



Techniques to measure actual airspace operations



Federal Aviation
Administration

Actual operational counts - Sources

2

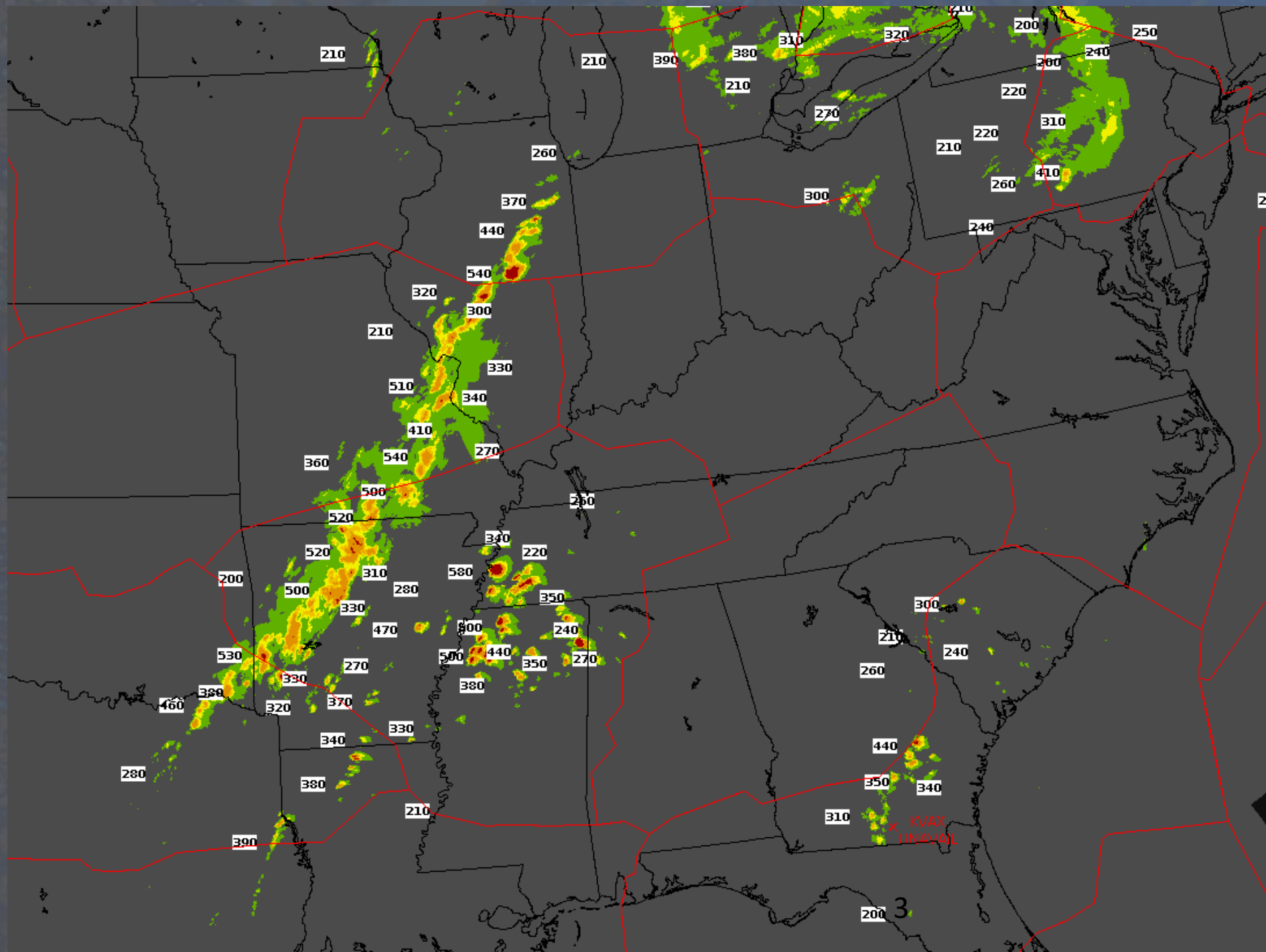
Many different potential sources

- ATC System
- Billing System
- ATFM System
- Surveillance System – Post Event Processing

