



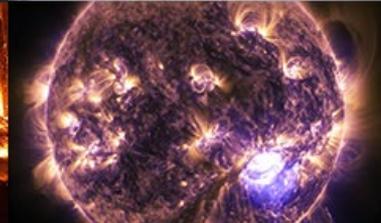
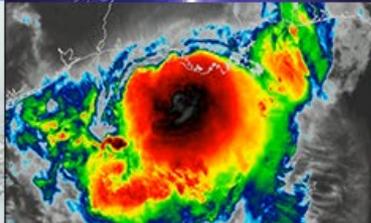
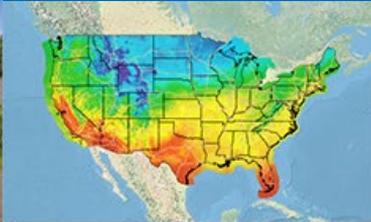
**NATIONAL
WEATHER
SERVICE**

FAA AWRP for C & V Sample Onset/Cessation Product*

Clouds, Cloud Ceiling, and Visibility (C&V) Technical Exchange Meeting,
Boulder, CO
July 13, 2022

Presenters: Andrew Kochenash, CIRA, and Judy Ghirardelli, NWS/MDL

* Disclaimer: Portions of this research is in response to requirements and funding by the Federal Aviation Administration (FAA). The views expressed are those of the authors and do not necessarily represent the official policy or position of the FAA.



Background

- To create a **text** product similar to the operational LAMP text bulletin that displays:
 - Flight Category (not currently shown in any LAMP text products)
 - Onset/Cessation of various FCs
- **Background: Probability of Ceiling Height and Visibility** (currently only shown in LAMP BUFR messages and on LAMP website) corresponding to various Flight Categories
- **Goals:**
 - A product that can be used by FAA Traffic Flow Managers
 - This, or a variation on this, could also be of use in SFO's Marine Stratus Forecast System (MSFS) replacement
- **Webpage** product option also to be shown/discussed

Task Plan

- Work Completed:
 - Create sample products
 - Solicit internal feedback from MDL
 - Present products to FAA/AWDE
 - Solicit feedback from FAA/AWDE
 - Write up report summarizing findings
- Work in Progress / Future Work:
 - Incorporate feedback into sample product options
 - MDL incorporates feedback into products
 - Develop prototype with 15-min temporal resolution
 - Coordinate with AWDE to plan formal evaluation (Spring 2023)

R2O considerations

- Text Products:
 - Straightforward R2O (implementation into NWS jobstream, products available on NCEP ftp server)
 - Requires an implementation slot
- Web Products:
 - Less clear R2O as dissemination is not consistent with MDL's mission
 - Could be handed off to AWC for display on their Aviation TAF Board web page (if funded)
 - Could possibly be made available on the VLab cloud to restricted FAA users (unclear where we will be in this process in a year)
 - Flat images could possibly be created in NWS operations and disseminated via NCEP ftp server (unclear if this would be allowed)

Impacts TAF Board														
FOR SITUATIONAL AWARENESS, NOT TO BE USED FOR FLIGHT PLANNING PURPOSE														
IDSR:	@TOPE:	@TOPC:												
Potential Impact:	None	Slight	Moderate	High	Valid at: 2100 UTC 18 Jan 2022									
Time	OBS	18/21Z	18/22Z	18/23Z	19/00Z	19/01Z	19/02Z	19/03Z	19/04Z	19/05Z	19/06Z	19/07Z	19/08Z	19/09Z
KBOS		WSpd	WSpd	WSpd										
KCLE														
KLGA	WSpd	WGr	WSpd	WSpd	WSpd	WSpd								
KLWR	WSpd	WSpd	WSpd	WSpd	WSpd									
KJFK	WSpd	WSpd	WGr	WGr	WGr	WGr								
KPIT										WShr	WShr	WShr	WShr	WShr
KPHL														
KBWI														
KJAD														
KDCA														
KCLT														
KATL														
KHCO														
KTPA														
KFLL														
KMIA														
@TOPC														
KHSP			WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd
KDFW														
KORD			WShr	WShr	WShr	WShr	WShr	WShr						WSpd
KMDW			WShr	WShr	WShr	WShr	WShr							
KCVG									WShr	WShr	WShr	WShr	WShr	
KSTL						WShr								
KMEM			WShr	WShr	WShr	WShr	WShr	WShr	WShr	WShr	WShr	WShr	WShr	WShr
KSRW														
KIAH														
@TOPW														
KSEA	WIS	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG	CIG
KPOX	CIG	CIG												
KSLC														
KDEN													CIG	WGr

AWC TAF Board

Example of Operational LAMP Text Bulletin

KSFO	SAN FRANCISCO																GFS LAMP 1630 UTC				7/07/2022				
UTC	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
TMP	63	65	66	68	69	70	69	68	66	64	62	60	60	59	59	58	58	58	58	58	58	59	61	63	64
DPT	53	54	54	54	54	54	54	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	54	54	54
WDR	28	28	28	28	28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	26	27	27	27	27
WSP	15	15	15	17	18	18	18	19	19	18	18	16	15	14	13	12	12	11	11	09	09	09	10	12	
WGS	20	20	21	23	24	24	25	25	26	25	25	23	21	20	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	
PPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PCO	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
P01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PC1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
P06								0						0					0						
LP1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
LC1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
CP1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CC1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
CLD	OV	BK	SC	BK	BK	BK	BK	OV	BK	BK	BK	BK	BK	BK	BK										
CIG	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	4	4	4	4	4	4	4	8	
CCG	4	4	5	8	8	8	8	8	8	8	8	8	8	5	4	4	4	4	4	3	4	4	4	7	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
CVS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	4	7	6	4	
OBV	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	



Sample Message Format

- UTC: Hour of the day in UTC time. This is the hour at which the forecast is valid, or if the forecast is valid for a period, the end of the forecast period.
- FLT: Flight Category (1/VL-VLIFR, 2/L-LIFR, 3/I-IFR, 4/M-MVFR, 5/V-VFR).
- Onset/cessation for each Flight Category:
 - VFR: Onset/Cessation of VFR conditions ('+'=Onset, '/'=Cessation).
 - MVF: Onset/Cessation of MVFR conditions ('+'=Onset, '/'=Cessation).
 - IFR: Onset/Cessation of IFR conditions ('+'=Onset, '/'=Cessation).
 - LIF: Onset/Cessation of LIFR conditions ('+'=Onset, '/'=Cessation).
 - VLI: Onset/Cessation of VLIFR conditions ('+'=Onset, '/'=Cessation).

