preliminary								
			OPSNET								SMP	METRICS (F	leports	able Ho	ours)			
	c	Operations			Del	ays				al Arrival Rate (TAER)		Systen Efficiency			Airp		ily Capacity DC)*	1
LociD	05/13/2021 Ops	Thu Seasonal Avg	% Var From Seasonal Avg	Total Dlys				05/13/2021 TAER	TAER FY Goal	05/13/2021 TAER Var From FY Goal	TAER FY TD Var From FY Goal	05/13/2021 SAER	YTD SAER		05/13/2021 ADC	ADC FY Goal	05/13/2021 ADC Var From FY Goal	ADC FY TI Var From FY Goal
									AIRP	ORTS								
DFW	2004	1988	1	31	0	31	0	96.81	96.15	0.66	(1.85)	96.73	94.78	1.95	3196	2737	459	(20)
DTW	821	1194	(31)	0	0	0	0	99.46	91.16	8.30	5.26	100.00	94.86	5.14	2816	2452	364	97
IAH	1110	1350	(18)	4	0	4	0	90.10	92.40	(2.30)	(3.00)	97.35	94.32	3.03	2478	2267	211	362
MDW	593	770	(23)	0	0	0	0	99.60	95.50	4.10	0.55	98.27	96.60	1.67	1152	1109	43	22
MSP	873	1239	(30)	0	0	0	0	94.95	96.14	(1.19)	(1.05)	98.85	92.55	6.30	2377	2042	335	49
ORD	1857	2630	(29)	4	0	0	4	92.76	94.15	(1.39)	(2.37)	96.48	92.04	4.44	3414	3299	115	93
PHX	1212	1265	(4)	7	0	6	1	98.22	97.58	0.64	(0.81)	98.46	97.90	0.56	2149	2054	95	53

\* - Reportable hours only

			OPSNET				
	C	<b>D</b> perations			Dela	ays	
C90	05/13/2021 Ops	Thu Seasonal Avg	% Var From Seasonal Avg		Abrn Diys		
		TR	ACONS				
C90	3019	3859	(22)	0	0	0	0
D10	4286	3887	10	0	0	0	0
D21	1380	1625	(15)	0	0	0	0
190	2928	2859	2	0	0	0	0
M98	1293	1655	(22)	0	0	0	0
P50	2094	2083	1	0	0	0	0
T75	869	967	(10)	0	0	0	0





DFW



#### **ASPM : Airport Efficiency : Daily Weather By Hour Report**

From 5/13/2021 To 5/13/2021 ; Airport=DFW

Facility	Date	Local Hour	GMT Hour	Departures For Efficiency Computation	Arrivals For Efficiency Computation	Total For Efficiency Weather Computation	Ceiling (100) Feet	Visibility (Statute Miles)	Temp (F)	Wind Angle	Wind Speed (Knots)	Airport Weather	Runway	ADR	Capacity AAR	ADR+ Capacity AAR	Efficiency AAR
DFW	05/13/2021	0	5	2	8	10 VMC	036	10.00	60	020	4		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	1	6	1	2	3 VMC	037	10.00	60	060	6		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	2	7	6	0	6 IMC	032	10.00	60	010	4		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	3	8	8	0	8 IMC	032	10.00	60	010	4		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	4	9	4	7	11 VMC	040	10.00	60	360	3		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	5	10	4	7	11 VMC	044	10.00	60	350	7		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	6	11	15	10	25 VMC	046	10.00	60	010	6		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	7	12	18	64	82 VMC	050	10.00	62	010	6		31R, 35C, 35R, 36L   35L, 36R	90	108	198	108
DFW	05/13/2021	8	13	32	63	95 VMC	050	10.00	62	030	7		31R, 35C, 35R, 36L   35L, 36R	90	113	203	113
DFW	05/13/2021	9	14	92	65	157 VMC	050	10.00	64	050	6		31R, 35C, 35R, 36L   35L, 36R	90	126	216	126
DFW	05/13/2021	10	15	64	61	125 VMC	055	10.00	66	060	5		13R, 17C, 17L, 18R   17R, 18L	90	113	203	113
DFW	05/13/2021	11	16	71	69	140 VMC	055	10.00	69	090	6		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	12	17	63	36	99 VMC	999	10.00	69				13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	13	18	71	89	160 VMC	999	10.00	71	090	6		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	14	19	57	34	91 VMC	999	10.00	73	210	7		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	15	20	66	88	154 VMC	999	10.00	75	VRB	4		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	16	21	44	38	82 VMC	999	10.00	73	000	0		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	17	22	77	101	178 VMC	999	10.00	73	110	5		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	18	23	40	47	87 VMC	999	10.00	73	070	6		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	19	0	87	79	166 VMC	999	10.00	69	100	7		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	20	1	45	42	87 VMC	999	10.00	66	100	7		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	21	2	66	55	121 VMC	999	10.00	66	100	7		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	22	3	46	9	55 VMC	999	10.00	64	090	4		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
DFW	05/13/2021	23	4	15	15	30 VMC	999	10.00	64	090	4		13R, 17C, 17L, 18R   17R, 18L	90	108	198	108
Total				994	989	1,983								2,160	2,620	4,780	