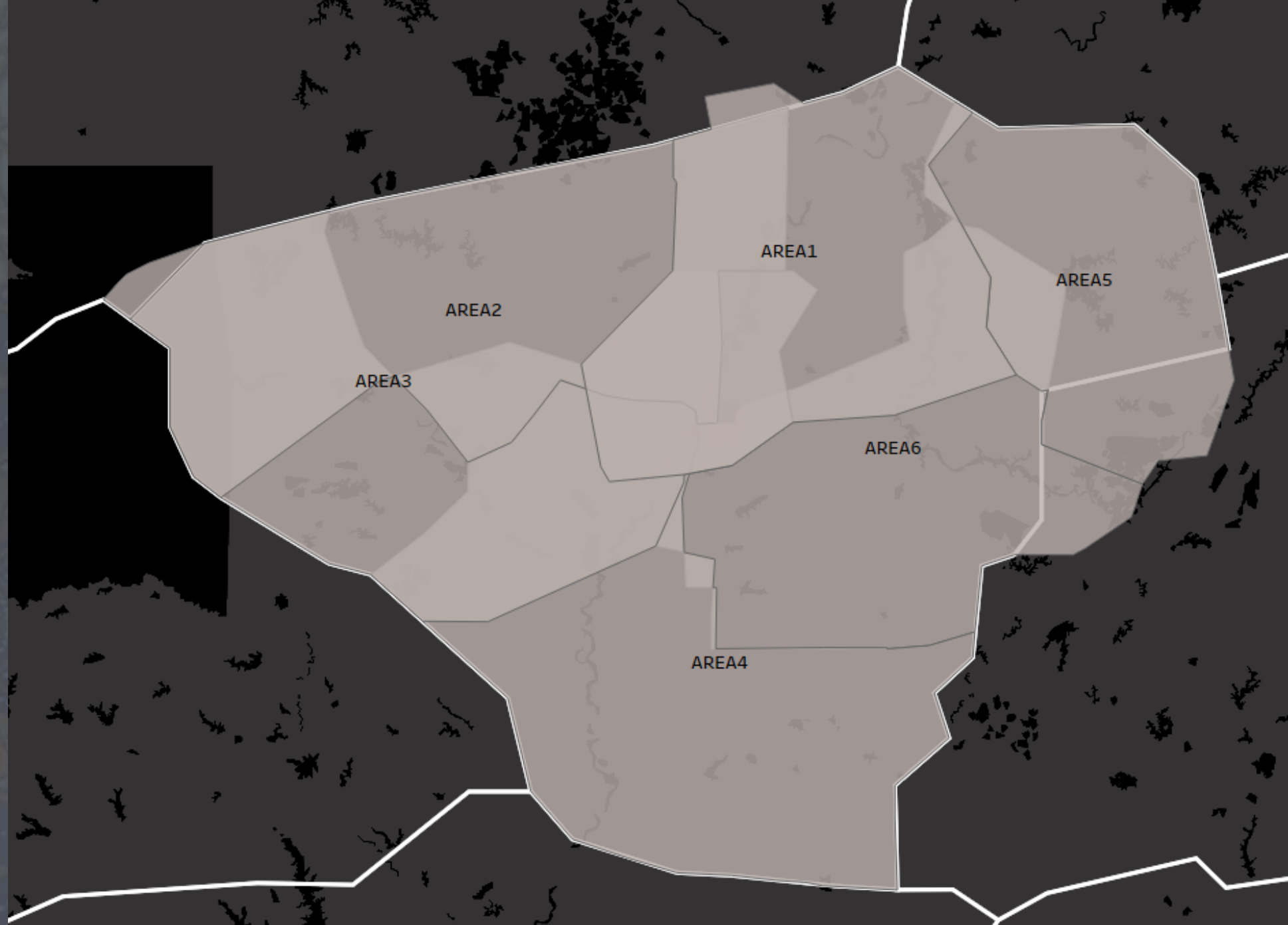
The following is a case study of airspace operational counts on April 2nd, 2025, during a cold-front-driven convective weather event.

