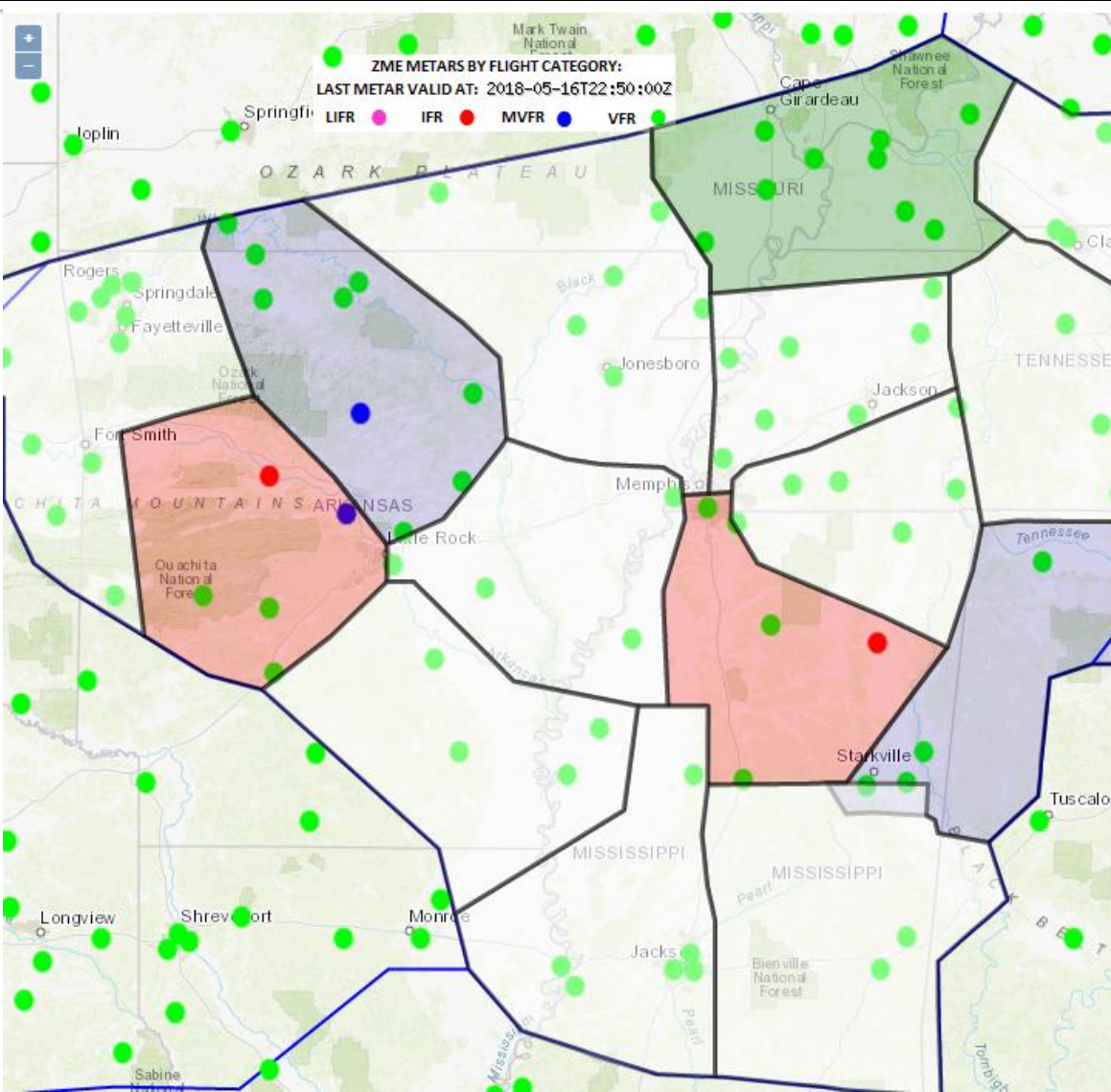


# Using GIS to Enhance Aviation DSS for the FAA at the Memphis CWSU



**ZME PIREP Solicitation Page**

NO = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM    YES = METAR IN AREA AOB 5000/5

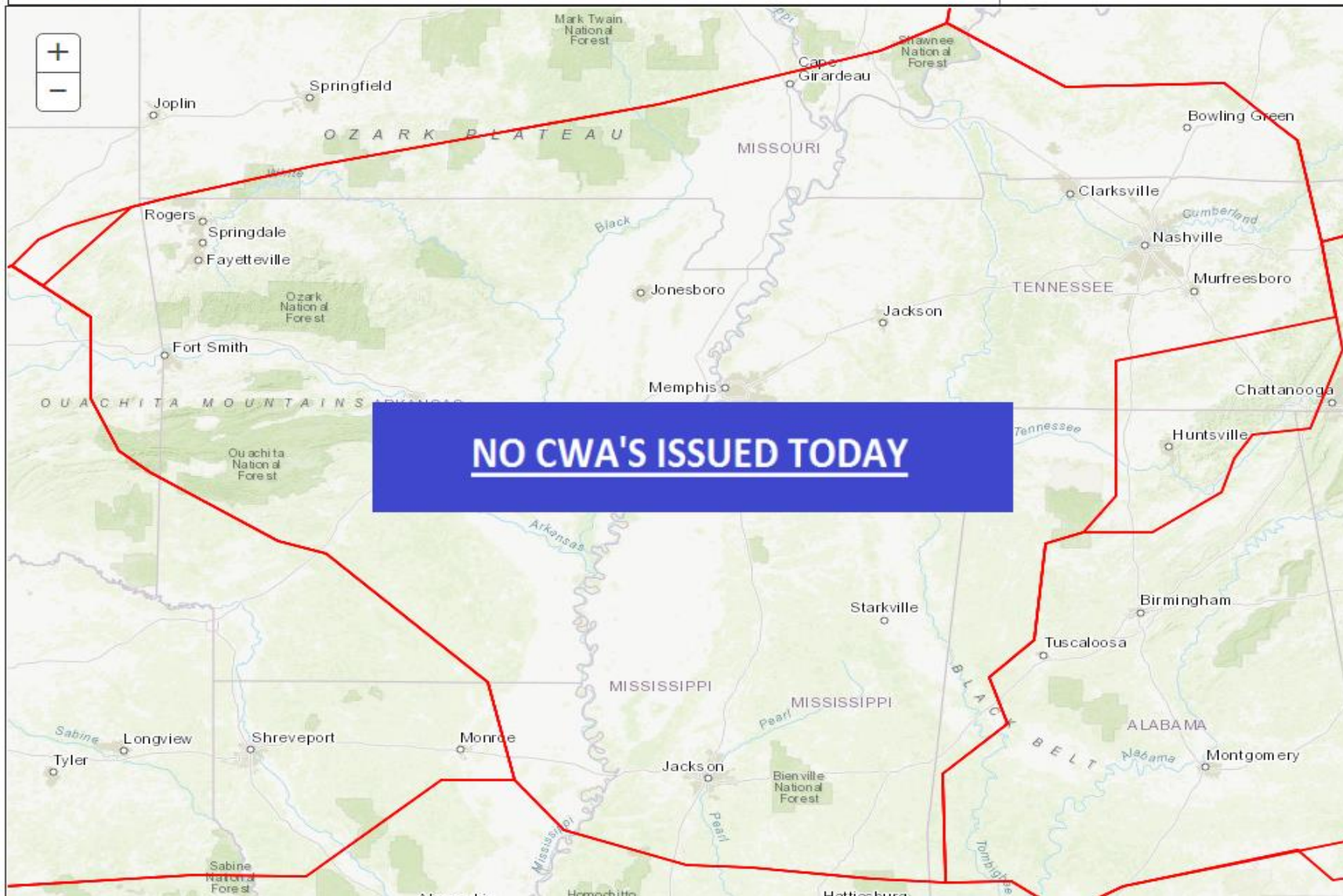
SOLICIT CIG/VIS PIREPS	AREA 1 NO	AREA 2 NO	AREA 3 YES	AREA 4 NO	AREA 5 NO	AREA 6 NO
SECTORS:			01 02			
<b>KEY</b>	<b>URGENT PIREPS</b>	<b>ICAO</b>	<b>ICAO</b>	<b>ETC</b>	<b>NO UUA PIREPS IN/WITHIN 150NM of AREA X</b>	
	RED = SEV TURB	BLUE = MOD TURB RATIO >= 50% IN SECTOR	RED = SEV ICE	BLUE = MOD ICE RATIO >= 50% IN SECTOR	BASED ON PIREPS DETECTED IN LAST 2 HOURS	
<b>AREA 1</b>	UUA PIREPS = 1    MKL					
	RED = SEV	07   25 33	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO			
	BLUE = MOD					
<b>AREA 2</b>	UUA PIREPS = 3    ARG   CGI   STL					
	RED = SEV	27 35   19	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			
	BLUE = MOD					
<b>AREA 3</b>	NO UUA PIREPS IN/WITHIN 150NM of AREA 3					
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO					
<b>AREA 4</b>	UUA PIREPS = 2    MEI   JAN		45 46		65 66	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO		RED = SEV			
			BLUE = MOD			
<b>AREA 5</b>	UUA PIREPS = 1    MKL					
	RED = SEV	62   63	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO			
	BLUE = MOD					
<b>AREA 6</b>	NO UUA PIREPS IN/WITHIN 150NM of AREA 6					
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO					
	12					
	RED = SEV					
	BLUE = MOD					
LAST METAR REPORT: 05-12T15:20:00Z		LAST PIREP: 05-12T15:17:00Z		LAST UPDATE: 05-12/1529 UTC		

# Memphis Center (ZME)

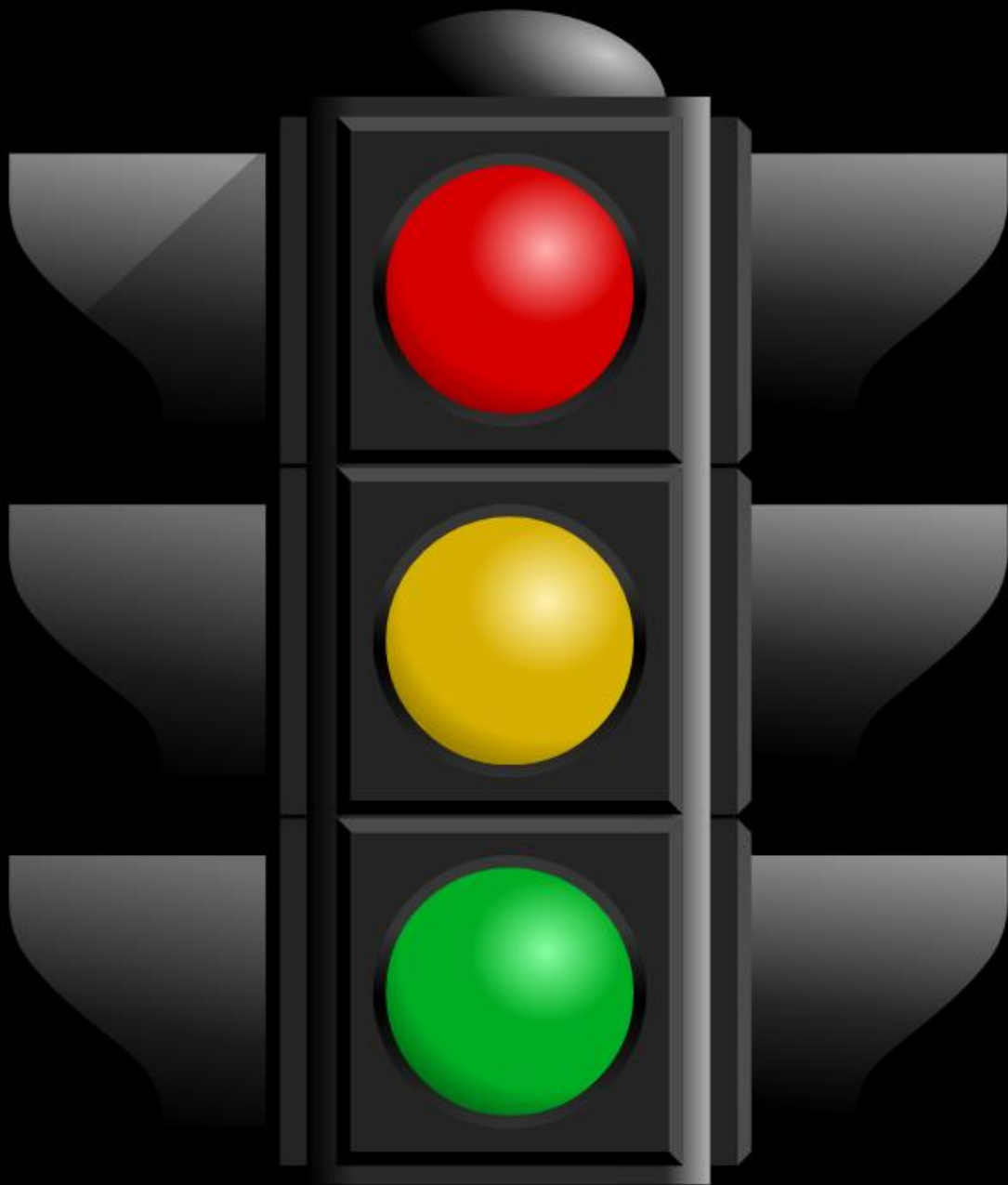
Press to enter another CWA Archive Date

KML File URL: [https://www.weather.gov/source/zme/cwaday/zme\\_cwa300418.kml](https://www.weather.gov/source/zme/cwaday/zme_cwa300418.kml)

