

Det 3, 18th Weather Squadron

TEMPESTA PRAECURSIO

Semi-Annual Weather Brief Spring - Summer 2018



Briefer: TSgt Douglas Spires

Classification: UNCLASSIFIED

U.S. AIR FORCE



OVERVIEW



- ✓ Weather Support
- ✓ Weather Webpages
- ✓ Seasonal Weather
- ✓ Monthly Averages
- ✓ Operational Impacts



OPERATIONS



Weather Station Operating Hours

- Hunter AAF: **Now open 7 days/week**
- Wright AAF: Mon – Fri (0600L-2300L)
(Closed weekends, holidays, and training days)

**Standby and Severe Weather Team (SWAT) for
Inclement weather when closed for both locations**

For after hours briefing support please contact
26th OWS Flight Weather Briefing cell at:
DSN: 331-2651/ 2652/ 2653
Comm: 318-529-2651/ 2652/ 2653



WEATHER BRIEFINGS



- ✓ Provide Mission Execution Forecasts (MEF) for local flights
- ✓ Provide 175-1 briefings via telephone, fax, email or in person
 - ✓ 175-1 requests should be requested at least 2 hours prior to delivery time or 3 ½ hours prior to take-off.
 - ✓ Updates, not initial briefs, may be done on PMSV

***For after hours briefing support contact
26th OWS Flight Weather Briefing cell at:
DSN: 331-2651/2652/2653
Comm: 318-529-2651/2652/2653***



PMSV



- ✓ Pilot-to-Metro Service
- ✓ UHF Frequency only
- ✓ Available during duty hours only
- ✓ **HAAF - UHF: 309.0**
- ✓ **WAAF - UHF: 252.025**



JET



Go here → <https://owsjet26.us.af.mil/portal/>

Request a New Account.

US DEPARTMENT OF DEFENSE WARNING STATEMENT

You are accessing a U.S. Government (USG) Information System (IS) that is provided for USG-authorized use only.

By using this IS (which includes any device attached to this IS), you consent to the following conditions:

- The USG routinely intercepts and monitors communications on this IS for purposes including, but not limited to, penetration testing, COMSEC monitoring, network operations and defense, personnel misconduct (PM), law enforcement (LE), and counterintelligence (CI) investigations.
- At any time, the USG may inspect and seize data stored on this IS.
- Communications using, or data stored on, this IS are not private, are subject to routine monitoring, interception, and search, and may be disclosed or used for any USG-authorized purpose.
- This IS includes security measures (e.g., authentication and access controls) to protect USG interests--not for your personal benefit or privacy.
- Notwithstanding the above, using this IS does not constitute consent to PM, LE or CI investigative searching or monitoring of the content of privileged communications, or work product, related to personal representation or services by attorneys, psychotherapists, or clergy, and their assistants. Such communications and work product are private and confidential. See User Agreement for details.

OK



New WX Brief Portal to request flight brief without an account.

WX Brief

Apps.

Help

User: mdaust | Portal: 26th OWS Guest | [Logout](#)

WHAT'S NEW

Observations and Forecasts | AOR Sensor Data | Warnings | Radar Imagery | Lightning

Viewer - Observation

Location ID	Valid Time	Roll-up	Raw Data	Last 96 Hours
KDYS	221458Z	●	METAR KDYS 221458Z 18010KT 10SM CLR 31/19 A3012 RMK AO2A SLP146 T03080194 51008 \$	Decoded / Raw
KEND	221455Z	●	METAR KEND 221455Z 20012KT 10SM FEW200 29/20 A3004 RMK AO2A SLP158 50002	Decoded / Raw
	221455Z		KEND METAR 1455Z 19012KT 10SM FEW200 29/20 ALSTG 30.04 RMK AO2A FITS 96F 89F/67F PA +1196 DA +3383	
KFRI	221458Z	●	METAR KFRI 221458Z AUTO 22012KT 10SM CLR 33/21 A2997 RMK AO2 SLP134 T03270208 56001	Decoded / Raw
	221458Z		KFRI METAR 1458Z AUTO 22012KT 10SM CLR 33/21 ALSTG 29.97 RMK AO2 PA +1018 DA +3623	
KFSI	221458Z	●	METAR KFSI 221458Z COR 23009KT 10SM CLR 30/20 A3007 RMK AO2A SLP172 T03040201 50005 COR 1505	Decoded / Raw
	221458Z		KFSI METAR 1458Z COR 23009KT 10SM CLR 30/20 ALSTG 30.07 RMK AO2A T03040201 PA +1050 DA +3315 COR 1505	



JET Registration



User Registration. Complete all required (*) fields and IAW instructions below (Figure 2).

If all entries are valid, JET generates an account for you and sends an automated E-mail to the JET Administrator. The JET Administrator must approve the account before you can log into the JET Portal.

Enter the **Initials*** you intend to use (i.e., RS or RNS).

Enter **Preferred Username*** – The initials of your first and middle name followed by your last name (i.e., rnsmith).

Enter a Password* IAW the following rules:

Must be at least **15 characters** in length.

User Registration

Certificate Presented: CN=Valid.User, OU=CONTRACTOR, OU=PKI, OU=DoD, O=U.S. Government, C=US
SoftCert - Multiple Accounts (provided)

First Name*:

Middle Initial:

Last Name*:

Initials*:

Preferred Username*:

Password*:

Confirm Password*:




JET Roles



Select the Certificate Action to take with your account—from the drop-down menu select **CAC – One Account**.

Preferred Role* - Use the drop-down menu and select **“Operations”**

Preferred Role*: (Select One) 

Request Open Portal with IGD Display: ☐

Request Email Alert Notification: ☐

Request Forecast Mission Alerts: ☐

Request Observed Mission Alerts: ☐

Request Site Alerts: ☐

LEAVE BLANK

Work Phone Number(Comm)*:

Work Phone Number(DSN):

Dissemination Phone Dial String:

Work Fax Number(Comm):

Work Fax Number(DSN):

Dissemination Fax Dial String:

Email*:



JET continued



Select “Army” from the drop-down menu for **Branch of Service*** and select applicable **Rank*** from the drop-down menu.

Select Hunter AAF from the drop-down menu for **Primary Base/Post***.

Detachment personnel will add **Additional Base/Post***
Wright AAF

Enter “Operations” in the **Primary Use***

Review all entries/selections and make any corrections.
Once all mandatory entries/selections are made the
“Submit”

button will no longer be grayed. Click on the “Submit”
button.

The new account request is submitted for approval.
Once a JET Administrator approves the new account,
JET will send an automated E-mail noting the account is
approved and you can log into your user account within
the JET Portal using your CAC.

Branch of Service*: (Select One) ▼

Rank*:

Primary Base/Post*: (Select One) ▼ ⓘ

Additional Base/Post*: ⓘ

Unit/Squadron: ⓘ

Primary Use*:

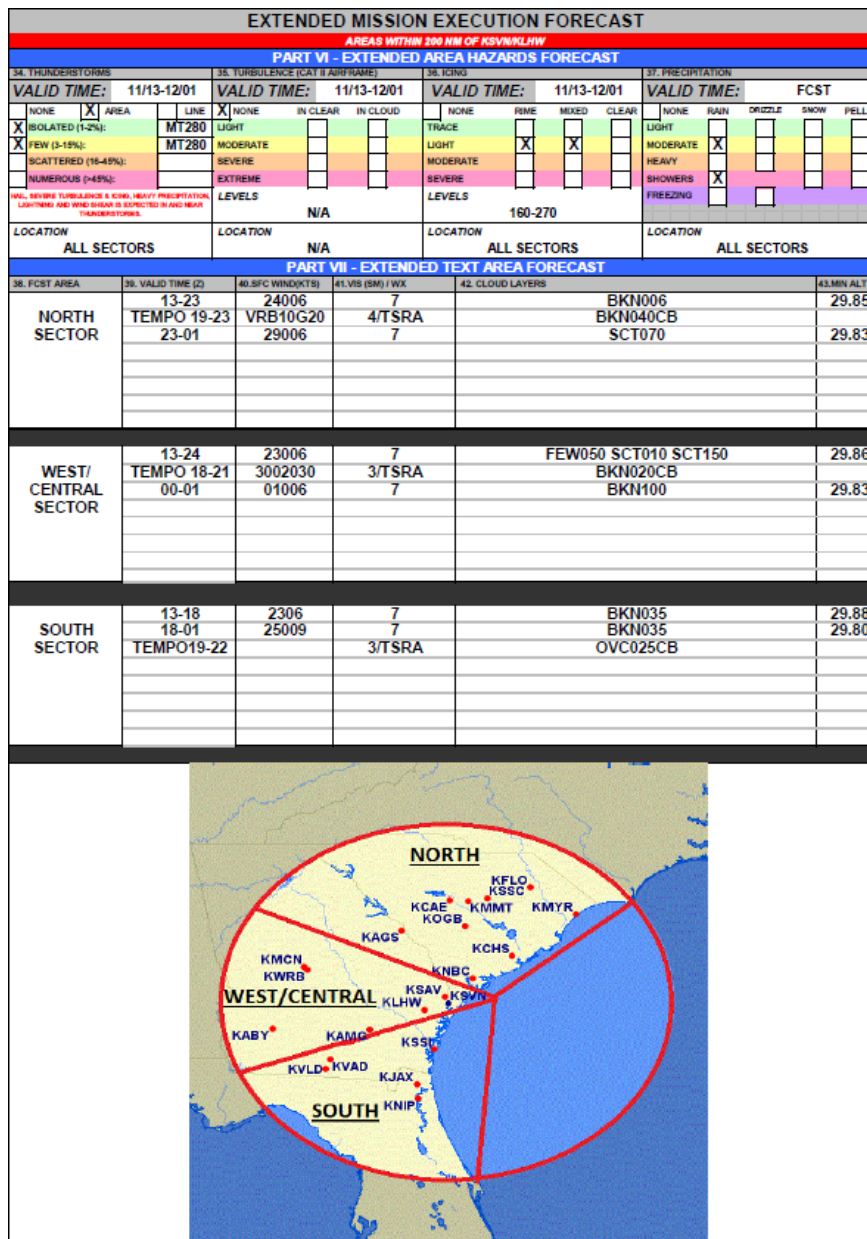
Submit Cancel











Mission Execution Forecast



MISSION EXECUTION FORECAST - HUNTER AAF / FORT STEWART													
MEF IS FOR LOCAL FLIGHTS ONLY -- HUNTER AAF, WRIGHT AAF, TEST FLIGHT AREAS A/B/C AND FORT STEWART RANGES													
PART I - BRIEF RECORD / TAKEOFF DATA / DAILY SUMMARY													
1. DATE:	2. MEF ISSUE:	3. A.M.D.:	4. VALID TO:	5. TAKEOFF WEATHER:									
140423	1300Z		0100Z	CIG:	VIS:	HAZ:							
6. WEATHER ADVISORIES / WATCHES / WARNINGS:													
7. SURFACE DATA (WIND / TEMP / PRES / PA):													
8. FLIGHT LEVEL (WINDS / TEMP):													
9. FLIGHT LEVEL WEATHER / MINIMUMS:													
10. SPACE WX / SOLAR / LUNAR DATA:													
11. THUNDERSTORMS:													
12. TURBULENCE (CAT II AIRFRAME):													
13. ICING:													
14. PRECIPITATION:													
15. FCST AREA:													
16. VALID TIME (Z):													
17. SFC WIND (KTS):													
18. CLOUD LAYERS:													
19. MIN ALT:													
20. MAX PA:													
21. MAX / MIN TEMP:													
22. MAX DA:													
23. LOWEST ALT:													
24. COMM / RADIO / PHONE NUMBERS (CMCL):													
25. REMARKS:													
26. CONTACT THE SWO VIA PHONE / PMBV / MARINE RADIO FOR WX UPDATES / MEF AMENDABLE FOR WW / WA													
27. BRIEF TIME(Z):													
28. VOID TIME:													
29. INITIALS:													
30. REBRIEF TIME:													
31. VOID TIME:													
32. INITIALS:													
33. NAME / FAX# / EMAIL ADDRESS OF RECIPIENT(S):													





UNCLASSIFIED								
HUNTER AAF FT STEWART - 4 DAY FORECAST								
AS OF 0600 HRS LOCAL Wednesday, April 23, 2014								
Wed 23 Apr 14		Thu 24 Apr 14		Fri 25 Apr 14		Sat 26 Apr 14		
06L-12L	12L-00L	00L-12L	12L-00L	00L-12L	12L-00L	00L-12L	12L-00L	
								
WINDS	N 09KTS	E 09KTS	E 09KTS	SE 09KTS	S 09KTS	SW 09KTS	SW 09KTS	SW 09KTS
MIN CEILINGS	NO CIG	NO CIG	NO CIG	NO CIG	1800 FT	NO CIG	NO CIG	NO CIG
MIN VISIBILITY	7 MILES	7 MILES	7 MILES	7 MILES	5 MILES	7 MILES	7 MILES	7 MILES
PRESENT WEATHER	CLEAR	CLEAR	CLEAR	PARTLY CLOUDY	ISOLD SHOWERS	PARTLY CLOUDY	PARTLY CLOUDY	PARTLY CLOUDY
TEMPERATURE	LO: 60F/16C	HI: 79F/26C	LO: 60F/16C	HI: 77F/25C	LO: 63F/17C	HI: 81F/27C	LO: 65F/18C	HI: 82F/28C
WC/HI		HI: 80F/27C		HI: 79F/26C		HI: 82F/28C		HI: 83F/28C
ROTARY								
FIXED WING					C			
GROUND OPS								
UAV					C			
LIGHT DATA	SR: 0647 BMNT: 0551 MR: 0256 ILLUM: 40.6%	SS: 1959 EENT: 2055 MS: 1426	SR: 0646 BMNT: 0550 MR: 0338 ILLUM: 29.6%	SS: 2000 EENT: 2056 MS: 1531	SR: 0644 BMNT: 0549 MR: 0417 ILLUM: 19.7%	SS: 2001 EENT: 2057 MS: 1634	SR: 0643 BMNT: 0548 MR: 0456 ILLUM: 11.4%	SS: 2002 EENT: 2058 MS: 1738
C-CEILING								



SWO PRODUCT PAGE



<https://sps.stewart.army.mil/usaf/SWO/default.aspx>

Staff Weather Officer

Home

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Documents
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MEF
4 Day Forecast
Illumination Charts
Tropical Update
EO Forecast
Climatology

Lists
Calendar
Tasks
Det 3, 18 WS Personnel

Discussions
Team Discussion

Sites
People and Groups

Recycle Bin
 All Site Content

Operations and Intelligence Weather Input

Type	Name	<input type="checkbox"/> Modified By
	OI Weather Input 22 JUL 2016	Langford, Brittanie M SrA MIL
Add document		

EO Forecast

Type	Name	<input type="checkbox"/> Modified By
There are no items to show in this view of the "EO Forecast" document library. To add a new item, click "Add document".		
Add document		

MEF

Type	Name	<input type="checkbox"/> Modified By
	22 JULY 16 13Z MEF AMD02	Belcher, John R SPC
Add document		

4 Day Forecast

Type	Name	<input type="checkbox"/> Modified By
	22 JUL 16 4-DAY KSVN	Langford, Brittanie M SrA MIL
Add document		

Det 3, 18 WS

Links

- After Hours Weather Briefing Request
- Radar
- Satellite
- 26 OWS Home Page
- National Hurricane Center
- OBS / TAPS / SIGMETS / AIRMETS
- 26th OWS Webpage NEW)
- JET PORTAL

Add new link

Det 3, 18 WS Personnel

Last Name	First Name	E-mail Address
BELCHER	JOHN	john.r.belcher18.mil@mail.mil



WEATHER WATCHES, WARNINGS AND ADVISORIES



Weather Advisory - Alerts supported units to weather conditions that could affect their operations.

Weather Watch - Alert supported units of **potential** for hazardous weather for which they must take protective measures.

Weather Warning - Alert supported units to **existing or imminent** weather conditions that pose a hazard to life or property.



CAB Hangering Recommendation Memo



DEPARTMENT OF THE AIR FORCE
DET. 3, 18TH WEATHER SQUADRON (ACC)
HUNTER AAF, GEORGIA

17 April 2014

MEMORANDUM FOR 3rd CAB

FROM: DET 3, 18TH WEATHER SQUADRON

SUBJECT: Aircraft Hangar Recommendation for Severe Weather.

No Significant weather is expected that requires the hangering of aircraft this weekend. For today, expect mostly cloudy skies conditions for the entire period. Winds will be from the northeast around 10 knots with an occasional gust to 15 knots and a high temperature in the upper 60s. Friday mornings low will be 55F. For Friday, expect continued cloudy conditions with rain showers during the entire period. Winds will be out of the northeast at 12 knots and a high temperature in the low 60s. Saturday Mornings low will be 54F. On Saturday expect mostly cloudy conditions in the morning with some isolated rain showers becoming partly cloudy in the afternoon. Winds will be from the northeast at 12 knots. Low and high temperatures of 54F and 66F are forecasted. For Sunday, look for partly cloudy conditions to persist through the day with no precipitation expected. Winds will be from the north around 12 knots. Low and high temperatures of 55F and 71F are forecasted for Sunday.