**It was a dark
and stormy
afternoon in
Memphis
ACC (ZME)**

ICAO 880



**ZME areas,
6-7 sectors in
each area**



Center Area Throughput Dashboard

5

Dates Available: 10/15/2023 to 4/16/2025

Op Date	Day of Week	Start Time	End Time	Centers	Area Name	Center / Sector
4/2/2025	Wednesday	17:00	00:00	ZME	(All)	(Multiple values)

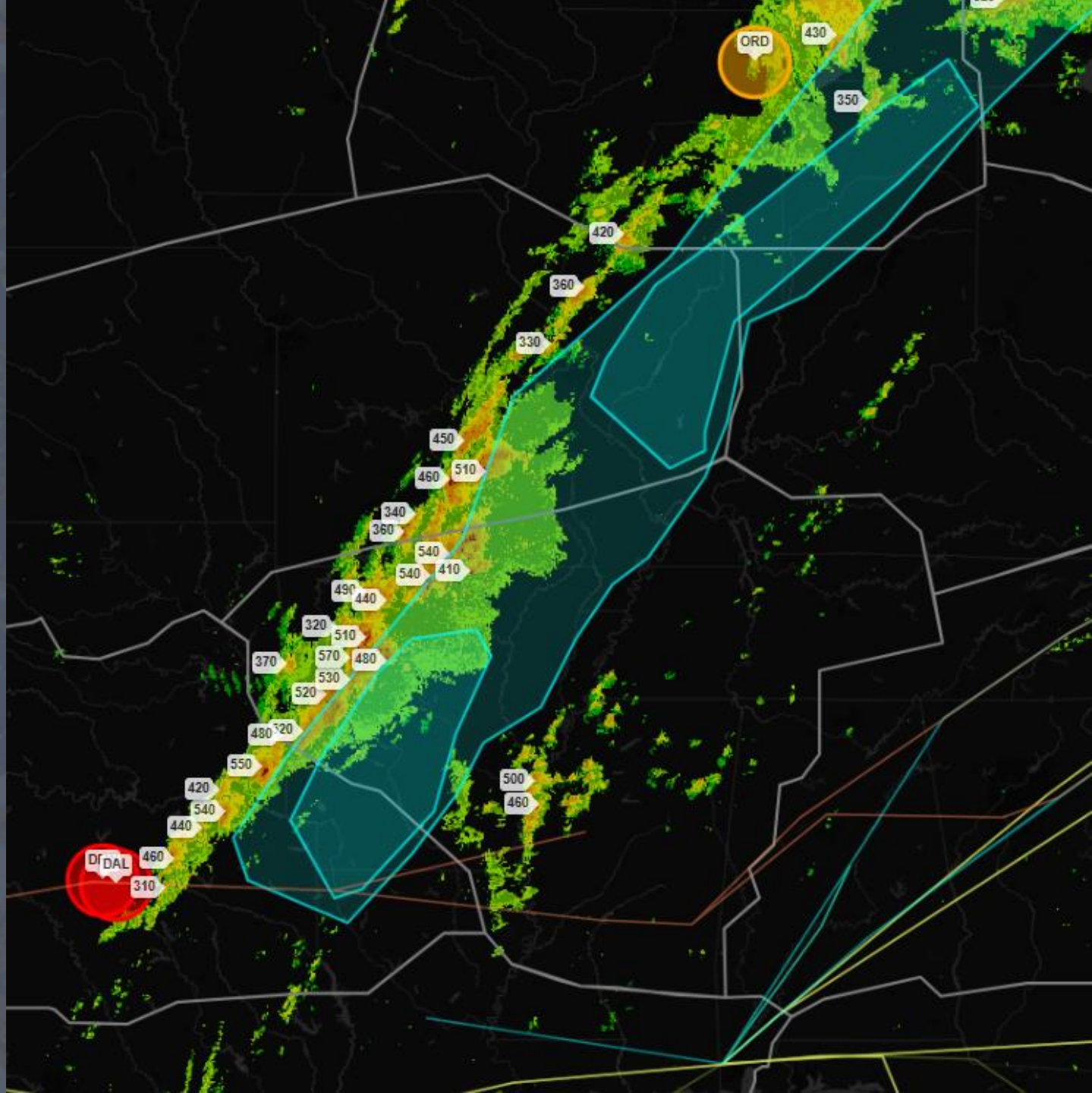
Sector Loading by Quarter Hour

Percent View

			17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45	00:00	
ZME	AREA1	4/2/2025	07	5	1	2	2	3	3	4	3	1	3	3	1	1	3	6	3	1	1	1	1		1		2	1				1
		25	9	10	6	13	12	9	12	10	8	11	10	10	14	8	3	8	4	5	4	4	3	5	4	1	3	2	1			
		26													1	5	8	8	4	5	6	6	1	1	1							
		33	11	11	11	8	18	19	15	19	14	14	14	12	13	12	13	16	11	11	11	11	5	4	5	3	3	2	1	1		
		34	8	13	10	8	8	9	10	11	6	9	9	7	10	10	9	8	10	10	5	7	5	4	1	3	3					
		WX Score	0	0	0	0	0	0	0	0	2	2	2	2	5	5	5	5	7	7	7	7	8	8	8	8	9	9	9	9	9	9
	AREA2	4/2/2025	04	5	5	5	3	2	3	2	2	2		1		1	2			2	2	2	3	1	1							
		19	4	2																												