Sample Message Format (continued)

- **CIG:** ceiling height categorical forecasts at the hour.
- **VIS:** visibility categorical forecasts at the hour.
- **Probability lines:**
 - CP1/CPVL: Prob. of ceiling < 200 ft.
 - CP2/CPL: Prob. of ceiling < 500 ft. (cumulative) OR Prob. of ceiling 200 - < 500 ft. (discrete)
 - CP3/CPI: Prob. of ceiling < 1000 ft. (cumulative) OR Prob. of ceiling 500 - < 1000 ft. (discrete)
 - CP4/CPM: Prob. of ceiling <= 3000 ft. (cumulative) OR Prob. of ceiling 1000 - 3000. ft (discrete)
 - VP1/VPVL: Prob. of visibility < ½ SM.
 - VP2/VPL: Prob. of visibility < 1 SM. (cumulative) OR Prob. of visibility ½ - < 1 SM. (discrete)
 - VP3/VPI: Prob. of visibility < 3 SM. (cumulative) OR Prob. of visibility 1 - < 3 SM. (discrete)
 - VP4/VPM: Prob. of visibility <= 5 SM. (cumulative) OR Prob. of visibility 3 - 5 SM. (discrete)
- **Probability of C/V clearing:**
 - CPVFR: Prob. of VFR (clearing) (100% - Prob. of MVFR)
 - VPVFR: Prob. of VFR (clearing) (100% - Prob. of MVFR)

Summary of Options (continued)

- Cumulative Probabilities (e.g., IFR or worse), OR
- Discrete Probabilities (e.g., IFR flight category, sometimes referred to as “IFR Slice”)

CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9

CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2
CP2	2	4	0	0	0	1	0	0	0	2	4	4	4	5	5	6	7	7	8	10	11	12	12	8	3
CP3	2	5	0	3	6	4	0	0	1	0	1	2	2	2	3	3	4	2	1	1	3	3	0	0	0
CP4	13	33	34	41	31	29	32	33	31	28	11	9	9	7	4	2	1	0	1	0	0	0	2	3	4

Summary of Options (continued)

- Numeric Flight Categories / Probabilities
- Letter Flight Categories / Probabilities

FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	4	4	5	5	
FLT	V	M	V	M	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	M	I	I	I	I	I	I	M	M	V	V

CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	0	1	
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8
CPVL	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	0	1
CPL	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6
CPI	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10
CPM	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21
VPVL	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1
VPL	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3	3
VPI	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5
VPM	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8



3 spaces, all projections (cumulative probs)

KATL	ATLANTA				ASOS				GFS LAMP 1430 UTC				1/05/2022																										
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	3	4	4	5	5	
VFR	--/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	
MFV	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	+-/	
IFR																																							
LIF																																							
VLI																																							
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	4	5	6	7
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7	
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	0	1
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6	
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10	
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21	
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1	
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3	
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5	
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8	



3 spaces with “1”s for FCs, all projections (cumulative probs)

KATL	ATLANTA				ASOS				GFS LAMP 1430				UTC				1/05/2022																						
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	3	4	4	5	5	
VFR	1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	
MVFR		1		1																							1									1	1		
IFR																												1	1	1	1	1	1						
LIF																																							
VL																																							
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	4	5	6	7	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7	
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	0	1	
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6	
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10	
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21	
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1	
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3	
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5	
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8	

3 spaces with 100% probs, all projections (cumulative probs)

KMSP	MINNEAPOLIS																GFS LAMP 1430 UTC																1/05/2022															
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04										
FLT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4										
VFR																																																
MVF																																																
IFR	-----/																																															
LIF																																																
VLI																																																
CIG	4	4	4	4	3	3	4	4	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5									
VIS	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	5	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7								
CP1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
CP2	4	1	4	6	8	6	5	5	7	7	8	7	7	7	6	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	3	3	4	5	5	5	5	6									
CP3	45	23	16	23	39	33	22	24	36	32	37	35	30	35	32	24	22	17	13	13	11	9	9	8	8	11	15	21	21	21	22	20	18	17	16	15	13	16										
CP4	100	95	68	87	91	87	85	100	100	99	100	88	77	86	77	75	58	53	46	48	48	48	47	44	41	46	53	58	63	66	66	63	57	52	47	41	35	39										
VP1	2	2	1	1	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
VP2	24	16	15	14	27	8	4	4	1	3	1	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	2	2	2	1	1	2										
VP3	91	65	66	62	74	45	27	27	25	30	31	48	46	30	23	16	12	10	9	7	5	4	3	6	11	8	8	9	7	6	8	8	6	6	5	4	4	6										
VP4	100	90	98	95	100	75	47	49	51	60	65	81	78	61	52	40	29	26	23	19	14	11	12	17	22	22	20	20	18	17	17	17	13	12	11	9	9	12										



4 spaces with **100% probs**, all projections (cumulative probs)

KMSP	MINNEAPOLIS				GFS				LAMP				1430 UTC				1/05/2022																						
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	
FLT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
VFR																																							
MVF																																							
IFR	-----																-----																						
LIF	-----																-----																						
VLI																																							
CIG	4	4	4	4	3	3	4	4	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	
VIS	3	3	3	3	3	3	4	3	4	4	4	4	4	4	5	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
CP1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CP2	4	1	4	6	8	6	5	5	7	7	8	7	7	7	6	4	0	0	0	0	0	0	0	0	0	0	2	2	3	3	4	5	5	5	5	5	5	6	6
CP3	45	23	16	23	39	33	22	24	36	32	37	35	30	35	32	24	22	17	13	13	11	9	9	8	8	11	15	21	21	21	22	20	18	17	16	15	13	16	
CP4	100	95	68	87	91	87	85	100	100	99	100	88	77	86	77	75	58	53	46	48	48	48	47	44	41	46	53	58	63	66	66	63	57	52	47	41	35	39	
VP1	2	2	1	1	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VP2	24	16	15	14	27	8	4	4	1	3	1	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	2	2	2	1	1	2	
VP3	91	65	66	62	74	45	27	27	25	30	31	48	46	30	23	16	12	10	9	7	5	4	3	6	11	8	8	9	7	6	8	8	6	6	5	4	4	6	
VP4	100	90	98	95	100	75	47	49	51	60	65	81	78	61	52	40	29	26	23	19	14	11	12	17	22	22	20	20	18	17	17	17	13	12	11	9	9	12	



