

Baltimore/Washington Weather Forecast Office (WFO/LWX) Aviation Users Group Forum

November 15, 2021



Welcome and Roll Call

Jim Lee, Meteorologist-in-Charge, WFO LWX

Michael Souza, Aviation Program Leader, WFO LWX

AGENDA

- Review of group's purpose and NWS mission
- Providing IDSS for the FAA
- Aviation News Briefs
- Review of LWX TAF Performance
- Open Forum/Review of Action Items
- Review new action items and close

Forum Goals

- Enhance communication and strengthen partnerships between the National Weather Service (NWS) and the mid-Atlantic aviation community
- Discuss ways to improve NWS aviation forecast operations and services in the mid-Atlantic
- Identify issues and receive feedback from aviation core customers
- Establish best practices for mid-Atlantic aviation forecasts and services

NWS Mission

- Provide climate, water, weather forecasts and warnings to protect life and property and the enhancement of the national economy
- Vision: A Weather-Ready Nation. Society is prepared for and responds to weather, water, and climate-dependent events.
- Maintain the national climate database
- Data and products are used by other government agencies, the private sector, the public and the global community

Providing IDSS for the FAA

Michael Matthews, Meteorologist, CWSU-ZDC



Web site: Recorded Pre-Duty Controller Weather Briefing

PDWB_DCA

[Weather.gov](#) > [Washington CWSU](#) > PDWB_DCA

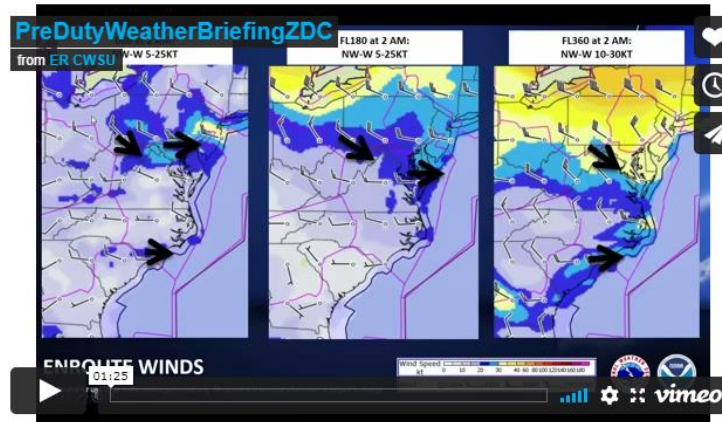
Washington CWSU

Center Weather Service Unit

[Current Hazards](#) [Current Conditions](#) [Radar](#) [Forecasts](#) [Strategic Planning Aids](#) [Tactical Planning Aids](#) [Additional Info](#)

PRE-DUTY CONTROLLER WEATHER BRIEFING

The Pre-Duty Controller Weather Briefing is designed to increase controller situational awareness. It is produced by the Center Weather Service Unit three times daily. After hours or during changing weather this briefing may not represent the latest information. This product does not replace pilot pre-flight briefings.



