15th Operational Weather Squadron

Integrity - Service - Excellence

USAF Aviation Weather: 15th Operational Weather Squadron Operations

Maj Hugh Freestrom
Flight Commander
15th Operational Weather Squadron

U.S. AIR FORCE

USAF Aviation Weather

Briefing Overview

- USAF Weather Operations Concepts
- USAF Weather Products and Services
- 15th Operational Weather Squadron Operations
- 15 OWS Aviation Operational Examples

USAF Aviation Weather
Mission

Weather Forces:

As part of the Joint team, deliver accurate, relevant, and timely environmental information, products, and services, anywhere in the world.

Directly impact decision superiority by enhancing predictive battlespace awareness and enabling commanders at all levels to anticipate and exploit the battlespace environment, from the mud to the sun!

USAF Aviation Weather
Organization--AFWA

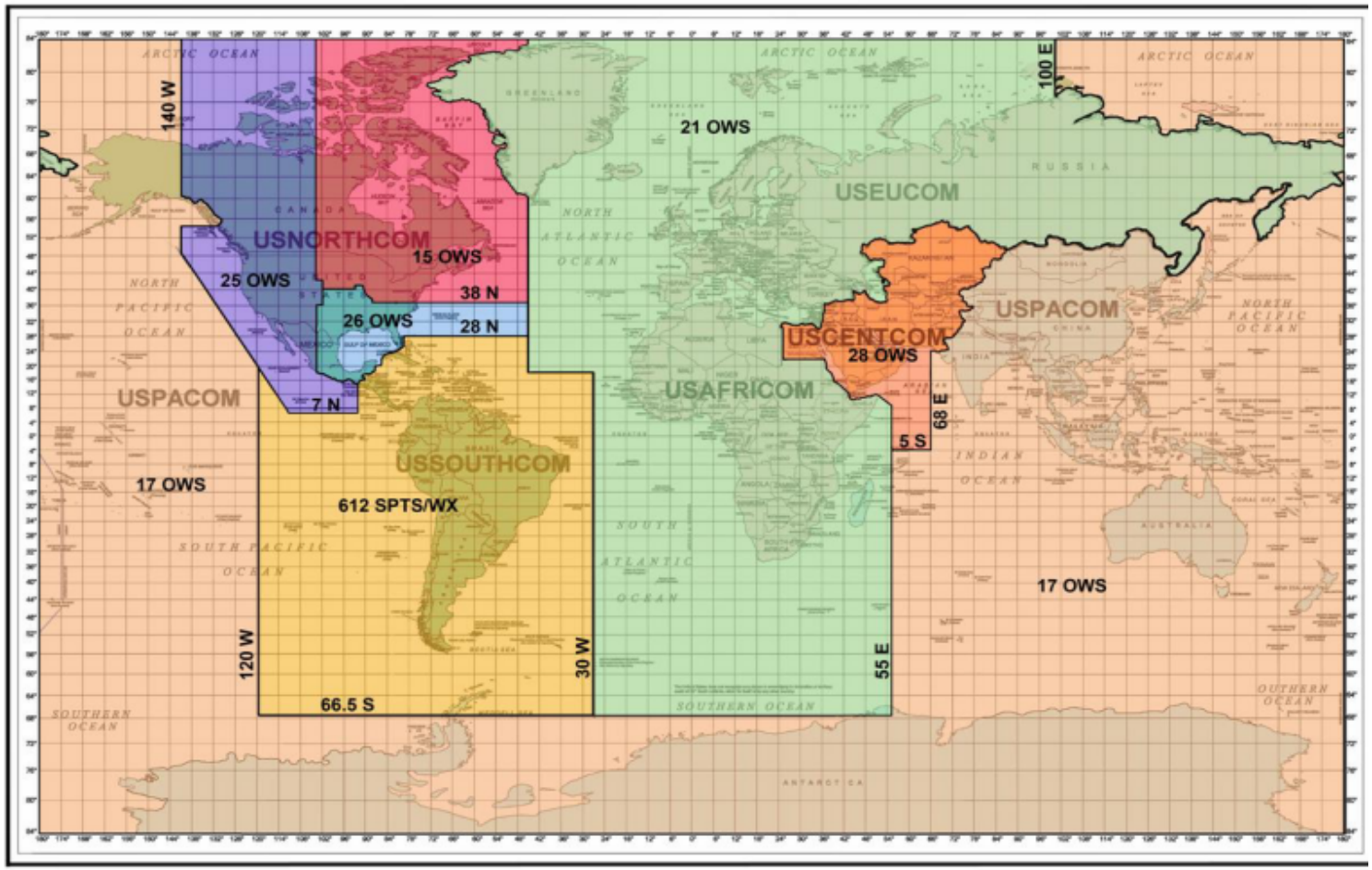
- Weather Strategic Center – Analysis, Forecasting, & Distribution
  - Atmospheric Modeling Center – Worldwide Capability
  - Center of Excellence for DoD Weather Satellite Program
- Lead Command for AF Weather Weapon System
  - Plan, program, & Field Standard Weather Systems
  - Leads Scientific Services and Training Programs
  - Manages and Executes Weather Standards Eval program
- Subordinate Units:
  - 1 WXG
    - 3 CONUS OWS
  - 2 WXG
    - 14 WS--Climatology
  - AF Combat Weather Center (AFCWC)
    - System & TTP SMEs; ID's, tests & evaluates solutions to CWF issues

USAF Aviation Weather
Organization--OWS

- **Dual mission: Ops and Training**
- **Theater/Regional Center of Meteorological Expertise**
- **Reachback Center for Airfield forecasts (TAFs), Aviation Weather Hazards**
- **Watches/Warnings/Advisories for AF & Army Installations**

USAF Aviation Weather
Organization--OWS

Air Force Operational Weather Squadron Areas of Responsibility



USAF Aviation Weather

Organization--Tactical Organizations

- **Weather Flights (WF)**
- **Mission-tailored forecasts for Ops**
- **"Eyes Forward"**
  - **Weather Observations**
  - **Information for Full Spectrum Threat Response**
- **Trained to deploy with parent / host units**

USAF Aviation Weather
Products and Services--AFWA

Air Force Weather Agency's Worldwide Web Page

URL: https://weather.afwa.af.mil

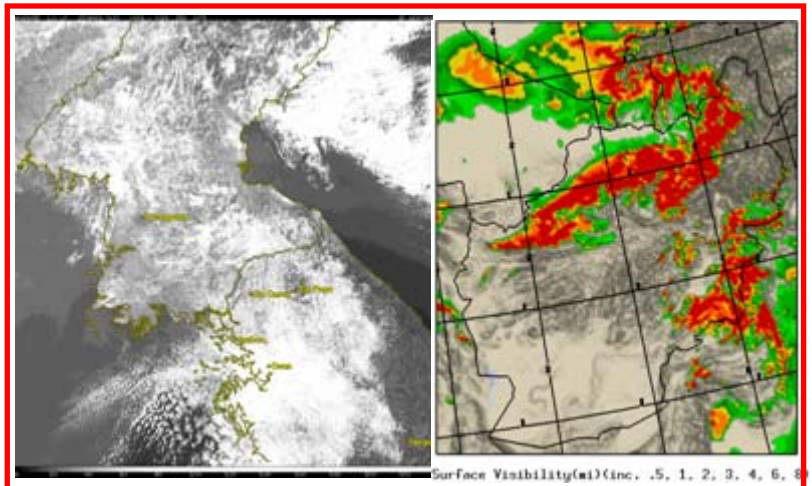
-There are 800,000+ products that are generated each day at AFWA and made available to JAAWIN.