3 spaces, 01-25 projs (cumulative probs)

```

KATL  ATLANTA      ASOS      GFS LAMP 1430 UTC   1/05/2022
UTC   15 16 17 18 19 20 21 22 23 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
FLT   5  4  5  4  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5  5
VFR  --/  +-/  +-----
MVF   +-/  +-/
IFR
LIF
VLI
CIG   8  5  8  5  6  6  6  6  6  8  8  8  8  8  8  8  8  8  8  8  8  7  6  6
VIS   7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  6  7  7
CP1   1  1  1  0  0  0  0  0  0  0  0  0  0  0  1  1  1  2  2  3  3  4  4  3  2
CP2   3  5  1  0  0  1  0  0  0  2  4  4  4  5  6  7  8  9 10 13 14 16 16 11  5
CP3   5 10  1  3  6  5  0  0  1  2  5  6  6  7  9 10 12 11 11 14 17 19 16 11  5
CP4  18 43 35 44 37 34 32 33 32 30 16 15 15 14 13 12 13 11 12 14 17 19 18 14  9
VP1   0  0  0  1  1  1  0  1  1  0  0  0  0  1  1  2  2  2  3  4  5  6  8  6  2
VP2   1  1  1  2  1  1  0  2  1  1  2  1  2  3  3  3  5  5  5  8  9 11 12 11  5
VP3   1  1  1  2  2  1  0  2  2  3  4  4  4  5  5  5  6  7  8 11 13 16 18 17  9
VP4   1  1  1  2  2  1  0  2  3  5  6  7  6  7  7  8  9 11 12 16 19 24 27 23 15
    
```

3 spaces, **26-38 projs** (cumulative probs)

```
KATL  ATLANTA  ASOS  GFS LAMP 1430 UTC  1/05/2022
UTC  16 17 18 19 20 21 22 23 00 01 02 03 04
FLT   5  5  4  3  3  3  3  3  3  4  4  5  5
VFR  ----/                               +----
MVF      +/-                               +----/
IFR      +-----/
LIF
VLI
CIG   6  6  5  3  3  3  3  3  3  4  5  6  7
VIS   7  7  7  7  7  5  5  7  7  7  7  7  7
CP1   1  0  0  0  1  1  1  1  1  1  1  0  1
CP2  10  6  4  8 14 17 15 14 14 13  9  5  6
CP3  13 15 18 26 35 44 39 35 30 25 17 10 10
CP4  16 22 29 43 58 72 67 65 62 50 38 26 21
VP1   1  1  1  1  1  2  2  2  2  1  1  1  1
VP2   3  3  3  2  3  4  5  5  4  4  3  3  3
VP3   9 11 12 12 15 19 19 15 12  9  6  5  5
VP4  16 19 20 22 26 31 30 23 19 15 12  9  8
```

3 spaces with **no VFR line**, all projections (cumulative probs)

KATL	ATLANTA				ASOS			GFS LAMP 1430 UTC 1/05/2022																																
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04		
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	3	4	4	5	5	
MVF		1		1																								1									1	1		
IFR																														1	1	1	1	1	1					
LIF																																								
VLI																																								
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	3	4	5	6	7	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7	7	
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	0	1	
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6		
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10		
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21		
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	2	1	1	1	1	
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3		
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5		
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8		



3 spaces with **no FC dashes**, all projections (cumulative probs)

KATL	ATLANTA									ASOS									GFS LAMP 1430 UTC									1/05/2022													
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04			
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	3	3	4	4	5	5
CIG	8	5	8	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	3	4	5	6	7	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7		
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6			
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10			
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21			
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1			
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3			
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5			
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8			



3 spaces with **letter FCs** and updated prob acronyms, all projections

KATL	ATLANTA				ASOS				GFS				LAMP				1430				UTC				1/05/2022																
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04			
FLT	V	M	V	M	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	M	I	I	I	I	I	I	I	M	M	V	V		
VFR	1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1		
MVF		1			1																							1								1	1				
IFR																														1	1	1	1	1	1						
LIF																																									
VLV																																									
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	5	3	3	3	3	3	3	3	3	4	5	6	7		
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	5	5	7	7	7	7	7	7	7	7	7		
CPVL	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	0	1	1			
CPL	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6			
CPI	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10			
CPM	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21			
VPVL	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	1	2	2	2	2	1	1	1			
VPL	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3			
VPI	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5			
VPM	1	1	1	2	2	1	0	2	3	5	6	7	6	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8				



3 spaces with **no white space**, all projections

KATL	ATLANTA		ASOS		GFS		LAMP		1430		UTC		1/05/2022																											
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04		
FLT	V	M	V	M	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	M	I	I	I	I	I	I	M	M	V	V		
VFR	1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	
MVF		1		1																								1									1	1		
IFR																													1	1	1	1	1	1						
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	4	5	6	7	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7		
CPVL	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	0	1	
CPL	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6		
CPI	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10		
CPM	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21		
VPVL	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	1	1	1	1		
VPL	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3		
VPI	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5		
VPM	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8		



3 space with **prob of C&V (clearing)** discrete VFR conditions, all projs. (cumulative probs)

KATL	ATLANTA																								ASOS		GFS		LAMP		1430		UTC		1/05/2022											
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04								
FLT	V	M	V	M	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	M	I	I	I	I	I	I	M	M	V	V								
VFR	1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1									
MVF		1		1																								1								1	1									
IFR																													1	1	1	1	1	1												
LIF																																														
VLI																																														
CIG	8	5	8	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	4	5	6	7								
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7								
CPVL	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	0	1								
CPL	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6								
CPI	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10								
CPM	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21								
CPVFR	82	57	65	56	63	66	68	67	68	70	84	85	85	86	87	88	87	89	88	86	83	81	82	86	91	84	78	71	57	42	28	33	35	38	50	62	74	79								
VPVL	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2	2	2	4	5	5	8	5	1	1	1	1	1	1	1	2	1	1	1	0	0	1								
VPL	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3								
VPI	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5								
VPM	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8								
VPVFR	99	99	99	98	98	99	100	98	97	95	94	93	94	93	93	92	91	89	88	84	81	76	73	77	85	84	81	80	78	74	69	70	77	81	85	88	91	92								



4 spaces, all projections (cumulative probs)