ZME CWA's Issued Today



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```

postgis=# select distinct artcc.artcc, artcc.alt, zme_pirep_xml.raw_text,
zme_pirep_xml.time from artcc, zme_pirep_xml where ST_DWithin(artcc.geom4326,
zme_pirep_xml.geom, 2.34) and artcc.artcc='ZME' and artcc.alt='L' and
zme_pirep_xml.raw_text like '%UUA%' order by time;

```

```

artcc | alt | raw_text | time
-----+-----+-----+-----
ZME | L | FAM UUA /OV FAM090015/TM 2144/FL430/TP LJ35/TB MOD-SEV
CAT/RM ZKC | 2018-05-19T21:44:00Z

```

05	n	1	34	n	1	34	n	1
07	n	1	35	n	2	35	n	2
12	n	6	4301	n	4	4301	n	4
13	y	6	4302	n	4	4302	n	4
14	n	6	61	n	5	61	n	5
15	n	4	21	n	3	21	n	3
40	n	5	22	n	2	22	n	2
41	n	5	25	n	1	25	n	1
42	n	6	26	n	1	26	n	1
60	n	5	27	n	2	27	n	2
65	n	4	28	n	3	28	n	3
66	n	4	28h	n	3	28h	n	3
67	n	4	30	n	6	30	n	6
MEM	n	0	31	n	6	31	n	6
FSM	n	0	44	y	3	44	n	3
JAN	n	0	45	n	4	45	n	4
HSV	y	0	46	n	4	46	n	4

```
<?php
error_reporting(E_ALL);
ini_set('display_errors', 1);
error_reporting(E_ALL);
error_reporting(E_ALL|E_STRICT);

date_default_timezone_set('UTC');
$time= gmdate('G');
$date= date('d', time());

$link = pg_connect("dbname=postgis user=postgres") or die ("Could not connect: ");

$numplace = array();
$text = array();

$uua = pg_exec("select distinct artcc.artcc, artcc.alt, zme_pirep_xml.raw_text, zme_pirep_xml.time from artcc,
zme_pirep_xml where ST_DWithin(artcc.geom4326, zme_pirep_xml.geom, 2.34) and artcc.artcc='ZME' and
artcc.alt='L' and zme_pirep_xml.raw_text like '%UUA%' order by time");

$num_uua = pg_numrows($uua);
echo "NUM UUA: $num_uua\n";
if($num_uua == 0){
$num_arr = 0;
}