1. Hunter AAF Weather Station will close on 17 Apr 2014 at 2100L (18/0100Z) and reopen on 21 Apr 2014 at 2200L (22/0200Z). Wright AAF Weather Station will close on 17 Apr 2014 at 2300L (18/0300Z) and reopen on 22 Apr 2014 at 0600L (22/1000Z).
2. The following individual will be on standby for severe weather, failure of long-line or local automation dissemination of KSVN & KLHW observations into the JET system, and runway changes for Hunter AAF.

17 Apr 2100L – 21 Apr 2200L (EST): SSgt Ellen Goza

Cell: (501) 304-3136

3. The following individual is the supervisor of the severe weather action team. Contact this individual only if you are unable to contact the designated standby individual.

17 Apr 2100L – 21 Apr 2200L (EST): MSgt Tobias Manzanares Cell: (719) 250-1806

4. If there are any questions, please contact me at DSN 729-4930 / Comm: (912) 315-4930 or Cell: (719) 250-1806.

//Signed//
TOBIAS F. MANZANARES, MSgt, USAF
Section Chief, Aviation Weather Operations



SEASONAL AVERAGES



WINTER - SPRING:

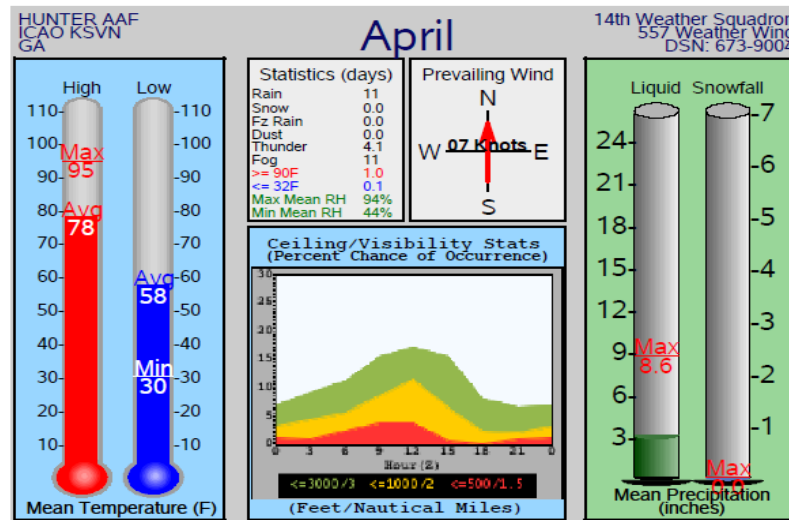
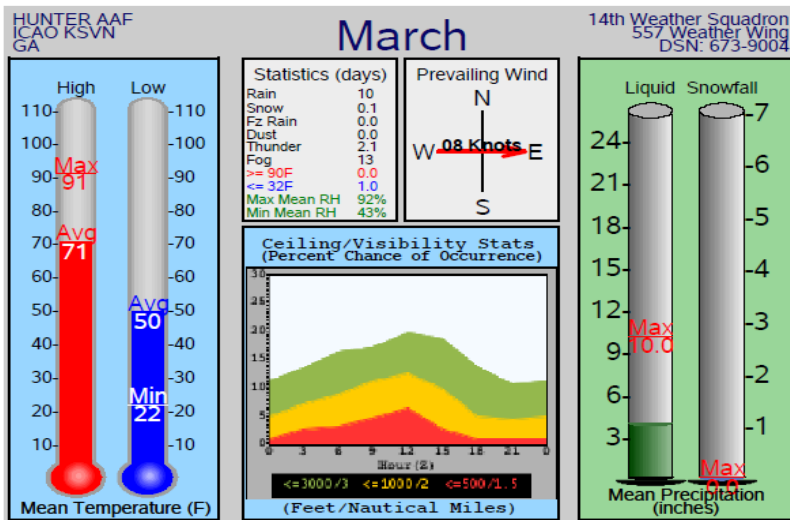
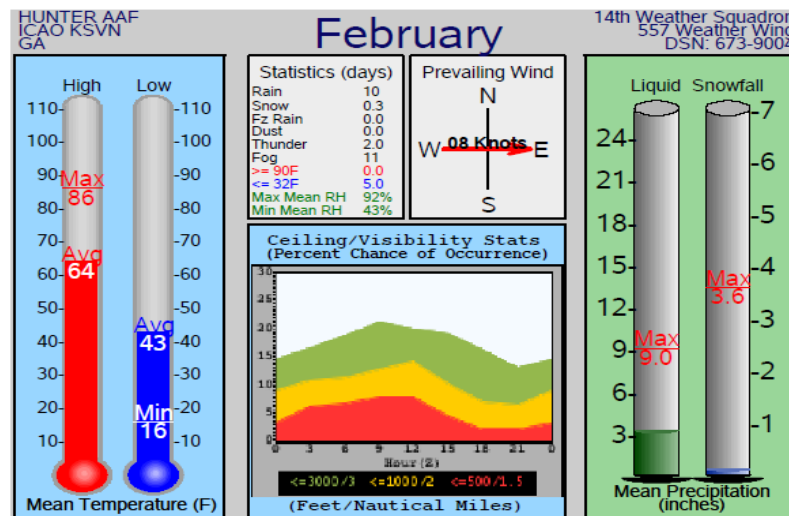
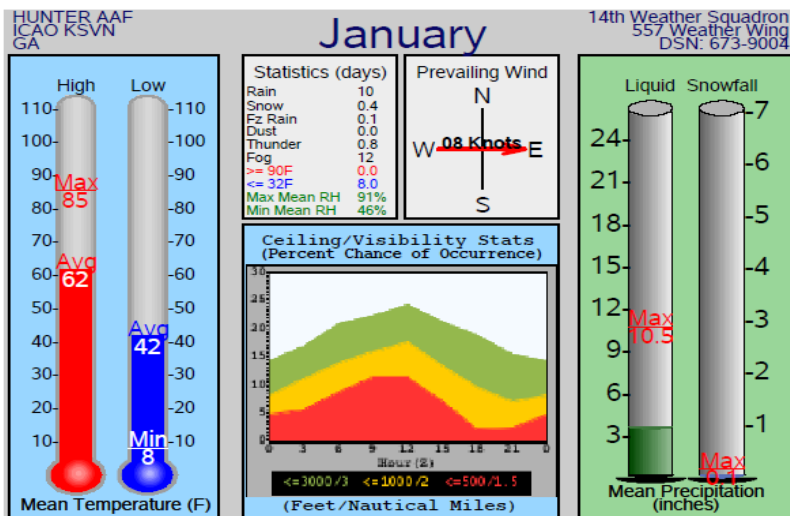
- Faster moving cold fronts
- Increased chance of in-line thunderstorms
- Highest potential for severe weather

SUMMER - FALL:

- Decreased frequency of cold fronts
- Weather systems mostly tropical in nature
- Largest concentration of air mass thunderstorms