KATL	ATLANTA			ASOS			GFS			LAMP			1430			UTC			1/05/2022																									
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04						
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	3	3	3	3	3	4	4	5	5					
VFR	---/			+--/			+-----			-----																---/			+-----															
MF	+--/			+--/																			+--/			+-----																		
IFR																	+-----			-----																								
LIF																																												
VLI																																												
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	6	6	5	3	3	3	3	3	3	3	4	5	6	7					
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	5	5	7	7	7	7	7	7	7					
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1				
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	10	6	4	8	14	17	15	14	14	13	9	5	6						
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	13	15	18	26	35	44	39	35	30	25	17	10	10						
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	16	22	29	43	58	72	67	65	62	50	38	26	21						
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	1	1	1	1	1	2	2	2	2	2	1	1	1	1					
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	3	3	3	2	3	4	5	5	4	4	3	3	3						
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	6	7	8	11	13	16	18	17	9	9	11	12	12	15	19	19	15	12	9	6	5	5							
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	16	19	20	22	26	31	30	23	19	15	12	9	8						



4 spaces, 01-25 projs (cumulative probs)

KATL	ATLANTA			ASOS		GFS LAMP 1430 UTC					1/05/2022															
UTC	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
FLT	5	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
VFR	---	/	+	---	/	+	-----																			
MVF	+	---	/	+	---	/																				
IFR																										
LIF																										
VLI																										
CIG	8	5	8	5	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	6	
VIS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	
CP1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	3	2	
CP2	3	5	1	0	0	1	0	0	0	2	4	4	4	5	6	7	8	9	10	13	14	16	16	11	5	
CP3	5	10	1	3	6	5	0	0	1	2	5	6	6	7	9	10	12	11	11	14	17	19	16	11	5	
CP4	18	43	35	44	37	34	32	33	32	30	16	15	15	14	13	12	13	11	12	14	17	19	18	14	9	
VP1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	2	2	2	3	4	5	6	8	6	2	
VP2	1	1	1	2	1	1	0	2	1	1	2	1	2	3	3	3	5	5	5	8	9	11	12	11	5	
VP3	1	1	1	2	2	1	0	2	2	3	4	4	4	5	5	5	6	7	8	11	13	16	18	17	9	
VP4	1	1	1	2	2	1	0	2	3	5	6	7	6	7	7	8	9	11	12	16	19	24	27	23	15	



4 spaces, 26-38 projs (cumulative probs)

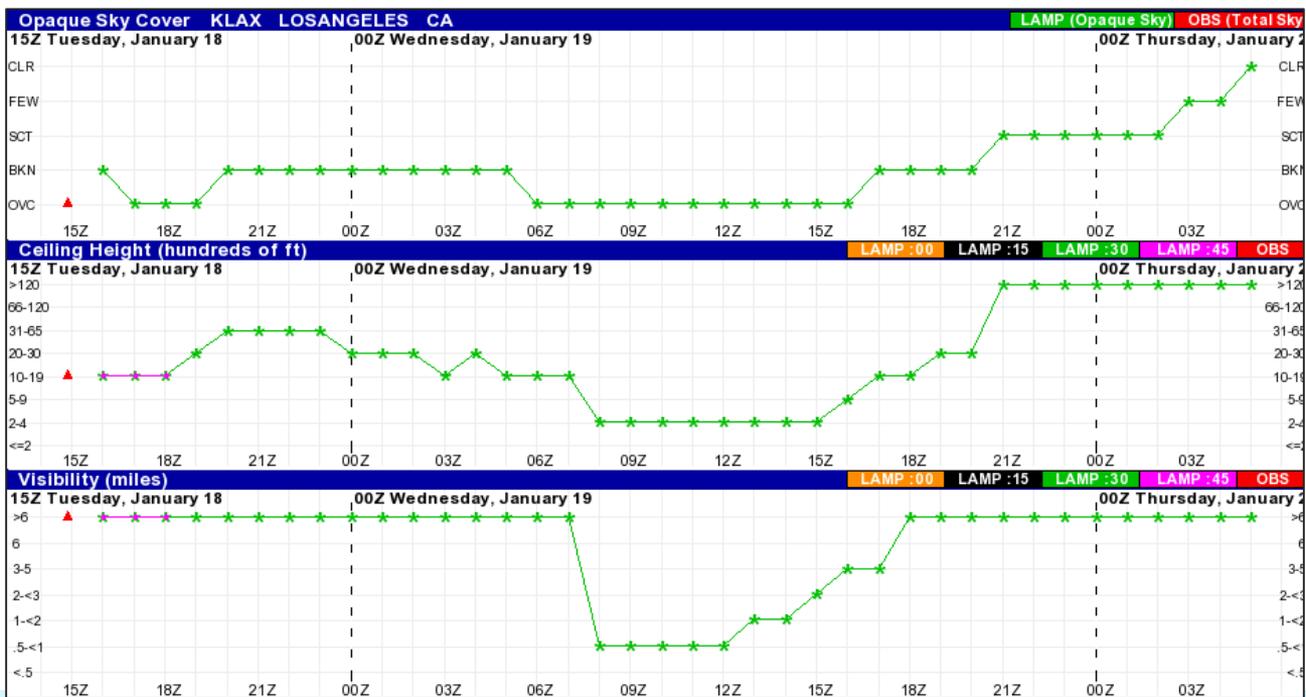
KATL	ATLANTA			ASOS			GFS LAMP			1430 UTC			1/05/2022	
UTC	16	17	18	19	20	21	22	23	00	01	02	03	04	
FLT	5	5	4	3	3	3	3	3	3	4	4	5	5	
VFR	-----/									+-----				
MVF	+---/									+-----/				
IFR				+-----/										
LIF														
VLI														
CIG	6	6	5	3	3	3	3	3	3	4	5	6	7	
VIS	7	7	7	7	7	5	5	7	7	7	7	7	7	
CP1	1	0	0	0	1	1	1	1	1	1	1	0	1	
CP2	10	6	4	8	14	17	15	14	14	13	9	5	6	
CP3	13	15	18	26	35	44	39	35	30	25	17	10	10	
CP4	16	22	29	43	58	72	67	65	62	50	38	26	21	
VP1	1	1	1	1	1	2	2	2	2	1	1	1	1	
VP2	3	3	3	2	3	4	5	5	4	4	3	3	3	
VP3	9	11	12	12	15	19	19	15	12	9	6	5	5	
VP4	16	19	20	22	26	31	30	23	19	15	12	9	8	

Bulletin on onset/cessation times

KSFO	SAN FRANCISCO	GFS LAMP 1430 UTC	1/05/2022
VFR	07/0000 – 07/0100		
MVF	05/1500 – 06/0300	06/2000 – 06/2300	07/0200 –
IFR	06/0400 – 06/0900	06/1700 – 06/1900	
LIF	06/1000 – 06/1600		

