



Evolving the Aviation Digital Data Service (ADDS)

Presented collaboratively by FAA and NWS to FPAW
Oct 24, 2013



FAA

Outline

ADDS Responsibilities

The state of ADDS today

The future of ADDS

ADDS Roles and Responsibilities – National Weather Service

Provide highly reliable access to consistent, timely, and accurate aviation weather information via the Internet.



Enhance the real-time, on-time, all the time access, display and delivery of aviation weather data, products and services.



Coordinate research, development, and demonstration activities between the Aviation Weather Testbed, NCEP, and AWRP Product Development Teams.



ADDS Roles and Responsibilities – FAA Aviation Weather Division

Sponsor relevant aviation weather research in line with NextGen concepts of operations

- Automated products
- Collaborative efforts with NWS to enhance HITL decision support

Support transition activities between Experimental ADDS and Operational ADDS

Sponsor user demonstration and evaluation activities

Coordinate policy and procedural issues with other FAA lines of business



ADDS Roles and Responsibilities – NCAR

Perform research and development as directed by FAA and/or NWS to enhance ADDS

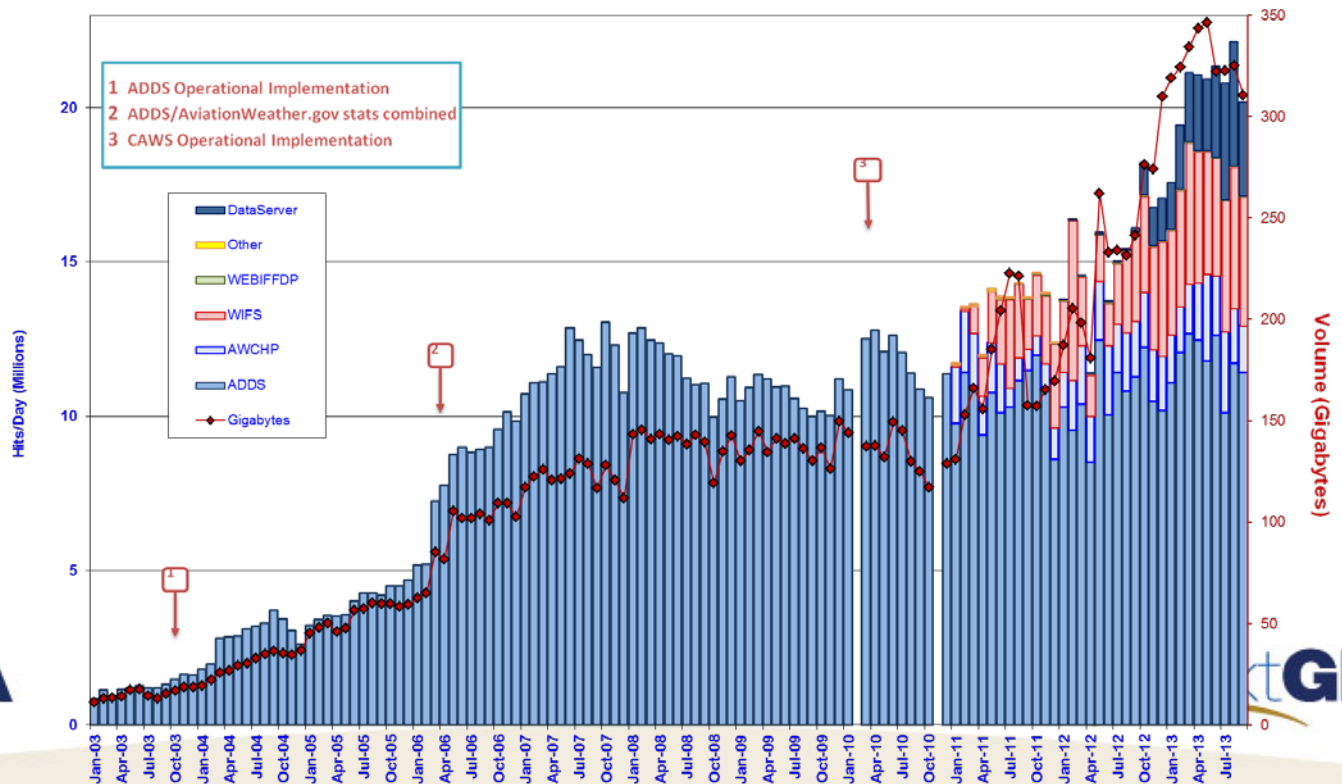
Develop innovative ideas to share with FAA, NWS, and ADDS user community for consideration in operational ADDS

Operate Experimental ADDS



The State of ADDS today

- Over a decade of being hugely popular
- 2X increase in usage in past 2 years
- 20M+ Hit & 300 GB data per day



FAA



ADDS of the future

- FAA, NWS, and NCAR are working to scope future enhancements.
- Define pathway to Operational ADDS early
- Increasing demonstration and evaluation roles at both the NWS' Aviation Weather Testbed and the FAA's William J Hughes Technical Center desired.
- ...and stating the obvious: funding will be critical in the ability to move forward in a timely manner

New ADDS Look & Capabilities

The screenshot displays the Aviation Weather Center (AWC) website interface. At the top, the AWC logo and "PROTOTYPE" label are visible. The navigation menu includes: USER, HOME, ADVISORIES, FORECASTS, OBSERVATIONS, USER TOOLS, NEWS, SEARCH, and ABOUT. Below the menu, there is a "Local forecast by 'City, St' or ZIP code" search box with a "Go" button and a "Location Help" link. To the right, a "News and Information" section lists recent updates: [2013 Sep 25] New WAFS Gridded Data, [2013 Sep 12] NWS Customer Satisfaction Survey, [2013 Sep 10] Aviation Digital Data Service (ADDS) User Discussion, and [2013 Jul 29] New Aviation Weather Center Website. The main content area features a weather map of the United States with tabs for METARS, TAFs, PIREPs, and G-AIRMETS. The map shows various weather conditions, including clouds, precipitation, and turbulence, with colored markers indicating specific data points.

