



Improving Air Route Traffic Control Center Weather Comprehension & Compliance through the Chicago Center Local Safety Weather Team

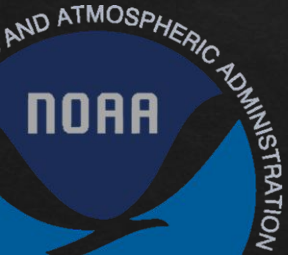
Jamie Enderlen & Robb Kaczmarek, CWSU Aurora, IL
Rick Cieplik, Ryan Kokalj, and Griffing Gettemy, ARTCC Aurora, IL

IWAWS May 30, 2020

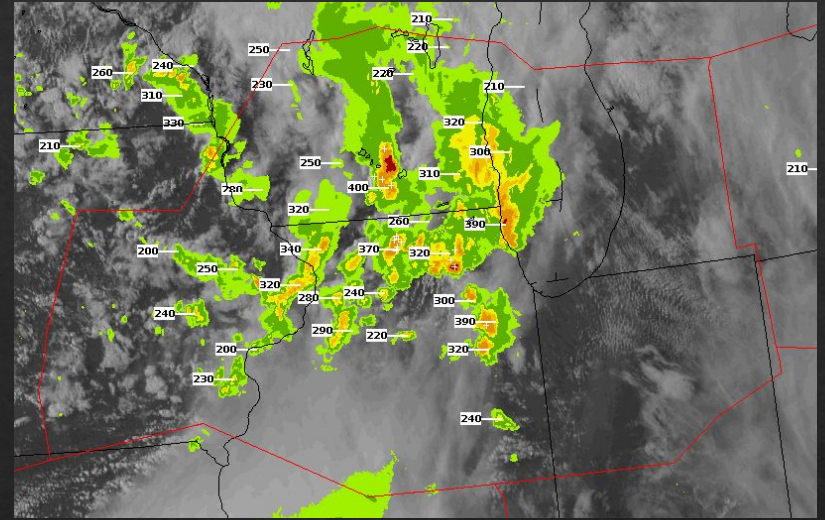


ZAU Local Safety Council Weather Team

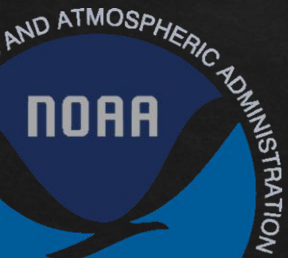
- ◆ Sub team of ZAU Local Safety Council
- ◆ 2007- Address weather dissemination and develop a recommendation for weather related tools for ZAU
- ◆ NATCA Controllers, Operational Supervisors, & National Weather Service Meteorologists



Collaborative Process



- ◆ Understand how weather influences air traffic & weather products
- ◆ Negative impacts of not depicting weather
- ◆ Make it easier for controllers to meet required responsibilities

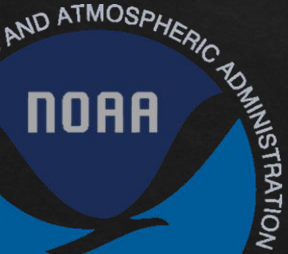


Previous Projects - Short Refresher Videos

TCF Traffic Flow Management (TFM) Convective Forecast



Prepared By: Local Safety Council Weather Team &
National Weather Service ZAU CWSU

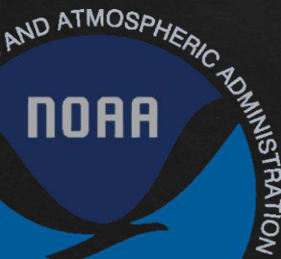


Previous Projects - Short Refresher Videos

Phraseology Requirements:

2-6-6. HAZARDOUS INFLIGHT WEATHER SERVICE (HIWAS)

“ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER INFORMATION (SIGMET, Convective SIGMET, AIRMET, Urgent Pilot Weather Report (UUA), or Center Weather Advisory (CWA), Number or Numbers) FOR (specific weather phenomenon) **← New WITHIN (geographical area) AVAILABLE ON HIWAS, OR FLIGHT SERVICE FREQUENCIES.”**