-Includes links to Operational Weather Squadrons and Climatology

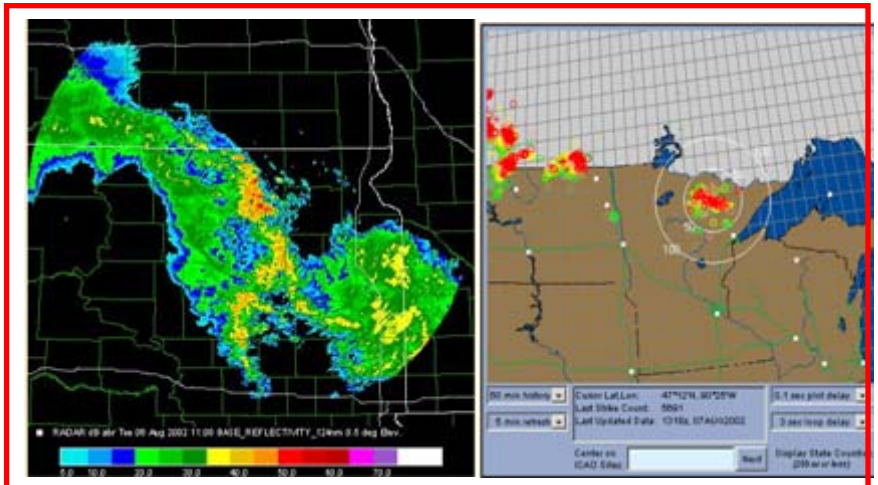
U.S. AIR FORCE

USAF Aviation Weather

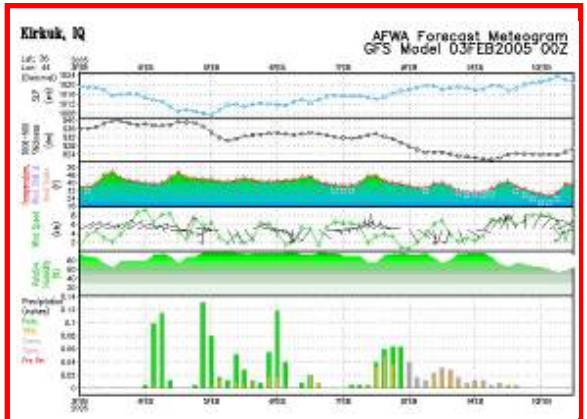
Products and Services--AFWA



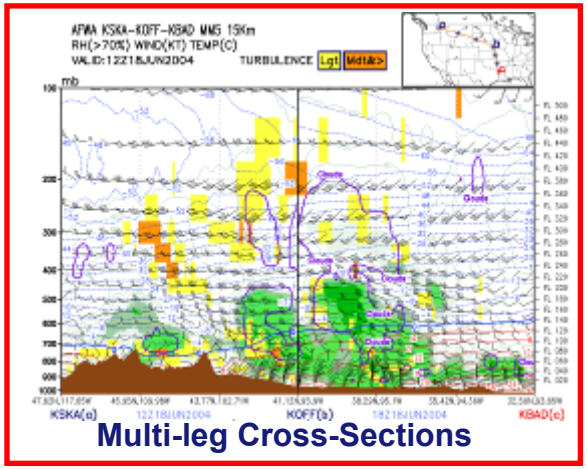
High-resolution satellite and weather model output