https://www.weather.gov/zdc/pdwb_dca

Web site: on Pre-Duty Controller Wx Brief page: Other tabs - TAFs

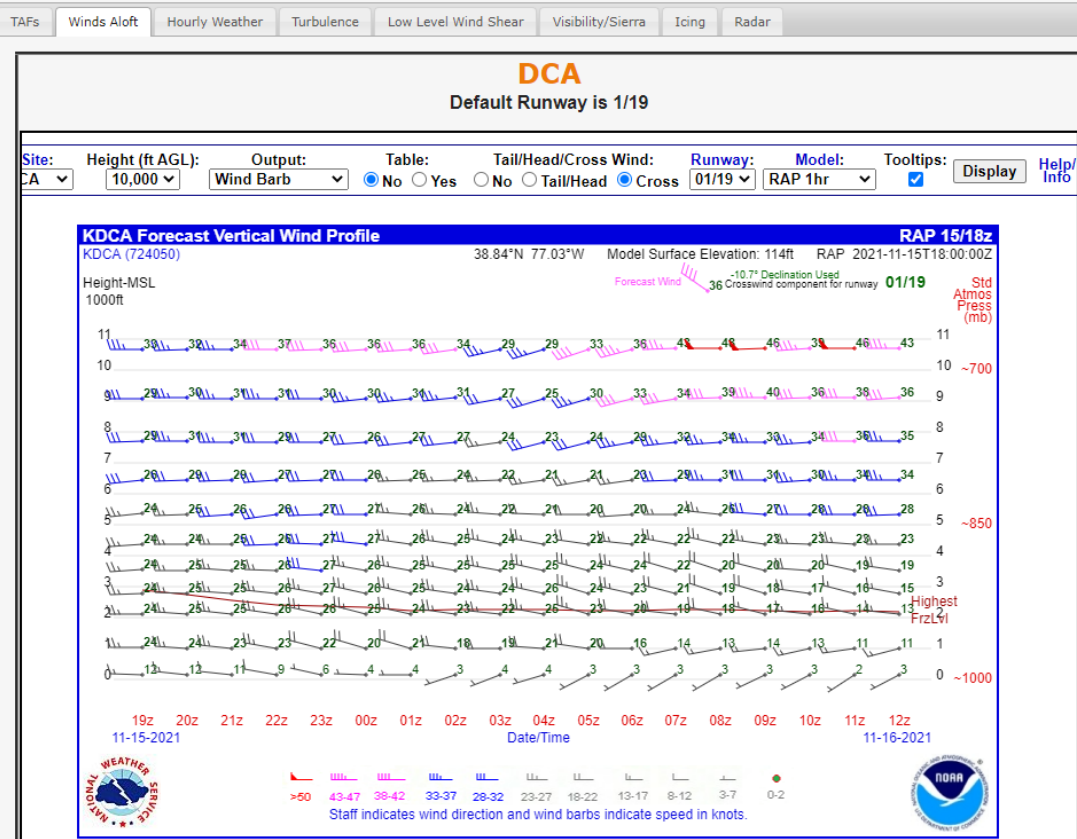
TAFs Winds Aloft Hourly Weather Turbulence Low Level Wind Shear Visibility/Sierra Icing Radar

KDCA	Aviation Forecast Discussion
<pre>000 FTUS41 KLWX 151734 TAFDCA TAF KDCA 151734Z 1518/1624 31016G25KT P6SM BKN060 FM152200 28010G21KT P6SM FEW200 FM160300 29008KT P6SM FEW120 FM161200 26005KT P6SM FEW050 FM162200 19004KT P6SM FEW150=</pre>	<p>AVIATION /19Z MONDAY THROUGH SATURDAY/...</p> <p>Winds will diminish rapidly with sunset this evening with skies clearing early, but clouds increasing again late tonight into Tue. Fair weather is expected tonight into Wed. Rain returns to the area on Thursday.</p> <p>Sub VFR conditions are possible with the cold front passage Thursday into Friday due to rain showers. W/NW winds will increase behind the front Friday which could result in some restrictions at the more sensitive terminals. The winds subside over the weekend with VFR conditions dominating under high pressure.</p>

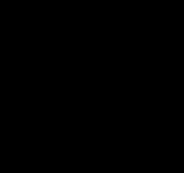
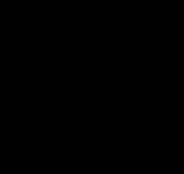
Return to CWSU ZDC homepage [here](#).