Federal Aviation
Administration

Previous Projects - Safety Discussions

Splitting Positions for Weather

ZAU Safety Discussion

Weather Deviation Procedures

ZAU Safety Discussion

Being

Presented to: ZAU Operational &
By: Briefing / Discussi
Date: March 2018



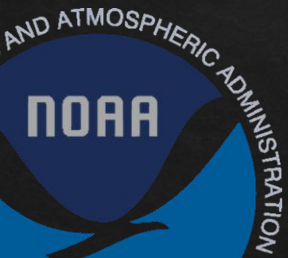
Federal
Aviation
Administration

Presented
By:
Date:

March Safety Discussion WARP Standardization



Prepared By: ZAU Local Safety Council Weather Team
and National Weather Service

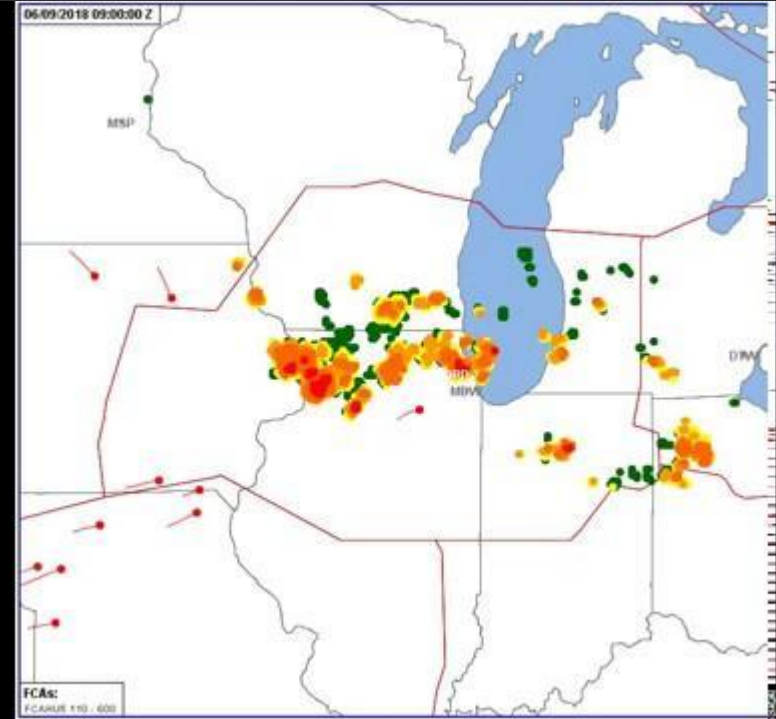
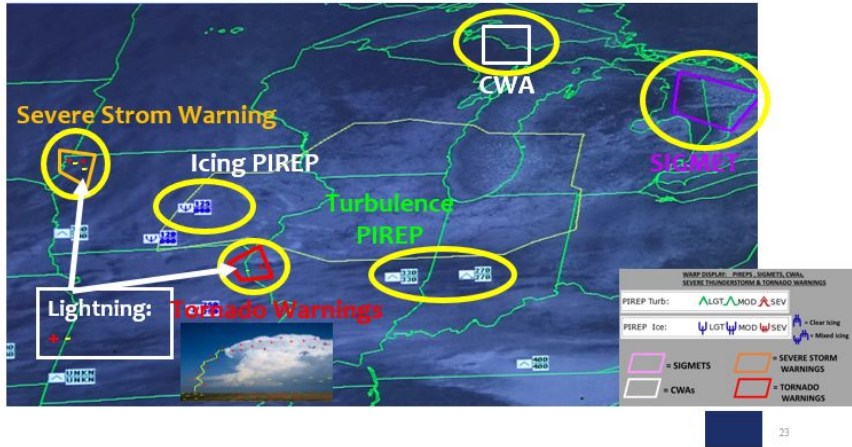


Federal Aviation
Administration



Previous Projects - Safety Discussions

Regional Visible Satellite



Federal Aviation
Administration

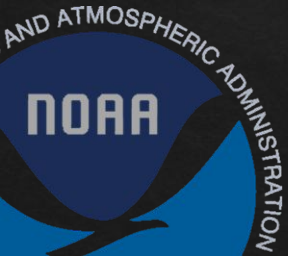


Disseminating Weather Products - CWAs

021655 SIGE MKCE WST 021655 CONVECTIVE SIGMET 20E VALID UNTIL 1855Z OH
TN KY IN FROM 50WSW ROD-40ENE CVG-50SSE BNA-30NE MSL-30SE PXV-50WSW ROD
AREA TS MOV FROM 23030KT. TOPS TO FL420.