while(list($artcc, $alt, $raw_text, $time) = pg_fetch_array($uua)){
if($num_uua == 1){
echo "$raw_text\n";
$place = substr("$raw_text", 0, 3);
echo "$place\n";
array_push ($numplace, $place);
$num_arr=count($numplace);
```

# What can you do with this info?

- Using PHP you can make kmIs to display weather information by sector or TRACON.
- Make Graphics using PHP:GD (graphic display)
- Uses are nearly endless
  - Graphics for Better Forecaster Situational Awareness
  - Graphics to display Current and Forecast Info for specific Area, Sector or TRACON
  - Archiving and verification of Forecasts/Advisories

# ZME PIREP SOLICITATION GRAPHIC

## ZME PIREP Solicitation Page

**NO** = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM

**YES** = METAR IN AREA AOB 5000/5

SOLICIT CIG/VIS PIREPS	AREA 1 YES	AREA 2 YES	AREA 3 YES	AREA 4 NO	AREA 5 NO	AREA 6 NO
SECTORS:	05	03 04	01 02			

KEY	URGENT PIREPS	ICAO ICAO ETC	NO UUA PIREPS IN/WITHIN 150NM of AREA X
RED = SEV TURB	BLUE = MOD TURB RATIO >=50% IN SECTOR		RED = SEV ICE BLUE = MOD ICE RATIO >=50% IN SECTOR
BASED ON PIREPS DETECTED IN LAST 2 HOURS			BASED ON PIREPS DETECTED IN LAST 2 HOURS

AREA 1	NO UUA PIREPS IN/WITHIN 150NM of AREA 1	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO
AREA 2	NO UUA PIREPS IN/WITHIN 150NM of AREA 2	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO
AREA 3	NO UUA PIREPS IN/WITHIN 150NM of AREA 3	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO
AREA 4	NO UUA PIREPS IN/WITHIN 150NM of AREA 4	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO
AREA 5	NO UUA PIREPS IN/WITHIN 150NM of AREA 5	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO
AREA 6	NO UUA PIREPS IN/WITHIN 150NM of AREA 6	
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

LAST METAR REPORT: 05-12T14:30:00Z

LAST PIREP: 05-12T14:32:00Z

LAST UPDATE: 05-12/1436 UTC

# Top – Yellow = Solicit PIREPS for CIG/VIS

BY SECTOR

## ZME PIREP Solicitation Page

**NO** = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM

**YES** = METAR IN AREA AOB 5000/5

SOLICIT CIG/VIS PIREPS	AREA 1 YES	AREA 2 YES	AREA 3 YES	AREA 4 NO	AREA 5 NO	AREA 6 NO
------------------------	---------------	---------------	---------------	--------------	--------------	--------------

SECTORS:	05	03 04	01 02	ALL CIGS ABV 5000FT AND VIS ABV 5SM		
----------	----	-------	-------	-------------------------------------	--	--

KEY	URGENT PIREPS	ICAO	ICAO	ETC	NO UUA PIREPS IN/WITHIN 150NM of AREA X	
RED = SEV TURB	BLUE = MOD TURB RATIO >=50% IN SECTOR			RED = SEV ICE		
BASED ON PIREPS DETECTED IN LAST 2 HOURS				BASED ON PIREPS DETECTED IN LAST 2 HOURS		

AREA 1	NO UUA PIREPS IN/WITHIN 150NM of AREA 1					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--

AREA 2	NO UUA PIREPS IN/WITHIN 150NM of AREA 2					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--

AREA 3	NO UUA PIREPS IN/WITHIN 150NM of AREA 3					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--

AREA 4	NO UUA PIREPS IN/WITHIN 150NM of AREA 4					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--

AREA 5	NO UUA PIREPS IN/WITHIN 150NM of AREA 5					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--

AREA 6	NO UUA PIREPS IN/WITHIN 150NM of AREA 6					
--------	---	--	--	--	--	--

	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO			NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		
--	---	--	--	--	--	--