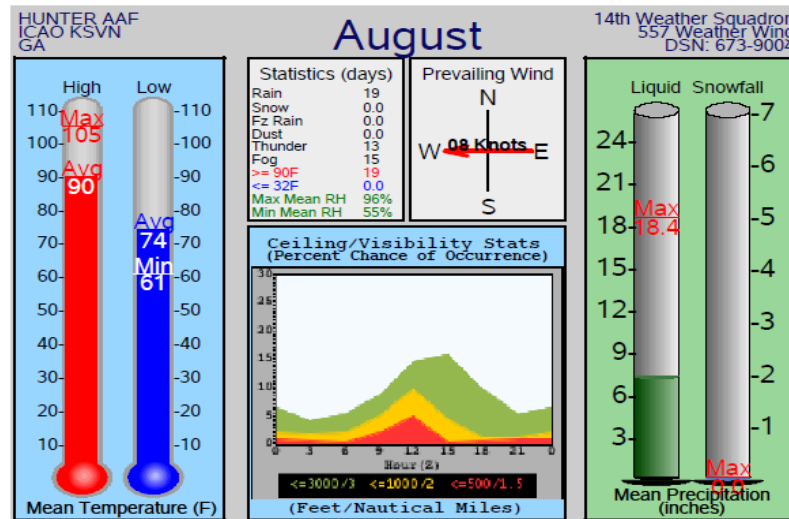
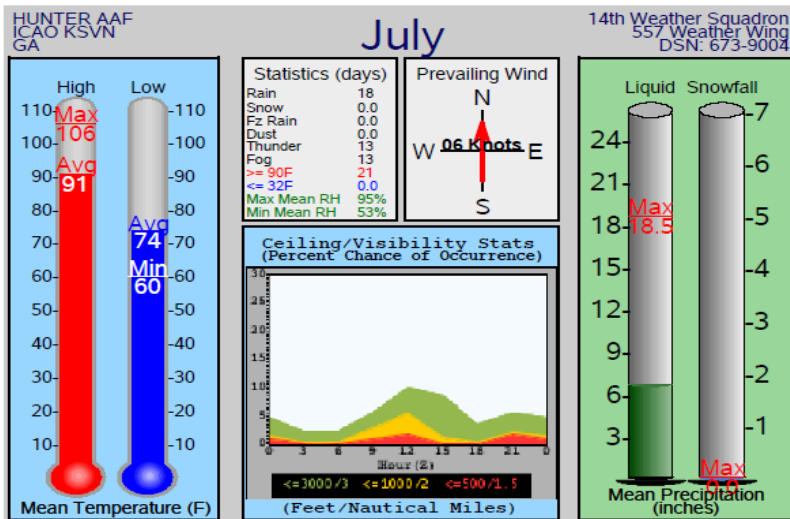
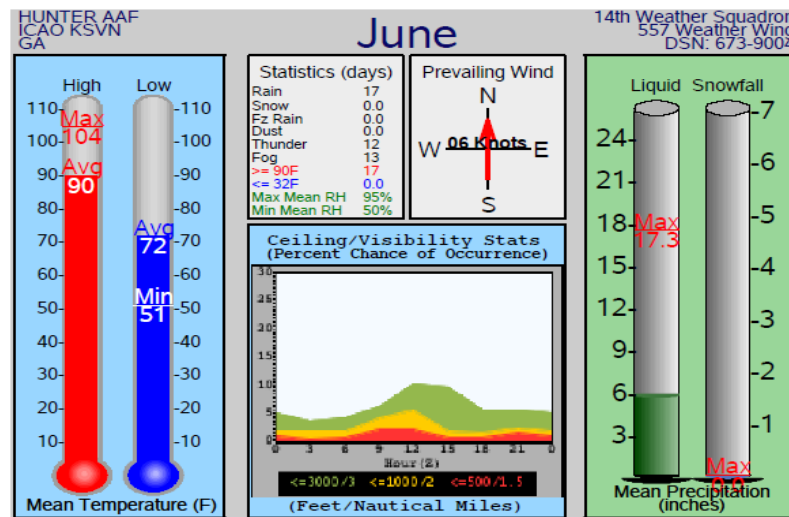
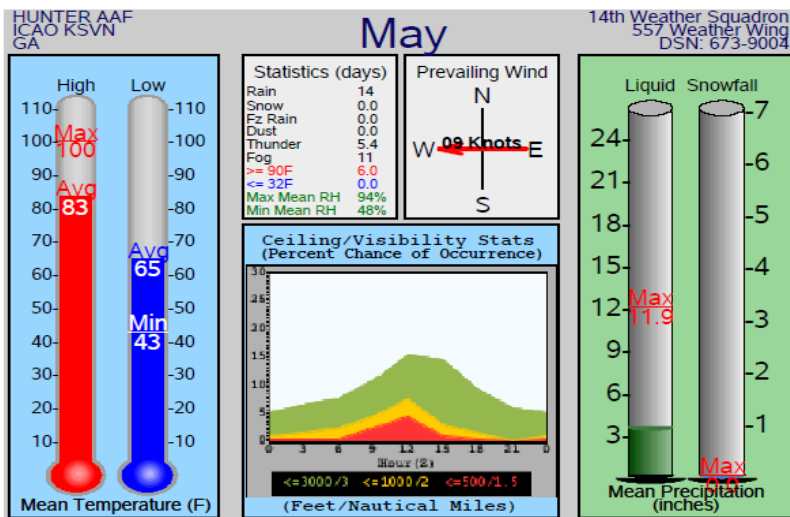


HUNTER AAF AND FT STEWART WINTER-SPRING CLIMATOLOGY



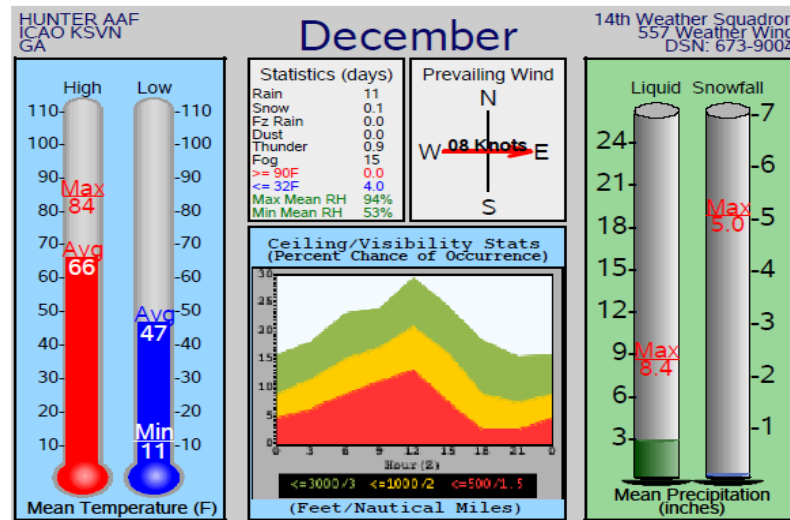
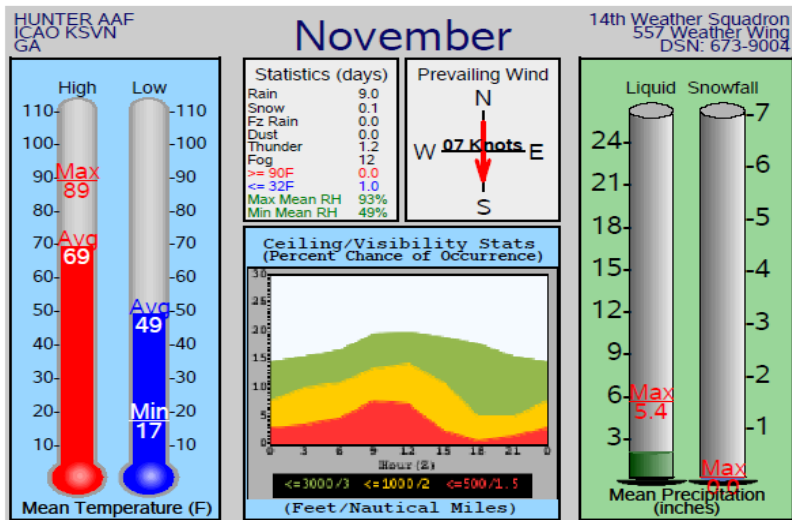
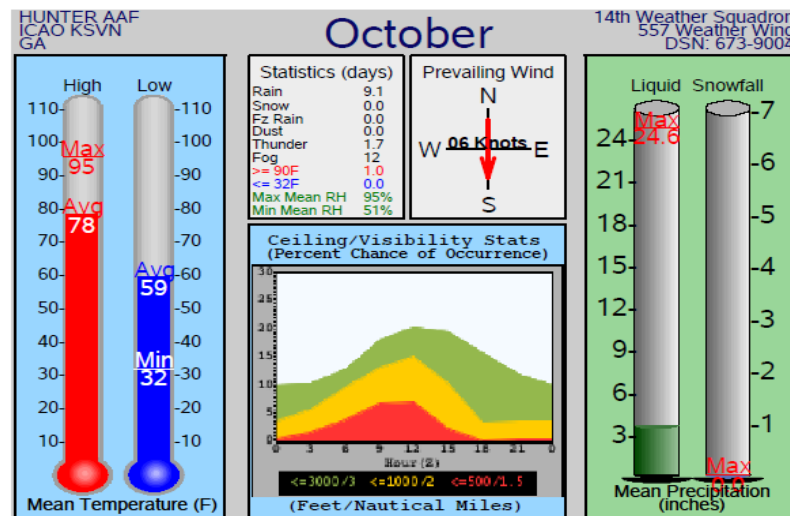
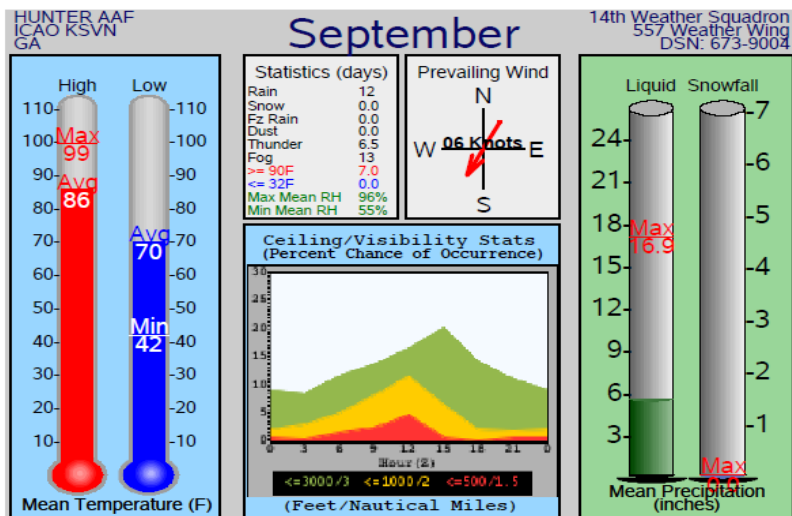