300010 ZAU1 CWA 300010 ZAU CWA 101 VALID UNTIL 300100 FROM 28S MKG-10W
PMM-30E ORD-28S MKG AREA OF RAPIDLY DVLPNG HVY SHRA AND TS. TOPS FL370.
MV FROM 27010KT. CONT AFTER 01Z. _____

Easier + Familiar = Increased Compliance

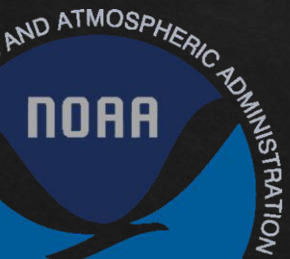


Pre-Duty Weather Briefing

Station\Hour	02Z	03Z	04Z	05Z	06Z	07Z	08Z	09Z	10Z	11Z	12Z	13Z	14Z
KORD	MVFR	[IFR]	[IFR]	[IFR]	[IFR]	IFR	IFR	IFR	IFR	IFR	IFR	MVFR	MVFR
	-TSRA	[TSRA]	[TSRA]	[TSRA]	[TSRA]	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA		
	190-8KT	190-8KT	190-8KT	190-8KT	190-8KT	230-6KT	230-6KT	230-6KT	230-6KT	230-6KT	230-6KT	310-8KT	310-8KT
KMDW	MVFR	[IFR]	[IFR]	[IFR]	[IFR]	IFR	IFR	IFR	IFR	IFR	IFR	MVFR	MVFR
	-TSRA	[TSRA]	[TSRA]	[TSRA]	[TSRA]	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA		
	190-8KT	190-8KT	190-8KT	190-8KT	190-8KT	230-6KT	230-6KT	230-6KT	230-6KT	230-6KT	230-6KT	310-8KT	310-8KT
KMKE	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR	LIFR	LIFR	LIFR	LIFR	LIFR	LIFR
		VCSH	VCSH	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR VCSH	BR VCSH	BR VCSH	BR VCSH	BR VCSH	BR VCSH
	230-8KT	200-4KT	200-4KT	180-4KT	180-4KT	180-4KT	180-4KT	280-3KT	280-3KT	280-3KT	280-3KT	280-3KT	280-3KT
KSBN	MVFR	[IFR]	[IFR]	[IFR]	[IFR]	IFR	IFR	IFR	IFR	IFR	MVFR	MVFR	MVFR
	VCTS	[TSRA]	[TSRA]	[TSRA]	[TSRA]	VCTS	VCTS	VCTS	VCTS	VCTS	BR VCSH	BR VCSH	BR VCSH
	180-10KT	180-10KT	180-10KT	180-10KT	180-10KT	200-11KT	200-11KT	200-11KT	200-11KT	200-11KT	250-10KT	250-10KT	250-10KT
KFWA	[IFR]	[IFR]	[IFR]	[IFR]	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR	MVFR
	[TSRA]	[TSRA]	[TSRA]	[TSRA]	BR	BR	BR	BR	BR	BR	BR	-SHRA	-SHRA
	210-11KT	210-11KT	210-11KT	210-11KT	210-12KT	210-12KT	210-12KT	210-12KT	210-12KT	210-12KT	210-12KT	240-15KT	240-15KT
KGRR	IFR	IFR	IFR	IFR	LIFR	LIFR	LIFR	LIFR	LIFR	LIFR	IFR	IFR	IFR
	BR	BR	BR	BR	BR -RA	BR -RA	BR -RA	BR -RA	BR -RA	BR -RA	BR -SHRA	BR -SHRA	BR -SHRA
	250-10KT	250-10KT	250-10KT	250-10KT	230-5KT	230-5KT	230-5KT	230-5KT	230-5KT	230-5KT	240-5KT	240-5KT	240-5KT
KAZO	MVFR	MVFR	MVFR	MVFR	IFR	IFR	IFR	LIFR	LIFR	LIFR	LIFR	LIFR	LIFR
					VCTS BR	VCTS BR	VCTS BR	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA	BR -SHRA
	220-8KT	220-8KT	220-8KT	220-8KT	200-7KT	200-7KT	200-7KT	240-5KT	240-5KT	240-5KT	240-5KT	240-5KT	240-5KT