		22	3	4	6	7	7	7	4	4	4	8	6	6	5	3	5	3	8	10	7	9	7	6	8	8	8	5	10	12	7	
		27	7	11	4	3	3	5	3	4	3	1	1	3	2	4	11	9	5	5	6	8	4	5	1		2			2	1	
		35		8	12	7	7	11	15	8	8	8	8	7	5	5	2															
		WX Score	4	4	4	4	4	4	4	4	5	5	5	5	7	7	7	7	8	8	8	8	9	9	9	9	9	9	9	9	9	9
	AREA3	4/2/2025	01	4	6	1	2	2	3	2	1	3	4	4	4	3	6	2	1	1	2	4	6	2	3	1	3	2	2	2	3	2
		20	7	7	9	9	5	6	10	7	4	4	6	7	5	5	6	8	7	8	7	2	2		1	2	1	1				
		21	10	6	6	6	7	6	7	6	4	3	2	2	6	6	7	3	6	5	5	3	2	1	2	1	2	2	2	2	2	
		44	9	9	15	14	8	11	13	13	9	9	9	8	8	10	11	12	11	12	16	13	10	5	3	4	1	1	1	1	1	
		WX Score	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	8	8	8	8	9	9	9	9	8	8	8	8	8	8
	AREA4	4/2/2025	15	7	6	5	3	5	3	3	3	8	3	4	3	4	5	5	1													
		43	18	17	17	19	21	23	19	17	17	23	25	18	18	22	24	19	25	33	31	29	32	35	32	28	21	28	28	26	22	
		45	13	13	13	9	9	10	13	10	16	15	8	6	9	13	17	15	13	9	14	19	21	19	19	16	10	11	15	15	15	
		46	13	9	10	10	10	10	8	12	12	15	13	6	14	17	17	13	11	11	15	21	20	24	19	14	11	18	21	17	19	