#### **ASPM : Diversions : Detail Report**

From 5/13/2021 To 5/13/2021 ; Planned=ABQ, ANC, ATL, AUS, BDL, BHM, BNA, BOS, BUF, BUR, BWI, CLE, CLT, CVG, DAL, DAY, DCA, DEN, DFW, DTW, EWR, FLL, GYY, HNL, HOU, HPN, IAD, IAH, IND, ISP, JAX, JFK, LAS, LAX, LGA, LGB, MCI, MCO, MDW, MEM, MHT, MIA, MKE, MSP, MSY, OAK, OGG, OMA, ONT, ORD, OXR, PBI, PDX, PHL, PHX, PIT, PSP, PVD, RDU, RFD, RSW, SAN, SAT, SDF, SEA, SFO, SJC, SJU, SLC, SMF, SNA, STL, SWF, TEB, TPA, TUS, VNY

Date	Planned Destination	Diversion Airport	Origin	ACID	Carrier	Aircraft Type	Equipment Suffix	Departure Date/Time	Arrival Date/Time	Diversion Date/Time	Center	Sector	Recovery Departure Date/Time	Recovery Arrival Date/Time	GMT Departure Date/Time	GMT Arrival Date/Time	GMT Diversion Date/Time
05/13/2021	ABQ	FMN	APA	CSI531	CSI	BE30	L	05/13/2021 13:59	05/13/2021 15:06	05/13/2021 14:23	ZDV	ZDV41	05/13/2021 15:56	05/13/2021 16:36	05/13/2021 19:59	05/13/2021 21:06	05/13/2021 2
05/13/2021	ATL	MEM	OAK	SWA1500	SWA	B737	L	05/13/2021 12:38	05/13/2021 19:08	05/13/2021 18:45	ZME	ZME20	05/13/2021 20:29	05/13/2021 21:18	05/13/2021 19:38	05/13/2021 23:08	05/13/2021 2
05/13/2021	ATL	CWF	CWF	DAL9964	DAL	B752	L	05/13/2021 18:05	05/13/2021 19:21	05/13/2021 19:09	ZHU	LCH	n/a	n/a	05/13/2021 23:05	05/13/2021 23:21	05/13/2021 2
05/13/2021	AUS	GTU	SAT	N94944	NA	C182	G	05/13/2021 12:34	05/13/2021 13:16	n/a			n/a	n/a	05/13/2021 17:34	05/13/2021 18:16	n/a
05/13/2021	BHM	NEW	BHM	N79WJ	NA	S22T	A	05/13/2021 06:51	05/13/2021 08:40	n/a			05/13/2021 13:32	05/13/2021 15:15	05/13/2021 11:51	05/13/2021 13:40	n/a
05/13/2021	BHM	PDK	UOX	N2873X	NA	PA32	G	05/13/2021 07:09	05/13/2021 09:07	05/13/2021 07:10	ZME	ZME12	n/a	n/a	05/13/2021 12:09	05/13/2021 14:07	05/13/2021 *
05/13/2021	BNA	MDW	DAL	LXJ413	LXJ	E545	L	05/13/2021 10:34	05/13/2021 12:21	05/13/2021 10:46	ZFW	ZFW90	n/a	n/a	05/13/2021 15:34	05/13/2021 17:21	05/13/2021 *