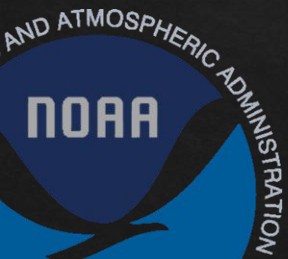


Weather Week



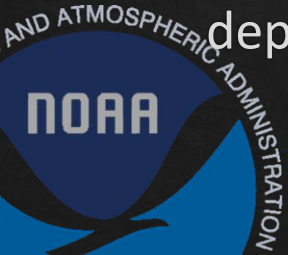
Weather Week - When do controllers learn about weather?

- ◊ College course or week long class at FAA Academy in Oklahoma City, OK
- ◊ On position
- ◊ Guidance and phraseology provided in FAA 7110.65



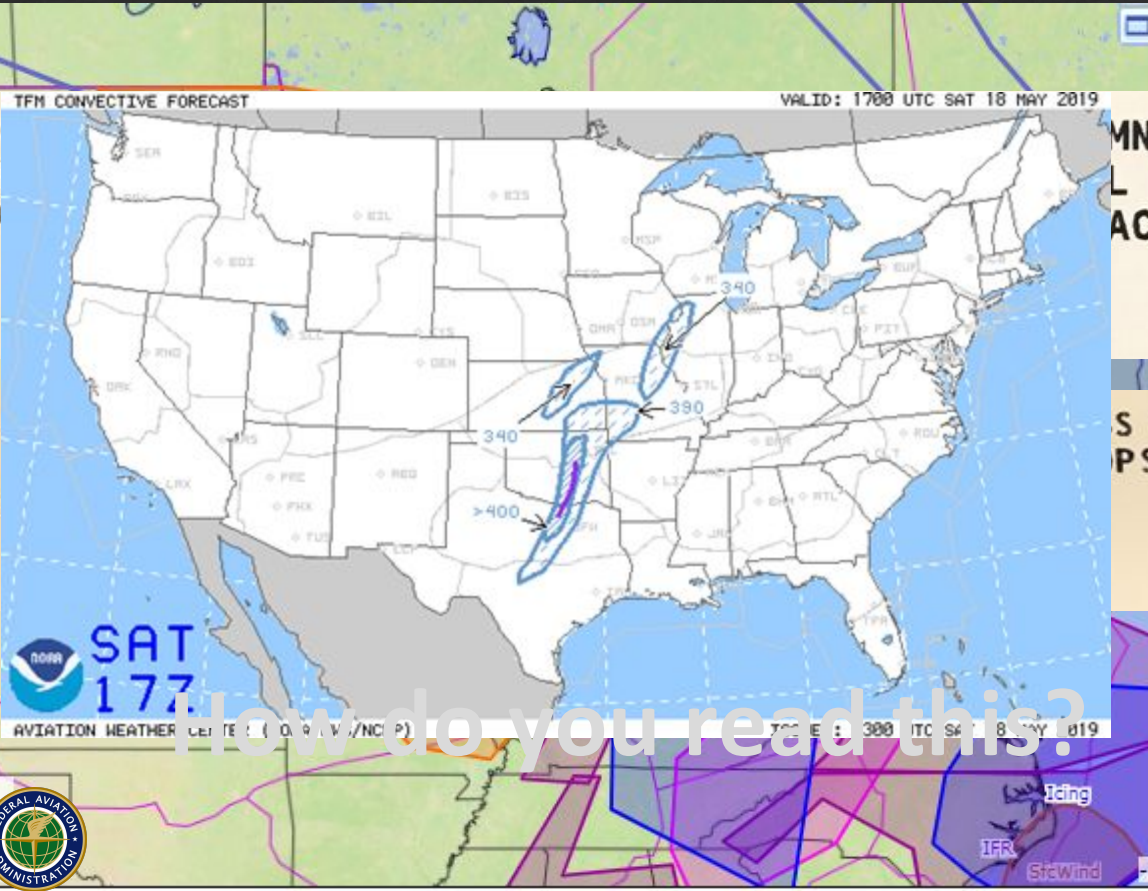
Weather Week - Stage 3

- ◆ Expose trainees to CWSU and meteorologists & weather products
- ◆ Discuss how does weather impacts their job
- ◆ Pilot perspectives