		65	11	13	15	13	13	11	11	12	8	7	7	11	10	14	14	10	8	9	7	8	8	10	8	12	10	8	5	4	4	
		WX Score	2	2	2	2	2	2	2	2	4	4	4	4	5	5	5	5	4	4	4	4	5	5	5	5	4	4	4	4	4	4
	AREA5	4/2/2025	41	7	8	4	5	10	8	3	5	6	6	8	7	6	4	6	6	6	9	4	4	3	4	3	3	5	4	5	4	5
60		7	6	3	5	8	11	5	5	4	6	7	5	5	4	5	5	5	6	5	5	4	4	5	8	8	7	7	7	6		
61		15	12	16	19	16	23	21	18	18	15	14	12	13	14	14	14	13	17	19	17	12	6	9	12	7	7	6	4	8		
62		10	9	10	10	11	11	8	11	10	9	15	12	11	8	8	11	10	9	12	9	4	6	7	10	11	7	6	2	2		
WX Score		0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	3	3	3	3	5	5	5	5	7	7	7	7	7	7	
AREA6	4/2/2025	13	5	5	6	6	5	7	5	6	8	6	6	5	8	8	12	8	5	3	3	3										
	14	6	8	7	5	6	8	7	5	5	6	8	4	4	7	5	3	4	5	6	4	5	4	5	4	3	5	8	4	5		
	30						6	8	14	11	5										5	6	9	13	5	4	7	11	6	4	7	
	31	14	13	10	10	12	15	13	13	7	8	9	10	13	13	13	10	12	16	16	6	5	4	7	10	8	5	5	5	7		
	32	15	17	17	14	19	17	17	17	18	13	17	18	9	11	15	18	21	17	12	16	15	15	15	17	18	12	8	13	13		
	WX Score	0	0	0	0	0	0	0	0	3	3	3	3	6	6	6	6	7	7	7	7	8	8	8	8	7	7	7	7	7	4	

