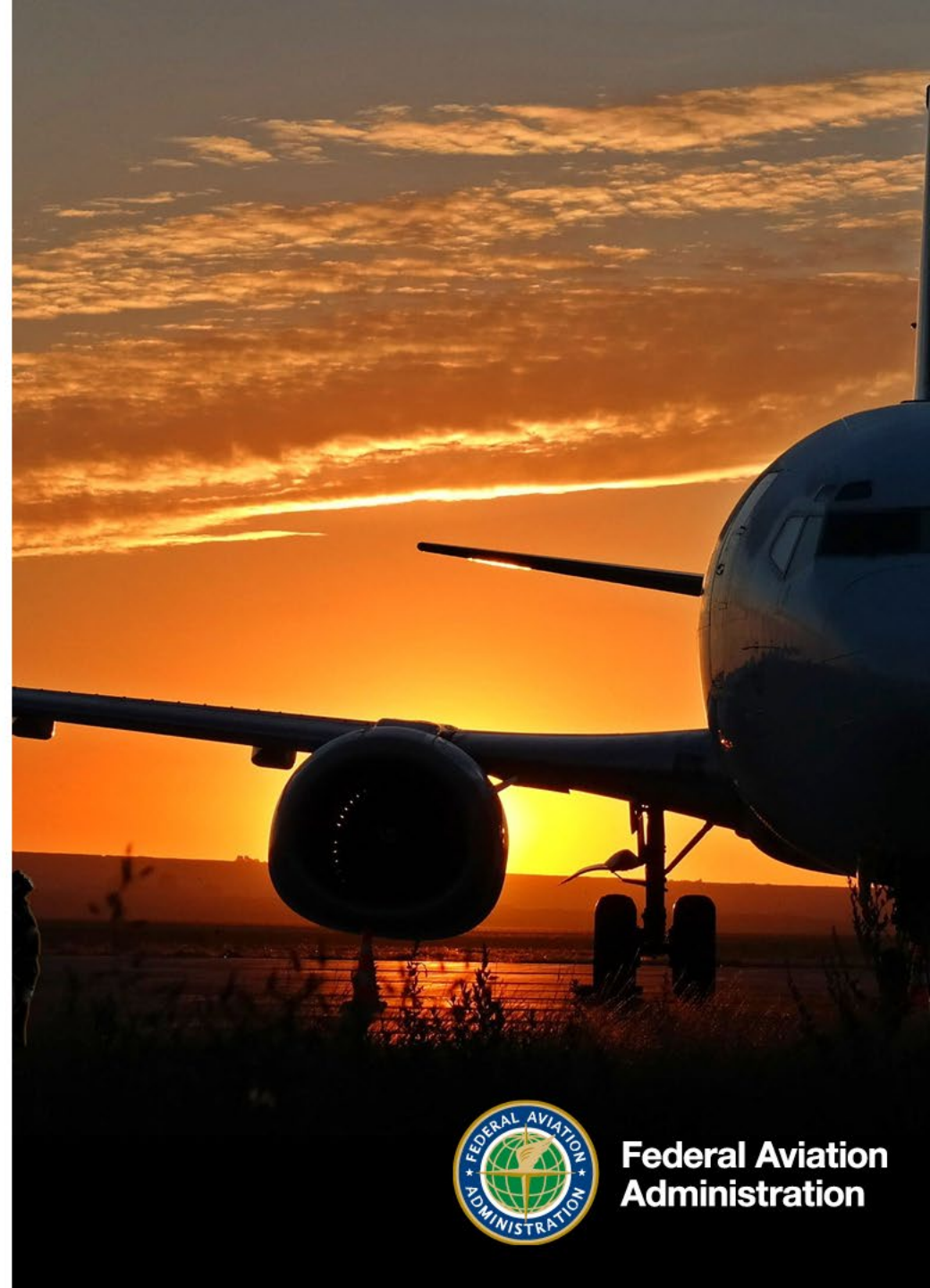


Stakeholder Engagement Team (SET)

Spring 2025 General Session

Presented to: CDM General Session
By: Renee Fields (FAA), Will Steinberg (JBU)
Date: 3Apr25



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Stakeholder Engagement Team

- The SET aims to increase NAS efficiency by providing transparent, collaborative, and inclusive review processes that lead to actionable changes and improvements.