https://www.weather.gov/zdc/pdwb_dca

Web site: on Pre-Duty Controller Wx Brief page: Other tabs - Winds Aloft



https://www.weather.gov/zdc/pdwb_dca



Aviation News Briefs

Andrew Snyder – NWS Baltimore/Washington

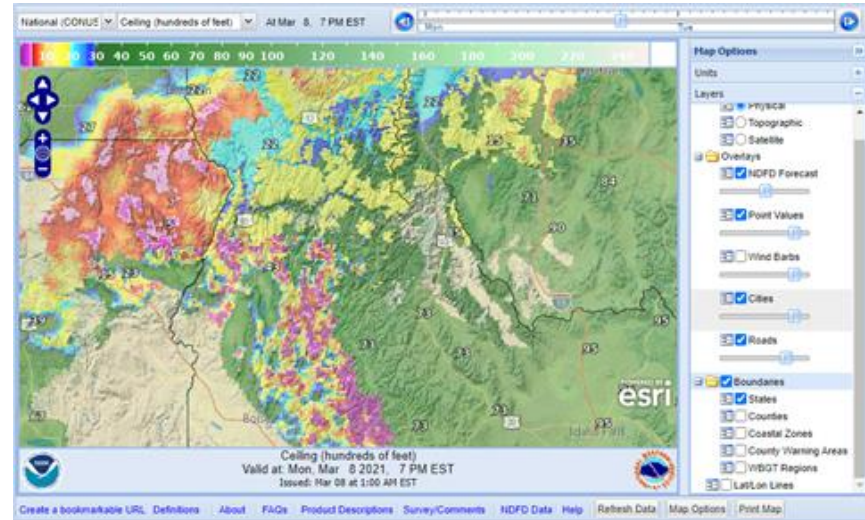


Status of NWS Baltimore/Washington TAF Service

- After review by NWS and FAA leaders in 2020, our 6 current TAF locations will remain the same.
- KHEF submitted request to add TAF service.
 - After meteorological review, it was determined a separate TAF was not warranted at this time due to similarities with KIAD
 - Dialogue with KHEF Airport Operations staff remains open
 - Ensure that they have the weather forecast tools they need for decision making and threat assessments

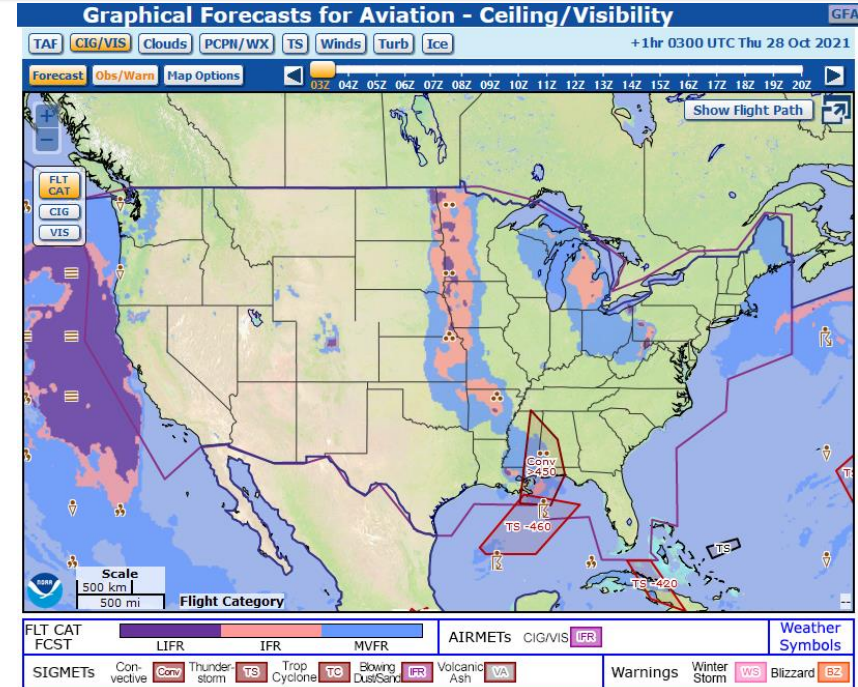
DAS Availability on NDFD (National Digital Forecast Database)

- Data available from offices who send it, but not in any public “viewer”
- Prototype/internal viewer available
- Timeline has slipped for making data viewable nationally
 - DAS requirements and policy still being finalized
- Desire to have ceiling/visibility/LLWS to 36 hr



DAS Experiments

- Teams exploring how to integrate AWC forecasts and WFO forecasts for better consistency
 - WFO ingests/utilizes AWC forecast grids as “first guess”
 - Any local edits could then be incorporated back into AWC forecasts and viewers
 - Early stages -- no immediate timelines or plans