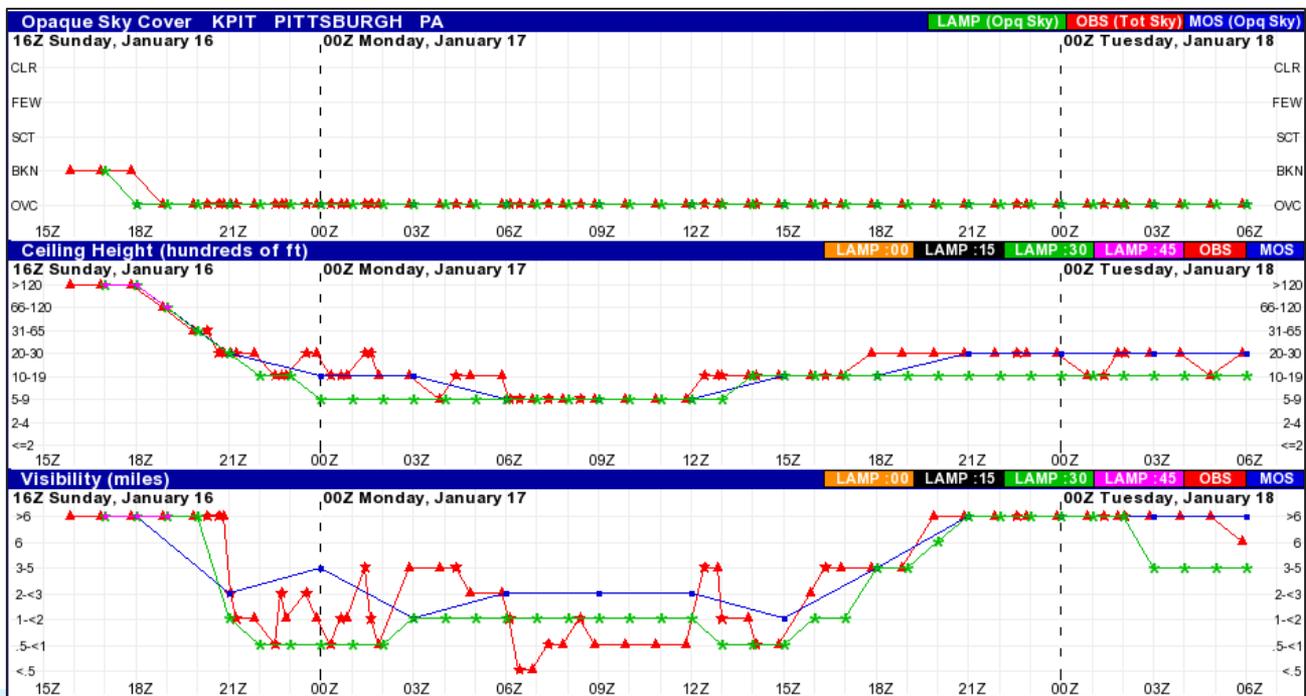


Webpage Options - **current** Meteogram **Forecasts**

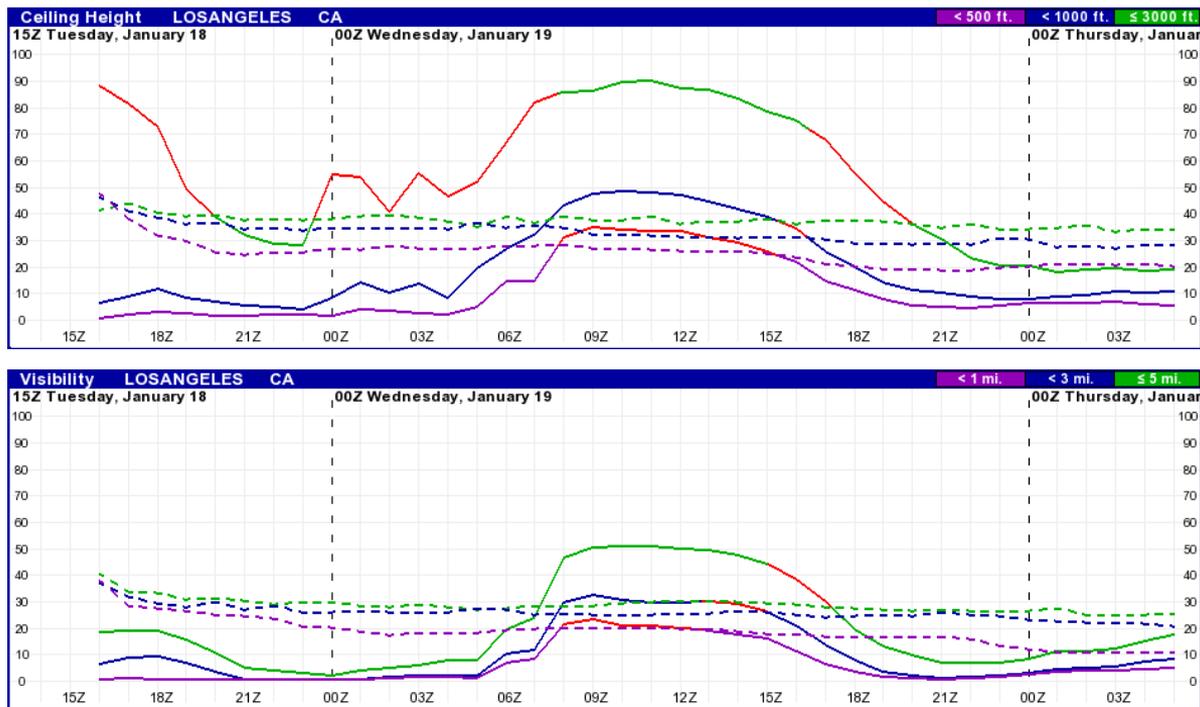


Webpage Options - **current**

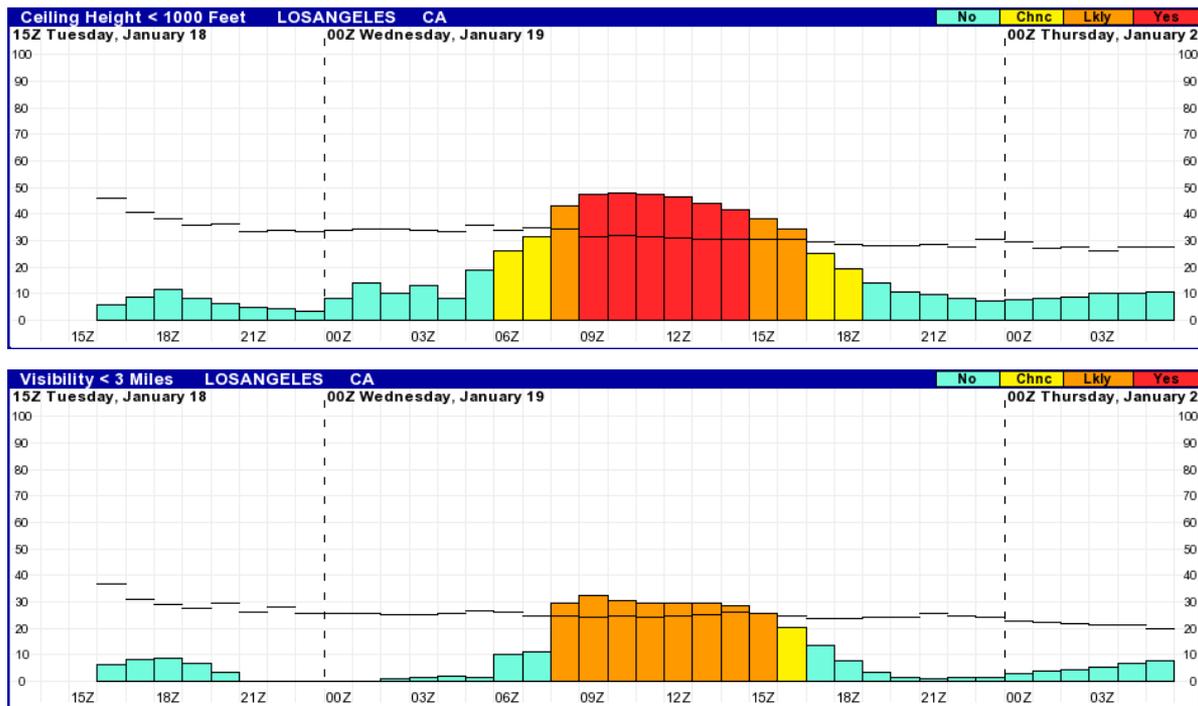
Meteogram showing verifying **observations**