- Co-Leads:

Renee Fields , Will Steinberg ([jetBlue](#)), Erin Cobbett () – emeritus

Team Members:

- Marc Meekma (FAA)
- Orion Barker (FAA)
- Lauren Faith (FAA)
- Tim Henderson (FAA)
- Jeremy Styles (FAA)
- Jamie Siller (A4A)
- Robert Herberger (AAL)
- Jim McClay (AOPA)
- Matthew Bolte (DAL)
- Sascha Hollingsworth (DAL)
- Janice Planten (NBAA)
- Tim Matuszewski (NKS)
- Erin Hogan (SWA)
- Edwin Solley (SWA)
- Roberta Zimmerman (UAL)
- Jeff Faulkner (UAL)

Task 133: Expected KPI Score

Purpose:

- Develop a robust statistical model which will assist in answering the question, “How did we perform given the hand we were dealt?” by producing a KPI that would be expected given the constraints
- Design a visual mechanism for representing the actual/expected performance
- Incorporate the Expected KPI into the daily NSR deck

Closed : 12/11/2024

Task 133: Expected KPI Score – Model Development

- Team tested a variety of different statistical models to anticipate what the KPI should have been given the actual constraints and used variables outside of Traffic and Weather Scores
 - Primary modeling focus was on demand/capacity imbalances

Capacity Measures	Demand Measures
Daily Capacity (Efficiency)	Scheduled Demand
AvMet Airport Weather Score	Actual Throughput
AvMet Center Weather Score	

- Found that ADC and ADC Target variables performed well in describing changes to KPI score

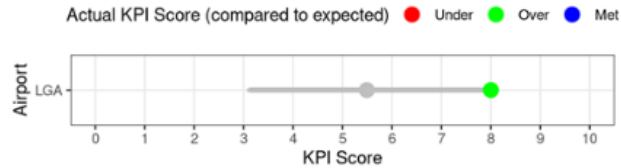
Task 133: Expected KPI Score – Testing & Distribution

- **Models were tested for consistency across airports and regions**
 - Accuracy varied dramatically by airport, e.g. models that were statistically significant for the New York Metros had little effectiveness in predicting KPIs for SEA and LAS
- **Team developed an automated mechanism to distribute the scores**
 - Current version of the model is distributed to the SET team daily via email
 - Extensive training on interpretations would be required to expand the distribution list beyond the SET team

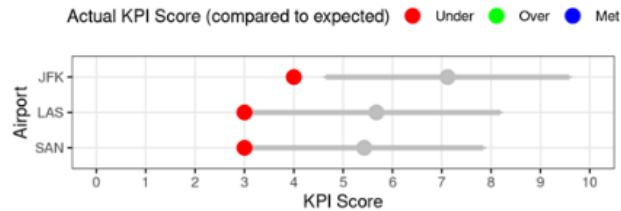


Task 133: Expected KPI Score – Visualizations

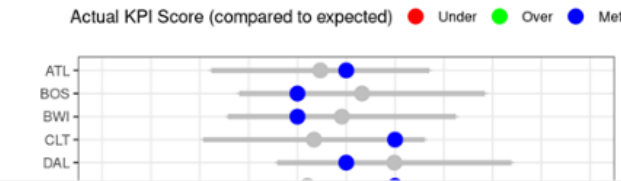
Airports Exceeding Expectations



Airports Below Expectations

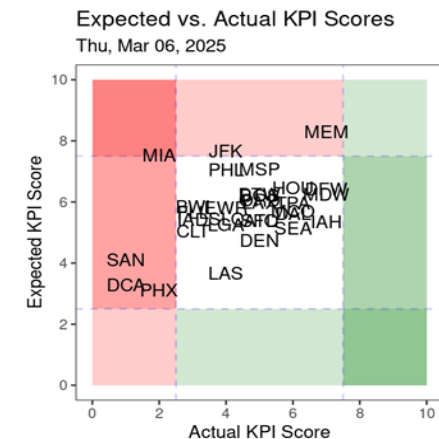


Airports Meeting Expectations



Internal SET team daily email

- **Comparison of regression expected KPI to the actual KPI are shown at the left**
 - The gray points represent the expected KPI and the gray line the confidence interval set at 0.95
- **In the diagram below, airports falling in the colored border boxes are those with performance that is very high, very low, or unexpected**