- ◆ Set expectation that you are responsible for knowing the weather every time before you take position
- ◆ Afford trainees the opportunity to practice weather related phraseology and techniques
- ◆ Stress the importance of soliciting/disseminating PIREPs and calling depicted weather



Ø91816 WS30 CHIO
LS MI IL FROM 8Ø
BTN FL33Ø AND FL
CONTG BYD 2216Z.

300010 ZAU1 CWA
PMM-30E ORD-28S
MV FROM 27010KT



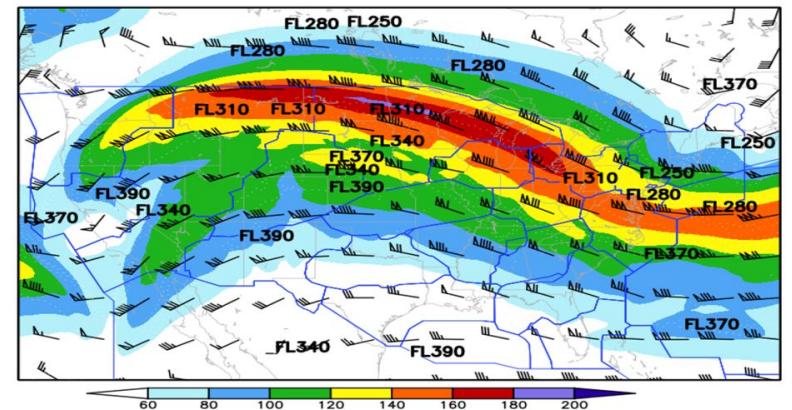
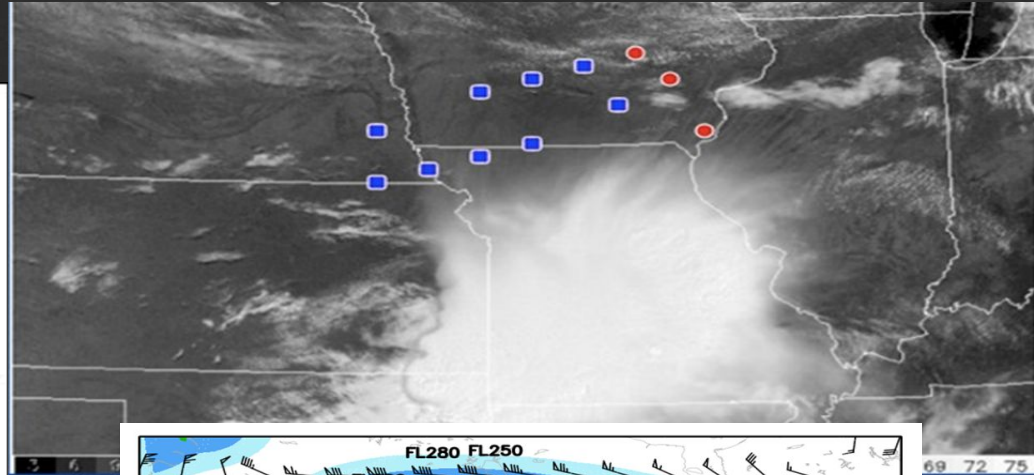
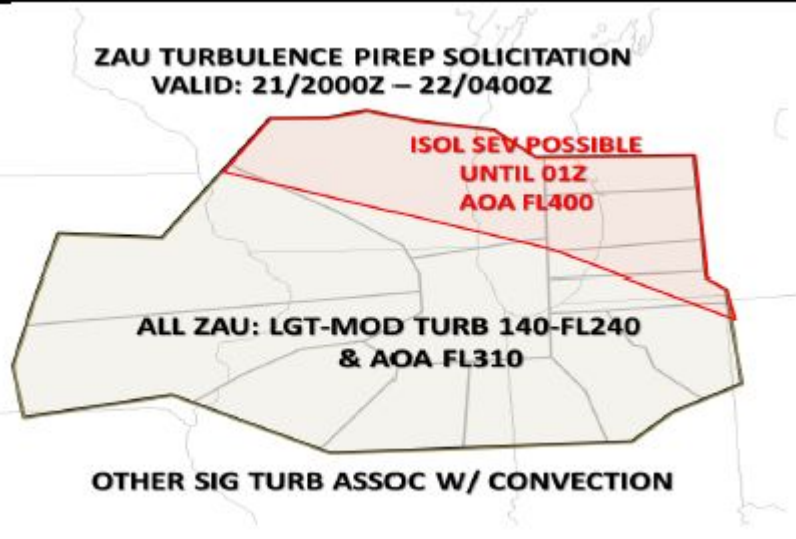
MN IA WI LM
L SEV TURB
ACFT. CONDS