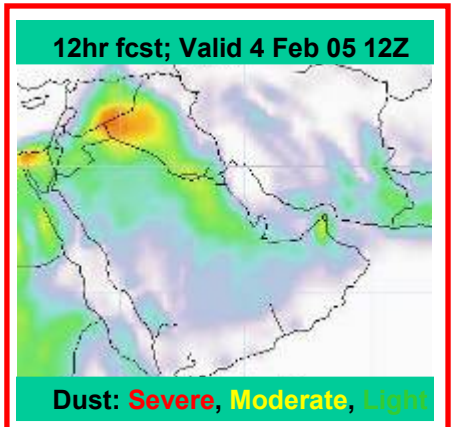
Radar and lightning imagery



16-day fcsts--DoD Sites worldwide



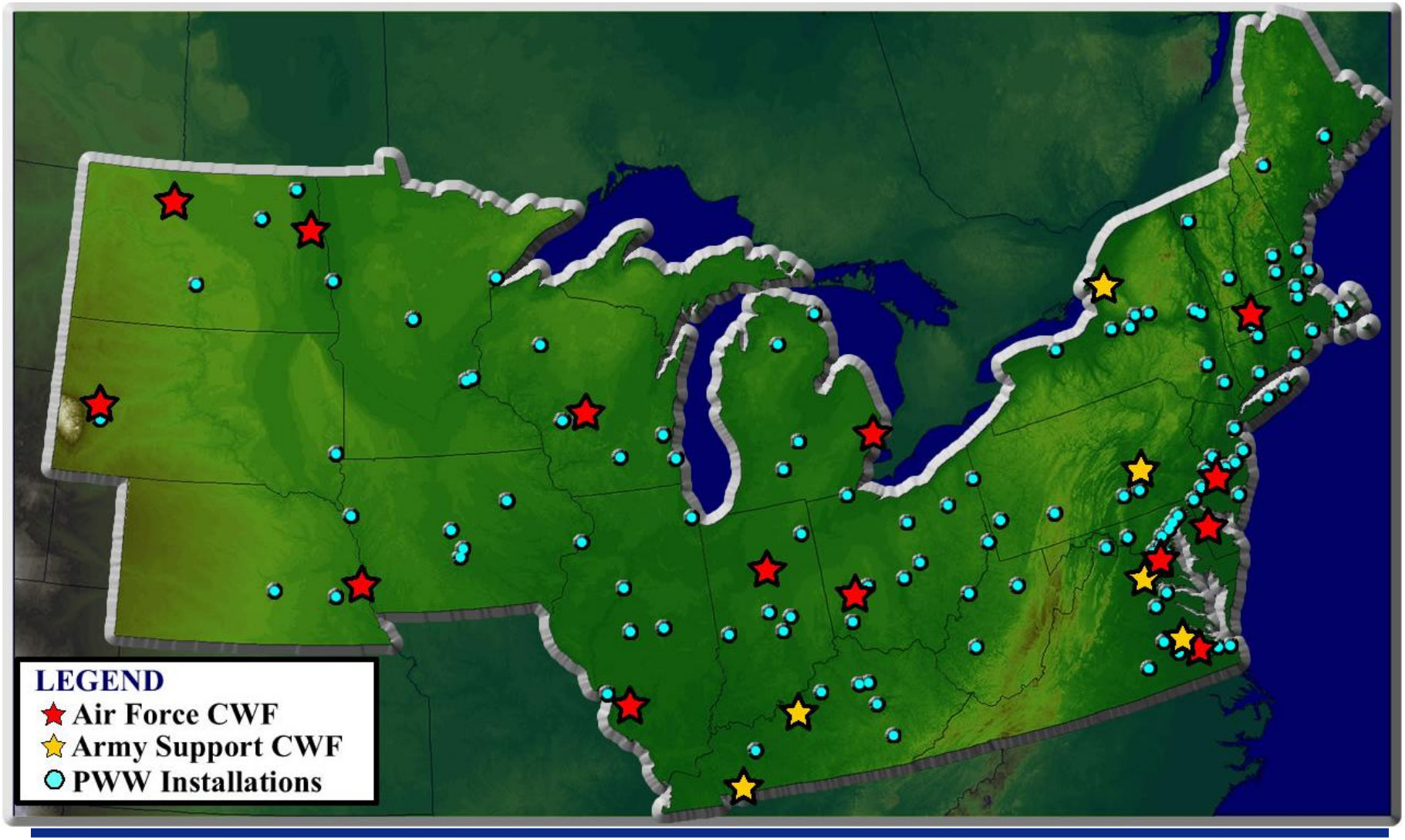
Multi-leg Cross-Sections



Specialized dust products

Integrity - Service - Excellence

USAF Aviation Weather
Products and Services—15 OWS



Integrity - Service - Excellence

USAF Aviation Weather
Products and Services—15 OWS

- NE CONUS
  - 144 DoD (Active, Guard, Reserve) customers
    - 124 Point Warnings ~180,000 personnel
    - 20 Forecast locations
    - 25 Non-flying customers (i.e., radar sites, research facilities, etc.)
    - Flying Customers ~100 sorties daily
      - Airlift, Fighter, Tanker, Army, Special Ops
      - ~1200 aircraft supported