05/13/2021	BNA	STL	MWA	KAP1107	KAP	C402	G	05/13/2021 07:29	05/13/2021 11:39	05/13/2021 11:39			n/a	n/a	05/13/2021 12:29	05/13/2021 16:39	05/13/2021 *
05/13/2021	BOS	AUG	AUG	KAP444	KAP	C402	G	05/13/2021 17:35	05/13/2021 18:27	n/a			n/a	n/a	05/13/2021 21:35	05/13/2021 22:27	n/a
05/13/2021	BOS	PRB	LAX	LXJ1361	LXJ	GLF6	L	05/13/2021 08:54	05/13/2021 15:20	05/13/2021 15:20			n/a	n/a	05/13/2021 15:54	05/13/2021 19:20	05/13/2021 *
05/13/2021	BWI	MTN	MTN	N3618W	NA	PA32	G	05/13/2021 10:23	05/13/2021 11:28	n/a			n/a	n/a	05/13/2021 14:23	05/13/2021 15:28	n/a
05/13/2021	CLE	CAK	ATL	DAL1459	DAL	B712	L	05/13/2021 08:43	05/13/2021 10:10	05/13/2021 09:54	ZOB	ZOB04	05/13/2021 11:15	05/13/2021 11:28	05/13/2021 12:43	05/13/2021 14:10	05/13/2021 *
05/13/2021	CLE	CGF	HPN	DPJ617	DPJ	C56X	L	05/13/2021 12:18	05/13/2021 13:21	05/13/2021 13:01	ZOB	ZOB57	n/a	n/a	05/13/2021 16:18	05/13/2021 17:21	05/13/2021 *
05/13/2021	DFW	MOB	ECP	ASH5901	ASH	CRJ9	L	05/13/2021 18:00	05/13/2021 18:51	05/13/2021 18:28	ZHU	ZHU63	n/a	n/a	05/13/2021 23:00	05/13/2021 23:51	05/13/2021 2
05/13/2021	FLL	LEX	CVG	AAY1313	AAY	A320	L	05/13/2021 11:41	05/13/2021 12:42	05/13/2021 12:05	ZID	ZID94	n/a	n/a	05/13/2021 15:41	05/13/2021 16:42	05/13/2021
05/13/2021	FLL	PBI	MYES	N441F	NA	C441	L	05/13/2021 17:21	05/13/2021 18:26	05/13/2021 17:52	ZMA	ZMA42	n/a	n/a	05/13/2021 21:21	05/13/2021 22:26	05/13/2021 2
05/13/2021	FLL	PBI	MKJP	JBU876	JBU	E190	L	05/13/2021 16:09	05/13/2021 18:40	05/13/2021 18:16	ZMA	ZMA21	05/13/2021 20:12	05/13/2021 20:31	05/13/2021 21:09	05/13/2021 22:40	05/13/2021 2
05/13/2021	HOU	APF	APF	EJA209	EJA	CL60	L	05/13/2021 18:05	05/13/2021 17:51	05/13/2021 17:19	ZMA	RSW	n/a	n/a	05/13/2021 22:05	05/13/2021 22:51	05/13/2021 2
05/13/2021	IND	BMG	IND	N853FE	NA	C208	G	05/13/2021 10:19	05/13/2021 10:43	n/a			05/13/2021 11:38	05/13/2021 12:02	05/13/2021 14:19	05/13/2021 14:43	n/a