Task 133: Expected KPI Score – Recommendations

- **Determination of accuracy required by industry and FAA will be necessary to proceed**
- **Prior to implementation, structured validation by SMEs of model adeptness is needed**
- **Broader industry and FAA education on actual and expected KPI is needed**
 - NSR community training would need to be provided through a variety of methods (NCF, group virtual briefings, etc.)
 - Training materials would need to be developed and distributed to Industry and FAA through CTT
- **Further development be put on hold pending outcome of Task 139**



Task 134: Scheduled & Unscheduled Traffic Volume

Purpose:

- **Capture shifts in traffic patterns by using the recently developed Industry Class specification developed by AJR-G to break traffic volume into scheduled and unscheduled components**
- **Add this to the daily NSR reporting document**

Closed : 10/30/2024



Task 134: Scheduled & Unscheduled Traffic Volume

- **Capture daily scheduled/unscheduled traffic volume in NSR**
 - Scheduled traffic = Air Carrier and Freight
 - Unscheduled traffic includes general aviation, business aviation, military/civilian government flying and all other non-scheduled operations
- **AJR-G developed an Industry Class teaching deck that SET provided to CTT for publication on the TM Learning site**
 - [AJR-G Industry Class](#)



Task 134: Scheduled & Unscheduled Traffic Volume - Accomplishments

- Incorporated into daily NSR reporting

Performance Outcomes:

■ Top 10% compared to baseline ■ Bottom 10% compared to baseline

Location	Traffic Cnt			Flight Operator Based Metrics						FAA Based Metrics						Summary		
	Skd	Unskd	Total	Comp	D0*	A0	Avg Taxi-Out	Taxi-Outs >120*	Avg Taxi-In	TMI Delays*	TMI Minutes	Dpt Delays*	AH Delays	AH Minutes*	Dvrts	Traffic	WX	KPI
Central	15,246	2,434	17,680	98.99%	63.9%	62.2%	18.0	-	9.0	12	321	87	-	-	15	10	2	5
AUS	576	188	764	99.15%	64.1%	59.5%	13.8	-	9.2	-	-	-	-	-	-	8	2	7
DAL	430	295	725	98.66%	55.8%	66.9%	12.2	-	6.5	-	-	-	-	-	2	8	4	6
DFW	2,124	28	2,152	98.81%	67.8%	70.9%	18.3	-	11.6	1	15	16	-	-	-	9	0	7
DTW	832	20	852	99.51%	68.7%	64.5%	21.4	-	8.9	1	21	-	-	-	-	8	5	5
HOU	336	247	583	98.97%	68.6%	67.8%	12.4	-	5.6	1	20	-	-	-	-	9	0	6
IAH	1,269	34	1,303	98.95%	69.5%	73.8%	18.2	-	10.0	-	-	-	-	-	-	9	6	7
MDW	434	134	568	99.59%	59.3%	54.0%	12.6	-	6.5	-	-	-	-	-	-	4	1	7
MSP	898	89	987	98.36%	59.7%	62.1%	19.6	-	7.2	-	-	-	-	-	1	9	0	5
ORD	2,187	40	2,227	99.06%	69.9%	66.2%	21.8	-	13.5	3	89	-	-	-	3	9	1	5
PHX	1,410	179	1,589	97.46%	49.4%	35.9%	17.0	-	9.0	6	176	71	-	-	2	10	4	2
Other-CE	4,750	1,180	5,930	99.52%	63.2%	60.8%	17.8	-	6.4	-	-	-	-	-	7	9	NA	6

National System Review (NSR)



Purpose: Continuously improve the quality of the NSR by evolving the call process and reporting mechanism

Ongoing Process



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NSR Survey Selected Feedback

- Focus on the Why!
 - Briefly summarize the strategy and the decision-making processes behind the TMI choice
 - Explain why mitigation steps were implemented