USAF Aviation Weather

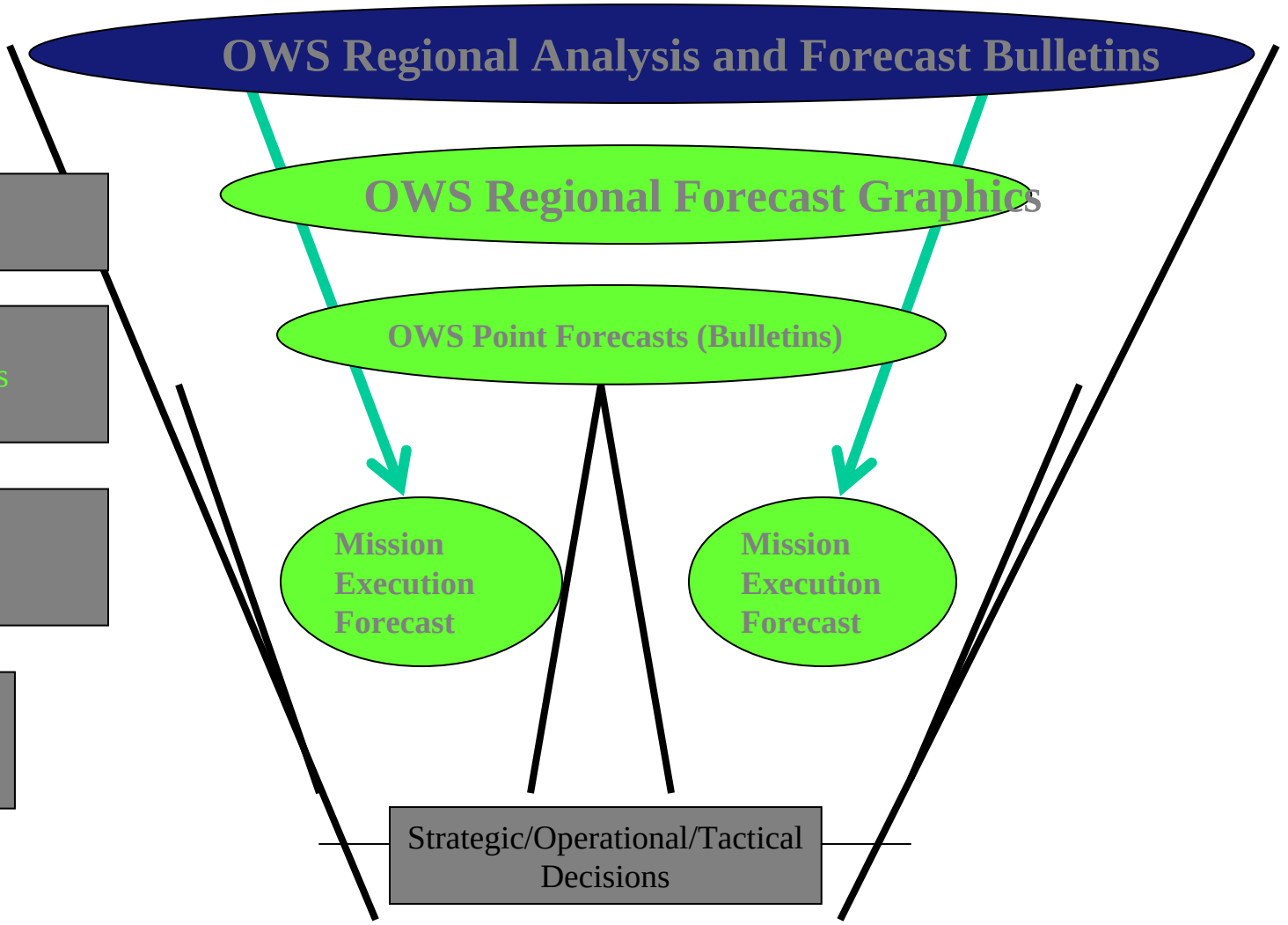
15 OWS Forecast Funnel

Synoptic Focus
Senior Duty Officer

Mesoscale Focus
Aviation Hazards Forecasts

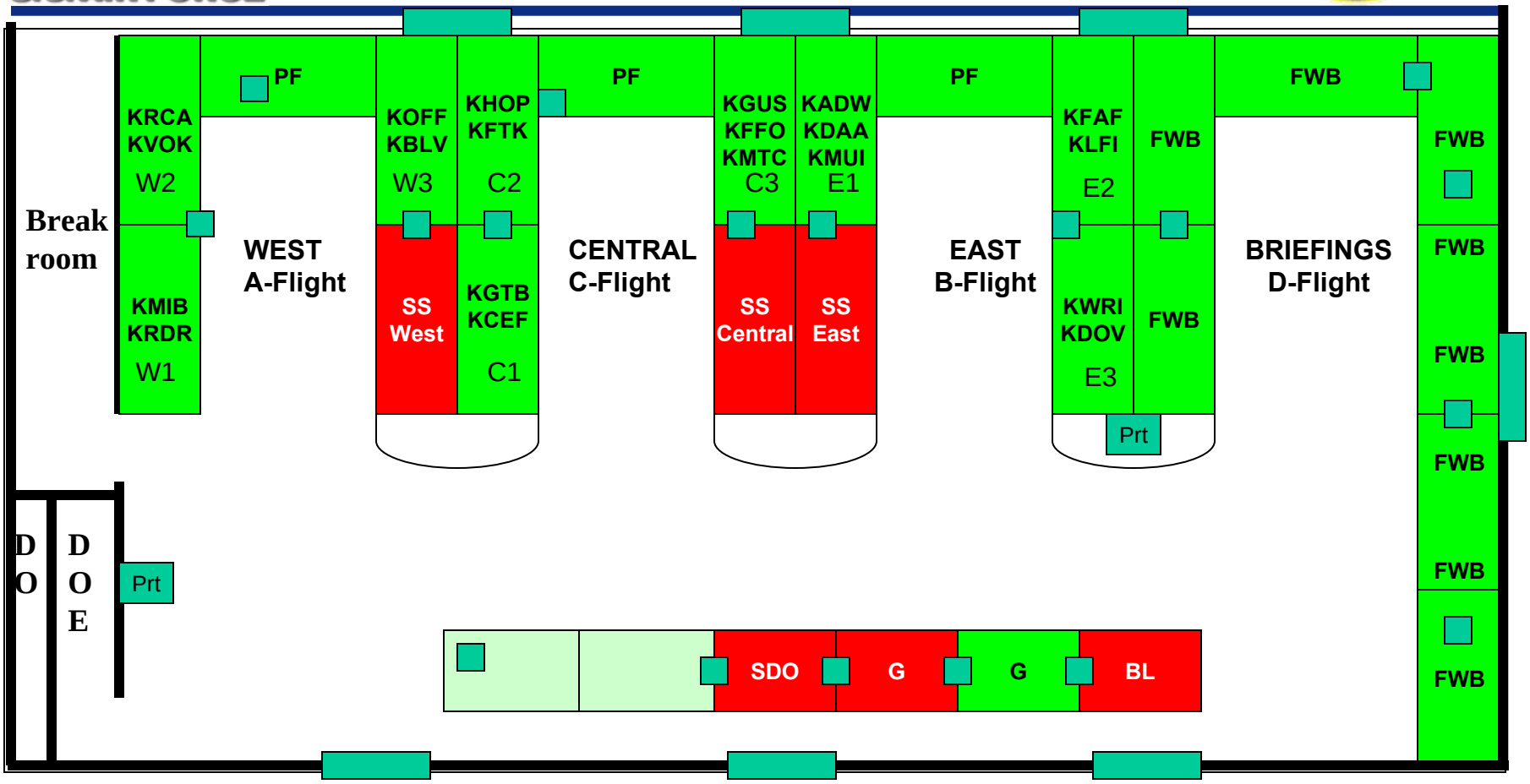
Local Focus
TAFs and Warnings

Mission Execution Focus
Flight Weather Briefings



USAF Aviation Weather

15 OWS--Ops Floor Layout



= 18 Phone Lines

= 7-lvl Position

= 42” Wall Monitors

SDO – Senior Duty Officer/NCO
BL – Briefer Lead
SS – Shift Supervisor
W,C,E – TAF writer/forecaster by Region

FWB- Flight Wx Briefer
PF- Points Forecaster
G – Graphics Forecaster

USAF Aviation Weather

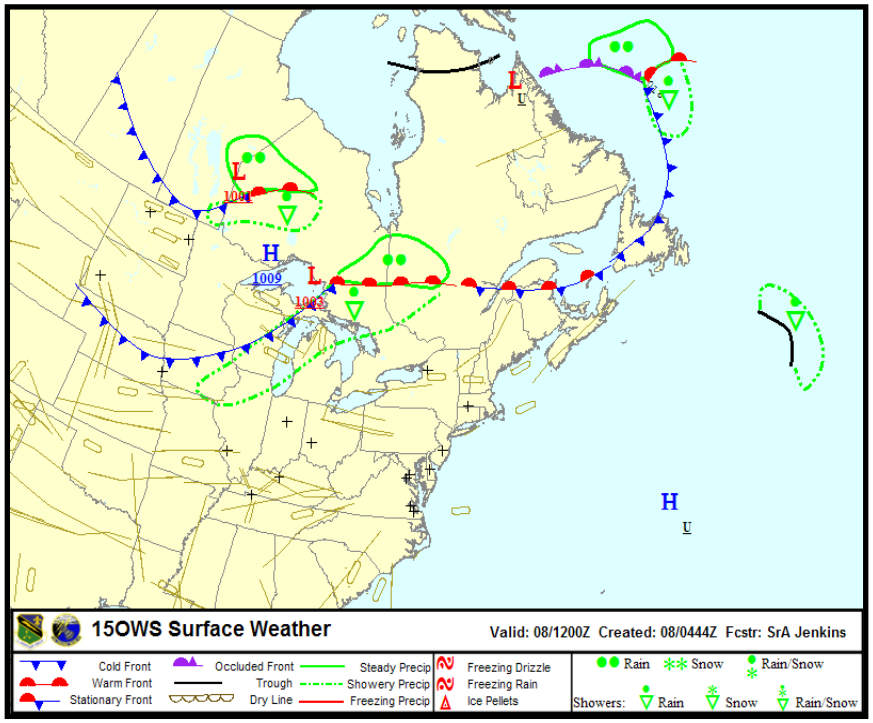
15 OWS Senior Duty Position

- **Kicks off regional analysis and forecast program**
- **Products form the basis for development of all forecast products on production floor**
- **Depends heavily on Regional forecasters for metwatch assistance, accurate forecast baselines, and advise.**