#### **OPSNET : Delays : Standard Report**

From 5/13/2021 To 5/13/2021 | Facility=DFW

		1.576.676.6																			
		Syste	em Impa	ect Delays	s												System Imp	pact Delay	/s		
					С	Occurred At De	elays					By Cl	ass				By Cause	÷		Time	
		Total	тмі			TMI Fro	om	Total		Abrn											
Date	Total Ops	Delays	То	Dep	Abrn	Local	Non- Local		Total Local Dep	Dest To Delays	AC	AT	GA	Mil	Wx	Vol	Equip	Rwy	Other	Avg (Min)	Total (Min)
05/13/2021	2004	31	0	31	0	0	1	32	31	0	31	0	0	0	0	31	0	0	0	19.00	589

Key : Abrn = Airborne; AC = Air Carrier; AT = Air Taxi; Avg = Average; Dep = Departure; Dest = Destination; Equip = Equipment; GA = General Aviation; Mil = Military; Min = Minute; Occ= Occurred; Ops = Operations; Rwy = Runway; TMI = Traffic Management Initiative; Vol = Volume; Wx = Weather. More information about this report.

Report created on Sun May 16 19:02:35 EDT 2021 Sources: The Operations Network (OPSNET) Show data notices.





★Arrival delays

- ★Departure delays
- ★ Slot time adherence

★ Miles flown vs filed



## Questions











We will be right back... Regresaremos...



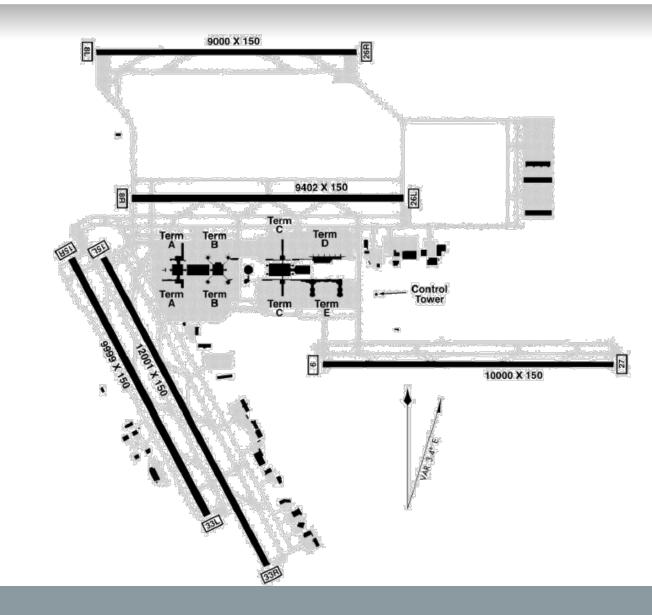


★Arrival delays

- ★Departure delays
- ★ Slot time adherence

★ Miles flown vs filed







## ICAO CAPACITY & EFFICIENCY Real world

Facility	OPSNET	OPSNET	Cancella	ations	Average	Departure	Airborne	Holding	Diversions	Completion
гастиу	Ops	Delays	Departure	Arrival	Taxi Out	Delays	Events	Minutes	Diversions	Rate
	1,106	0	5	4	17.50	0	0	0	1	99.27
	700	0	2	0	10.39	0	1	23	3	100.00
	1,141	6	2	8	27.29	6	0	0	0	98.48
	2,461	13	11	25	19.82	12	0	0	0	97.92
	716	0	1	1	11.55	4	0	0	1	99.60
	1,673	28	4	9	18.99	24	0	0	0	98.90
	589	7	2	2	15.83	16	0	0	1	99.03
	1,286	101	1	4	27.41	100	0	0	0	99.35
Total	9,672	155	28	53	20.06	162	1	23	6	98.81

			TF	RACON			
Facility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays		Departure Delays	TMI Delays
	3510	3346	5	0	0	0	0
	1443	1372	5	0	0	0	0
	1384	1375	1	0	0	0	0
	3387	3403	0	0	0	0	0
	2317	2513	-8	16	0	0	16
	849	845	0	0	0	0	0
Total	12890	12854		16	0	0	16