# URGENT (UUA PIREP) DETECTED IN or WITHIN 150NM of AREA

## ZME PIREP Solicitation Page

NO = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM     
 YES = METAR IN AREA AOB 5000/5

<b>SOLICIT CIG/VIS PIREPS</b>	<b>AREA 1 NO</b>	<b>AREA 2 NO</b>	<b>AREA 3 YES</b>	<b>AREA 4 NO</b>	<b>AREA 5 NO</b>	<b>AREA 6 NO</b>
<b>SECTORS:</b>			01 02			

<b>KEY</b>	<b>URGENT PIREPS</b>	<b>ICAO</b>	<b>ICAO</b>	<b>ETC</b>	<b>NO UUA PIREPS IN/WITHIN 150NM of AREA X</b>
RED = SEV TURB    BLUE = MOD TURB RATIO >=50% IN SECTOR BASED ON PIREPS DETECTED IN LAST 2 HOURS					RED = SEV ICE    BLUE = MOD ICE RATIO >=50% IN SECTOR BASED ON PIREPS DETECTED IN LAST 2 HOURS

<b>AREA 1</b>	<b>UUA PIREPS = 1</b>	<b>MKL</b> ←	<b>UUA PIREP WITH MKL AS ICAO</b>		
RED = SEV BLUE = MOD	07    25 33		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		

<b>AREA 2</b>	<b>UUA PIREPS = 3</b>	<b>ARG</b>	<b>CGI</b>	<b>STL</b> ←	<b>CAN BE IN AREA 2 OR WITHIN 150NM</b>
RED = SEV BLUE = MOD	27 35            19				NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

<b>AREA 3</b>	<b>NO UUA PIREPS IN/WITHIN 150NM of AREA 3</b>				
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO		

<b>AREA 4</b>	<b>UUA PIREPS = 2</b>	<b>MEI</b>	<b>JAN</b>		
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	45 46	65 66	RED = SEV BLUE = MOD	

<b>AREA 5</b>	<b>UUA PIREPS = 1</b>	<b>MKL</b>			
RED = SEV BLUE = MOD	62    63	NO SECTORS WITH MOD OR GTR PIREP ICE RATIO			

<b>AREA 6</b>	<b>NO UUA PIREPS IN/WITHIN 150NM of AREA 6</b>				
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO		12	RED = SEV BLUE = MOD	

# SECTORS WITH MOD OR GREATER TURB RATIO

BLUE SECTOR = MOD TURB RATIO (50% OR GREATER MOD) in SECTOR  
 EXAMPLE (1 MOD TURB and 1 LGT/NEG) or (4 MOD and 2 LGT) or (1 MOD and 0 LGT/NEG)

## ZME PIREP Solicitation Page

**NO** = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM      **YES** = METAR IN AREA AOB 5000/5

SOLICIT CIG/VIS PIREPS	AREA 1 NO	AREA 2 NO	AREA 3 YES	AREA 4 NO	AREA 5 NO	AREA 6 NO
SECTORS:			01 02			

KEY	URGENT PIREPS	ICAO	ICAO	ETC.	NO UUA PIREPS IN/WITHIN 150NM of AREA X
<b>RED = SEV TURB</b> <b>BLUE = MOD TURB RATIO &gt;=50% IN SECTOR</b> BASED ON PIREPS DETECTED IN LAST 2 HOURS					<b>RED = SEV ICE</b> <b>BLUE = MOD ICE RATIO &gt;=50% IN SECTOR</b> BASED ON PIREPS DETECTED IN LAST 2 HOURS

AREA 1	UUA PIREPS = 1	MKL	
<b>RED = SEV</b> <b>BLUE = MOD</b>	<b>07</b> <b>25 33</b>		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

AREA 2	UUA PIREPS = 3	ARG	CGI	STL	
<b>RED = SEV</b> <b>BLUE = MOD</b>	<b>27 35</b> <b>19</b>				NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

AREA 3	NO UUA PIREPS IN/WITHIN 150NM of AREA 3			
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO	

AREA 4	UUA PIREPS = 2	MEI	JAN	
				NO SECTORS WITH MOD OR GTR PIREP TURB RATIO
		<b>45 46</b>	<b>65 66</b>	<b>RED = SEV</b> <b>BLUE = MOD</b>

AREA 5	UUA PIREPS = 1	MKL	
<b>RED = SEV</b> <b>BLUE = MOD</b>	<b>62</b>		<b>SEV TURB PIREP DETECTED IN SECTOR 62 DURING LAST 2 HOURS</b>

AREA 6	NO UUA PIREPS IN/WITHIN 150NM of AREA 6			
	NO SECTORS WITH MOD OR GTR PIREP TURB RATIO		<b>12</b>	
				<b>RED = SEV</b> <b>BLUE = MOD</b>

# SECTORS WITH MOD OR GREATER ICE RATIO

BLUE SECTOR = MOD ICE RATIO (50% OR GREATER MOD) in SECTOR

EXAMPLE (1 MOD TURB and 1 LGT/NEG) or (4 MOD and 2 LGT) or (1 MOD and 0

## ZME PIREP Solicitation Page

**NO** = NO METAR IN AREA CIG AOB 5000 or VIS AOB 5SM      **YES** = METAR IN AREA AOB 5000/5

SOLICIT CIG/VIS PIREPS	AREA 1 NO	AREA 2 NO	AREA 3 YES	AREA 4 NO	AREA 5 NO	AREA 6 NO