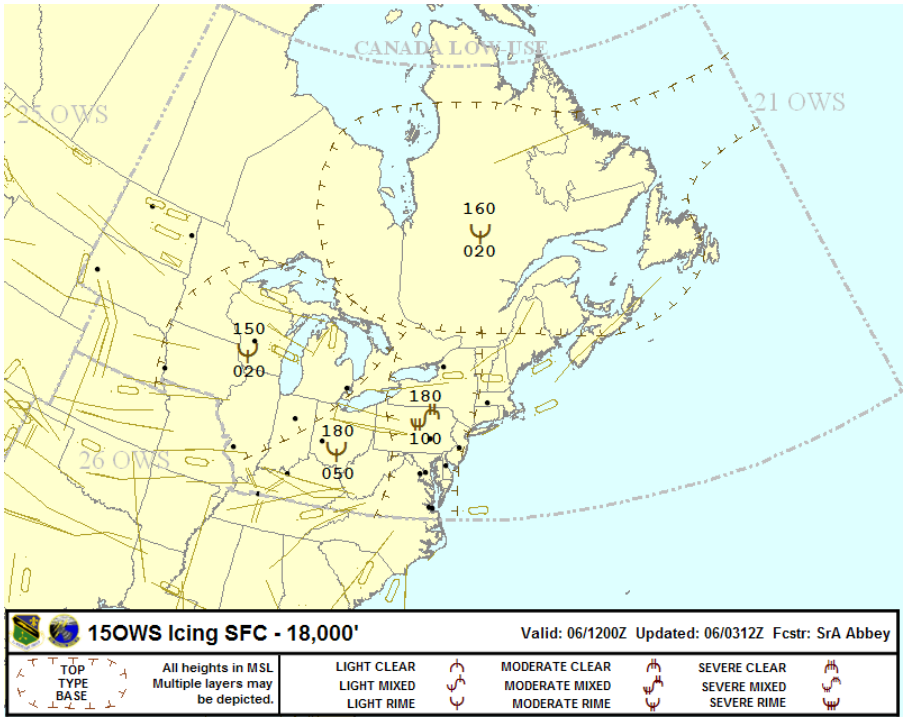
USAF Aviation Weather
15 OWS Aircrew Graphics

- Charged with focusing on weather at mesoscale level in close partnership with Senior Duty Position
- Produce a regional graphics product suite
  - Thunderstorms
  - Icing
  - Turbulence
  - Surface

USAF Aviation Weather
15 OWS Aircrew Graphics



Surface Forecast Chart



Icing Forecast Chart

USAF Aviation Weather
15 OWS Aircrew Briefer

- **Aircrew Briefing Cell**
  - **5000+ flights/mo**
  - **60% Air Force Total Force**
  - **35% Army Aviation**
  - **5% Transient/Other**

Weather Briefing Management Tool

View mission briefing requests for the next: 8 hour(s) Last Refresh time: 13:24Z - - Refresh Interval: 5 Min.

Num	MissionID	Brief Status	Request Time	Call Sign	Service	Depart Loc	Depart Time	Dest -- Arrival Time	Assigned To	ORM Color	Assig
1	03070813302103	Published	07/08/2008 06:45Z	CAFE 62	Air Force	KBGR	07/08/2008 10:00Z	CYQX -- 07/08/2008 13:00Z EGVA -- 07/08/2008 16:30Z	Hazzard Mark, A1C	Yellow	✓
2	07070819223676	Published	07/08/2008 06:45Z		Army	KETB	07/08/2008 12:30Z	KMSN -- 07/08/2008 13:00Z C47 -- 07/08/2008 13:45Z KFLD -- 07/08/2008 14:15Z KETB -- 07/08/2008 15:00Z	Hazzard Mark, A1C	Green	✓
3	07070820015883	Published	07/08/2008 08:40Z	STEEL71	Air Force	KPIT	07/08/2008 12:40Z	KYNG -- 07/08/2008 14:55Z KPIT -- 07/08/2008 16:05Z	Hazzard Mark, A1C	Yellow	✓
4	07070820062484	Published	07/08/2008 08:55Z	STEEL62	Air Force	KPIT	07/08/2008 12:55Z	KPIT -- 07/08/2008 16:25Z	Hazzard Mark, A1C	Green	✓
5	05070818003902	Published	07/08/2008 09:00Z	PAT 025	Army	KDAA	07/08/2008 10:00Z	MUGM -- 07/08/2008 15:00Z	Hazzard Mark, A1C	Yellow	✓
6	13050813021747	Published	07/08/2008 09:00Z	STEEL 3X	Air Force	KPIT	07/08/2008 12:01Z	KPIT -- 07/09/2008 00:00Z	Vannetten Matthew, A1C	Alert	✓
7	07070814165541	Published	07/08/2008 09:00Z	FREDM 08	Army	FAF	07/08/2008 10:15Z	KIAD -- 07/08/2008 12:25Z FAF -- 07/08/2008 13:45Z	Hazzard Mark, A1C	Green	✓
8	07070820075085	Published	07/08/2008 09:05Z	STEEL66	Air Force	KPIT	07/08/2008 13:05Z	KPIT -- 07/08/2008 16:20Z	Vannetten Matthew, A1C	Red	✓
9	07070818485163	Published	07/08/2008 09:25Z	SABER AM	Air Force	KSGH	07/08/2008 12:25Z	KSGH -- 07/08/2008 15:00Z	Blair David, A1C	Green	✓
10	07070815594150	Published	07/08/2008 09:30Z	Army 22540	Army	KSWF	07/08/2008 11:30Z	KSWF -- 07/08/2008 13:30Z	Blair David, A1C	Green	✓
11	08070804425942	Published	07/08/2008 10:00Z	MAPLE	Air Force	KBTV	07/08/2008 12:30Z	KBTV -- 07/08/2008 14:10Z	Blair David, A1C	Green	✓
12	20060812472757	Published	07/08/2008 10:00Z	ALERT A & B	Air Force	KBGR	07/08/2008 12:00Z	KBGR -- 07/09/2008 00:00Z	Vannetten Matthew, A1C	Alert	✓

- **METWATCH capability**
  - **Weather briefing management tool (WBMT)**

USAF Aviation Weather
15 OWS Sub-region

- Sub-Region Supervisor
  - Training
  - Leadership
  - Supervision
- Sub-Region Forecaster
  - TAF/Discussion Rationale
  - Product & Checklist Links
  - Warnings
  - Advisories
  - Watches
  - Amendments

USAF Aviation Weather

15 OWS Forecaster--TAF worksheet

U.S. AIR FORCE

TAF Worksheet for KADW - (Previous Worksheets)

Valid: 27-Feb-09 09Z **Forecaster:** A1C Streeter **Supervisor:** Mr. Butrovich **Shift:** Mids **Updated:** 27-Feb-09 14:53Z

This TAF Worksheet was sent to the web at 02-27-2009 07:55:42Z

Hemispheric / Synoptic / Mesoscale

Identify Regime:

Colorado Low|Alberta High

Regime Help Files:

- Synoptic Regime Information
- Meso Scale Regime Checklists
- 15 OWS Severe Weather Analysis
- NWS CCFP
- NWS SPC
- NWS Winter Outlook 1
- NWS Winter Outlook 2