			A	RICC			
Facility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays	Airborne Delays	Departure Delays	TMI Delays
	6943	6475	7	0	0	0	0
	6076	5706	6	0	0	0	0
	5660	5175	9	0	0	0	0
	7108	6374	12	17	17	0	0
	4440	4325	3	1	0	0	1
	6850	6596	4	2	0	0	2
	6480	6453	0	5	1	0	4
	5125	4974	3	6	6	0	0
Total	48682	46078		31	24	0	7



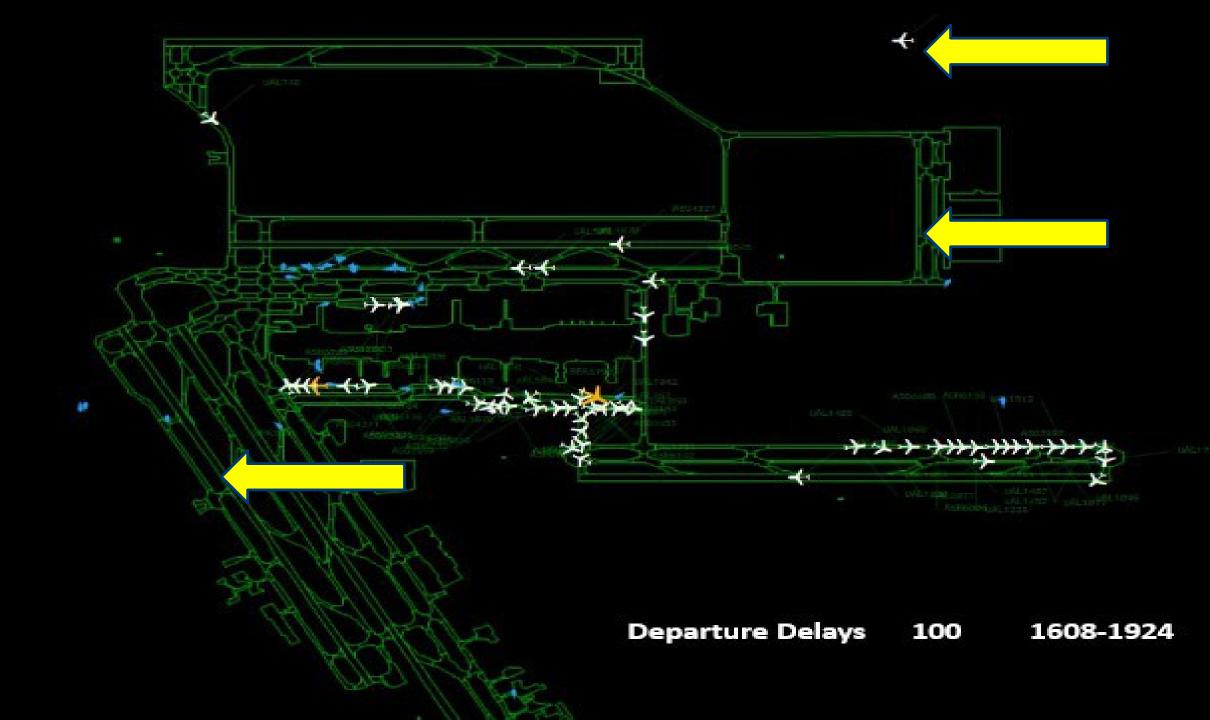
## ICAO CAPACITY & EFFICIENCY Real world

ure TMI Delays

Facility	OPSNET OPSNET	Cancella	ations	Average	Departure	Airborne	Holding	Diversions	Completion	
гасшу	Ops	Delays	Departure	Arrival	Taxi Out	Delays	Events	Minutes	Diversions	Rate
	1,106	0	5	4	17.50	0	0	0	1	99.27
	700	0	2	0	10.39	0	1	23	3	100.00
	1,141	6	2	8	27.29	6	0	0	0	98.48
	2,461	13	11	25	19.82	12	0	0	0	97.92
	716	0	1	1	11.55	4	0	0	1	99.60
	1,673	28	4	9	18.99	24	0	0	0	98.90
	589	7	2	2	15.83	16	0	0	1	99.03
	1,286	101	1	4	27.41	100	0	0	0	99.35
Total	9,672	155	28	53	20.06	162	1	23	6	98.81