General Aviation Outreach

- Email blast to 100+ GA airports, pilot clubs, flight schools, etc.
- Six virtual presentations, others interested in in-person
- Largest group: 55 (WINGS certification)
- About NWS, weather safety, NWS weather resources



LWX WFO TAF Performance

Michael Souza, Aviation Program Leader, NWS Baltimore/Washington



FY21 TAF Verification (IFR and below)

* Does not include amendments*

Overall

	POD	FAR	CSI
Goal	0.65	0.38	-
Nat'l	0.634	0.358	0.487
ER	0.697	0.399	0.515
LWX	0.738	0.313	0.555

- POD = Probability of Detection, higher is better FAR = False Alarm Ratio, lower is better
- CSI = Critical Success Index, higher is better
$$CSI = \frac{1}{1/(1-FAR) + (1/POD) - 1}$$
- Goal = National performance metric set as part of Government Performance and Results Act

GRPA MET GPRA not met GPRA not met but near threshold

FY21 TAF Verification (IFR and below)

* Does not include amendments*

By Issuance Time

	POD	FAR	CSI
Goal	0.65	0.38	-
00Z	0.713	0.31	0.54
06Z	0.758	0.325	0.555
12Z	0.73	0.256	0.583
18Z	0.743	0.383	0.509

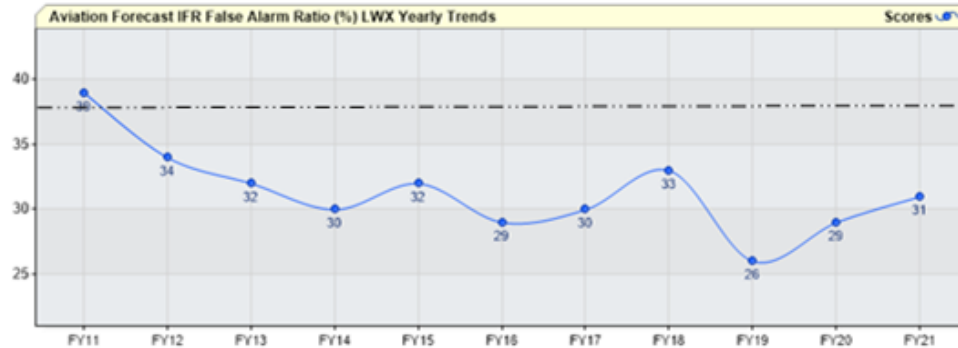
By Airport

	POD	FAR	CSI
Goal	0.65	0.38	-
BWI	0.724	0.346	0.533
CHO	0.737	0.279	0.573
DCA	0.703	0.384	0.488
IAD	0.76	0.282	0.585
MRB	0.749	0.319	0.555
MTN	0.73	0.289	0.563