SECTORS:			01 02			

KEY	URGENT PIREPS	ICAO ICAO ETC	NO UUA PIREPS IN/WITHIN 150NM of AREA X
RED = SEV TURB    BLUE = MOD TURB RATIO >=50% IN SECTOR BASED ON PIREPS DETECTED IN LAST 2 HOURS			RED = SEV ICE    BLUE = MOD ICE RATIO >=50% IN SECTOR BASED ON PIREPS DETECTED IN LAST 2 HOURS

AREA 1	UUA PIREPS = 1	MKL	
RED = SEV BLUE = MOD	07    25 33		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

AREA 2	UUA PIREPS = 3	ARG    CGI    STL	
RED = SEV BLUE = MOD	27 35            19		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

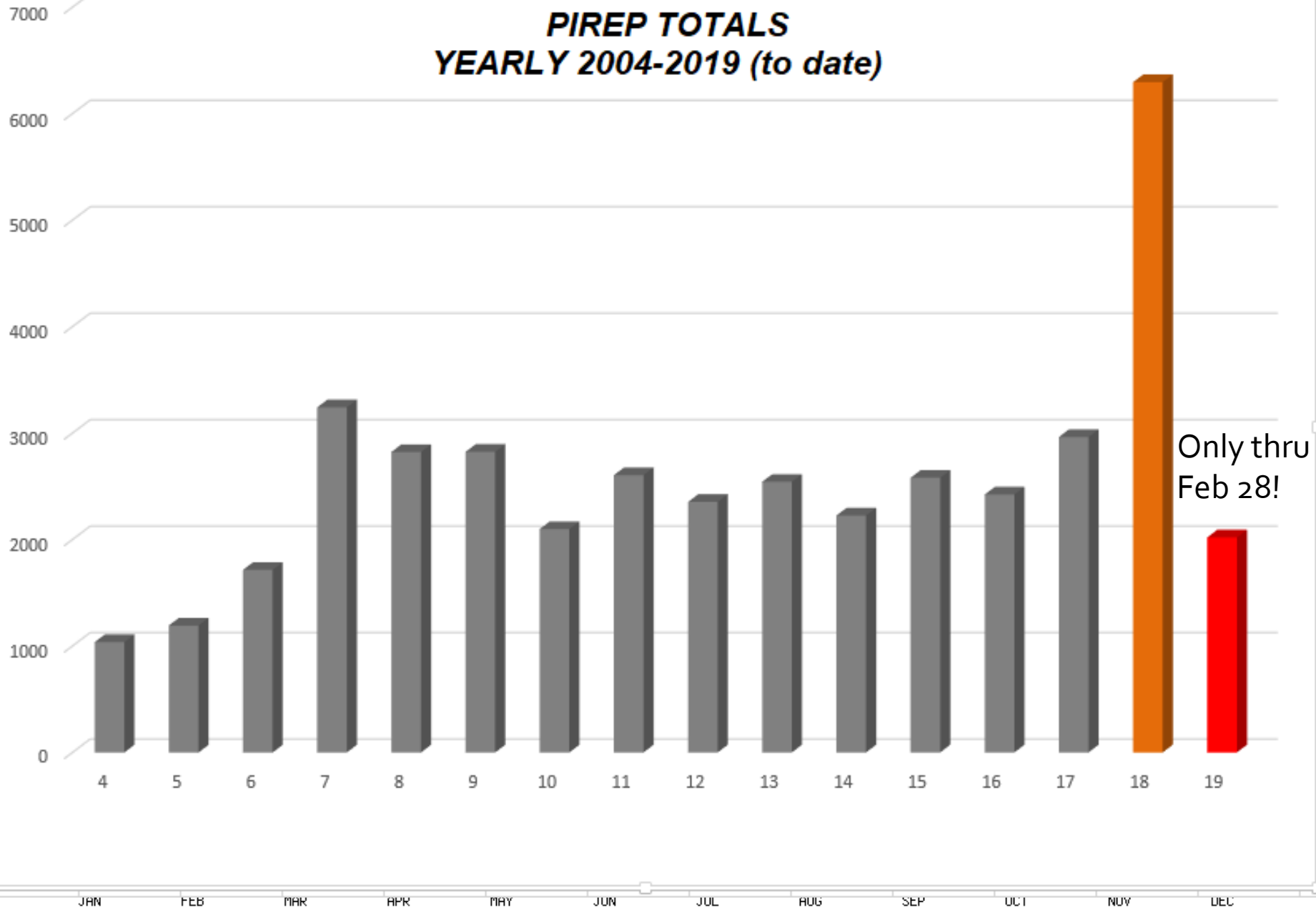
AREA 3	NO UUA PIREPS IN/WITHIN 150NM of AREA 3		
NO SECTORS	SEV ICE PIREP DETECTED IN SECTORS 45 and 46 DURING LAST 2 HOURS		

AREA 4	UUA PIREPS = 2	MEI    JAN	
NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	45 46	65 66	RED = SEV BLUE = MOD

AREA 5	UUA PIREPS = 1	MKL	
RED = SEV BLUE = MOD	62    63		NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

AREA 6	NO UUA PIREPS IN/WITHIN 150NM of AREA 6		
NO SECTORS WITH MOD OR GTR PIREP TURB RATIO	12		RED = SEV BLUE = MOD

## PIREP TOTALS YEARLY 2004-2019 (to date)



# ZME Sector and TRACON Maps

Click on Sector/METAR/PIREP to see additional information

## Turbulence:

Lo Sectors

On  Off

Hi Sectors

On  Off

UH Sectors

On  Off

TRACONS

On  Off

## Icing:

Lo Sectors

On  Off

Hi Sectors

On  Off

UH Sectors

On  Off

TRACONS

On  Off

## CIG/VIS:

METARs

On  Off

By Sector

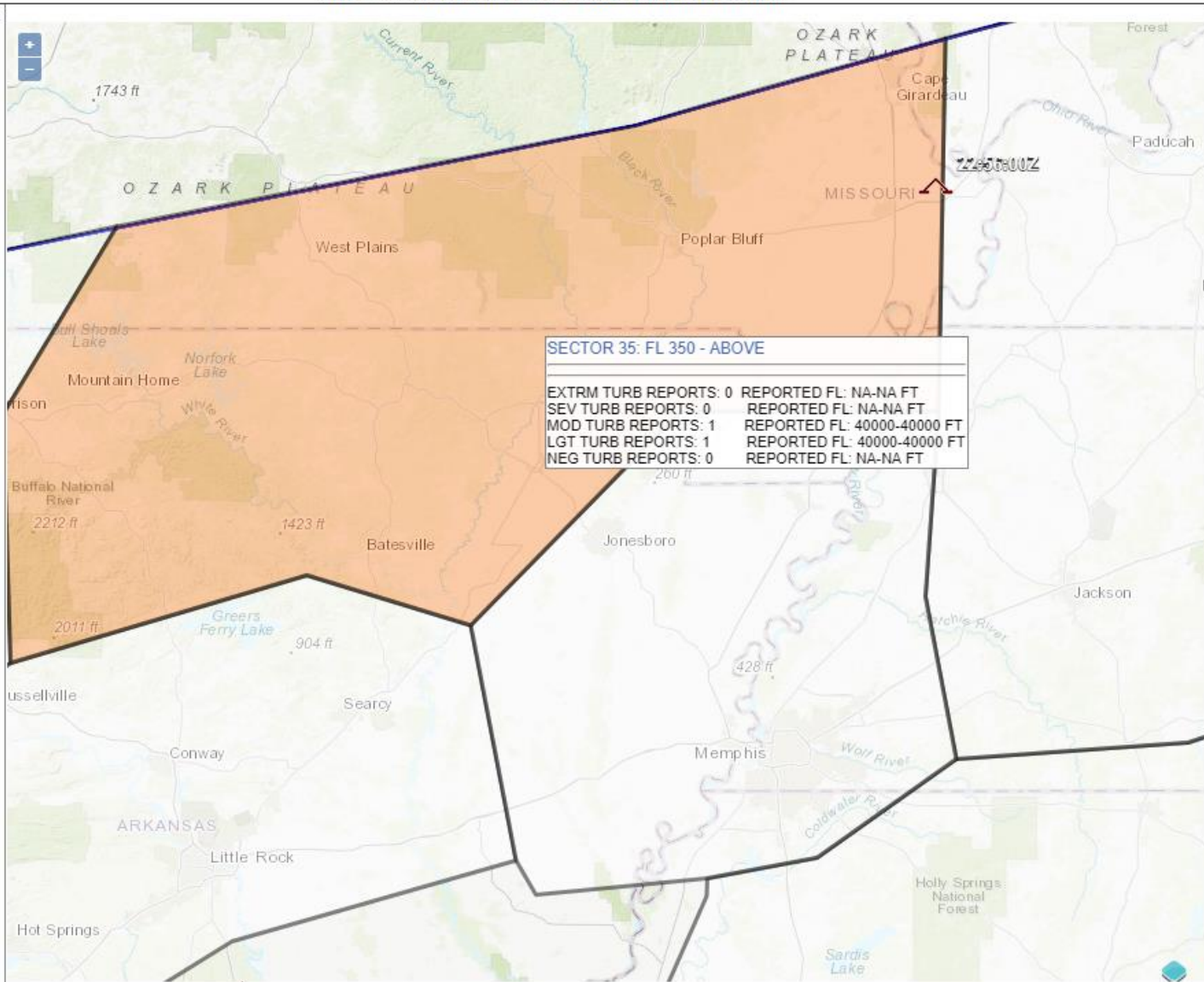
On  Off

TRACONS

On  Off

## PIREPs:

On  Off



SECTOR 35: FL 350 - ABOVE	
EXTRM TURB REPORTS: 0	REPORTED FL: NA-NA FT
SEV TURB REPORTS: 0	REPORTED FL: NA-NA FT
MOD TURB REPORTS: 1	REPORTED FL: 40000-40000 FT
LGT TURB REPORTS: 1	REPORTED FL: 40000-40000 FT
NEG TURB REPORTS: 0	REPORTED FL: NA-NA FT

EXTRM TURB REPORTS: 0	Reported FL: NA-NA FT
SEV TURB REPORTS: 0	Reported FL: NA-NA FT
MOD TURB REPORTS: 1	Reported FL: 40000-40000 FT
LGT TURB REPORTS: 1	Reported FL: 40000-40000 FT
NEG TURB REPORTS: 0	Reported FL: NA-NA FT

ZME SECTOR COLORS BY TURB RATIO:

SEV	MOD	LGT	NEG
Red	Yellow	Green	Light Green

MOUSEOVER SECTOR FOR LEVELS AND INTENSITY

ZME SECTOR COLORS BY ICE RATIO:

SEV	MOD	LGT	NEG
Red	Yellow	Green	Light Green

MOUSEOVER SECTOR FOR LEVELS AND INTENSITY

ZME METARS BY FLIGHT CATEGORY

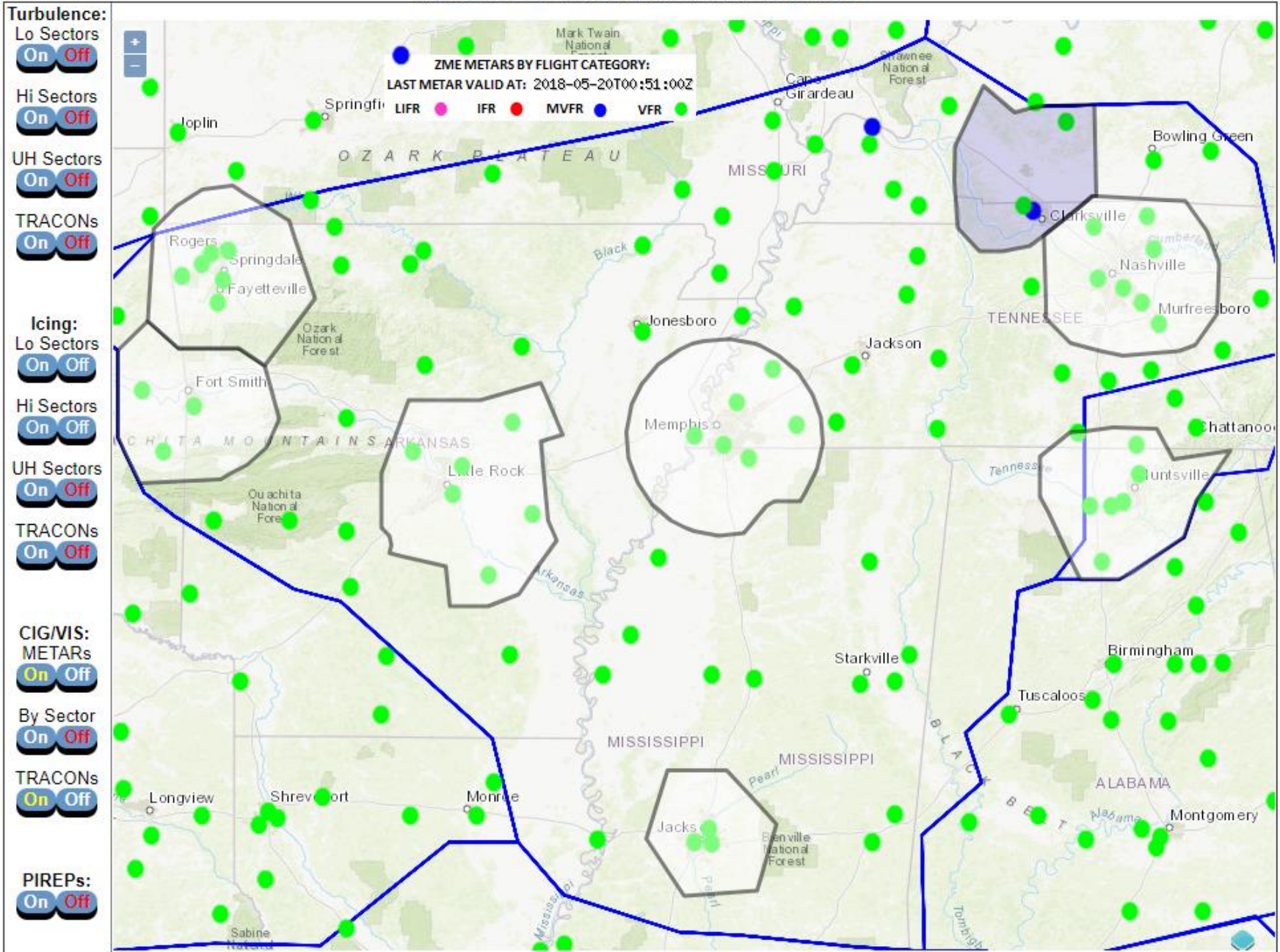
LIFR	IFR	MVFR	VFR
Pink	Red	Blue	Green

ZME SECTOR COLORS BY LOWEST FLIGHT CAT:

LIFR	IFR	MVFR	CIG HOB	CIG ABV
Pink	Red	Blue	Green	Light Green

# ZME Sector and TRACON Maps

Click on Sector/METAR/PIREP to see additional information



- Turbulence:**
- Lo Sectors  On  Off
- Hi Sectors  On  Off
- UH Sectors  On  Off
- TRACONS  On  Off
- Icing:**
- Lo Sectors  On  Off
- Hi Sectors  On  Off
- UH Sectors  On  Off
- TRACONS  On  Off
- CIG/MIS:**
- METARs  On  Off
- By Sector  On  Off
- TRACONS  On  Off
- PIREPs:**
- On  Off

**ZME METARS BY FLIGHT CATEGORY:**  
 LAST METAR VALID AT: 2018-05-20T00:51:00Z

LIFR ● IFR ● MVFR ● VFR ●

**ZME SECTOR COLORS BY TURB RATIO:**  
 SEV MOD LGT NEG  
 MOUSEOVER SECTOR FOR LEVELS AND INTENSITY

**ZME SECTOR COLORS BY ICE RATIO:**  
 SEV MOD LGT NEG  
 MOUSEOVER SECTOR FOR LEVELS AND INTENSITY

LIFR ● IFR ● MVFR ● VFR ●  
**ZME METARS BY FLIGHT CATEGORY**

**ZME SECTOR COLORS BY LOWEST FLIGHT CAT:**  
 LIFR IFR MVFR CIG 900 CIG 800  
 050 050-VFR

# West Coast Basetops/Marine Layer Thickness Maps

Click on Sector/METAR/PIREP to see additional information

CIG/IS:

West Coast

METARs

On  Off

ZOA Sectors

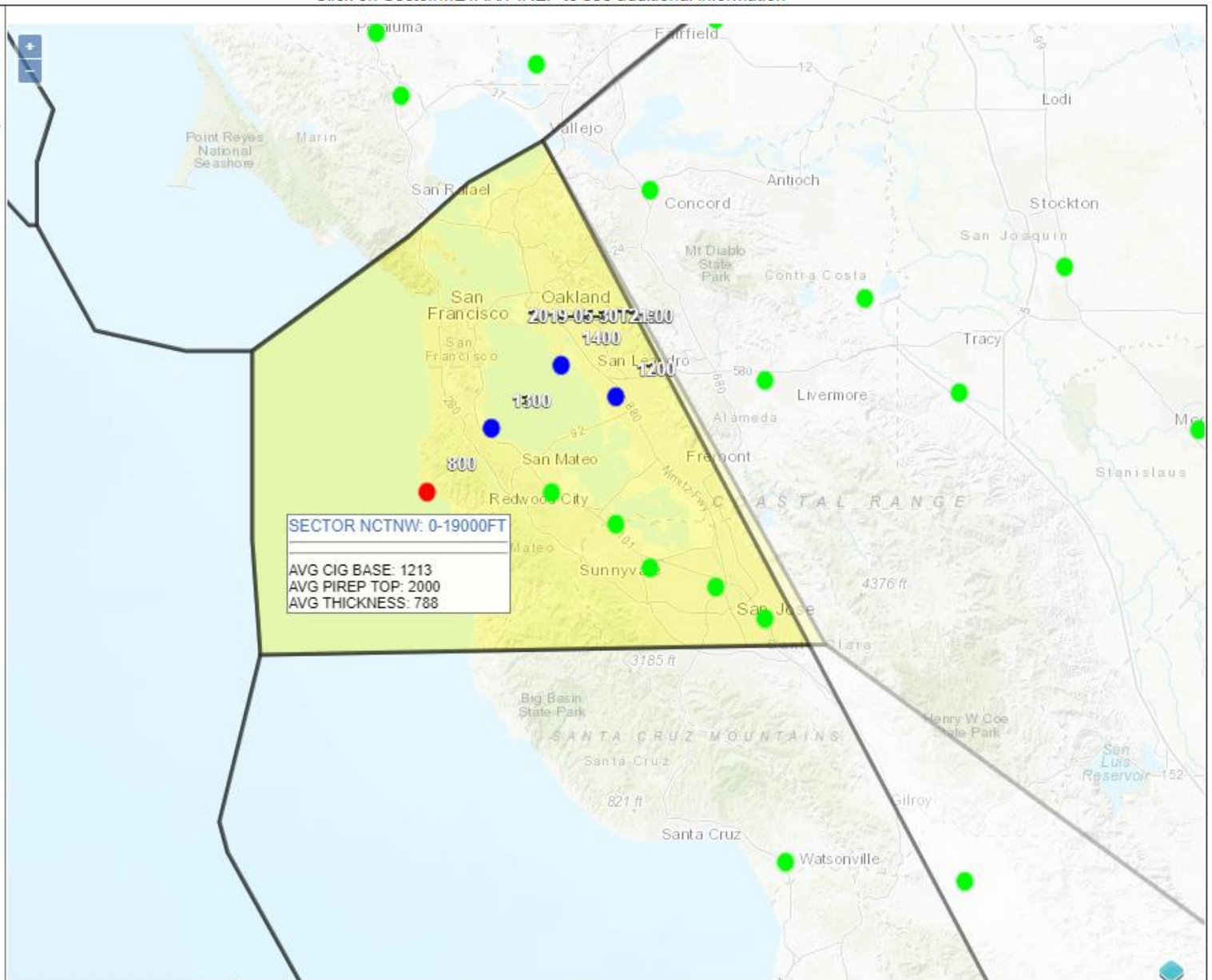
On  Off

ZSE Sectors

On  Off

ZLA Sectors

On  Off



AVG CIG BASE: 1213  
AVG PIREP TOP: 2000  
AVG THICKNESS: 788

TURB/ICE G-AIRMET = MOD INTENSITY FCST - SEE ADDNL PRODUCTS FOR MORE INFO

**CONV**  
GRAY =  
SECTOR W/N  
150NM any  
TCF COVG

**CWA**

**WIGS**  
FOR ZME  
SIG WX  
ISSUED  
19/20:48

**TURB**  
0-3HR  
3-6HR  
6-9HR

**ICE**  
0-3HR  
3-6HR  
6-9HR

**LLWS/  
SFC WIND**  
0-3HR  
3-6HR  
6-9HR

**IFR**  
0-3HR  
3-6HR  
6-9HR

**MTN  
OBSCN**  
0-3HR  
3-6HR  
6-9HR

NONE/NONE FCST  
G-AIRMET VALID  
H = HIGH L = LOW  
SECTORS AFFECTED  
SIGMET/CWA/MIS  
W/N 150NM VALID  
TCF COVG  
NONE - SPARSE >=MOD  
<25% 25-39% >40%  
TOUCHES SECTOR/AREA

**TCF 05Z**

03 04 22 27 35

**07Z**

03 04 22 27 35

**09Z**

03 04 22 27 35

**NO UUA PIREPS DETECTED IN or WITHIN 150NM of AREA 2**

NO METARS AOB 5000/5

CONV SIGMET: 3C-TOPS:60000 FT MSL  
SECTOR(S): 04 03 35 27 22 19  
CONV SIGMET: 2C-TOPS:60000 FT MSL  
SECTOR(S): 03 04 27 35  
CONV SIGMET: 4C-TOPS:60000 FT MSL  
SECTOR: 19 22

NO 0-3HR TURB G-AIRMETS in AREA 2

NO 0-3HR ICE G-AIRMETS in AREA 2

NO CWA's VALID IN AREA 2

NO 0-3HR IFR G-AIRMETS VALID

NO 0-3HR MTN OBSCN G-AIRMETS VALID

NO 0-3HR LLWS G-AIRMETS VALID

NO 0-3HR SFC WIND G-AIRMETS VALID

SECTORS WITH MOD OR GTR TURB PIREP RATIO'S:  
**35**

**RED = SE**  
**BLUE = MO**

NO SECTORS WITH MOD OR GTR PIREP ICE RATIO



TURB/ICE G-AIRMET = MOD INTENSITY FCST - SEE ADDNL PRODUCTS FOR MORE INFO

**CONV**  
GRAY =  
SECTOR W/N  
150NM any  
TCF COVG

**CWA**

**WIGS**  
FOR ZME  
SIG WX  
ISSUED  
19/20;48

**TURB**  
0-3HR L  
3-6HR  
6-9HR

**ICE**  
0-3HR  
3-6HR  
6-9HR

**LLWS/  
SFC WIND**  
0-3HR  
3-6HR  
6-9HR

**IFR**  
0-3HR  
3-6HR  
6-9HR

**MTN  
OBSCN**  
0-3HR  
3-6HR  
6-9HR

**NONE/NONE FCST**  
**G-AIRMET VALID**  
H = HIGH L = LOW  
SECTORS AFFECTED  
**SIGMET/CWA/MIS  
W/N 150NM VALID**  
TCF COVG  
NONE - SPARSE >=MED  
<25% 25-39% >40%

**TCF 05Z**

01 02 21 28 28h44

**07Z**

01 02 20 28 28h44

**09Z**

01 02 20 28 28h44

TOUCHES SECTOR/AREA

**NO UUA PIREPS DETECTED IN or WITHIN 150NM of AREA 3**

NO METARS AOB 5000/5

CONV SIGMET: 3C-TOPS:60000 FT MSL  
SECTOR(S): 02 01 28h 20 21  
CONV SIGMET: 4C-TOPS:60000 FT MSL  
SECTOR(S): 02  
CONV SIGMET: 2C-TOPS:60000 FT MSL  
SECTOR: 28 20 21 44 28h

0-3HR TURB G-AIRMETS in AREA 3  
TURB: 0-10000 FT MSL  
SECTOR: 02 01

NO 0-3HR ICE G-AIRMETS in AREA 3

NO CWA's VALID IN AREA 3

NO 0-3HR IFR G-AIRMETS VALID

NO 0-3HR MTN OBSCN G-AIRMETS VALID

NO 0-3HR LLWS G-AIRMETS VALID

NO 0-3HR SFC WIND G-AIRMETS VALID

NO SECTORS WITH MOD OR GTR PIREP TURB RATIO

NO SECTORS WITH MOD OR GTR PIREP ICE RATIO

SIGMET/CWA W/N 150NM VALID TCF NO COVG SPARSE MED/SLD G-AIRMET VALID H = HIGH L = LOW SECTORS NONE/NONE FCST

AREA	CONV	CWA	TCF	TURB	ICE	LLWS/ SFC WIND	IFR	MTN OBSCN	SOLICIT CIG/VIS PIREPS
AREA 1	301-TS		03Z	0-3HR H	0-3HR	0-3HR	0-3HR	0-3HR	YES SECTOR: 07
			05Z	3-6HR H	3-6HR	3-6HR	3-6HR		
			07Z	6-9HR H	6-9HR	6-9HR	6-9HR		
AREA 2	301-TS 401-TS		03Z	0-3HR H	0-3HR	0-3HR	0-3HR	0-3HR	YES SECTOR: 04
			05Z	3-6HR H	3-6HR	3-6HR	3-6HR		
			07Z	6-9HR H	6-9HR	6-9HR	6-9HR		
AREA 3	401-TS 301-TS		03Z	0-3HR H	0-3HR	0-3HR	0-3HR	0-3HR	YES SECTORS: 01 02
			05Z	3-6HR H	3-6HR H	3-6HR	3-6HR		
			07Z	6-9HR H	6-9HR H	6-9HR	6-9HR		
AREA 4	301-TS		03Z	0-3HR H	0-3HR HL	0-3HR	0-3HR	0-3HR	YES SECTORS: 65 66 67
			05Z	3-6HR H	3-6HR HL	3-6HR	3-6HR		