			TF	RACON			
cility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays		Departure Delays	TMI Delays
	3510	3346	5	0	0	0	0
	1443	1372	5	0	0	0	0
	1384	1375	1	0	0	0	0
	3387	3403	0	0	0	0	0
	2317	2513	-8	16	0	0	16
	849	845	0	0	0	0	0
Total	12890	12854		16	0	0	16







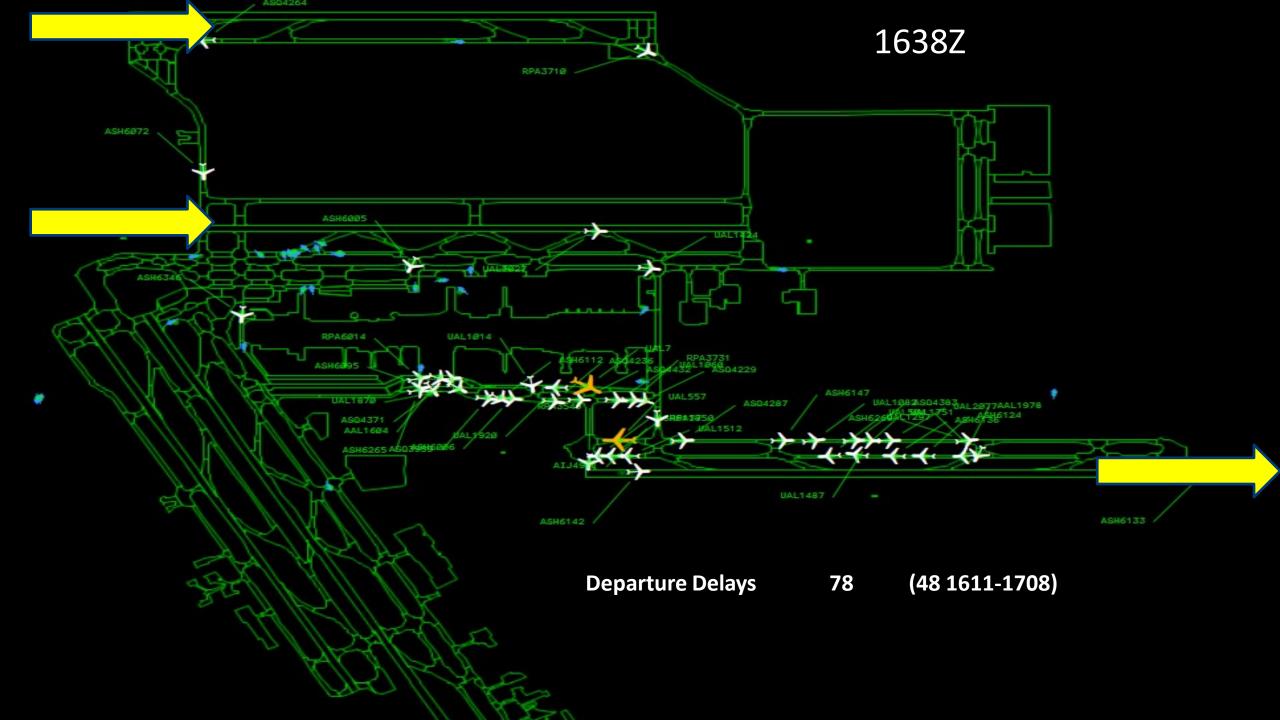
### ICAO CAPACITY & EFFICIENCY

Ecollity	Facility OPSNET	OPSNET	Cancella	ations	Average	Departure	Airborne	Holding	Diversions	Completion
Facility	Ops	Delays	Departure	Arrival	Taxi Out	Delays	Events	Minutes	Diversions	Rate
DTW	1,110	2	2	2	17.24	0	0	0	0	99.64
MDW	725	0	5	2	10.51	0	0	0	1	99.32
MSP	1,164	2	3	1	32.82	2	1	15	0	99.81
ORD	2,434	23	12	9	19.50	21	0	0	1	99.25
DAL	692	0	1	2	10.61	3	0	0	1	99.21
DFW	1,759	40	5	5	18.85	41	0	0	1	99.42
HOU	586	3	1	0	12.96	0	0	0	2	100.00
IAH	1,270	84	4	7	22.55	78	0	0	1	98.85
Total	9,740	154	33	28	19.72	145	1	15	7	99.38