OWS Bulletins: --Select--

Radar and Satellite: Radar IR VIS WV

Surface and UA Charts: CONUS **LAWC:** E / W

Upper Level Flow: Meridional

500mb Advection - Thermal: Neutral **Moisture:** Neutral
700mb Advection - Thermal: Neutral **Moisture:** Neutral
850mb Advection - Thermal: Warm **Moisture:** Moist
925mb Advection - Thermal: Warm **Moisture:** Moist

SKEW-T Data:
RAOB / Model Skew-T Data

FITL Regional Graphics:
(click to see all)

	12	18	24	30	36
TSTM	☐	☐	☐	☐	☐
ICG	☐	☐	☐	☐	☐
LL TBC	☐	☐	☐	☐	☐
CIG/VIS	☐	☐	☐	☐	☐
CLOUD	☐	☐	☐	☐	☐

View

Automated Regional Graphics:
CIG-VIS
LAYERED CLOUDS

Upper Air/Surface Analysis Discussion

Upper Levels: 200mb | 250mb | 300mb

In the upper levels, the main branch of the PFJ is in a weak ridge/trough/ridge pattern over the Conus. The entire patte
degrees ENE over the past 12hrs with little to no change in intensity.

Mid-Levels: 500mb | 700mb

In the mid levels, there is a major short wave ridge extending through the Eastern Great Lakes region supporting an A
surface with downward vertical motion. This feature has moved 3-4 degrees ENE over the past 12hrs as it has built by
increased convergence and WAA in the upper levels. There is a major short wave trough extending through the central
an Colorado low at the surface with upward vertical motion. This feature has moved 2 degrees east over the past 12hr
deepened slightly by 1 degree in intensity due to increased divergence aloft.

KIAD Observed Skew-T -- 02-27-2009 00Z

Thunderstorm Stability Indices

Indices	Weak / Moderate / Strong	Value	Indices	Weak / Moderate / Strong	Value
CAPE:	< 1000 / 1000 to 2500 / > 2500	0	ML CAPE:	< 1000 / 1000 to 2500 / > 2500	0
Lifted Index:	> -3 / -3 to -5 / < -5	13.60	K Index:	< 21 / 21 to 30 / > 30	25
Showalter:	> 2 / 2 to -2 / < -2	4.10	Thomson Index:	< 30 / 30 to 34 / > 34	11
Total Totals:	< 52 / 52 to 54 / > 54	47	SWEAT Index:	< 300 / 300 to 600 / > 600	165

Max TSTM Wind: Max Hail: Wet Bulb Zero: -20 Hgt: Conv Temp: Precitable Water:

T1: 39 T2: 28 In 6893 Ft 35.10 °C 0.49 In

Level Indicies						Thicknesses		Snow vs. Rain	
TROP:	200	MB	38681	FT	-64.9 °C	1000 - 850MB:	1343 M		
CCL:	563	MB	15684	FT	-12.5 °C	1000 - 700MB:	2901 M	1000-850MB <= 1540m?	Y
LCL:	733	MB	8960	FT	-14.8 °C	1000 - 500MB:	5486 M	1000-700MB <= 2840m?	N
LFC:		MB		FT	°C	850 - 700MB:	1558 M	1000-500MB <= 5400m?	N
EQ Level:		MB				850 - 500MB:	4143 M	Frz Lvl <= 2100ft?	7482 Ft
Icing:	LGT CLEAR 7999 / 10525 ft							850mb Temp <= -3 °C?	
	Fog Stability: -0.30				Fog Temp: 11.10 °C			SFC Temp <= -35 °F (1.7 °C?	

Additional Data

Identify the problem(s) of the day: Rules of Thumb Forecast Reference Notebook KADW Checklist

Forecast Challenge:
As the High moves out of the AOR, the approaching Colorado Low will replace the High. The challenge will be to accurately determine how much precipitation and how strong winds will be across the region.

Advisory/Warning Criteria expected:
ADVISORY LEVEL WINDS, possible WARNING LEVEL WINDS.

MAX / MIN Temp Expected: OB Trend RAW TAF

MAX Temp: 19 MIN Temp: 05

Potential Mission Limitations

	Thunderstorms	Non-Conv Winds	Freezing Precip	Heavy Precip	Visibily/Ceiling
24-48 Hr	No	>= 25 < 35kt	No	No	>= 3000 / 3
48-72 Hr	No	No	No	No	>= 3000 / 3
72-96 Hr	No	No	No	No	>= 3000 / 3

USAF Aviation Weather

15 OWS Forecaster--METWATCH

U.S. AIR FORCE

PWW SITE WATCH
(Please Select A Region Below)

WEST | CENTRAL | EAST | NECONUS

PWW locations for the NECONUS: time of latest observation shown; '*' signifies no observations within 10sm.

Color Codes: Green= No PWW criteria met; Yellow= Values nearing PWW criteria; Red= PWW criteria met; Blue Checkmark= WWA Issued.

CT01 14:53Z✓	CT02 14:56Z✓	CT03 14:51Z✓	DC01 14:52Z✓	DC98 14:52Z✓	DC99 14:52Z✓	DE02 14:51Z✓	IA01 14:52Z✓	IA02 14:52Z	IA03 14:54Z	IA04 14:54Z	IA05 14:55Z	IA14 14:55Z	IL01 14:51Z	IL03 14:54Z	IL04 14:52Z	IL06 14:54Z	IL09 14:51Z
IL98 14:52Z	IN02 14:53Z	IN05 13:50Z	IN06 14:45Z✓	IN07 14:54Z✓	IN11 14:53Z	KY01 14:56Z	KY04* ✓	KY06*	KY07 14:53Z	KY08 14:53Z✓	KY09 14:54Z✓	MA01 14:55Z✓	MA02 14:56Z✓	MA04 13:55Z✓	MA08 14:53Z✓	MA10 14:56Z✓	MA18 14:53Z✓
MD01 14:54Z✓	MD02* ✓	MD03 14:50Z✓	MD04* ✓	MD05* ✓	MD06* ✓	MD07* ✓	MD08 14:53Z✓	MD11 14:54Z✓	MD12 14:54Z✓	MD13* ✓	MD99 14:53Z✓	ME01* ✓	ME04 14:53Z✓	MI04 14:55Z✓	MI06 14:54Z✓	MI09 14:53Z✓	MI10 14:53Z
MI99 14:53Z✓	MN04 14:53Z	MN05 14:53Z	MN07 14:55Z	MN08 14:59Z	MO09 14:51Z	ND03 14:52Z	ND04 14:53Z	ND05 14:55Z	ND14*	NE01 14:54Z✓	NE02 14:53Z✓	NH01 14:55Z✓	NH02 14:51Z✓	NH04 14:53Z✓	NJ02 14:54Z✓	NJ03 14:53Z✓	NJ05 14:55Z✓
NJ08 14:55Z✓	NJ10 ✓	NY01 14:54Z✓	NY04 14:56Z✓	NY05 14:53Z✓	NY07 14:54Z✓	NY08 14:51Z✓	NY09 14:53Z✓	NY12 ✓	NY15 ✓	NY16 ✓	NY17* ✓	NY19* ✓	NY22 14:51Z✓	NY30 14:53Z✓	OH01 14:52Z✓	OH03 14:53Z	OH04 14:54Z✓
OH05 14:51Z✓	OH07 14:56Z	OH11 14:52Z✓	OH14 14:55Z✓	PA01 14:51Z✓	PA02 14:54Z✓	PA03 13:56Z✓	PA04 14:56Z✓	PA06* ✓	PA10 14:54Z✓	PA98 14:54Z✓	PA99 14:53Z	RI02 14:54Z✓	SD01 14:52Z	SD05 14:56Z✓	VA01 14:52Z✓	VA02*	VA03*
VA07 14:54Z	VA08*	VA09*	VA11 14:56Z	VA12*	VA13 14:54Z	VT01* ✓	VT02 14:54Z✓	WI02 14:55Z	WI06	WI08	WI10 14:55Z	WI11 14:55Z	WV01 14:54Z✓	WV02 14:53Z✓	WV05 14:53Z✓	WV06 14:53Z✓	WV07 14:53Z✓