Annual Verification Trends



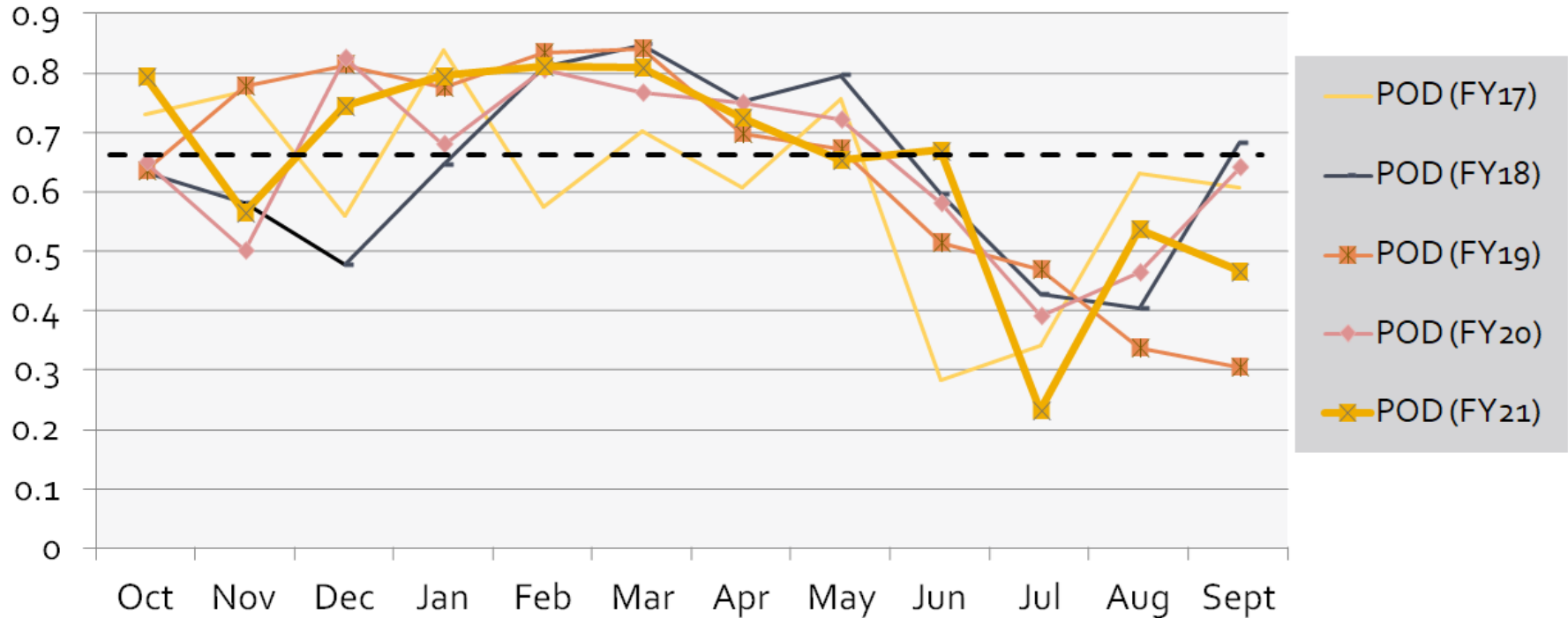
Goal



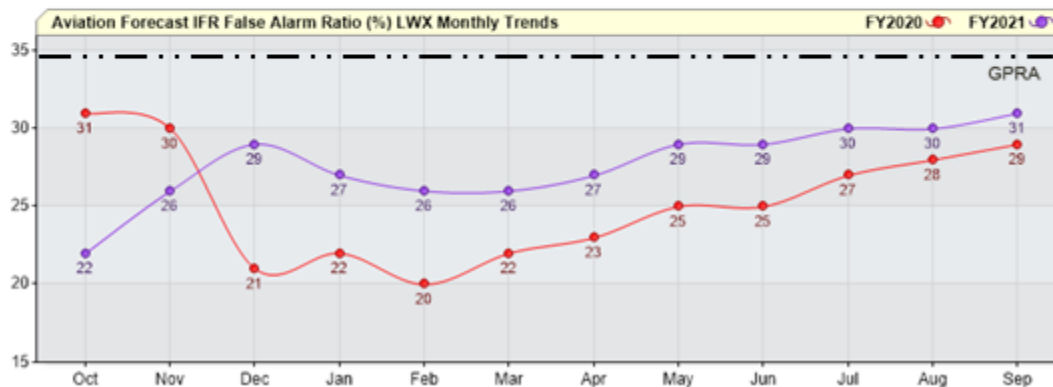
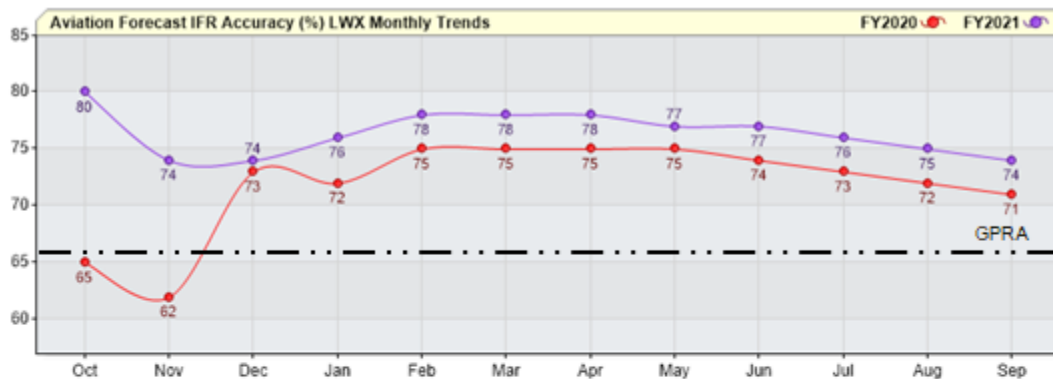
Goal