ATFM Tools used

- **Ground Delay Programs**
 - ORD
 - DAL
- **Ground Stop**
 - ORD
 - DAL
 - DFW
- **Required Routes through ZME area 4**
- **Required Routes south of ZME**



Tools for Analysis – External access for CDM airspace users and internal access for data that is sensitive.

7



Federal Aviation
Administration

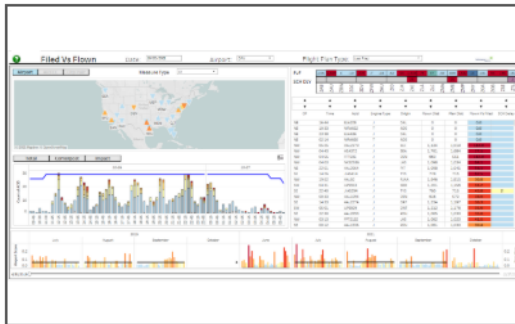
Industry TM Efficiency Toolbox

Post-Operational Analysis Tools

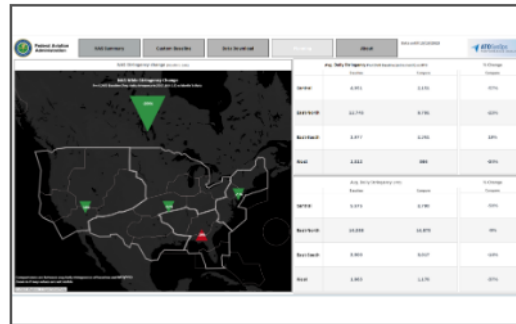
Day of Ops & Planning Tools

Education

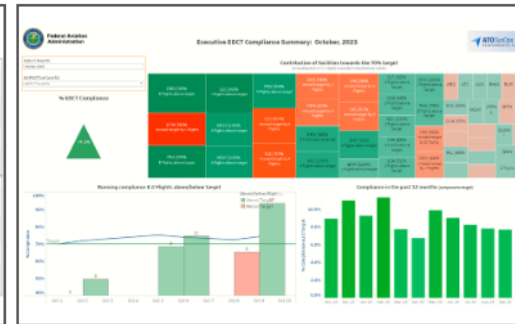
Filed Vs. Flown Dashboard



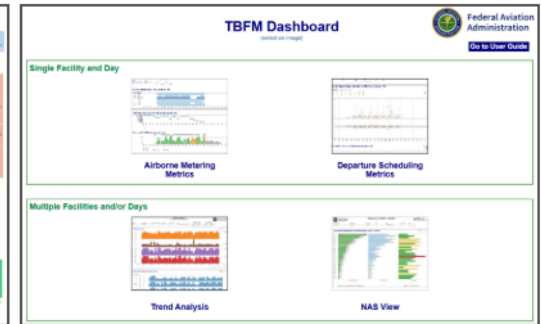
MIT Stringency



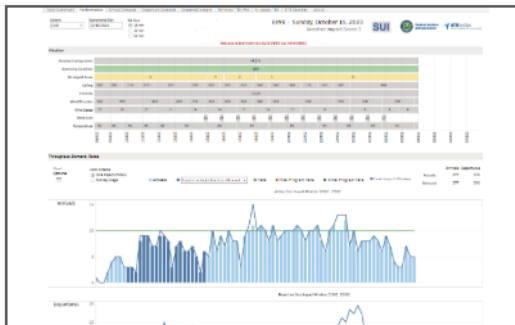
EDCT Compliance



TBFM Dashboard



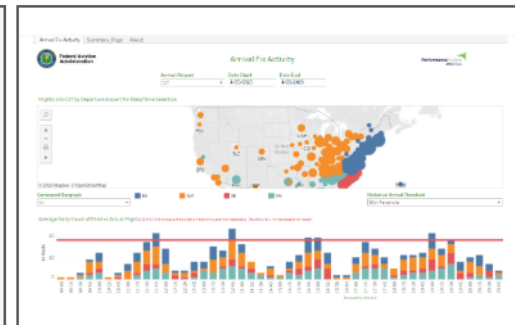
Facility Metrics



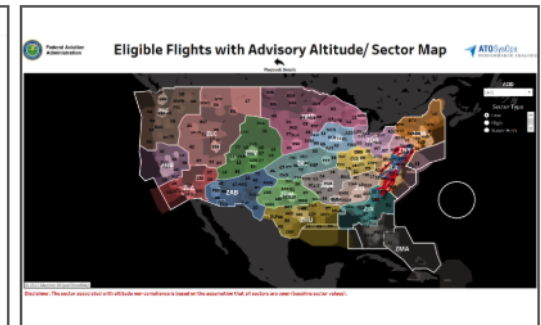
Common Metrics



Arr Fix Balancing



Playbook Route Utilization



For dashboard questions please contact [AJR-G1 Support](#).

All data is preliminary and subject to change. FAA assumes no responsibility or liability for any errors or omissions in the content of this dashboard.

Other Tools

External access: <https://explore.dot.gov/views/IndustryTMEfficiencyToolbox/Links?%3Aembed=y>