Click on the appropriate PWW block to s… and SPC reports below.

TSTM:
TS in OB
JOHNSTOWN

Latest Observations and SPC Storm Reports for PA10 - JOHNSTOWN

OB1: METAR KJST 271454Z AUTO 20011G19KT 10SM BKN034 BKN043 OVC050 10/07 A2977 RMK AO2 TSE05RAE33 SLP087 P0001 60006 T01000072 55001

ICAO	Site Name	Type	WWA ID (N-TFS ID)	Issued	Clarification	Criteria	Fcst Value	Valid	Remain	Occur
PA10	PA-Johnstown (KJST)	Warning	02-016	27/0708Z		Winds greater than or equal to 35 but less than 50 kts	35	27/0900Z to 27/1800Z	02:58	No
PA10	PA-Johnstown (KJST)	Watch	02-005	27/0957Z	Extension	Potential for LIGHTNING exists within 5nm. THIS EXTENDS WEATHER WATCH 02-005 UNTIL 27/1700Z.		27/1030Z to 27/1700Z	01:58	Yes

SPC TORNADO REPORTS

No current SPC tornado reports within 10sm.

SPC HAIL REPORTS

No current SPC hail reports within 10sm.

USAF Aviation Weather
15 OWS Forecaster--Review

8 June 2005: Unforecast 51 Knot Wind Gust at KMIB - Microsoft Internet Explorer

WXTO

"Weather Exploitation at its Finest"

Intro
Review
WXTO Final Analysis

Additional Products

Satellite Loop
Radar Loop
Sfc Obs Loop

06Z Lead Bulletin

IWWC Reports

0911Z KMBX VAD

Sfc Observations
⇨ ICAO Map

Analysis Charts
⇨ Surface
- 00Z-12Z Anal
- 00Z-12Z Sat
- 06Z LAWC

⇨ Upper Air
- 925mb
  - 00Z 8 Jun
  - 12Z 8 Jun
- 850mb
  - 00Z 8 Jun
  - 12Z 8 Jun
- 700mb
  - 00Z 8 Jun
  - 12Z 8 Jun
- 500mb
  - 00Z 8 Jun
  - 12Z 8 Jun
- 300mb
  - 00Z 8 Jun
  - 12Z 8 Jun

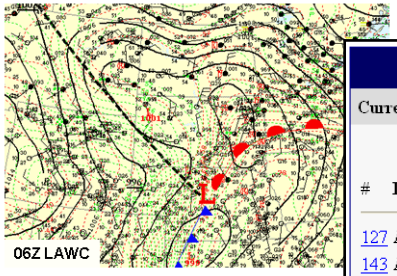
⇨ Skew-T
- 00Z KBIS
- 12Z KBIS

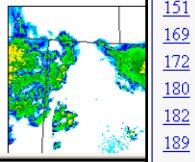
Forecast Review for June 8, 2005

Unforecast 51 Knot Wind Gust at Minot Air Force Base

A Northern Rocky Mountain Low was traversing the South Dakota / Nebraska border during the afternoon and evening of June 7th and early morning hours of June 8th, 2005, with a Mesoscale Convective System (MCS) developing ahead of the warm front. A strong bow echo developed in associaton with this MCS, bringing severe weather across eastern South Dakota and southeast North Dakota. The forecasters on duty that day had their eye on the severe storms passing to the south of Minot, but as the afternoon progressed they saw that the main line of storms would pass well to the south. The bow echo did indeed move out of the area to the south and east, and a broad area of stratiform precipitation persisted in the Minot area, with an abrupt reflectivity gradient moving in from the southwest. From all indications, the threat of severe weather at Minot had passed for the day. As it turned out, however, Minot was in for an eventful early morning.

The sharp gradient of radar echoes moving in from the southwest was an extremely important clue to the strong winds about to hit Minot, but since the environmental flow was easterly due to the low pressure center to the south, it was overlooked as all eyes were on bases to the east for upstream observations. The edge of the reflectivities had been producing gusty winds since 04Z as this system developed and pushed across the Dakotas, and the winds were strengthening as the gradient became sharper. The remants of this system were also strongly affecting the surface conditions across the Dakotas - note the strong cross-isobar flow over the Dakotas on the 06Z LAWC and the mesoscale low generated over the ND-MN border on the 07Z surface observations - all of these things play a major part in this forecast review. By the time the edge of the precipitation passed Minot at approximately 09Z, it produced a gust of 48 knots at KMOT and 51 knots at KMIB. No wind warnings of any kind were active prior to this event, so there was no leadtime. What kind of atmospheric processes could cause Minot to go from light, 13 knot winds to 48-51 knot gusts in the space of an hour? Click on the links to the left to learn more about this event, and select "WXTO Final Analysis" for a detailed explanation of what happened.