LWX Specific Monthly Results (POD)

(Past 5 years: 2017-2021)

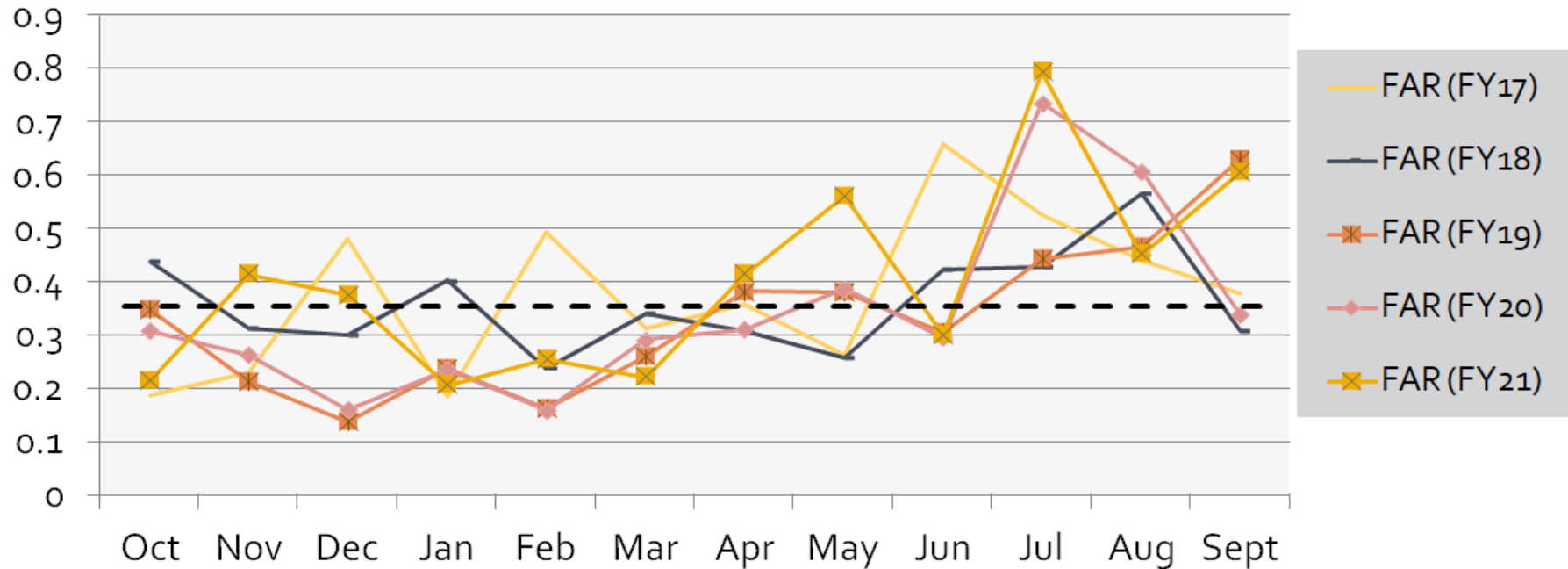


2020 vs. 2021 Monthly Verification Trends



LWX Specific Monthly Results (FAR)

(Past 5 years: 2017-2021)