- Only highlight impacted facilities/unexpected events
 - Meaningful discussion of events/issues – where/how as opposed to just stats
- Education needed on Summary Scoring/KPIs

- Focus on public follow-up of concerns expressed
 - Stronger link between Review and Train/Improve of PERTI
 - Develop an NSR dashboard - Establish a repository for call information
 - Additional representation on call (Space, Military, TMO, etc)
 - Add TBFM tracking information
 - Redundancy between National Recap and Command Center comments
- QC Addressed

NSR Incremental Improvements

Consistent with NSR survey findings to focus on unexpected/impacted facilities, SET restructured the Performance Metrics slides

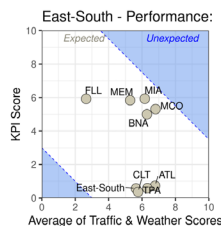
Top/Bottom 25%

East South - Operation Overview (07/23/2024)



ASPM-77 Performance Outcomes: Top 25% compared to baseline Bottom 25% compared to baseline

Location	Traffic Cnt	Flight Operator Based Metrics						FAA Based Metrics						Summary		
		Completion	D0*	A0	Avg Taxi-Out	Taxi-Outs >120*	Avg Taxi-In	TMI Delays*	TMI Minutes	Dpt Delays*	AH Delays	AH Minutes*	Dvrts	Traffic	WX	KPI
East-South	10,389	92.49%	33.4%	38.8%	18.1	0	12.2	89	6,069	119	108	2,303	26	5	6	1
ATL	2,103	87.07%	19.8%	23.6%	18.2	0	12.0	25	1,001	26	57	1,081	2	4	10	1
BNA	790	98.39%	35.7%	41.4%	15.3	0	8.7	0	0	0	0	0	0	10	3	5
CLT	1,536	87.88%	28.6%	33.9%	22.3	0	27.9	59	4,927	0	32	700	15	6	6	0
FLL	735	96.30%	38.3%	43.7%	16.6	0	6.4	0	0	12	0	0	0	1	4	6
MCO	1,047	94.23%	38.7%	45.2%	18.3	0	10.0	0	0	48	0	0	0	8	6	5
MEM	735	96.22%	30.3%	46.1%	15.7	0	7.9	0	0	0	0	0	0	6	5	6
MIA	1,299	97.39%	39.4%	52.3%	20.7	0	8.5	0	0	33	0	0	0	8	4	6
PBI	325	NA	NA	NA	14.6	0	4.4	0	0	0	0	0	0	3	4	NA
TPA	571	95.19%	44.6%	36.2%	15.0	0	6.5	5	141	0	16	467	4	5	8	1
Other-ES	1,248	94.83%	49.6%	48.8%	14.7	0	6.4	0	0	0	3	55	2	6	NA	3



Unexpected Zones indicate areas of unanticipated performance given the constraints

- Low KPI score in a relatively unconstrained environment
- High KPI score in a highly constrained environment

NA indicates data is not available or not applicable (e.g. situations with insufficient operations)

Details on Initiatives (Advance Plan, Proposed & Actual), Weather, Forecast Accuracy, and Performance Trends & Rankings can be found in the Appendix

Location links connect to the station's Facility Metrics page in the Knowledge Service Network (KSN) for hourly detail



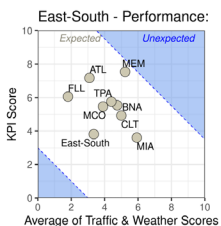
Top/Bottom 10%

East South - Operation Overview (08/14/2024)



ASPM-77 Performance Outcomes: Top 10% compared to baseline Bottom 10% compared to baseline