S MKG-10W
PS FL370.

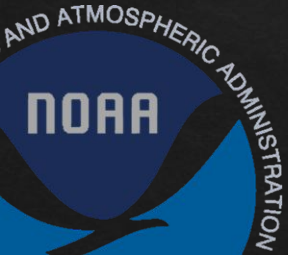
How do you read this?



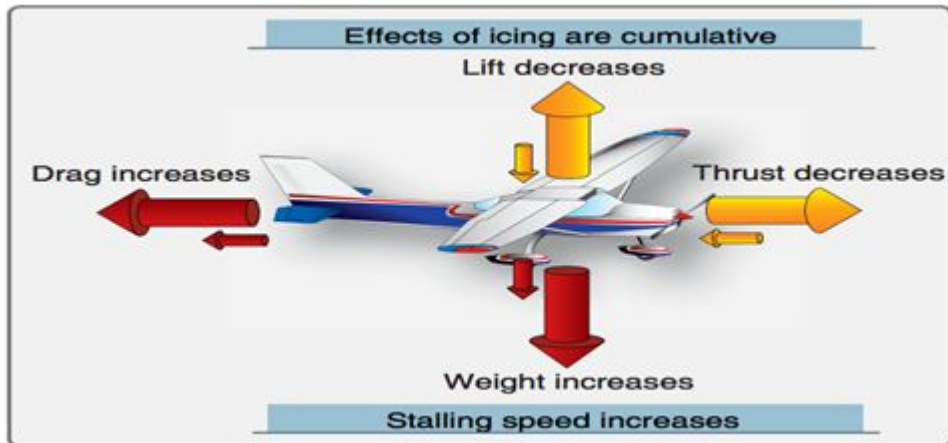
Weather Week - ZAU Weather Concerns



FORECAST JET STREAM



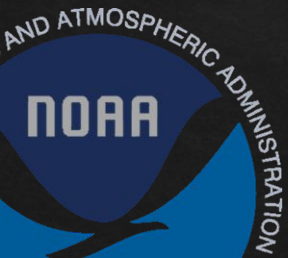