HUNTER AAF AND FT STEWART SPRING-SUMMER CLIMATOLOGY





HUNTER AAF AND FT STEWART SUMMER-FALL CLIMATOLOGY

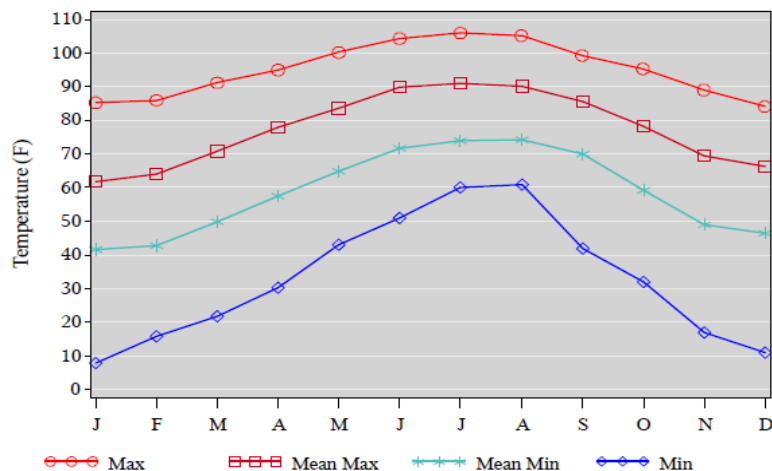




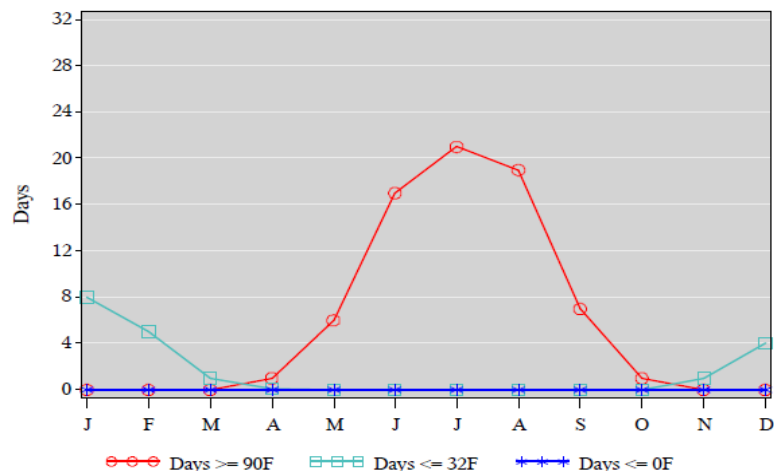
HUNTER AAF AND FT STEWART MONTHLY CLIMATOLOGY



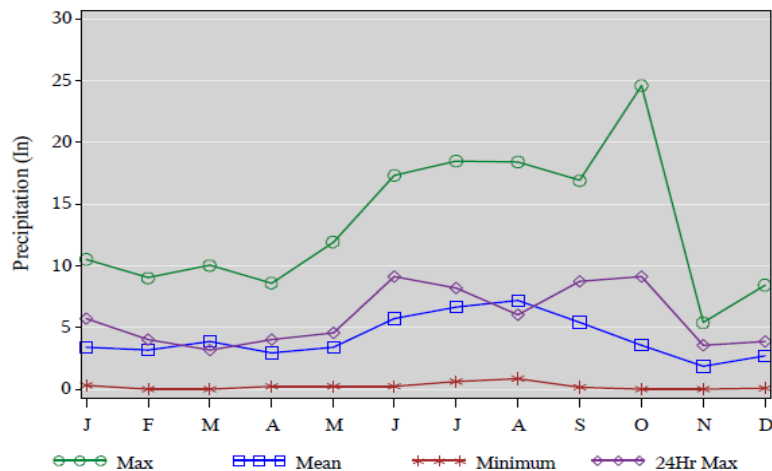
Monthly Temperature



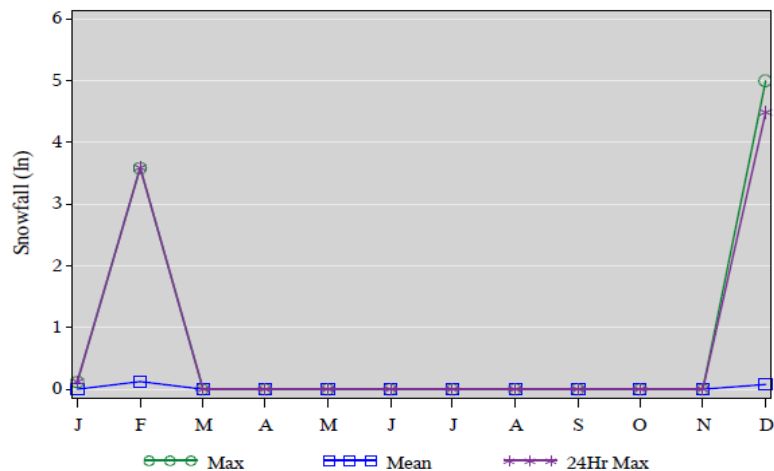
Temperature Days



Precipitation



Snowfall

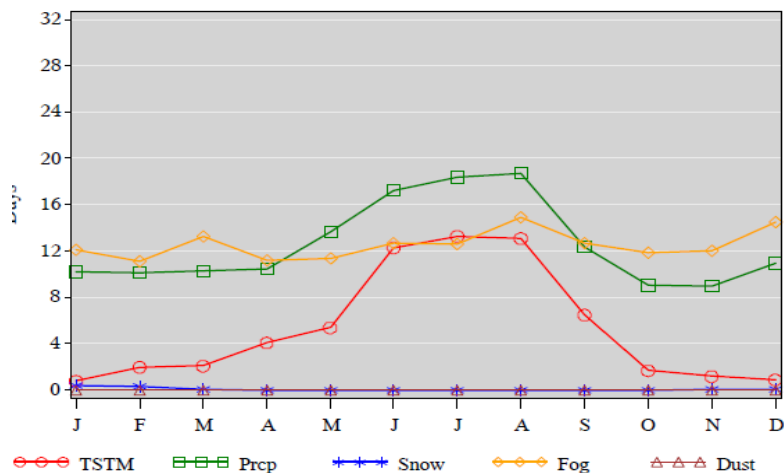




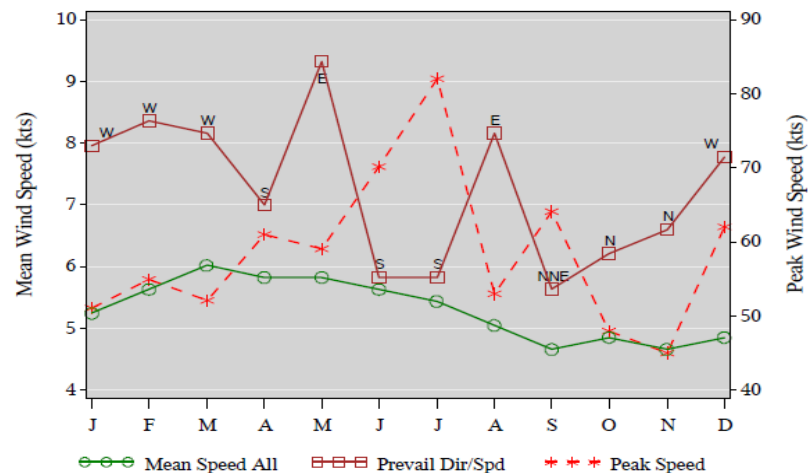
HUNTER AAF AND FT STEWART CLIMATOLOGY OCCURRENCE