Location	Traffic Cnt	Flight Operator Based Metrics						FAA Based Metrics						Summary		
		Completion	D0*	A0	Avg Taxi-Out	Taxi-Outs >120*	Avg Taxi-In	TMI Delays*	TMI Minutes	Dpt Delays*	AH Delays	AH Minutes*	Dvrts	Traffic	WX	KPI
East-South	10,177	98.16%	64.4%	65.9%	17.7	3	9.1	3	72	42	14	340	14	4	3	4
ATL	2,174	99.43%	75.3%	77.9%	15.3	-	9.3	-	-	18	-	-	-	4	2	7
BNA	785	99.84%	73.1%	67.1%	17.2	-	7.3	-	-	-	-	-	-	10	0	6
CLT	1,782	99.33%	67.7%	67.8%	22.3	-	13.0	3	72	-	-	-	-	10	0	5
FLL	688	97.05%	55.0%	55.7%	16.1	-	7.1	-	-	-	-	-	-	1	3	6
MCO	956	98.52%	66.1%	66.8%	19.1	-	10.3	-	-	24	-	-	-	1	3	5
MEM	732	97.57%	38.3%	55.4%	15.1	-	8.3	-	-	-	-	-	-	5	5	8
MIA	1,220	98.08%	47.2%	60.2%	21.4	-	8.6	-	-	-	14	340	-	3	7	5
PBI	343	NA	NA	NA	12.7	-	5.5	-	-	-	-	-	-	4	2	NA
TPA	574	98.93%	72.8%	62.0%	13.4	-	5.8	-	-	-	-	-	-	1	5	4
Other-ES	923	90.31%	59.8%	51.7%	14.7	-	5.8	-	-	-	-	-	-	4	1	NA



Unexpected Zones indicate areas of unanticipated performance given the constraints

- Low KPI score in a relatively unconstrained environment
- High KPI score in a highly constrained environment

NA indicates data is not available or not applicable (e.g. situations with insufficient operations)

Details on Initiatives (Advance Plan, Proposed & Actual), Weather, Forecast Accuracy, and Performance Trends & Rankings can be found in the Appendix

Location links connect to the station's Facility Metrics page in the Knowledge Service Network (KSN) for hourly detail



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Restructure NSR Format

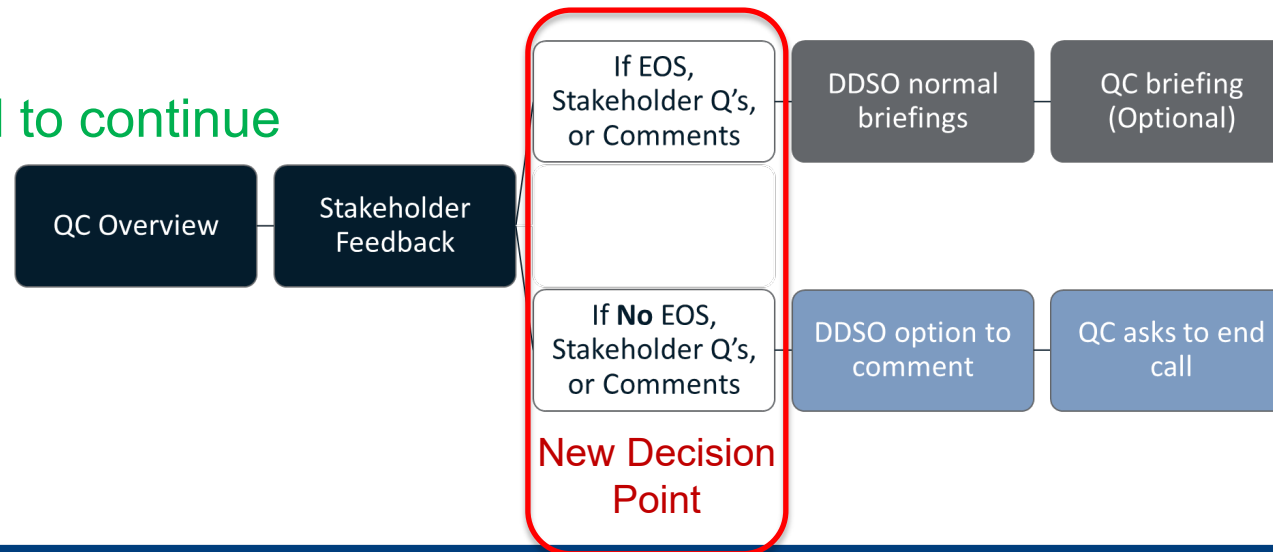
- **Why change the structure?**
 - Moves us down the path of having a conversation instead of a briefing, without doing it all at once
 - Stakeholder feedback (including EOS) becomes the primary mechanism for what to discuss
 - Maintains a daily touchpoint, but could slim time required considerably
 - We start to learn what is most important to discuss