Webpage Options - **current** Probabilities and Thresholds



Webpage Options - **current** Probabilities and Thresholds

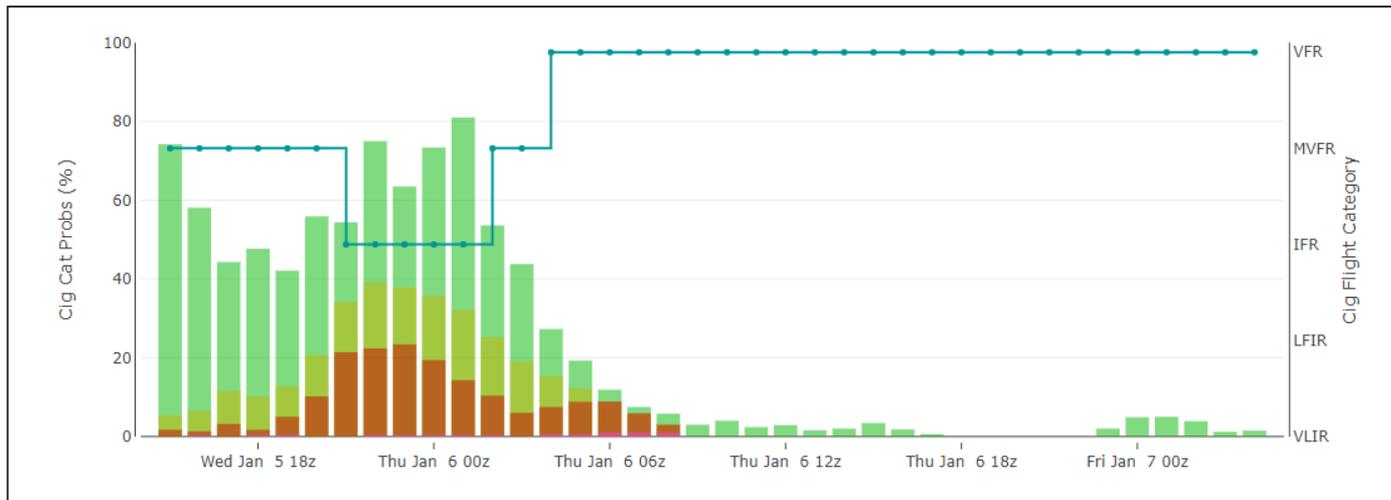




Webpage Options - **Proposed**

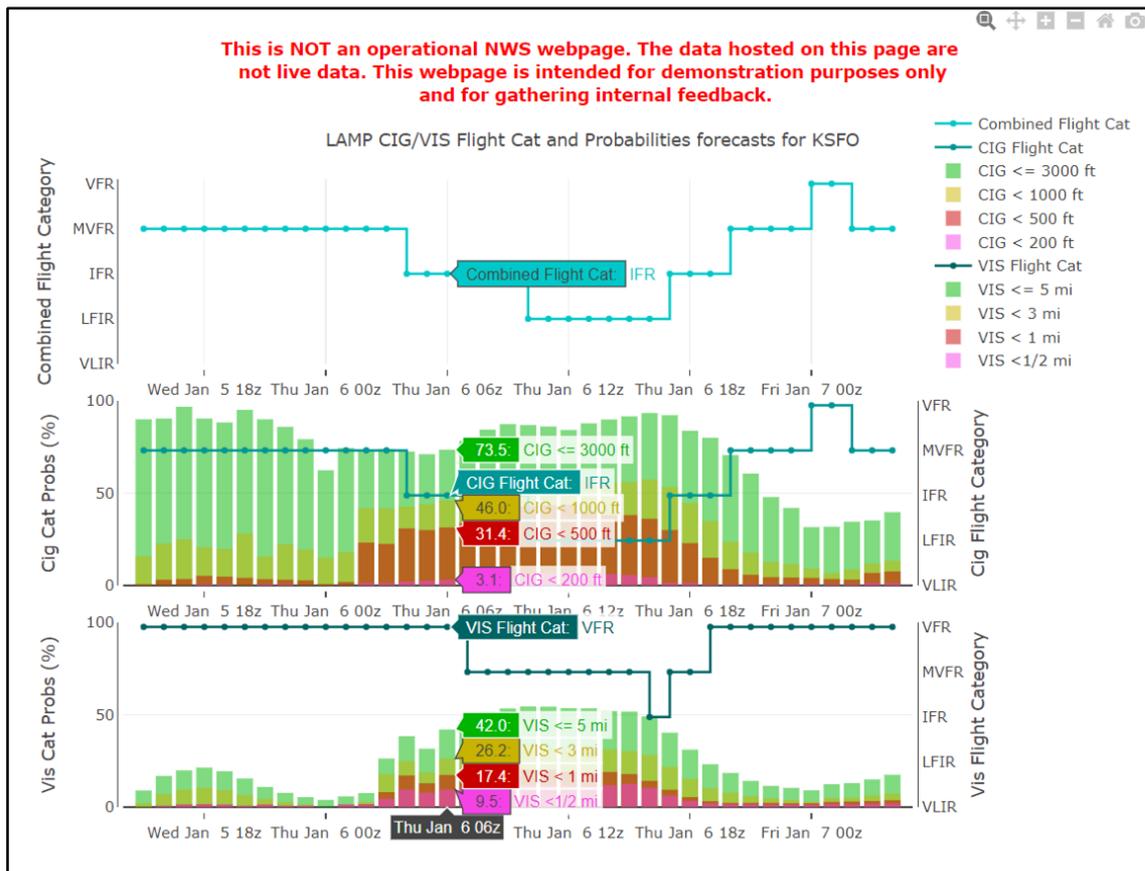
Interactive webpage showing Flight Categories and Probabilistic C&V Information