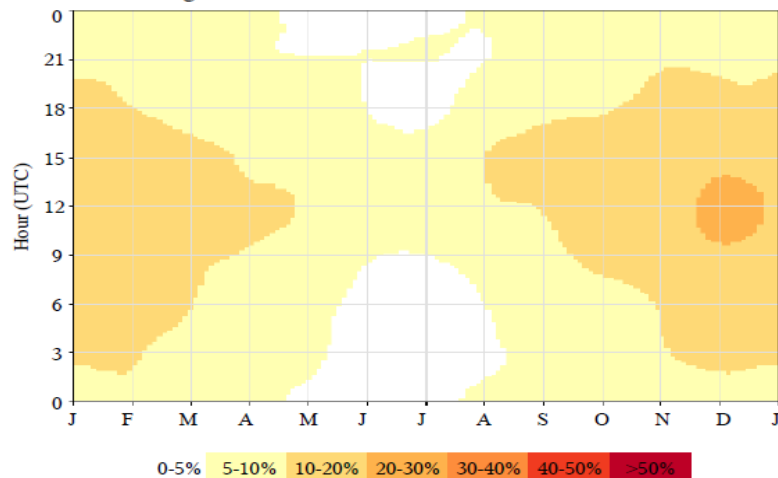
Weather Events



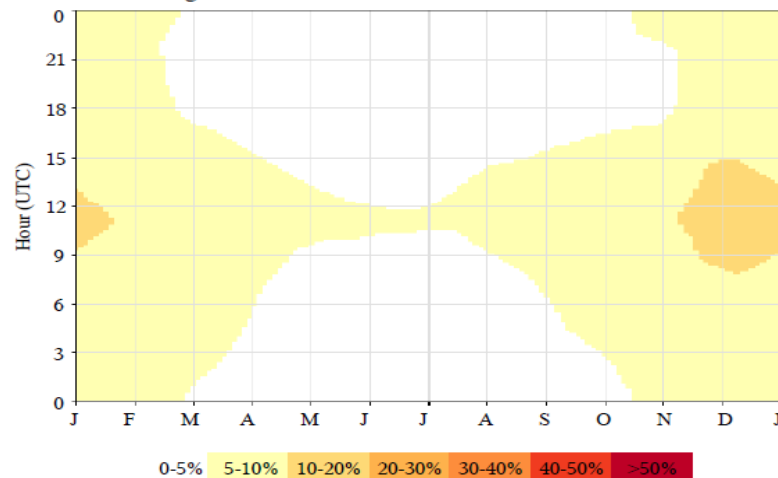
Wind Speeds



CigVis Occurrence at or below 3000ft/3mi



CigVis Occurrence at or below 1000ft/2mi

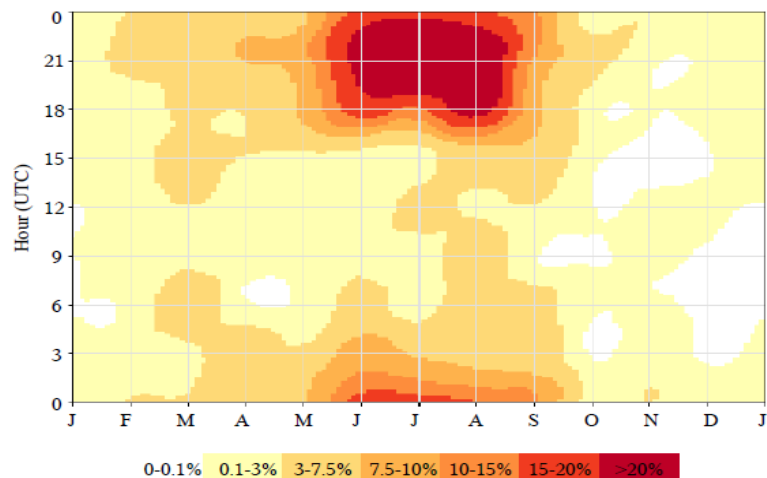




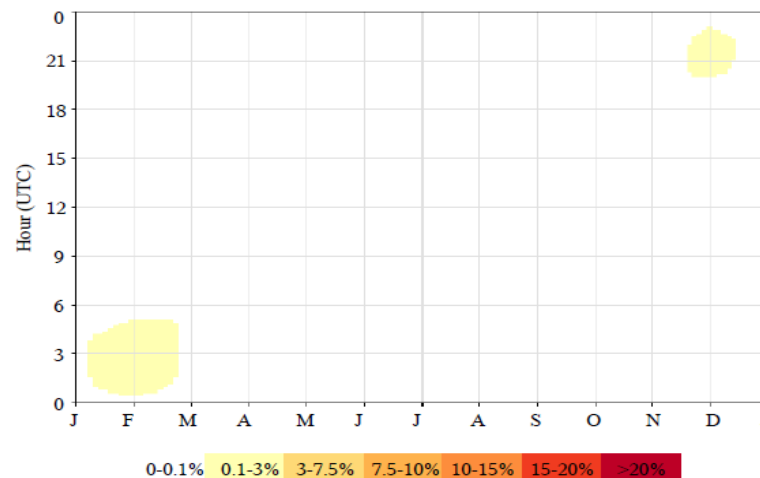
HUNTER AAF AND FT STEWART HOURLY CLIMATOLOGY



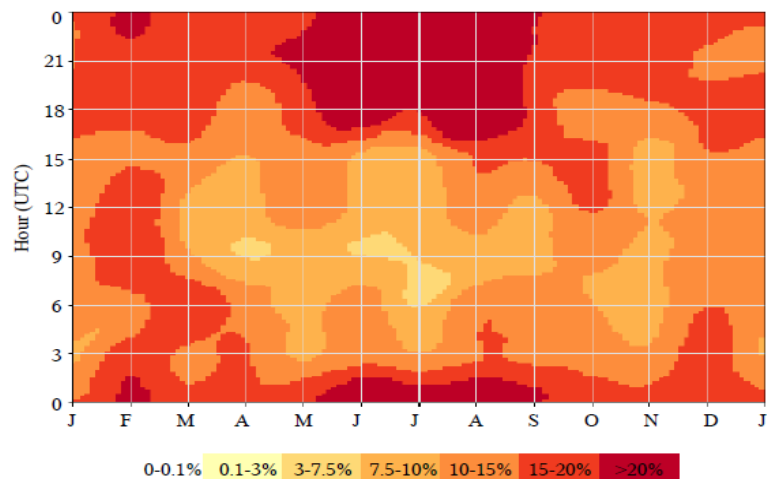
Thunderstorm Occurrence



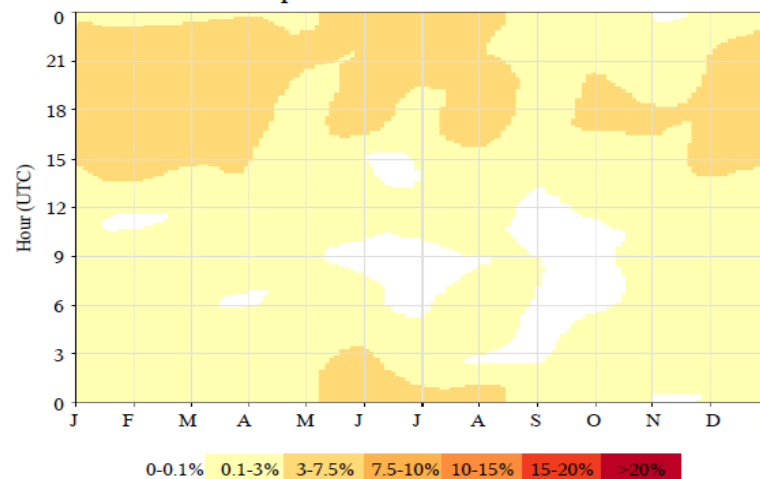
Snow/Ice Pellets Occurrence



Rain/Drizzle Occurrence



Wind Speed > 25 Kts Occurrence





OPERATIONAL IMPACTS

SPRING-SUMMER



- ✓ Thunderstorms
- ✓ Icing
- ✓ Turbulence
- ✓ Tornadic activity
- ✓ Hurricane / Tropical Storms



THUNDERSTORMS



✓ CAUTION: When a weather forecaster indicates **“Thunderstorm,”** it implies that Hail, Severe Turbulence, Mixed Icing, Heavy Precipitation, Lightning & Low Level Wind Shear are present in and within 25nm of the **Thunderstorm**



THUNDERSTORM HAZARDS



- ✓ Lightning:
 - Causes aircraft damage
 - Flash Blindness & Temporary Hearing Loss
 - Electrical Shock and Minor Burns
 - Most often occurs:
 - ✓ **Within 5,000' of the Freezing Level -or-**
 - ✓ **In LIGHT precipitation -or-**
 - ✓ **In LIGHT or NEGLIGABLE Turbulence**
- ✓ Microburst:
 - Preferred method for avoiding a microburst... **don't fly under or near a thunderstorm!!**