LWX Against Guidance-FY

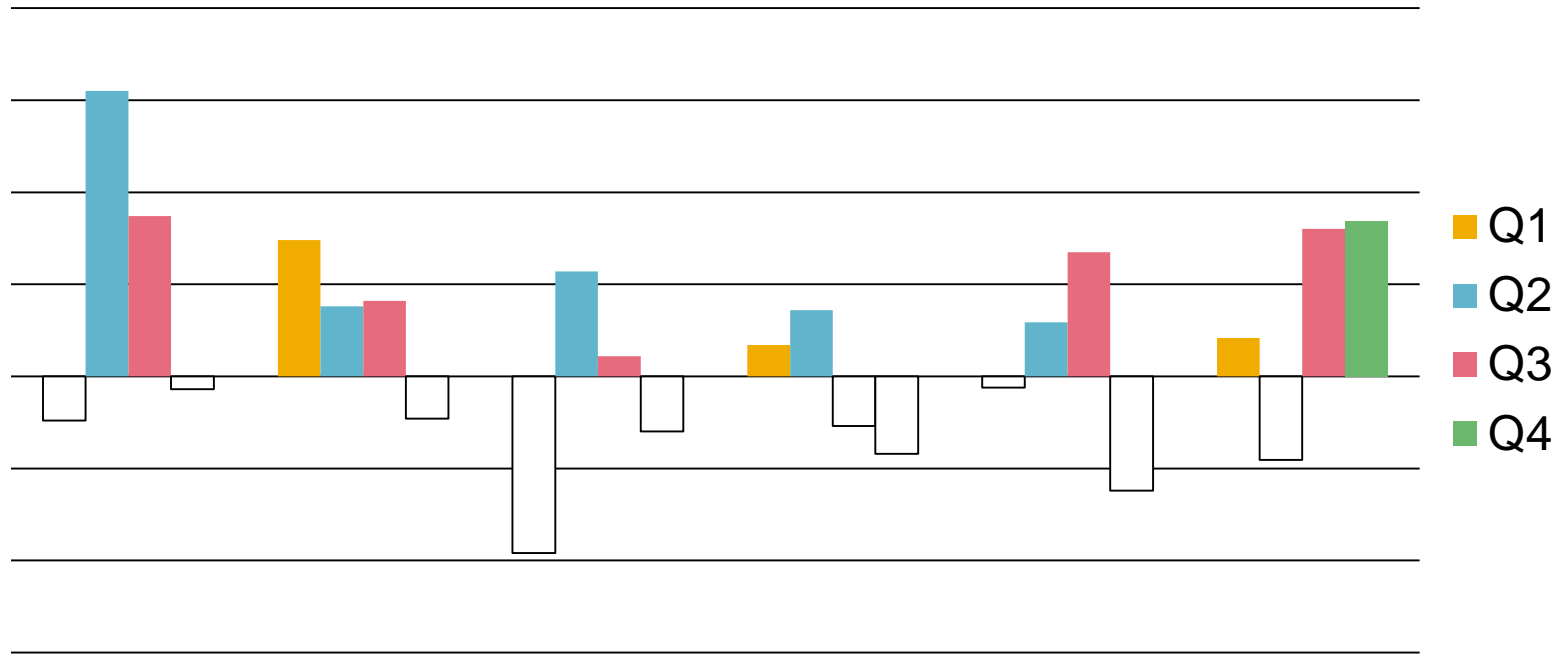
FY21	POD	FAR	CSI	% improvement
LWX	0.738	0.313	0.552	-
LAMP	0.817	0.391	0.536	0.74
GFS	0.739	0.421	0.481	15.37
NAM	0.723	0.481	0.433	27.51

FY Trends % Improvement						
	FY16	FY17	FY18	FY19	FY20	FY21
LAMP	-0.7	-2.3	-3.0	-4.2	-6.2	0.74
GFS	4.9	21.4	9.8	27.2	8.4	15.37
NAM	15.7	30.3	16.0	54.9	28.1	27.51

GRPA MET GRPA not met GRPA not met but near threshold

LWX vs. LAMP

% Improvement



Open Forum/New Action Items

Questions, comments,
concerns



Thank You For Attending!



Plan for an annual meeting in late fall/early winter time frame

Contact information:

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- Steve Zubrick, *LWX Science and Operations Officer*:
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- Michael Souza, *LWX Aviation Program Leader*: michael.souza@noaa.gov
- LWX WFO 24/7 operations floor: 571-888-3501
- Link to info/presentations from this and previous LWX Aviation Forums:
<https://www.weather.gov/lwx/lwxaviationforum>