Daily AVG 79 3341	al %VAR From AVG 7	Total Delays 0		Departure Delays 0	TMI Delays 0
	7	0	0	0	0
05 4440					U
95 1412	6	0	0	0	0
83 1368	1	0	0	0	0
61 3498	2	0	0	0	0
11 2599	-11	0	0	0	0
3 858	10	0	0	0	0
	613498112599	61 3498 2 11 2599 -11	51349820112599-110	61 3498 2 0 0   11 2599 -11 0 0	51 3498 2 0 0 0   11 2599 -11 0 0 0

Total 13272 13076

	ARTCC											
Facility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays	Airborne Delays	Departure Delays	TMI Delays					
ZAU	7115	6509	9	0	0	0	0					
ZID	6498	5846	11	0	0	0	0					
ZMP	5636	5245	7	2	2	0	0					
ZOB	7288	6450	13	1	1	0	0					
ZAB	4562	4420	3	0	0	0	0					
ZFW	7039	6723	5	5	0	0	5					
ZHU	6444	6576	-2	1	0	0	1					
ZKC	5451	5054	8	0	0	0	0					
Total	50033	46823		9	3	0	6					





### ICAO CAPACITY & EFFICIENCY

Ecollity	Facility OPSNET	OPSNET	Cancella	ations	Average	Departure	Airborne	Holding	Diversions	Completion
Facility	Ops	Delays	Departure	Arrival	Taxi Out	Delays	Events	Minutes	Diversions	Rate
DTW	1,138	0	2	5	39.32	0	0	0	0	99.12
MDW	739	0	4	3	12.40	0	0	0	0	99.00
MSP	1,188	0	1	3	19.50	0	0	0	0	99.46
ORD	2,490	0	10	7	21.50	0	0	0	0	99.43
DAL	709	0	2	7	11.76	1	0	0	3	97.22
DFW	1,882	9	5	10	18.58	9	0	0	1	98.93
HOU	567	4	2	0	13.98	0	0	0	0	100.00
IAH	1,274	30	1	2	22.83	21	0	0	3	99.68
Total	9,987	43	27	37	21.59	31	0	0	7	99.21

TRACON												
Facility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays	Airborne Delays	Departure Delays	TMI Delays					
C90	3671	3249	13	0	0	0	0					
D21	1534	1338	15	0	0	0	0					
M98	1492	1333	12	0	0	0	0					
D10	3696	3358	10	1	0	0	1					
190	2369	2563	-8	0	0	0	0					
T75	954	805	19	0	0	0	0					