NSR Format Restructure Test

June 2024, QC, DDSO offices and SET conducted a 3-week trial changing the order of the call with Stakeholder feedback coming directly after the QC review

- 3 Tabletop exercises conducted prior to test beginning
- Survey immediately following trial to decide go/no go on the new order

- 78% voted to continue



NSR Report Updates

January 2025 Report Updates

- Baseline was updated to a 3-year contiguous, 2022-2024, post-Covid time period
- Incorporated Task 134 Scheduled/Unscheduled Traffic into deck
- Additional airports included from the expansion of the ASPM-77 to ASPM-82
 - ASE is included as a stand-alone airport

CMH has been added to “Other-CE”

“Other-WE” expanded to include APA/BJC/BOI

West - Operation Overview (01/05/2025)



Performance Outcomes:

■ Top 10% compared to baseline ■ Bottom 10% compared to baseline

Location	Traffic Cnt			Flight Operator Based Metrics						FAA Based Metrics						Summary		
	Skd	Unskd	Total	Comp	D0*	A0	Avg Taxi-Out	Taxi-Outs >120*	Avg Taxi-In	TMI Delays*	TMI Minutes	Dpt Delays*	AH Delays	AH Minutes*	Dvrts	Traffic	WX	KPI
West	11,043	2,628	13,671	95.16%	50.7%	53.6%	17.9	3	9.1	36	2,637	1	4	88	44	4	2	2
ANC	331	68	399	95.85%	77.2%	48.7%	12.4	-	5.3	-	-	-	-	-	1	0	0	6
ASE	60	111	171	81.91%	26.5%	9.3%	40.4	1	19.3	25	2,383	-	1	42	29	8	8	4
DEN	1,815	53	1,868	92.35%	25.0%	47.1%	21.8	-	11.6	1	30	-	-	-	-	7	4	4
LAS	1,127	245	1,372	93.34%	53.1%	55.6%	16.7	-	8.4	-	-	-	-	-	-	1	0	6
LAX	1,422	129	1,551	94.91%	57.4%	59.3%	18.8	1	11.9	-	-	-	2	30	2	4	0	3
SAN	555	54	609	95.69%	38.9%	51.3%	21.1	-	7.7	5	122	-	-	-	2	5	0	3
SEA	1,039	4	1,043	96.10%	54.1%	51.4%	19.0	-	10.3	3	54	-	-	-	-	2	7	5
SFO	962	79	1,041	94.49%	56.2%	58.2%	19.6	-	9.3	2	48	-	-	-	1	5	0	5
SLC	688	248	936	95.47%	46.2%	53.9%	19.4	-	6.7	-	-	-	-	-	2	7	0	4
Other-WE	3,044	1,637	4,681	97.56%	60.4%	54.9%	14.3	1	7.1	-	-	1	1	16	7	8	NA	4

NSR Report Updates

- Advanced Plan Initiative Indicator has been added to the NAS Enroute AFP Initiatives Slide

NAS - Enroute Overview (01/03/2025)



Initiatives: AFPs

Location	Adv Plan Initiatives	Reason	Sent	Effective	Proposed Duration	Actual Duration	Revisions	Delayed Flights	Possible	Probable	Expected
									Total Delay Minutes	Average Delay	Delays Charged To
FCAASC		Vol	03/1321	1500-0359	1558	688	2	19	1382	73	ZDV
FCAPV1	AFP	Vol	03/1016	1400-2059	838	352	2	17	992	58	ZMA
FCAMA5		Vol	03/1112	1500-2259	958	584	2	70	3374	48	ZMA
FCAASG		Vol	03/1319	1500-0359	1558	858	4	43	3615	84	ZDV
FCAMU1		Vol	03/1017	1500-2159	838	578	2	NA	NA	NA	ZMR

AvMet Regional Weather Scores

Region	AM Regional Wx	PM Regional Wx	12 Hour Regional Wx
FL Region	0	0	0
NE Region	3	4	3
TX Region	2	1	2