THUNDERSTORM HAZARDS



- ✓ Hail
 - Damages aircraft (1/2 inch or greater)
- ✓ Turbulence
 - Most severe in strong updrafts and downdrafts
- ✓ Icing
 - Freezing Level can drop by 10,000 feet in stronger downdrafts
- ✓ Low Level Wind Shear
 - Can expand (outflow boundary) to as much as 20NM from the storms outside boundary



ICING



- ✓ Increases the weight of the aircraft
- ✓ Decreases lifting surface efficiency
- ✓ Loss of engine power
- ✓ Destroys the efficiency of the airfoil by altering its shape (for wings or propellers)
- ✓ Effects on helicopters potentially more severe than fixed-wing because of relatively slow cruising speeds—aerodynamic effects are greatly exaggerated by icing and altered aerodynamic effects make control unpredictable



ICING TYPES



- ✓ Rime
 - Milky, bumpy coating
 - Usually from stable precipitation
- ✓ Clear
 - Clear, smooth coating
 - From cumuliform/freezing precipitation
- ✓ Mixed
 - Combination of the above



TURBULENCE



- ✓ During the summer there is a decrease in strong winds from the West and North therefore influence from mechanical TURBC and frontal TURBC decreases
- ✓ Frictional effects normally limited to first 3,000-4,000 feet
- ✓ Thermal TURBC increases throughout the season because of increasingly warmer temperatures



TURBULENCE



- ✓ Turbulence
 - ✓ increase in thermal turbulence (Heating)
 - ✓ decrease in mechanical turbulence (CF)
- ✓ All forecasts (MEF/4 day, etc) are set for **CAT II** aircraft
- ✓ Any hazards on **MEF** will be re-calculated by $\frac{1}{2}$ a category (example):
 - ✓ **CAT II LGT = CAT I LGT OCNL MOD turb**
- ✓ All Flight Weather Briefs (Locals, 175-1) will be specific to each aircraft



TORNADIC ACTIVITY



- ✓ Mainly occur during April/May but can occur during any time
- ✓ **Avoiding thunderstorms** will assist you in avoiding tornadoes

“Weather’s not important ‘til it’s important – then it’s too late...”

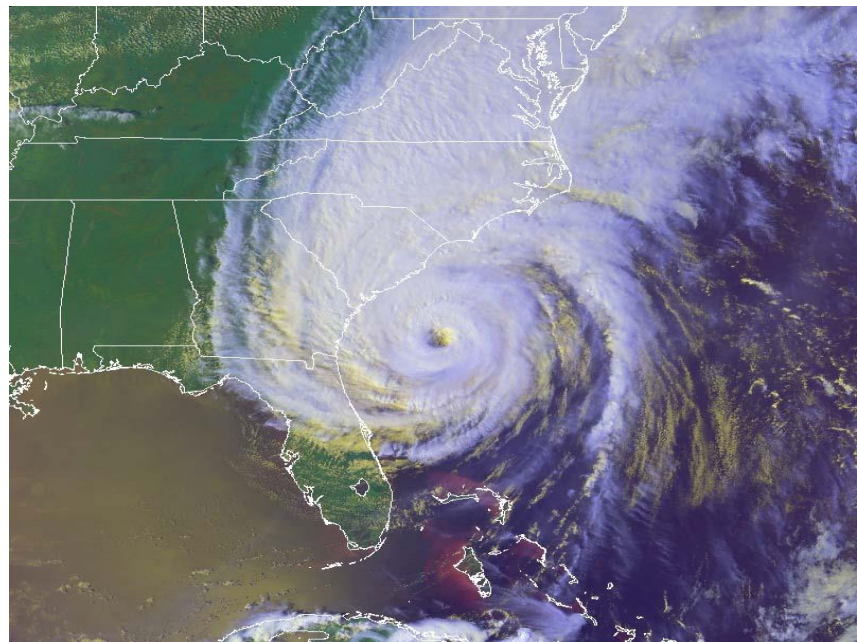
Lt Col Bill Aggrella



HURRICANE ACTIVITY



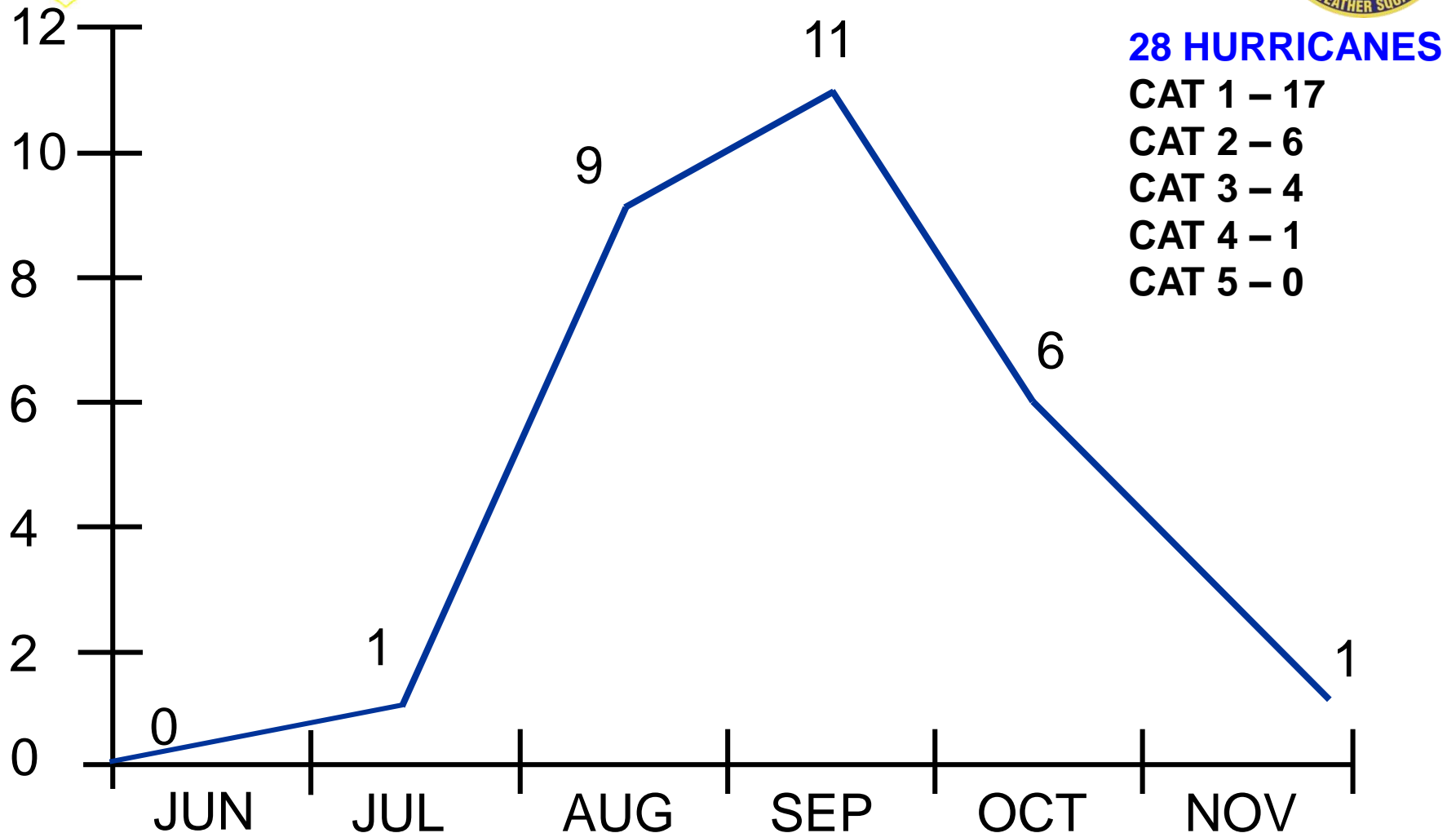
- ✓ Atlantic Season: Begins June 1; Ends 30 November
- ✓ All Warnings and Advisories pertaining to Tropical Storm/Hurricane activity will be provided to the DoD by the National Hurricane Center





GEORGIA HURRICANES

(1851-2006) (1 Jun - 30 Nov)





TROPICAL SYSTEMS



- **Tropical Disturbance**: A moving area of thunderstorms is in the tropics.
- **Tropical Depression**: An area of low pressure, rotary circulation of clouds and winds up to **38 mph** are identified.
- **Tropical Storm**: A storm characterized by counterclockwise circulation of clouds and winds **39-74 mph** are brewing, and system is given a name.
- **Hurricane**: Tropical storm has graduated with intensity, and sustained **winds exceeding 74 mph**. System continues with same name.
- **Major Hurricane**: Category III, IV, or V.