1

0

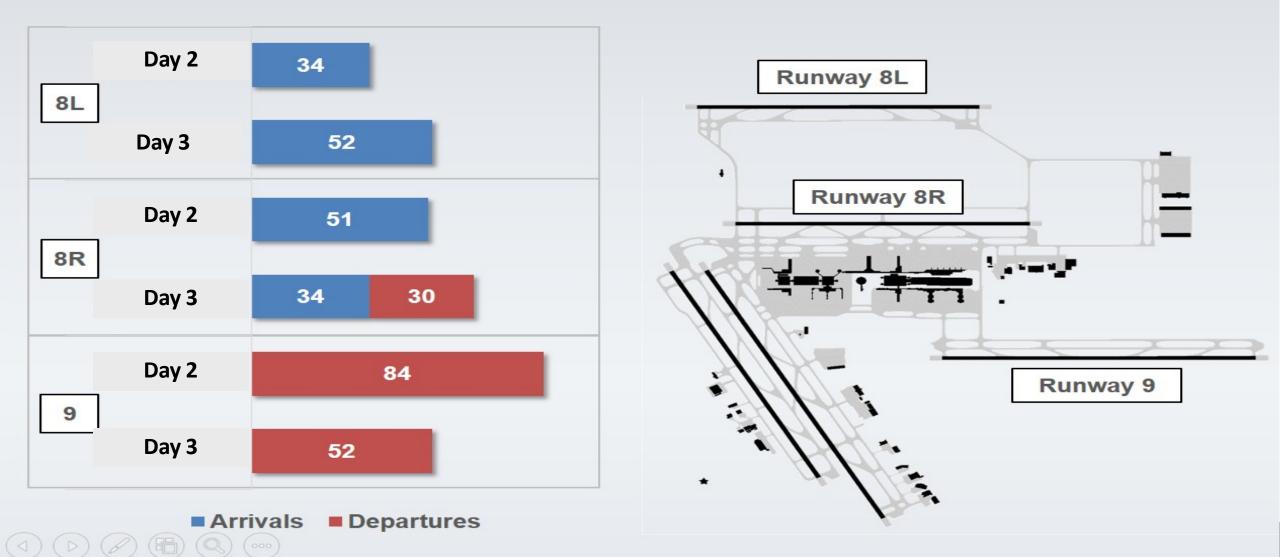
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Total 13716 12646

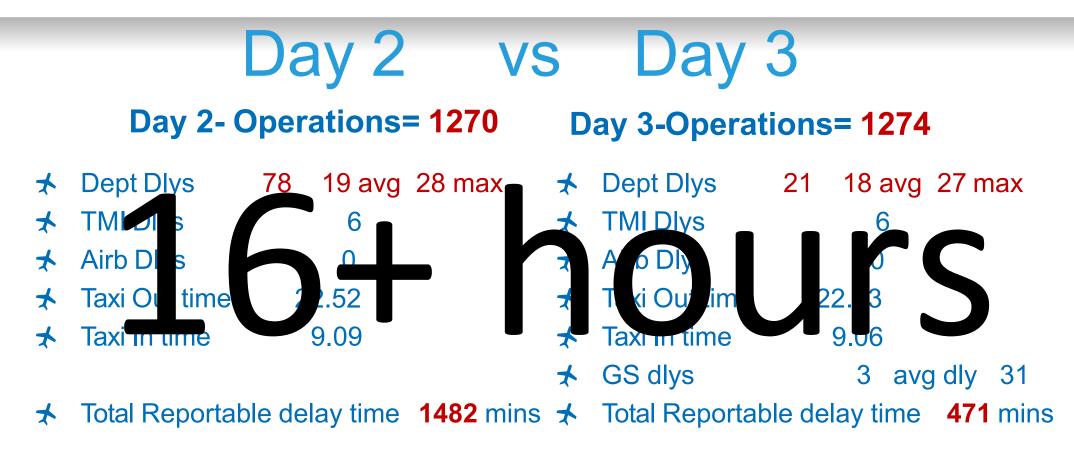
			A	RTCC			
Facility	Ops	Seasonal Daily AVG	%VAR From AVG	Total Delays	Airborne Delays	Departure Delays	TMI Delays
ZAU	7276	6344	15	0	0	0	0
ZID	6542	5596	17	3	3	0	0
ZMP	5763	5075	14	1	0	0	1
ZOB	7504	6328	19	0	0	0	0
ZAB	4621	4348	6	1	1	0	0
ZFW	7269	6535	11	8	0	0	8
ZHU	6313	6478	-3	3	0	0	3
ZKC	5630	4805	17	0	0	0	0
Total	50918	45509		16	4	0	12



### Runway Usage 1600-1759z







SPECI KIAH 061603Z 02010KT 3SM +RA BR SCT011 BKN047 OVC065 07/05 A3033 RMK AO2 P0002 T00670050 METAR KIAH 071553Z 07008KT 7SM -RA OVC033 07/05 A3031 RMK AO2 SLP263 P0008 T00670050



## Questions