Live Demo



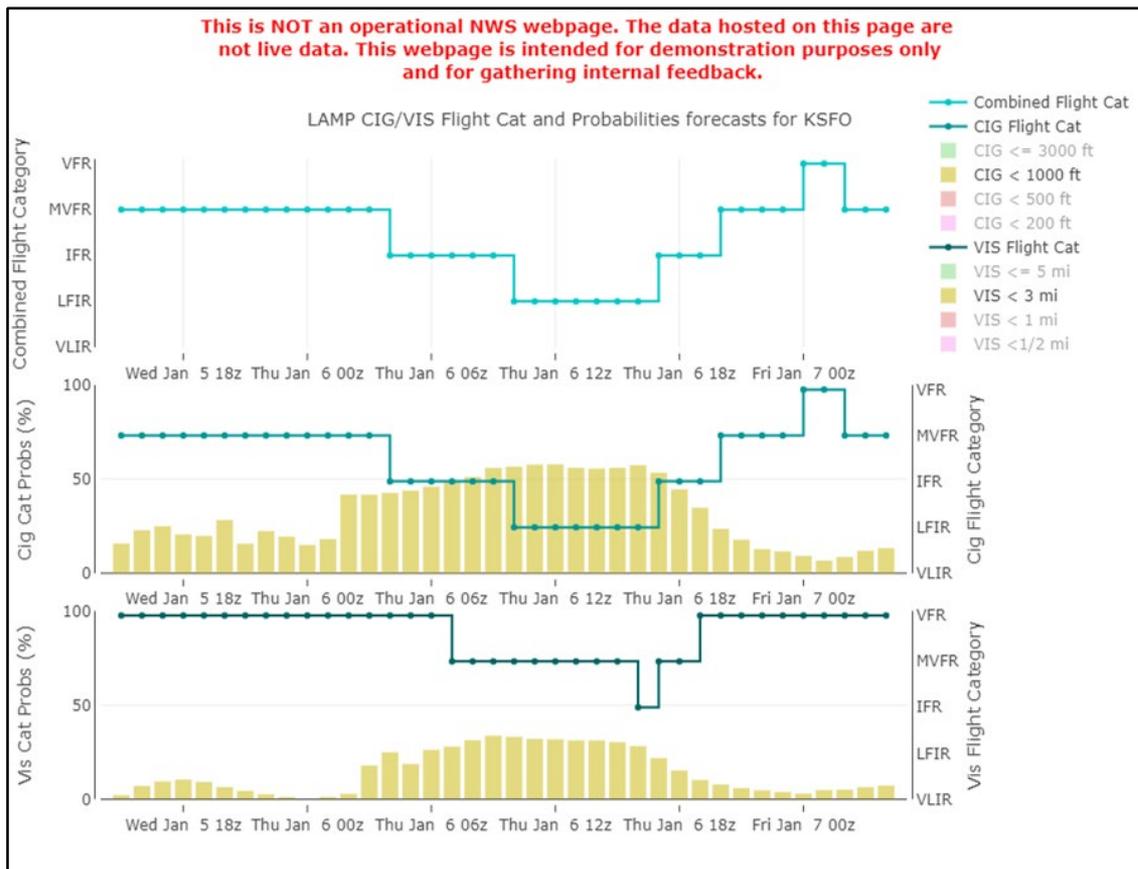
Example Prototype Web Page

This is NOT an operational NWS webpage. The data hosted on this page are not live data. This webpage is intended for demonstration purposes only and for gathering internal feedback.



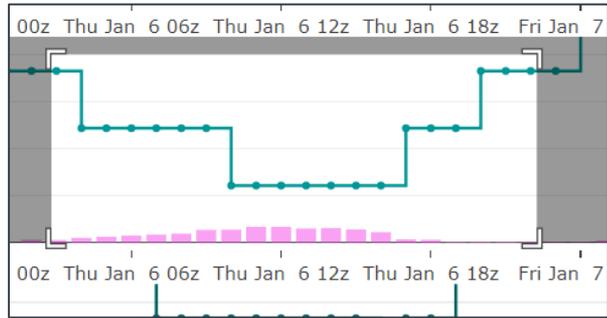
Time series plots of combined flight category (top), cumulative ceiling height probabilities (middle), and cumulative visibility probabilities (bottom)