HURRICANE CATEGORIES



Saffir-Simpson Scale

CATEGORY	PRESSURE (millibar)	WIND (MPH)	STORM SURGE (ft)
1	>980	74-95	4-5
2	965-979	96-110	6-8
3	945-964	111-130	9-12
4	920-944	131-155	13-18
5	<920	>155	18+



NHC WATCHES AND WARNINGS



- **Hurricane Watch:** An announcement for specific coastal areas that hurricane conditions are possible within 36 hours.
- **Hurricane Warning:** A warning that sustained winds 64 kt (74 mph or 119 km/hr) or higher associated with a hurricane are expected in a specified coastal area in 24 hours or less.

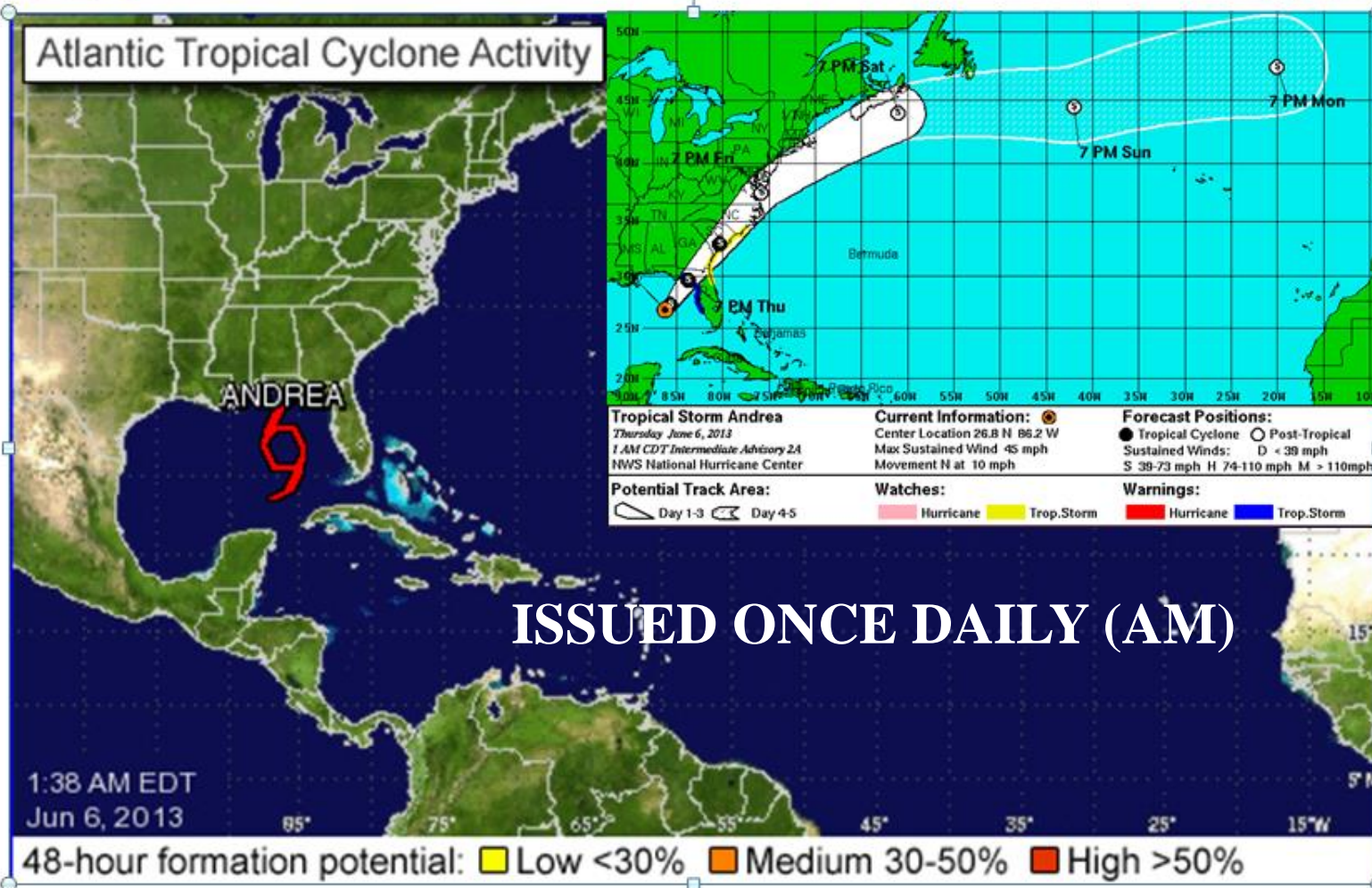


TROPICAL UPDATE SLIDE



TROPICAL SEASON UPDATE

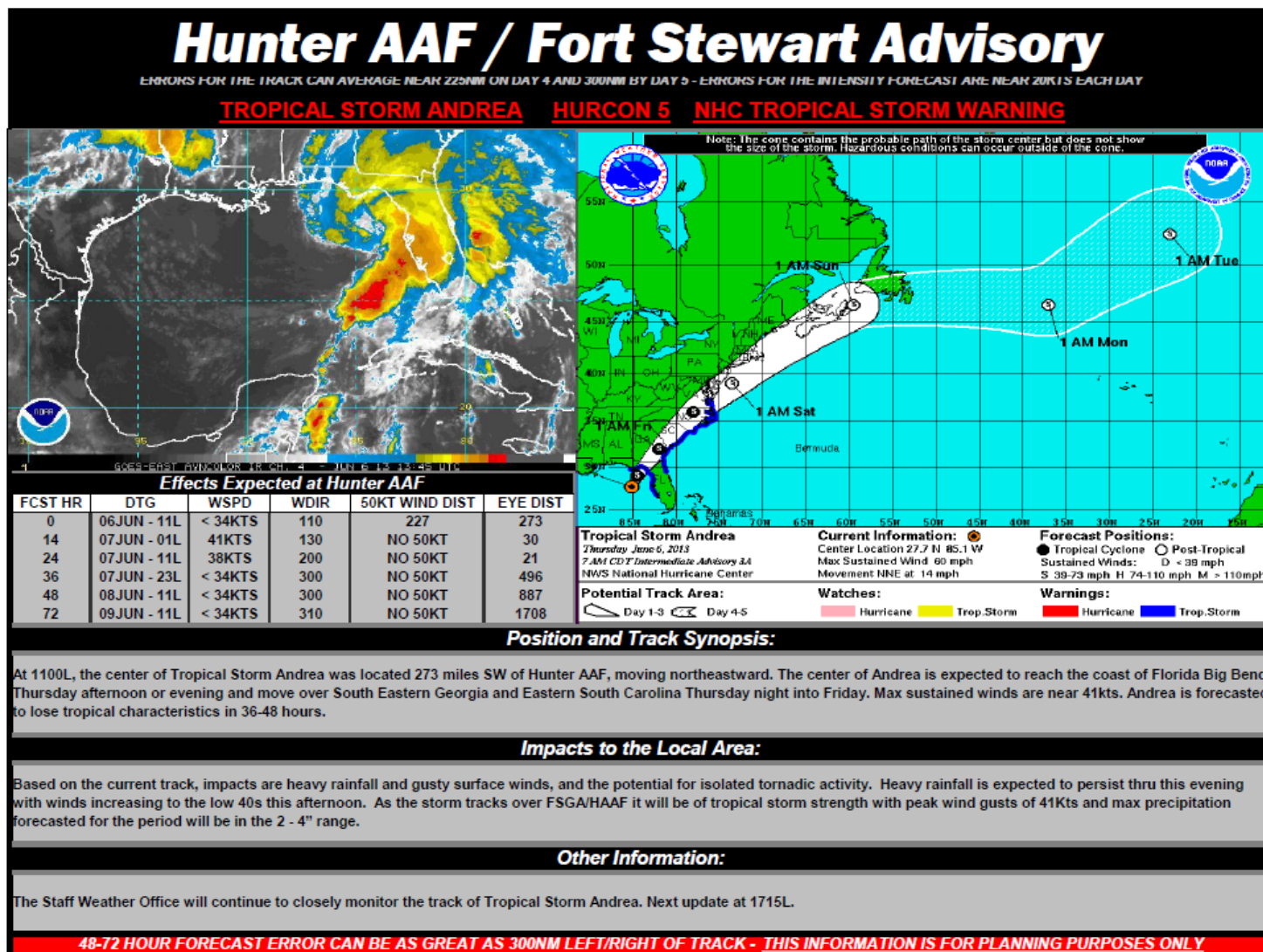
Atlantic Tropical Cyclone Activity



ISSUED ONCE DAILY (AM)



HURRICANE UPDATE SLIDE



Issued every 6 hours once an update from NHC has been received.



Any Questions?