			07Z	6-9HR H	6-9HR HL	6-9HR	6-9HR		
AREA 5	301-TS		03Z	0-3HR H	0-3HR L	0-3HR	0-3HR	0-3HR	NO METARS AOB 5000/5
			05Z	3-6HR H	3-6HR L	3-6HR	3-6HR		
			07Z	6-9HR HL	6-9HR L	6-9HR	6-9HR		
AREA 6	301-TS		03Z	0-3HR H	0-3HR HL	0-3HR	0-3HR	0-3HR	YES SECTORS: 42 12 13
			05Z	3-6HR H	3-6HR HL	3-6HR	3-6HR		
			07Z	6-9HR H	6-9HR HL	6-9HR	6-9HR		

\*\*\*EXPERIMENTAL PRODUCT\*\*\*

LAST UPDATE: 06-05/2241 UTC

LAST METAR REPORT: 2019-06-05T22:36:00Z

**UUA PIREPS = 2**

**IND**

**IND**

IND UUA /OV VHP180020/TM 2113/FL130/TP B763/TB MOD-SEV  
 IND UUA /OV VHP180020/TM 2128/FL130/TP B763/TB MOD-SEV

[https://www.weather.gov/area\\_hazards2](https://www.weather.gov/area_hazards2)

# ZME PIREP/AIRMET SITUATIONAL AWARENESS BOARD

\*\*\*EXPERIMENTAL PRODUCT - CAUTION ONLY RUN NEAR AIRMET UPDATES (03,09,15,21Z)\*\*\* MOST RECENT UPDATE: 202113 UTC

**NO UUA PIREPS DETECTED IN or WITHIN 150NM ZME**

**AIRMETS VALID = 6**

NC SC GA FL IL MO KS IN  
OH VA TX

CSTL WTRS

**SIERRA = 2**

IL MO KS IN TX

**TANGO = 2**

IL MO KS IN OH VA

**ZULU = 2**

NC SC GA FL IL MO KS IN

CSTL WTRS

ISSUED <30MIN AGO

FCST AREA

AIRMETS VALID TIL

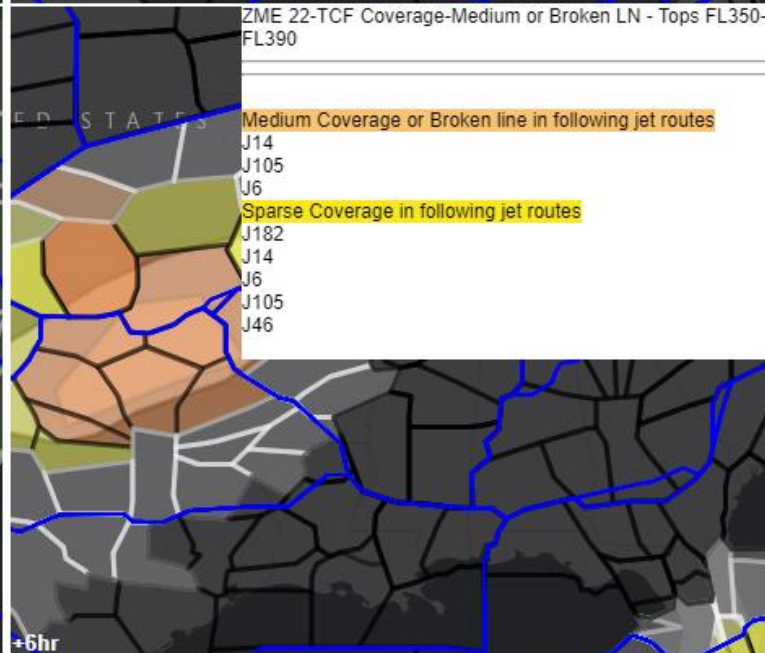
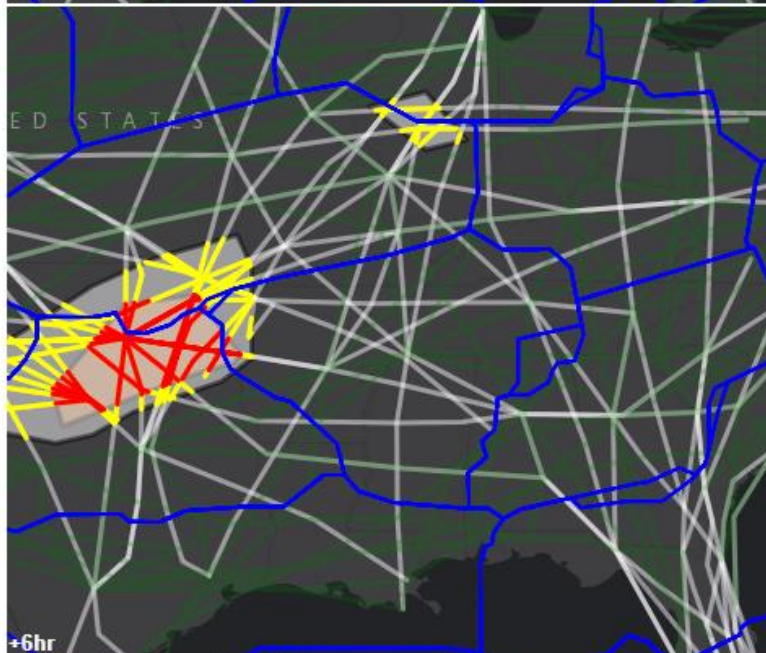
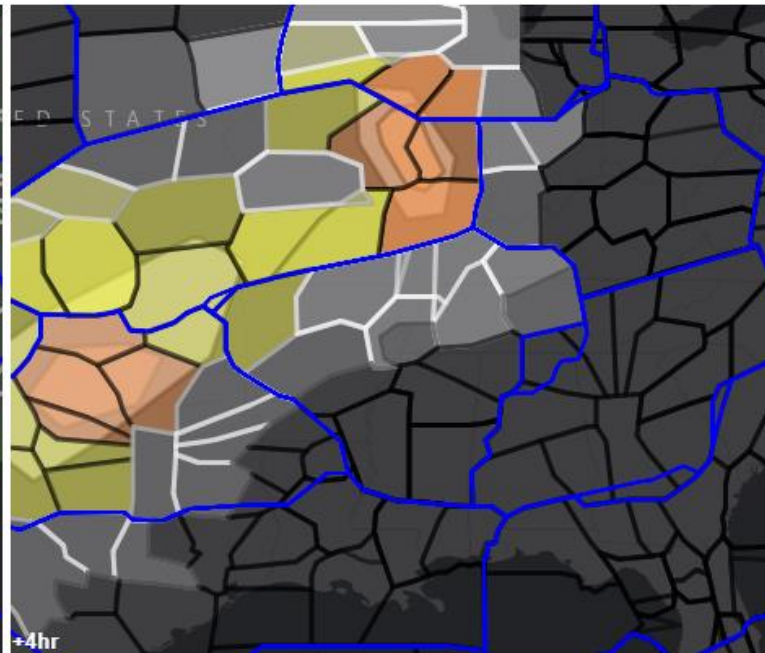
AIRMETS THAT COVER MULTIPLE FORECAST AREAS APPEAR ONCE FOR EACH AREA

MIA	2018-05-21T03:00:00Z	AIRMET ICE...NC SC GA FL AND CSTL WTRS
CHI	2018-05-21T03:00:00Z	AIRMET ICE...NE KS IA MO WI LM IL IN
CHI	2018-05-21T03:00:00Z	AIRMET TURB...ND SD NE KS MN IA MO WI LM LS MI LH IL IN
BOS	2018-05-21T03:00:00Z	AIRMET TURB...ME NH VT MA RI CT NY LO NJ PA OH LE WV MD DE VA
CHI	2018-05-21T03:00:00Z	AIRMET IFR...SD NE KS MN IA MO WI LM MI IL IN
DFW	2018-05-21T03:00:00Z	AIRMET IFR...TX

[https://www.weather.gov/zme/fd\\_pirep](https://www.weather.gov/zme/fd_pirep)

# TCF with Jet Routes and Sectors

Click on TCF area/Jet Route to see additional information



ZME 22-TCF Coverage-Medium or Broken LN - Tops FL350-FL390

Medium Coverage or Broken line in following jet routes

- J14
- J105
- J6

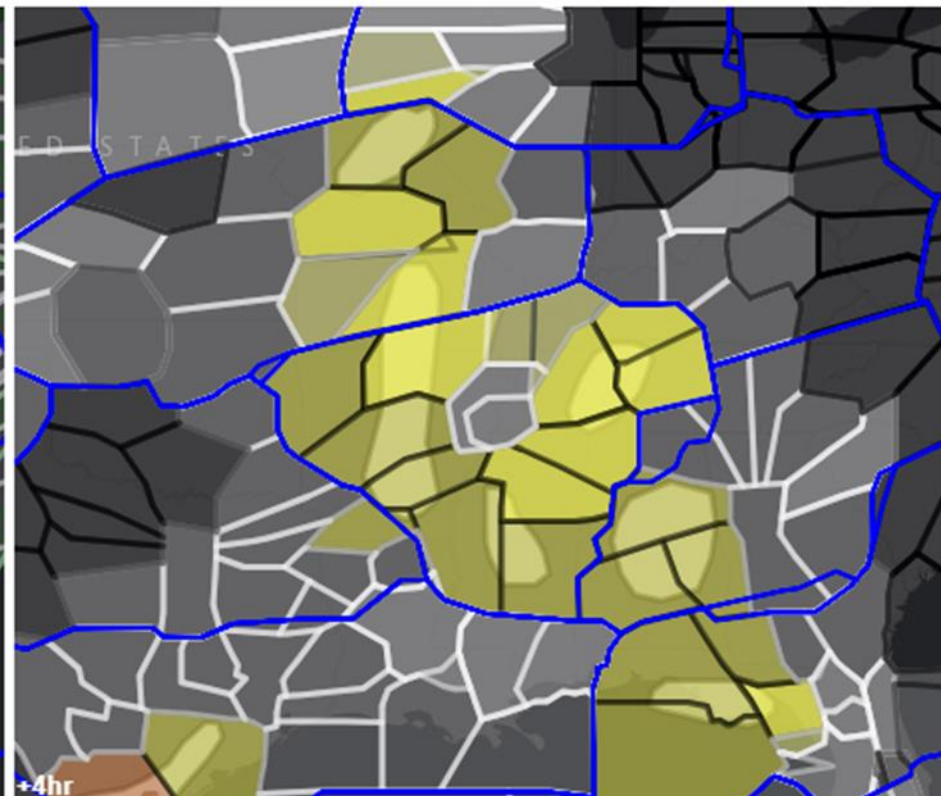
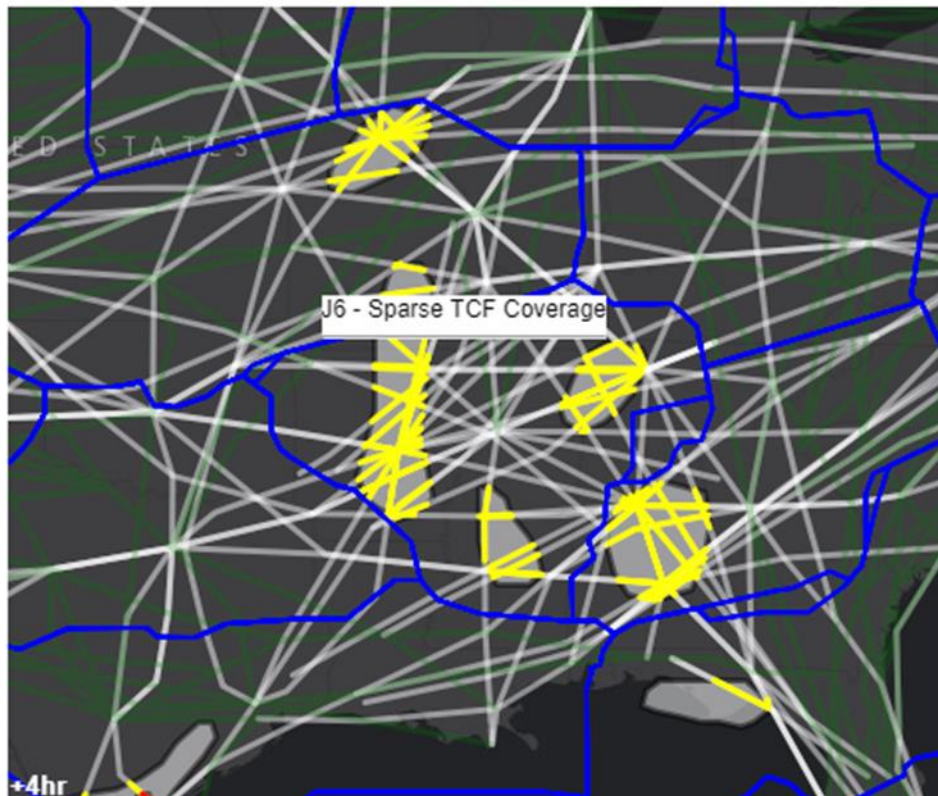
Sparse Coverage in following jet routes

- J182
- J14
- J6
- J105
- J46

# A normal Summer Day in ZME?

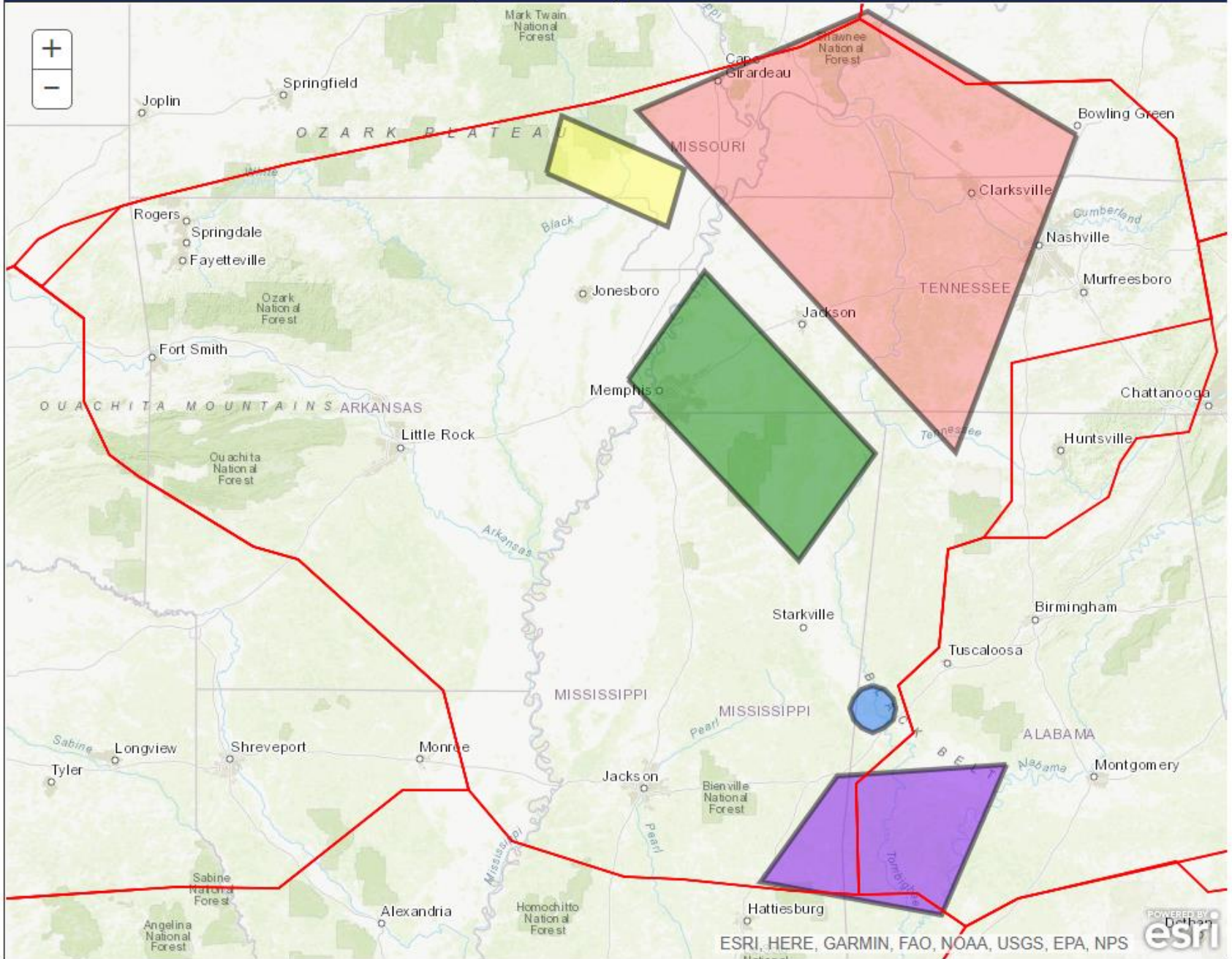
## TCF with Jet Routes and Sectors

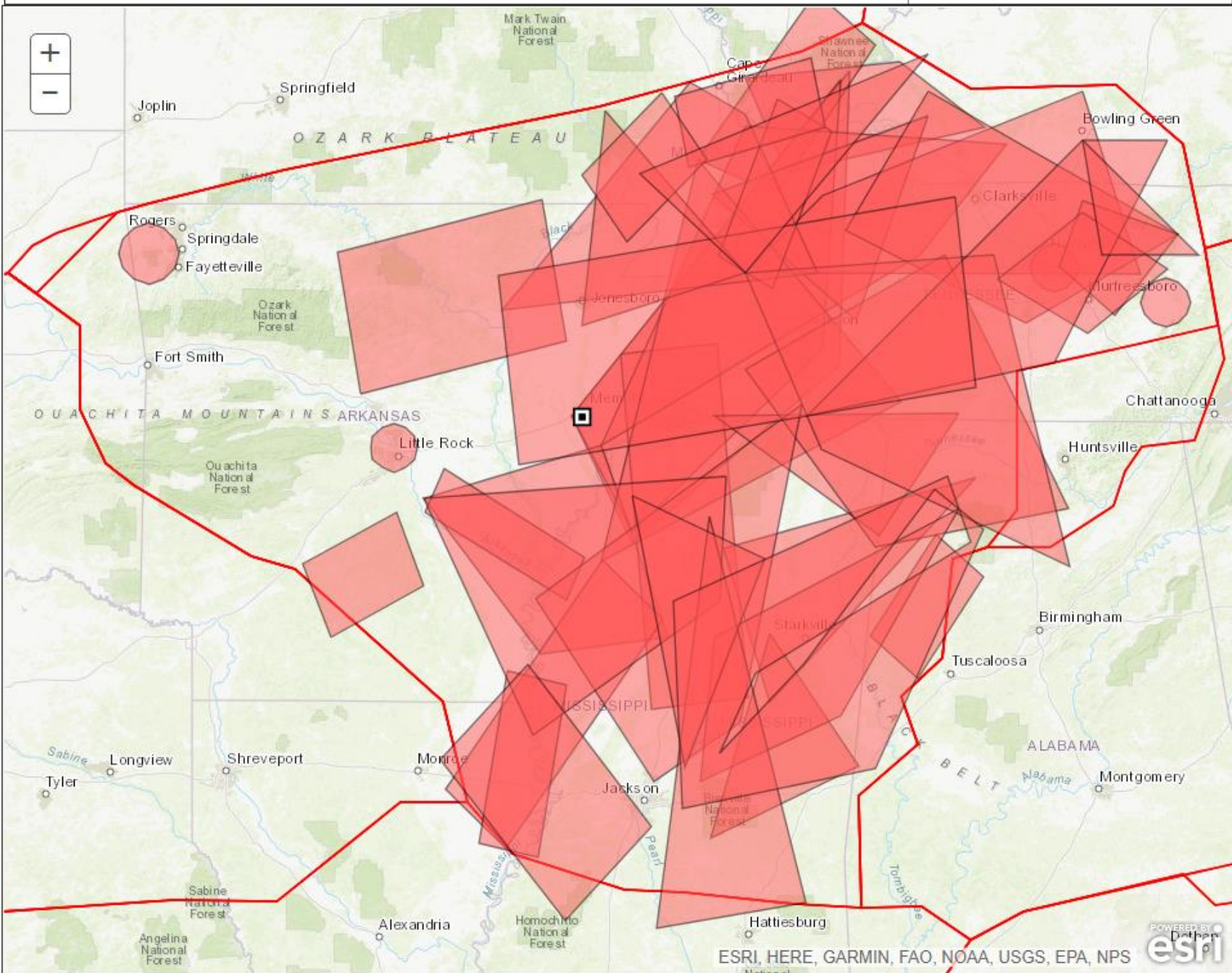
Click on TCF area/Jet Route to see additional information



# ZME CWA's ISSUED TODAY

Up to 20 minute delay possible from issue

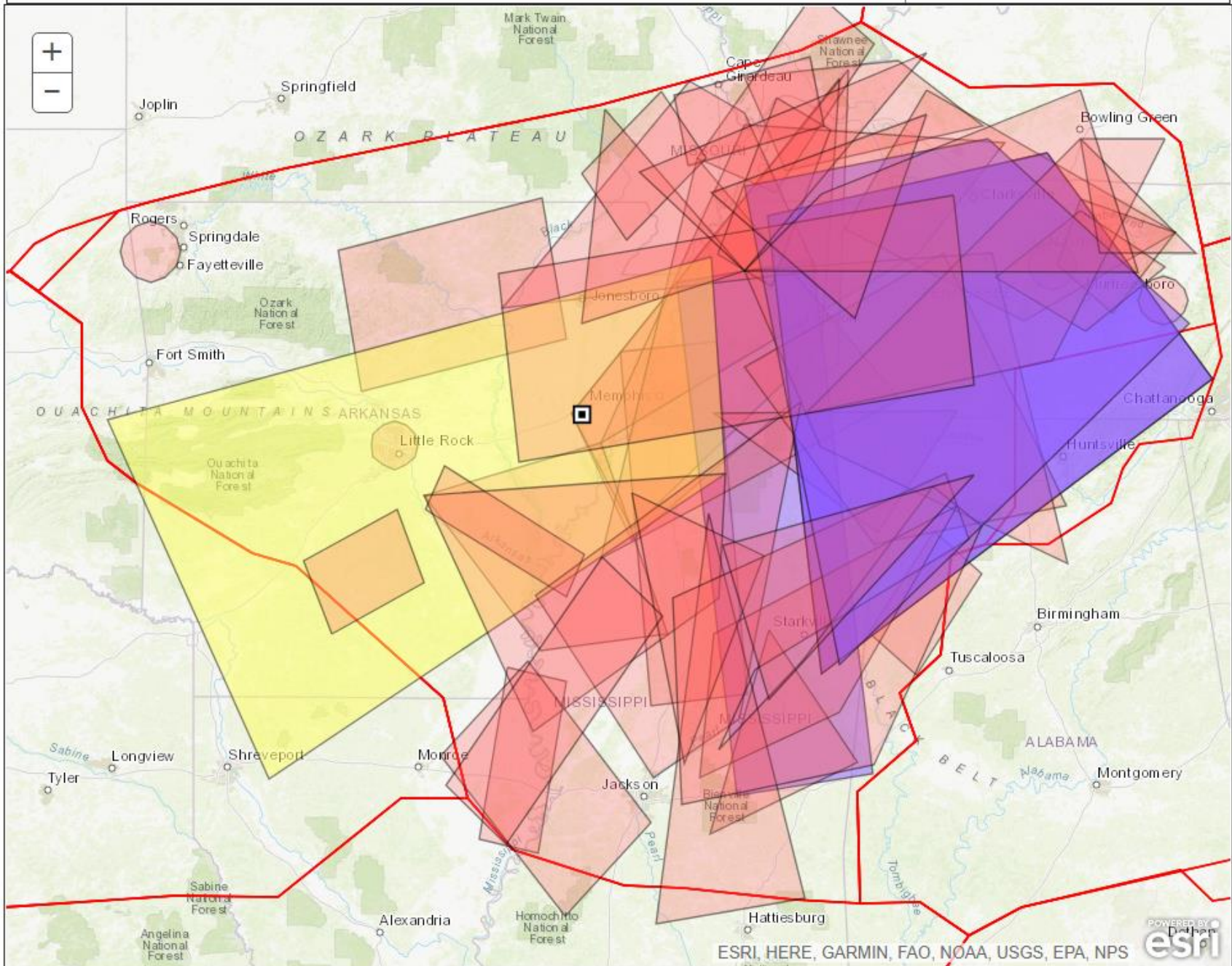




Press to enter another CWA Archive Date

ZME CWA's Issued Today

KML File URL: [https://www.weather.gov/source/zme/cwaday/zme\\_cwa0518a.kml](https://www.weather.gov/source/zme/cwaday/zme_cwa0518a.kml)





# ZME SITUATIONAL AWARENESS BOARD

**WIGS ISSUED:**

**FOR NSW**

**FOR WX**

**>5 HR AGO**

**AIRMETS**

**WIGS FOR SGFNT WX ISSUED at 06-05-19 19:48UTC**

**CWA EXPIRES IN:**

**> 20 MIN**

**< 20 MIN**

**< 10 MIN**

**EXPIRED**

AIRSIGMETS IN or W/N 150NM ZME

**CWA 103 is expired!**

**CWA 201 is expired!**

**CWA 301 EXPIRES IN: 21 minutes**

**NO CWA 400 SERIES ISSUED TODAY!**

**NO CWA 500 SERIES ISSUED TODAY!**

**NO CWA 600 SERIES ISSUED TODAY!**

**UUA PIREPS = 2**

**IND**

**IND**

**AIRMETS VALID = 12**

**TANGO = 6**

**ZULU = 2**

**SIERRA = 4**

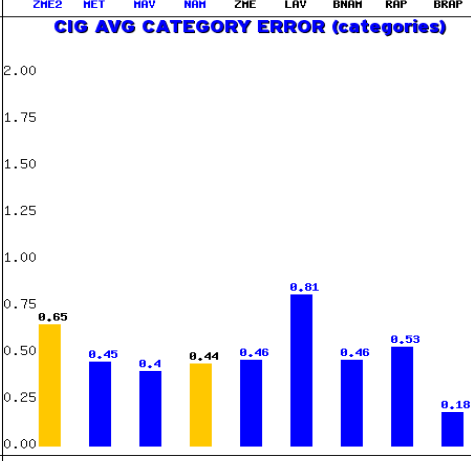
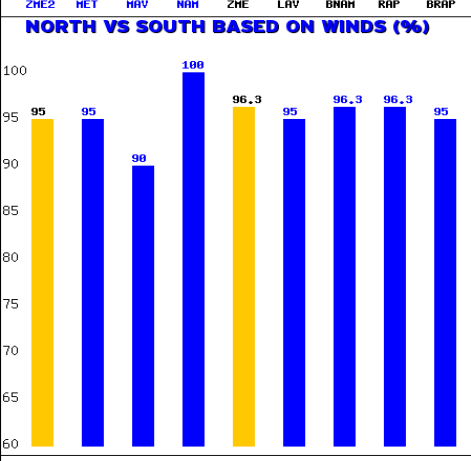
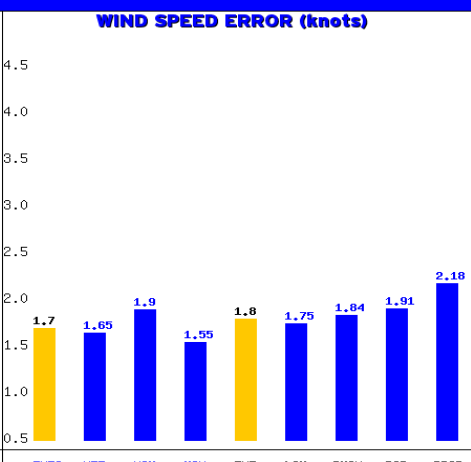
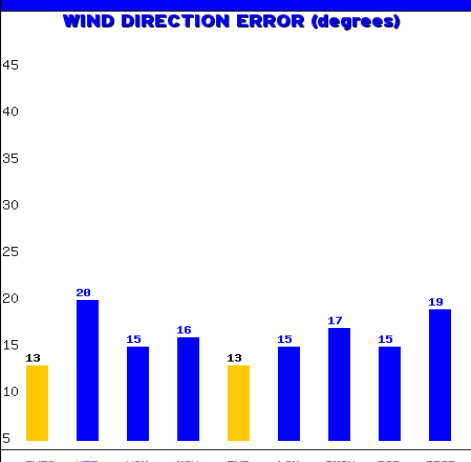