Example Prototype Web Page

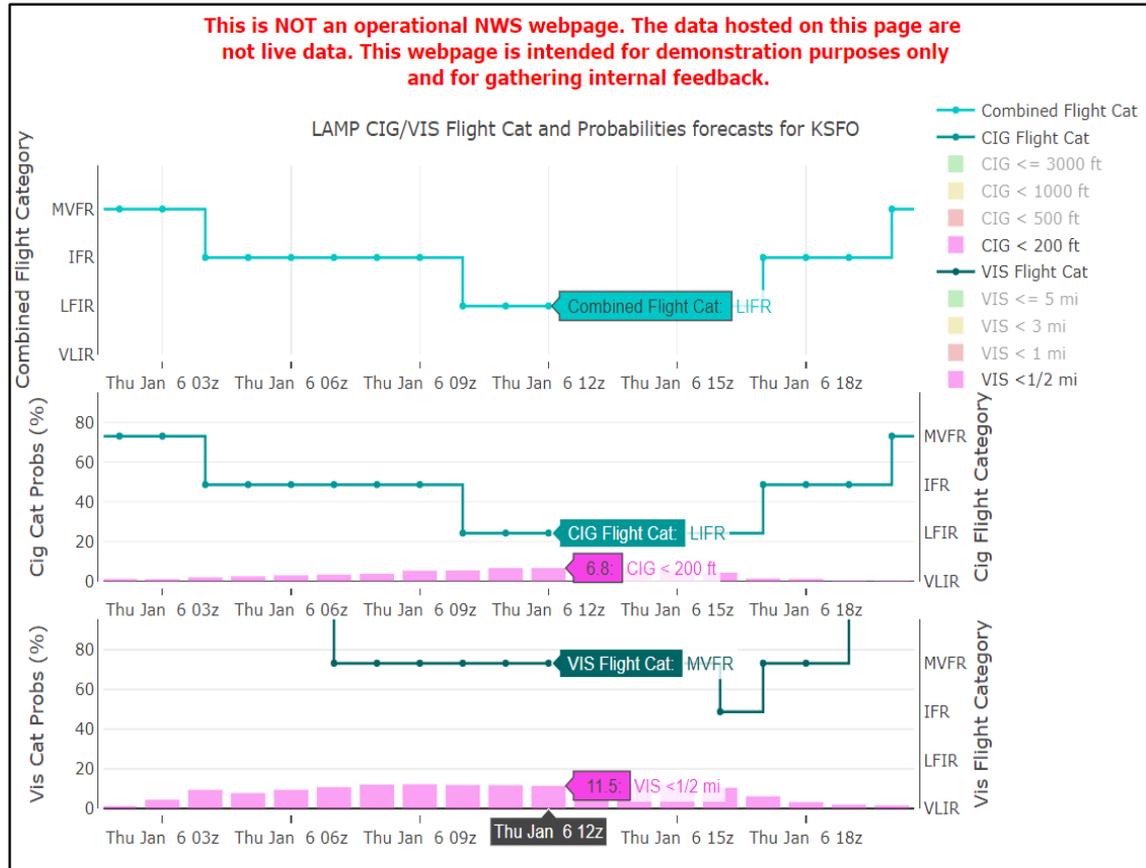


Interactive capability to display only probabilities of categories of interest

Example Prototype Web Page

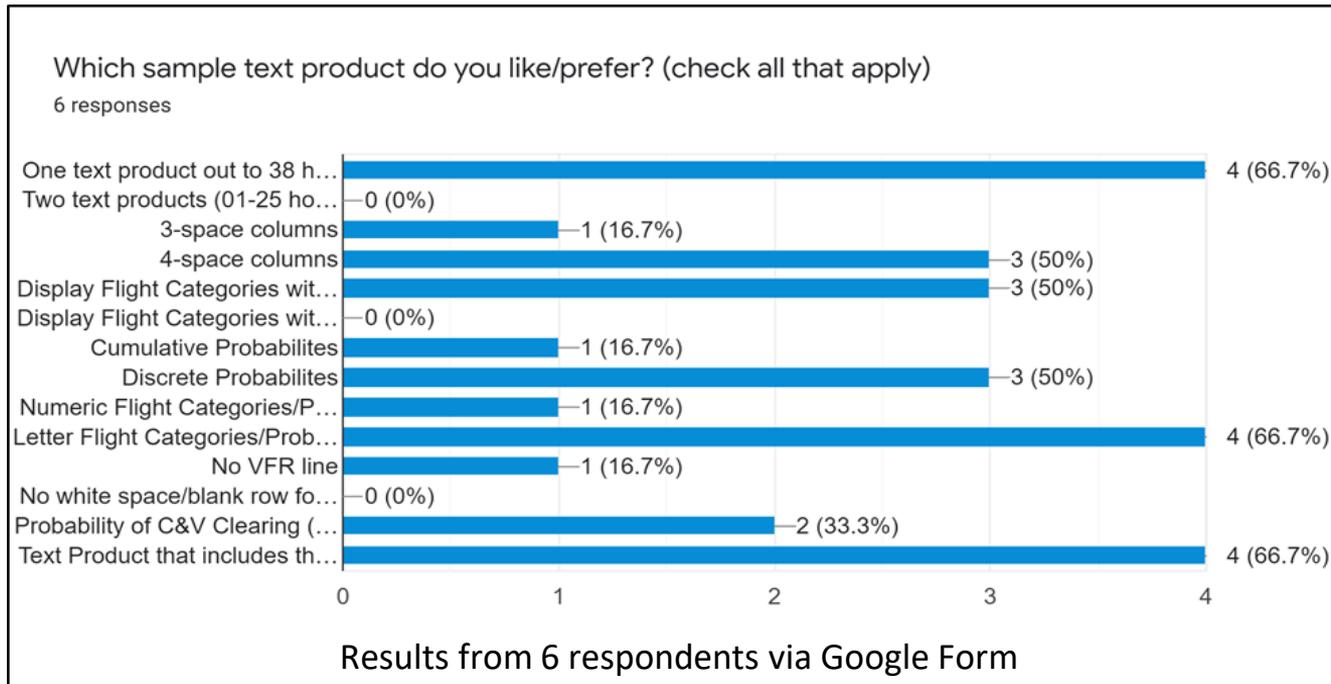


Capability to zoom to specific time range and hover over image to display values



Feedback Received

- [Google Form](#) was created for soliciting comments. Presentations were made to the FAA Weather Evaluation Team and sent to the AWC NAMs. Feedback received follows:



Feedback Received

- A common takeaway from the feedback received was the indicated need for airport-specific thresholds for C&V at Core 30 airports and not so much the traditional FCs.
- It was also apparent that what meteorologists want may differ from what Traffic Flow Managers (TFMs) want, so it will be important to solicit feedback directly from the TFMs going forward.
- “Over-reliance on ‘flight categories’ concept which are not necessarily aligned with the most important C & V thresholds for NAS users.”
- “I like the initial range of options, particularly with respect to the more simplistic text options. I think this is where it needs to go with air traffic managers. I do think we need to keep in mind the variation in intended audiences (meteorologists vs. air traffic). Having more probabilistic data is very important to meteorologists to CWSU/NAM forecasters and should be readily available to them to interpret the more "deterministic" product given to ATM.”

Feedback Received

- Further exemplifying the difference between certain users here were a few differing comments received.
 - “I won't use the text products.”
 - “I like the initial range of options, particularly with respect to the more simplistic text options.”
 - “Not much to dislike! As long as we consider that there are two distinct audiences here.”

Comments welcome!!

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