Forecast Review Status

Current ◉ Archived ○ All ○

#	Date	Type	FLT	DOT	ADO	WXTO	DOE DO WXTT	Post to Web	Reason for Review	Assigned To
127	*10/02/2005*	Minor							2 CAT bust	Fanis/Langholz
143	*11/21/2005*	Major							3 Min lead time for FZDZ at RDR on 17 Nov	C-Flight
151	*11/28/2005*	Minor							False alarm for heavy snow in KOFF TAF	WXC
169	*12/05/2005*	Major							Requested by CWT	A Flight, B Flight, KRCA
172	*12/15/2005*	Minor							Freezing Rain event at KADW 9 Dec 05	A and C Flight
180	*01/17/2006*	Minor							Missed DLT on freezing precip	SrA Battles/TSgt Creedon
182	*01/21/2006*	Minor							Missed 35kt Wind Warning	A1C Kiekhaefer
189	*01/26/2006*	Minor							Missed DLT 35KTS KBLV	A/SrA Johnson
209	*02/05/2006*	Minor							2 Category Bust at KRDR	A1C Kyle Norton
210	*02/06/2006*	Minor							missed 35kt warning at Site-R	WXA/A1C Halvorson
211	*02/06/2006*	Minor							2 Cat ceiling/vis bust	A1C Kiekhaefer/Amn Apple
212	*02/08/2006*	Minor							Broken continuity on snow event	TSgt Martin/Mr Apple/Lt Rich/TSgt Creedon

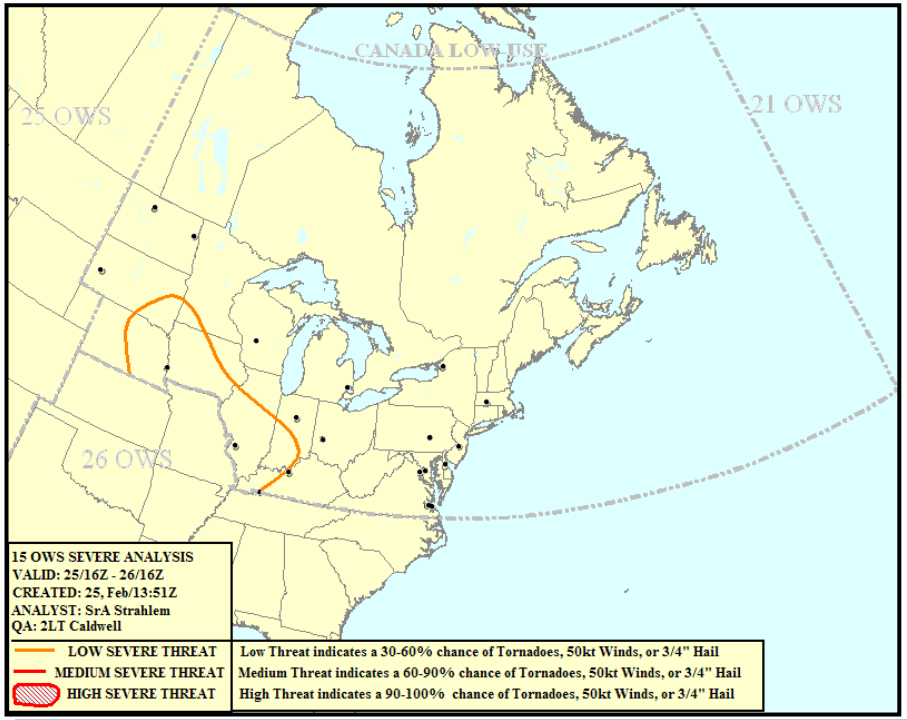
USAF Aviation Weather
15 OWS Training Flight

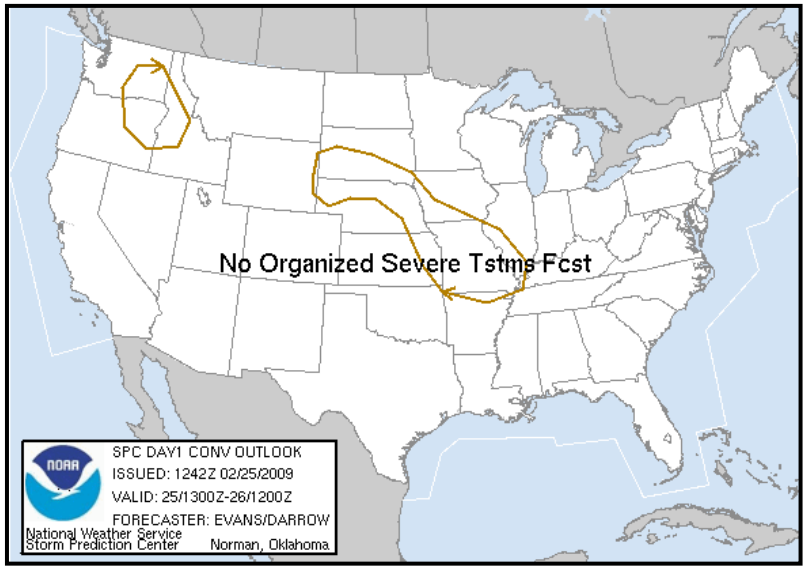
- 85% of the 15 OWS – <u>First Weather Assignment</u>
- Positional Training conducted:
  - Weather Forecaster – 50 training days
  - Flight Weather Briefing – 10 training days
  - Senior Duty Officer – 15 training days
  - Graphics – 8 training days
  - Shift Supervisor – 10 training days
- Additional Functions
  - On-the-job training
  - Upgrade training (~ 80 Airmen in UGT at any given time)
  - Seasonal / Continuation training

USAF Aviation Weather

15 OWS—AWC/SPC back-up support

- **Purpose: To provide operational backup services for AWC and SPC in the event of a prolonged outage**
- **AWC: SIGMETS and AIRMETS**





- **SPC: Convective Outlooks and Weather Watches**
- **Severe weather analysis lines up with SPC categorical convective outlooks**

USAF Aviation Weather

Example – B-1B Support Ellsworth AFB

- **Mission - to deliver decisive combat power for global response**
- **Operation Enduring Freedom**

- **Turbulence Category – IV**
- **Max Crosswind Component – 30 knots (dry runway), 20 knots (wet runway)**
- **Induction Icing – Temps of ≤ 47°F & RH ≥ 50% with visible moisture present is watched closely**
- **Icing – Limits operations**
- **Turbulence – Avoid moderate/severe, can't operate in fcst/observed moderate/severe mtn wave**
- **Thunderstorms – Must avoid by 10 NM below FL 250, 20 NM at and above FL 250**
- **In-flight Refueling – Visibility must be ≥ .5 NM between FL 180 and 210**

A shelf cloud approaching the Rapid City National Weather Service office in August of 2002. This cell produced flash flooding in the Black Hills.

USAF Aviation Weather

Example – UH-60 Support Ft Campbell

UH-60L

- **Mission: provide forcible entry capability through heliborne 'air assault' operations**
- **Operation Iraqi Freedom**

- **Turbulence Category – II**
- **Max Wind Component:**
  - **25 knots gust spread**
  - **45 knots prevailing**
- **Icing – Avoid moderate/severe**
- **Turbulence – Avoid severe**
- **Thunderstorms – Avoid all**
- **In-flight Refueling – None**

USAF Aviation Weather
Summary

- USAF Weather Operations Concepts
- USAF Weather Products and Services
- 15th Operational Weather Squadron Operations
- 15 OWS Aviation Operational Examples

U.S. AIR FORCE

Questions?

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