**SIGMETS VALID = 5**

**CONVECTIVE = 5**

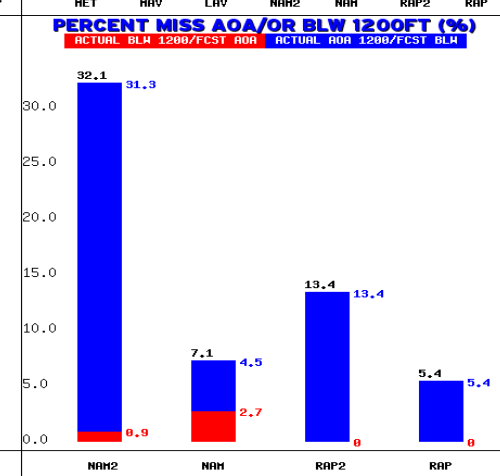
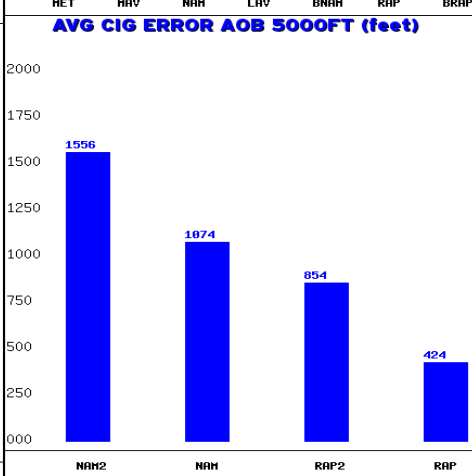
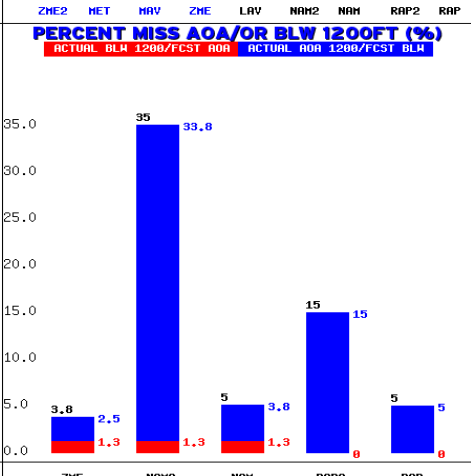
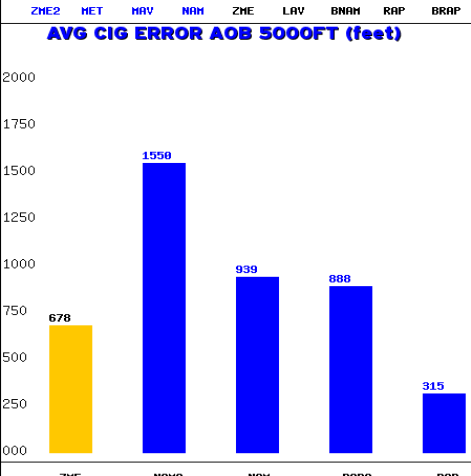
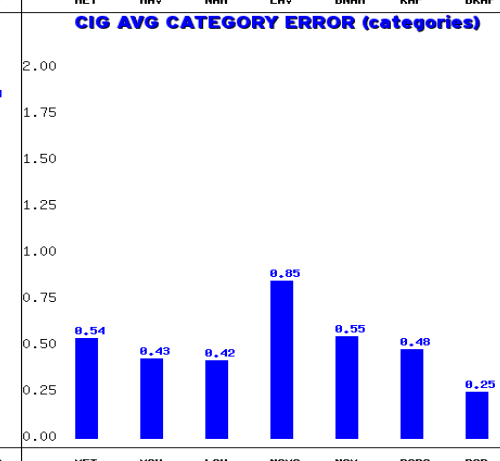
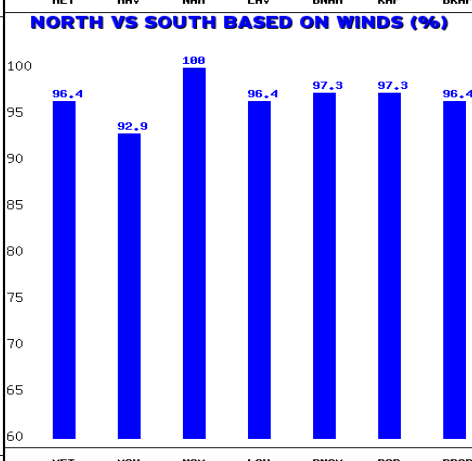
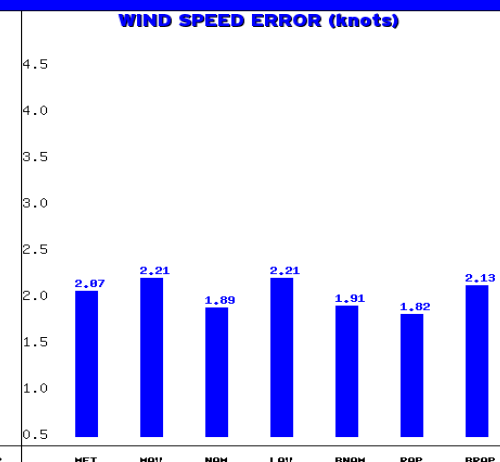
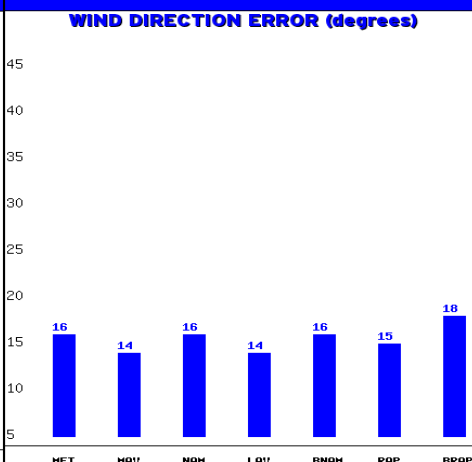
**Are there more Non-GIS uses?**

**YES!!**

**ZME OVERNIGHT STATS AND COMPARISON TO MODEL DATA FROM 02-2015**



**ZME OVERNIGHT MODEL DATA 10PM-1AM LOCAL (CST) FROM 02-2015**



Sfc Wind

CIG

VIS

OBV

03Z

## PREVIOUS DAY'S CALCULATED MODEL ERROR

	Wind	Dir	Spd(KT)	Spd > OB	N vs S	Cig_cat	Cig_ft
FCST		10	0.25	0	100	0	0
MET		15	0.5	50	100	0	
MAV		15	1.5	0	100	0	
LAV		15	1.5	0	100	0	
NAM		34	0.5	0	100	0.5	499
B_NAM		24	0.54	50	100	0.25	199
RAP		46	0.75	0	100	0.25	30
B_RAP		51	1.42	0	100	0	0

## RUNNING MONTHLY CALCULATED MODEL ERROR

	Wind	Dir	Spd(KT)	Spd > OB	N vs S	Cig_cat	Cig_ft
FCST		29	1.65	39.6	87.5	0.1	52
MET		23	1.97	53.1	93.8	0.31	
MAV		25	1.84	46.9	93.8	0	
LAV		36	1.66	35.9	92.2	0	
NAM		25	1.87	30	100	0.4	544
B_NAM		37	2.17	48.3	95	0.13	232
RAP		28	2	20	83.3	0.55	620
B_RAP		26	2.98	20	80	0.4	484

\*\*CIG (####) = NAM2 & B\_NAM = NAM for stats...all data from BUFKIT\*\*

NAM	144	3KT	AOA 5000FT	VFR
B_NAM	142	3.46KT	AOA 5000FT	VFR
RAP	149	4KT	4882	FG POSS
B_RAP	148	2.53KT	AOA 5000FT	VFR

# MEMPHIS TRACON OVERNIGHT BRIEFING

\*\*\*for air traffic planning purposes only\*\*\*

Memphis TRACON area only--valid from 10:00 PM through 4:00 AM

**VALID: 03Z-09Z**

	<b>10 PM</b>	<b>11 PM</b>	<b>12 AM</b>	<b>1 AM</b>	<b>3 AM</b>
<b>SFC WIND</b>	18020G28KT	20018G26KT	22017G26KT	26015G25KT	27014G24KT
<b>SKY/CIG</b>	OVC025	OVC022	OVC020	OVC015	OVC010
<b>SFC VIS</b>	3SM	5SM	6SM	7SM	7SM
<b>SFC WX</b>	-TSRA	-RA	-RA		
<b>200FT WIND</b>	260/25KT	280/24KT	300/22KT	320/22KT	320/22KT
<b>1K FT WIND</b>	240/12KT	240/17KT	260/22KT	270/25KT	280/20KT
<b>2K FT WIND</b>	250/20KT	260/22KT	260/25KT	270/25KT	290/20KT

**BRBBQ**  
 10P 11P 12A 1 A

**HYTHR**  
 10P 11P 12A 1 A

**BLUZZ**  
 10P 11P 12A 1 A

ALL TIMES LOCAL (CST)

**CONDR**  
 10P 11P 12A 1 A



**MONAA**  
 10P 11P 12A 1 A

WINDSHIFT TIME(S): 05-06Z

**HOBKR**  
 10P 11P 12A 1 A

**SOUTH**  
 10P 11P 12A 1 A

**VANZE**  
 10P 11P 12A 1 A

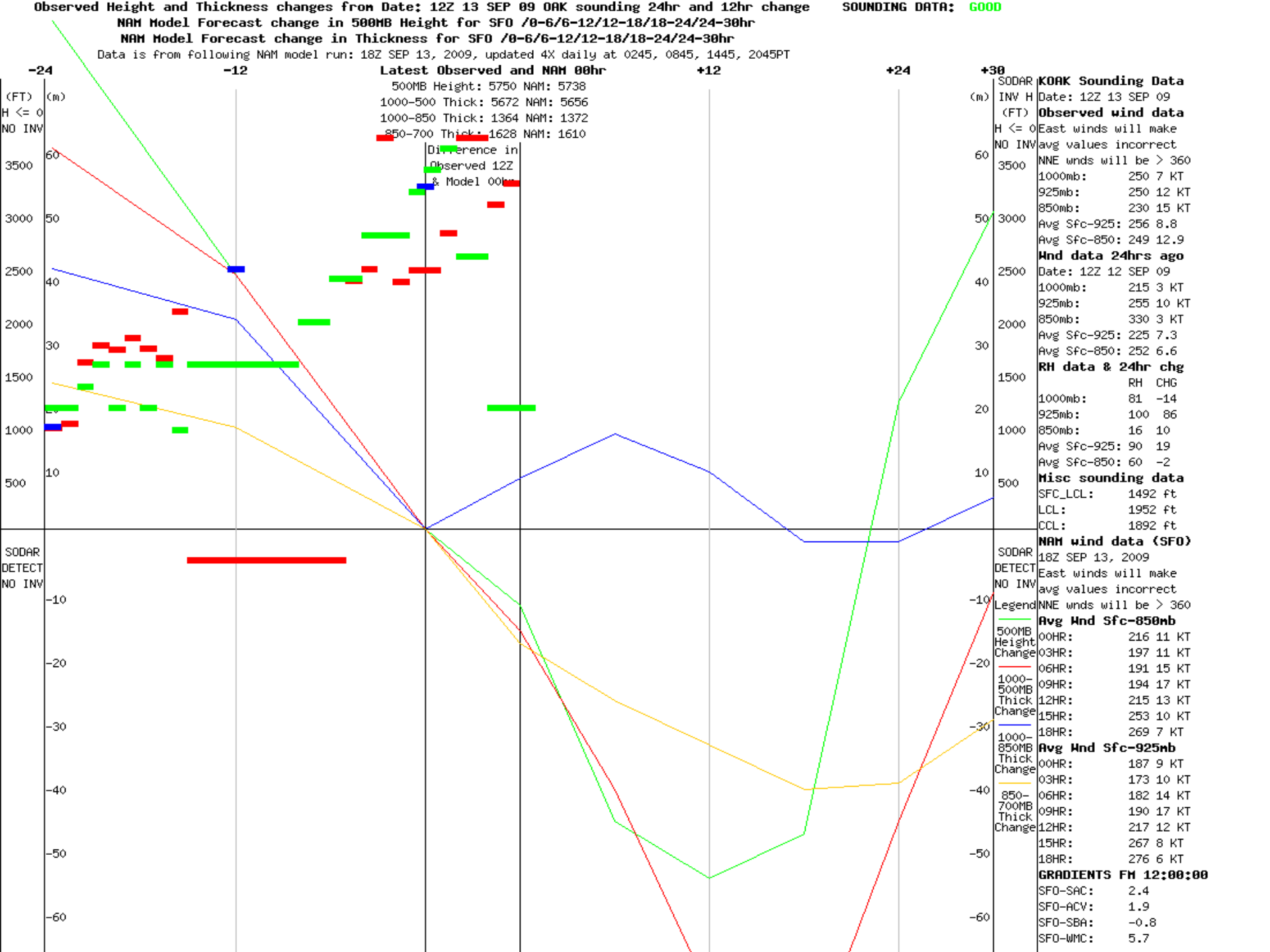
GATE T-STORM FORECAST

Unlikely (0%-29%)	Chance (30%-59%)	Likely (60%-100%)
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**MISC:**

EXPE

19:53UTC



**THEORY:** Urban Heat Island affect near MEM and stronger nocturnal cooling of outlying areas in Mississippi will cause local winds at MEM to be stronger than forecast during period of 10PM-1AM (during Fed Ex inbound push)

**CONDITIONS:** CLEAR SKIES DURING 10PM - 1AM TIME PERIOD with WIND SPD > 7 and Wind Direction South (140-220)- (ZME ONLY MON-FRI)

	ZME FCST	MET	MAV	LAV
NUM OCCURANCES -	196	91	91	229
% ABV FCST VALUE -	68.37	65.93	60.44	65.94
AVG TOTAL KTS ABV -	1.56	1.56	1.26	1.54

METAR DATA COLLECTION BEGAN FALL 2013

Recent, May 16<sup>th</sup> Occurrence:

My Forecast: 210 @ 7-8KT, but Plane facing South!

LAV 210 @ 6-7KT  
MAV 210 @ 7-8KT  
MET 210 @ 4-5KT



KMEM 170254Z 20006KT 10SM CLR 25/17 A2994 RMK AO2 SLP134  
KMEM 170354Z 21009G16KT 160V240 10SM CLR 26/17 A2994 RMK AO2 SLP135  
KMEM 170454Z 20008G15KT 10SM CLR 25/17 A2994 RMK AO2 SLP133  
KMEM 170554Z 21007KT 10SM CLR 23/18 A2991 RMK AO2 SLP125

**Any Questions??**