Weather Week - ZAU Weather Concerns



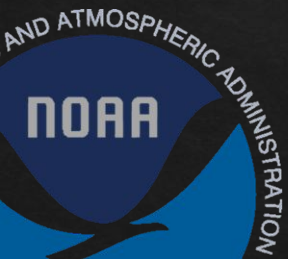
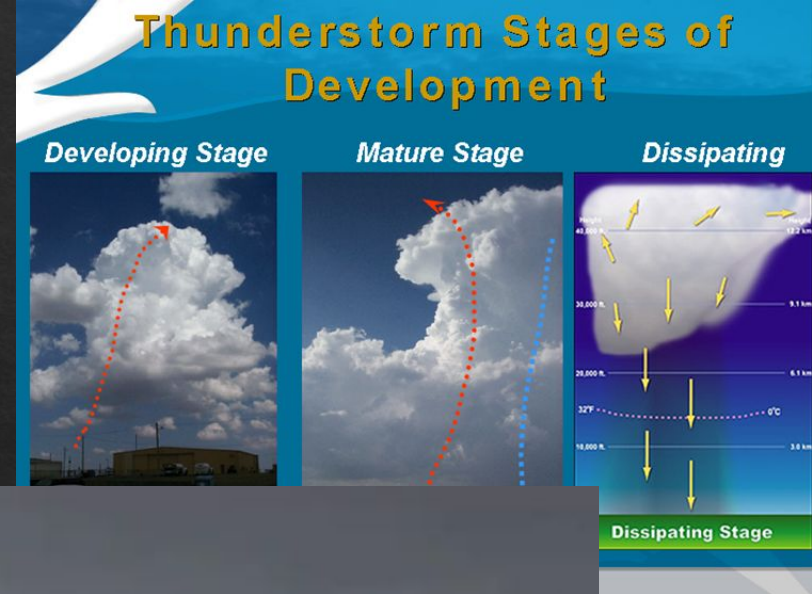
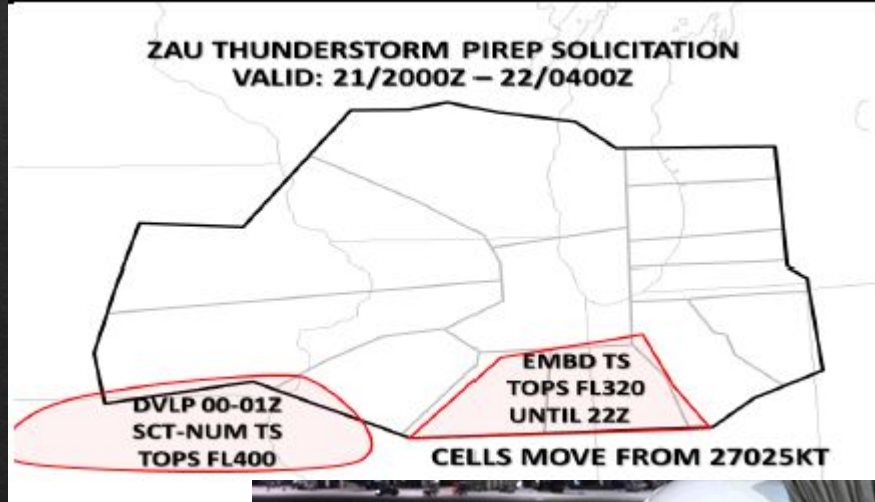
ZAU ICING PIREP SOLICITATION
VALID: 12/2000Z - 13/0400Z