AvMet Regional Weather Scores have also been added



NSR Report Updates

- GS and GDP reason codes were added to the Terminal Initiatives slides

Central - Weather & Initiatives (01/05/2025)



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Initiatives (GS, GDP):

Loc	Adv Plan Initiatives	Ground Stops							Ground Delay Programs							Reason
		Proposed Duration	Actual Duration	Actual #	Delayed Flights	Total Delay Minutes	Average Delay	Reason	Proposed Duration	Actual Duration	Actual #	Revisions	Delayed Flights	Total Delay Minutes	Average Delay	
AUS		0	0	0	0	0	0	Wind	0	0	0	0	0	0	0	Wind
DAL	GDP/GS	0	0	0	0	0	0		0	0	0	0	0	0	0	
DFW	GDP/GS	5h17m	7h17m	4	3	81	27	Tstorms Other, Tstorms, Wind	10h21m	8h37m	1	3	368	43973	119	Tstorms
DTW		0	0	0	0	0	0		0	0	0	0	0	0	0	
HOU	GDP/GS	1h35m	2h35m	1	1	78	78	Tstorms Other, Tstorms, Wind	3h56m	2h55m	1	1	22	922	42	Tstorms
IAH	GDP/GS	4h53m	5h43m	4	51	2928	57		0	0	0	0	0	0	0	
MDW		0	0	0	0	0	0	Tstorms Other, Tstorms, Wind	0	0	0	0	0	0	0	Tstorms
MSP		0	0	0	0	0	0		0	0	0	0	0	0	0	
ORD		0	0	0	0	0	0	Tstorms Other, Tstorms, Wind	0	0	0	0	0	0	0	Tstorms
PHX		0	0	0	0	0	0		0	0	0	0	0	0	0	

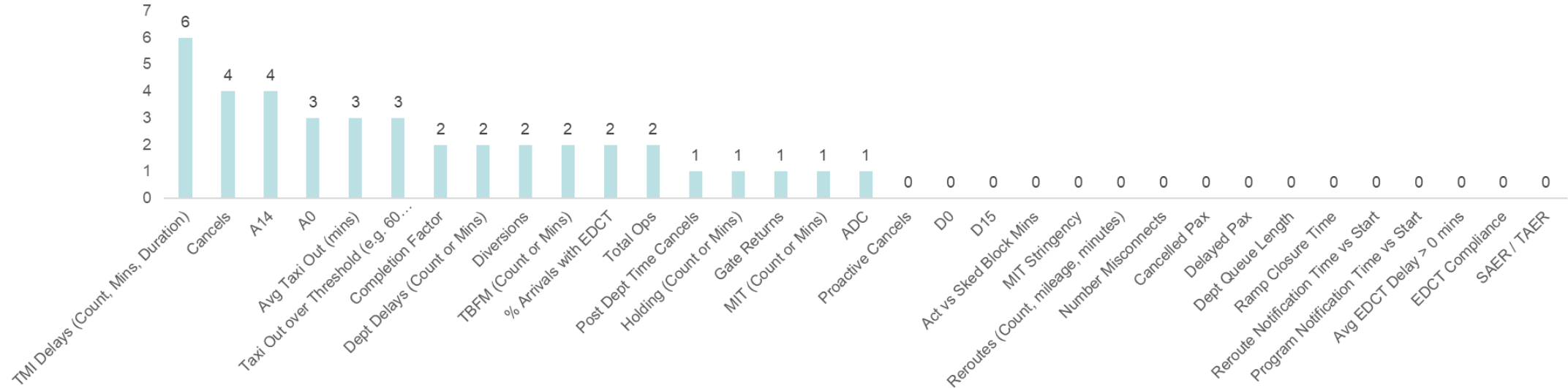


NSR Continuous Improvement

Continuous Improvement of the Continuous Improvement Process!!

- **What's next?**
 - Data Driven Discussions!
 - Revisiting the KPI Score
 - Improved Sharing Process with New Task 139 Enhancements

What would you include on a slide or in a scoring mechanism to define performance good or bad?