Dashboard to track past operations and forecast future days/trends

About

NASCast_NAS_Wide

NASCast_Snowbird_Flows

NASCast_Centers

NASCast_Tracon

NASCast_Airports

ARTCC


ZMA


Start Date

1/1/2025

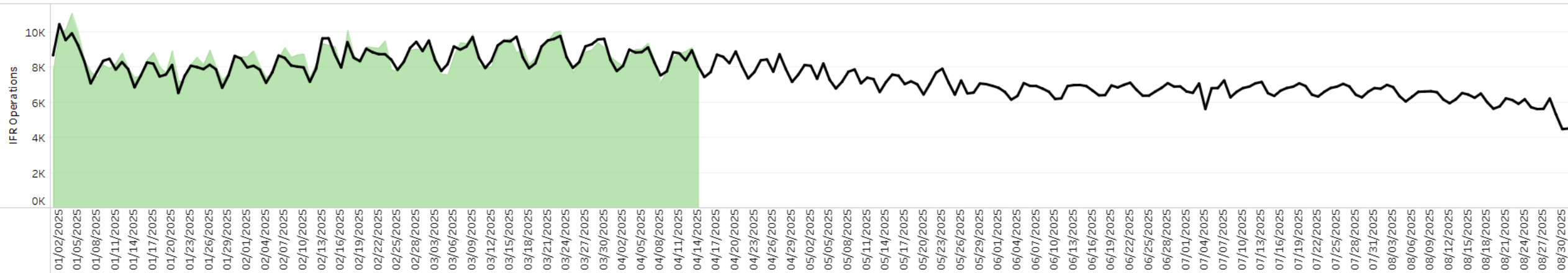
End Date

8/31/2025

 Federal Aviation Administration

 ATO SysOps
PERFORMANCE ANALYSIS

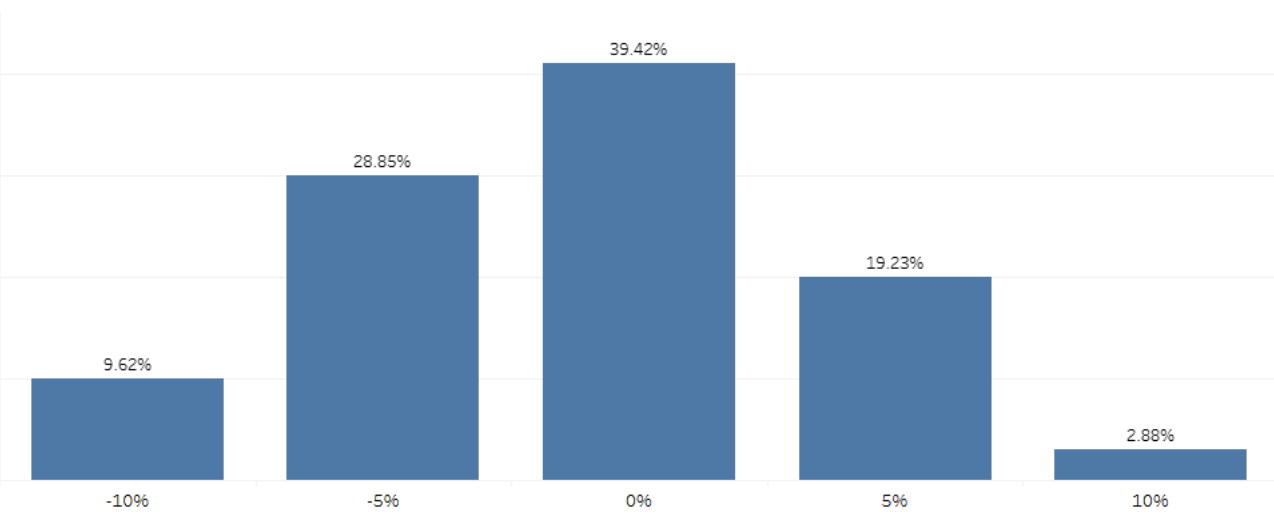
NASCast Center Forecast: ZMA



NASCast Center Forecast: ZMA

OpsDate	OPSNET	Prediction
01/01/2025	7,822	8,652
01/02/2025	9,928	10,426
01/03/2025	10,140	9,514
01/04/2025	11,056	9,906
01/05/2025	9,930	9,219
01/06/2025	8,356	8,297
01/07/2025	7,759	7,051
01/08/2025	7,390	7,707
01/09/2025	8,116	8,337
01/10/2025	7,915	8,452
01/11/2025	8,195	7,836
01/12/2025	8,798	8,266
01/13/2025	7,919	7,857
01/14/2025	7,408	6,826
01/15/2025	7,480	7,496
01/16/2025	8,416	8,212

% Error (Positive=OverProjection/Negative=UnderProjection)



Thank you