LGT 080-FL180

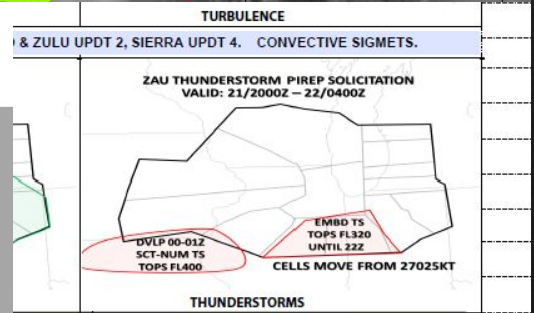
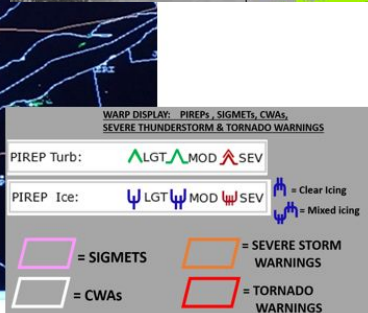
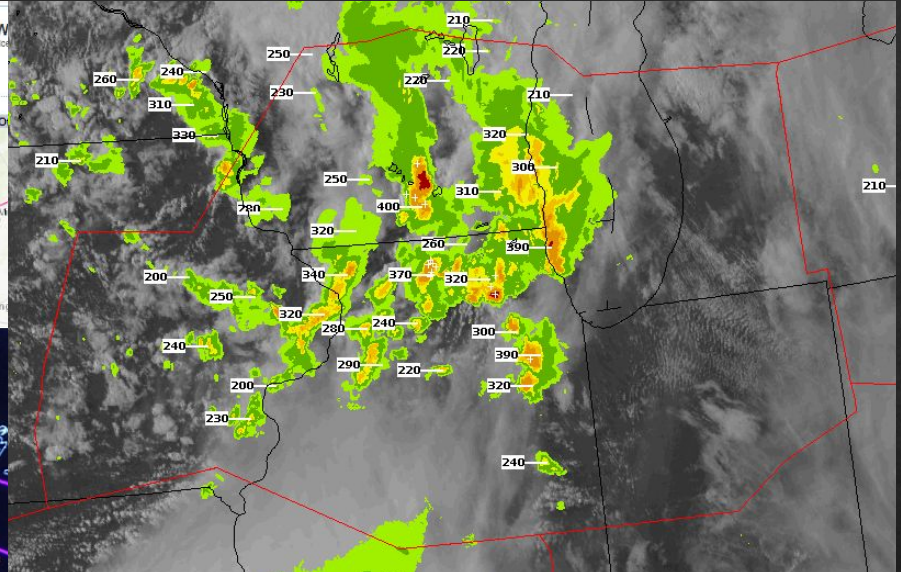
FRZLVL: 040 (NE) - 050/060 (SW)



Weather Week - ZAU Weather Concerns



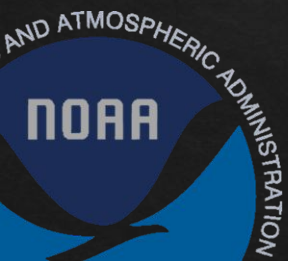
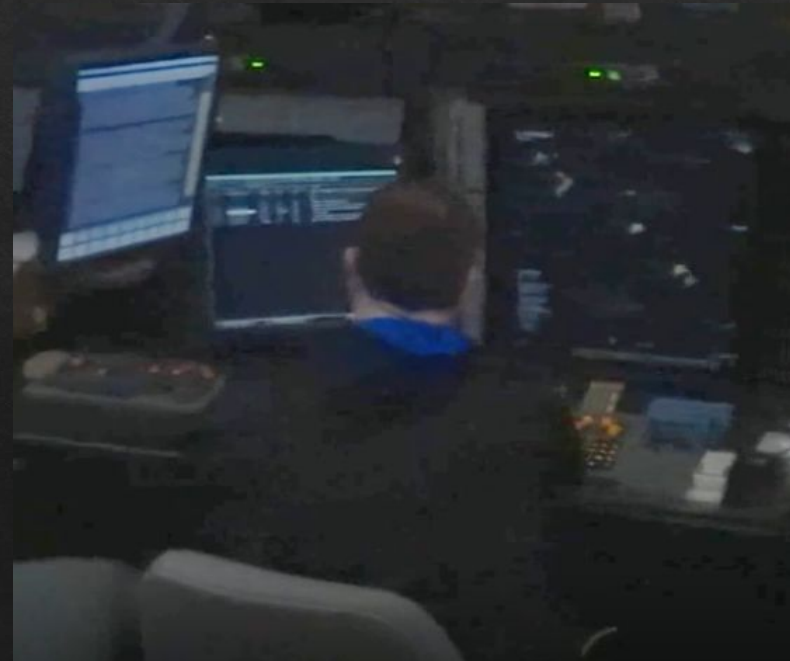
Weather Week - Briefing Tools



Weather Week - Stage 4

Controllers work simulations that require them to

- ◆ Issue depicted weather
- ◆ Practice broadcasting advisories
- ◆ Work deviations
- ◆ Solicit and issue PIREPs
- ◆ Review best practices and techniques



ZAU LSC Weather Team Members

FAA

Rick Cieplik - NATCA Team Lead

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Ryan KoKalj - NATCA Certified Professional
Controller

Griffing Gettemy - Operational Supervisor

NWS

Jamie Enderlen - ZAU MIC

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Robb Kaczmarek - Meteorologist