Event Reviews



Purpose: SET developed an event review process that functions as a wrap-around to the Traffic Management Review (TMR) and/or a stand-alone review on industry related topics

Review events determined by the SET team and/or CDM Leadership

Share lessons learned & proposed actions with the CDM community

Ongoing Process



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Event Review Recommendations

Proposed Action	Review	Status
Make use on concurrently issued smaller segmented AFPs	Florida AFP/TMI – 3/9/24 Florida AFP – 8/22/24	
Identify in Adv Planning PERTI call if early SPO need and include as a consistent discussion point	Florida AFP/TMI – 3/9/24 Florida AFP – 8/22/24	
Develop some type of trigger mechanism/back up process to establish early SPO when need arises/forecast changes after Adv Planning call	Florida AFP/TMI – 3/9/24 Florida AFP – 8/22/24	
Deep Gulf route development need; ZHU/ZJX sector split	Florida AFP/TMI – 3/9/24	ZHU split Gulf sector Spring 2024 & New ZJX Ultra-High opened 1/23/25
Need to figure out how to make hotline work in Florida	Florida AFP/TMI – 3/9/24	
Need convective product similar to what we see for Terminals, but with a focus on enroute environment	Florida AFP/TMI – 3/9/24	
Industry education on how recontrols are worked	Florida AFP/TMI – 3/9/24	

Event Review Recommendations

Proposed Action	Review	Status
Streamline approach for AFP revisions	Florida AFP/TMI – 3/9/24	
Develop time of day Snowbird demand forecast	Florida AFP/TMI – 3/9/24 SET Snowbird Review – 4/9/24	
Need South Florida ad-hoc work group	Florida AFP/TMI – 3/9/24 SET Snowbird Review – 4/9/24	Florida Ad-hoc CDM team established 5/1/24
How do we connect review to the T-I in PERTI?	Summer 2024 NPR – 11/11/24	
Introduced concept of using the NSR scores to shed light on strategies vs performance outcomes	Summer 2024 NPR – 11/11/24	

Event Review Recommendations

Proposed Action	Review	Status
More info on new AFPs with high/medium/low type breakouts when test is concluded	Florida AFP – 8/22/24	
Include stakeholders earlier in rate discuss; increased transparency will result in less confusion	Florida AFP – 8/22/24	
Develop methodology to create better northbound estimates	Florida AFP – 8/22/24	
Use CDWs	Florida AFP – 8/22/24	
Include additional available information in briefings as recommended by the Space/SET Joint tasking	Starship Flt 7 DRA – 1/16/25	
Timing/plans should consider the Caribbean Towers sunset closure and coordinate potential extension of facility hours as needed	Starship Flt 7 DRA – 1/16/25	
Education of aviation community – confusion with increased frequency of launches/keeping launch parameters separate	Starship Flt 7 DRA – 1/16/25	Advisory process should address this
Day of notification such as set of advisories; prelaunch with potential risk highlights, activation, and airspace release	Starship Flt 7 DRA – 1/16/25	Implemented by Space team for Starship Flt 8

Task 139: CDM Review Refinement



Purpose:

- Develop recommendations and techniques to communicate what areas of the NAS, CDM operators desire a closer operational lookback in addition to the existing end of shift summaries
- Explore ways for industry to submit data in advance of the NSR to support their views and opinions, leading to data driven discussion and better collaboration

ECD: Spring 2025



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Task 139: Overview

Common themes from survey respondents

- Focus on the “Why” of the decision-making/strategy process behind the TMI choice
- Focus on public follow-up of concerns expressed

Task 139 aims to address these concerns

- Develop new End of shift survey that airlines submit so focus items and supporting materials are known to QC/DDSO teams prior to NSR
 - Capitalize on the development of the CDM website as a submission mechanism for airline input
 - SET will be the BETA testers for the new website
- Incorporate a response method selection into the survey

Enhancements associated with new CDM Website functionality—Coming Soon

- **Event Review Repository**
 - Community access of Event Review Lessons Learned and Recommendations in centralized location
- **Capability for Stakeholders to upload information to FAA**
 - Daily new End of Shift survey reviews
 - Facilitate NSR data-driven discussions
 - Ability to solicit feedback from community on a consistent basis
 - More frequent community interaction, possibly via brief feedback questionnaires
- **NSR relevant background material storage**
 - Summary scoring/KPI methodology awareness documentation