<http://NEW.AviationWeather.gov>



FAA



US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Centers for Environmental Prediction
Aviation Weather Center
7220 NW 221st Term, Room 128
Kansas City, MO 64153-2373

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[Center Website](#)

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G-AIRMETS



FAA

Next**GEN**

Improvements

Simpler and more consistent layout

Improved data integration

Works on mobile devices ... Well

Java Applets

TAFs Java Tool

NOTE: The recent release of Java (ver 1.7) breaks the ADDS Java applets on Windows XP and Vista. We recommend that users either switch to the [Flight Path Tool](#) and select the TAFS layer, revert XP/Vista back to Java 1.6 or use Windows 7. [Oracle Java 6 archives](#)
Refer any questions to ncep.awcweb@noaa.gov.

TAFs Java Tool

NOTE: The recent release of Java (ver 1.7) breaks the ADDS Java applets on Windows XP and Vista. We recommend that users either switch to the [Flight Path Tool](#) and select the TAFS layer, revert XP/Vista back to Java 1.6 or use Windows 7. [Oracle Java 6 archives](#)
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A plugin is needed to display this content.

[Install plugin...](#)



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GEN

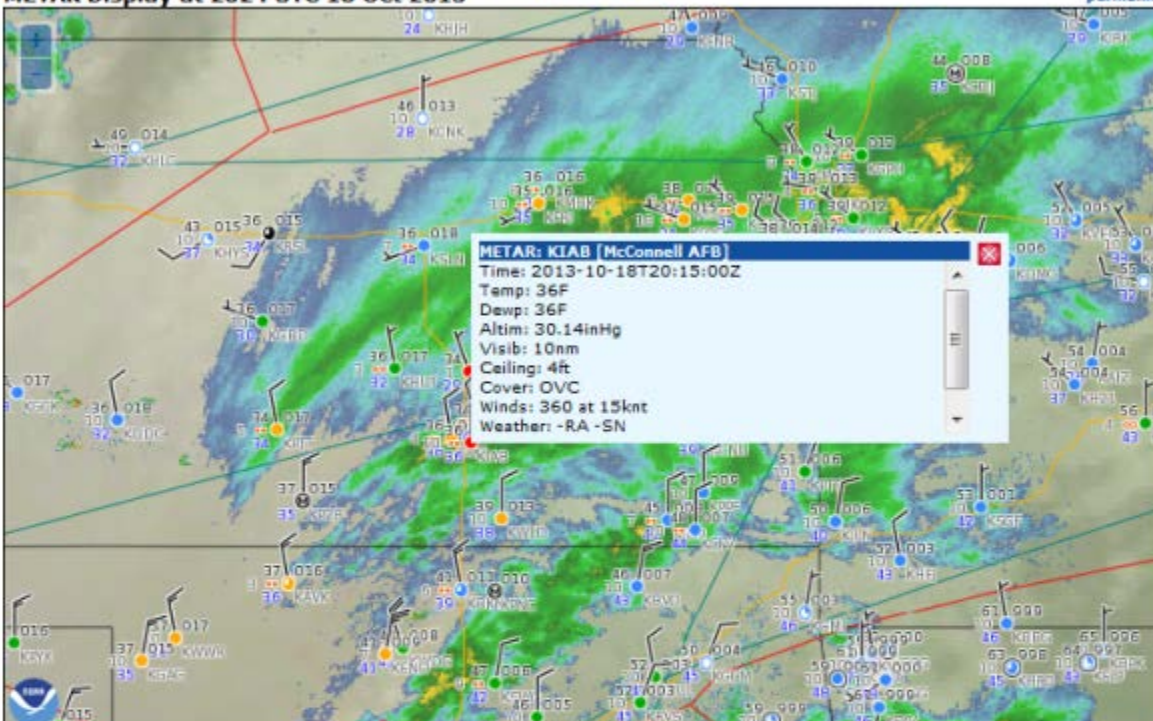
that you don't have Java installed or enabled, [click here for more information](#).

It appears

Dynamic Mapping

ADDS METARs


METAR Display at 2024 UTC 18 Oct 2013 [permalink](#)



METAR: KIAB [McConnell AFB]
Time: 2013-10-18T20:15:00Z
Temp: 36F
Dewp: 36F
Altim: 30.14inHg
Visib: 10nm
Ceiling: 4ft
Cover: OVC
Winds: 360 at 15knt
Weather: -RA -SN

Map: <input checked="" type="radio"/> Globe light <input type="radio"/> Globe dark <input type="radio"/> Simple	Data layers: <input checked="" type="checkbox"/> Satellite <input checked="" type="checkbox"/> Radar	Plot Options: Station model ▾ Param All ▾ Data density <input type="checkbox"/> Metric <input checked="" type="checkbox"/> Hover	Data Options: <input checked="" type="checkbox"/> Decoded <input type="checkbox"/> TAF	Overlays: <input checked="" type="checkbox"/> Highways <input checked="" type="checkbox"/> Top Jetways <input checked="" type="checkbox"/> ARTCC/FIR Bounds
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Regional METAR Plots



Request METAR data

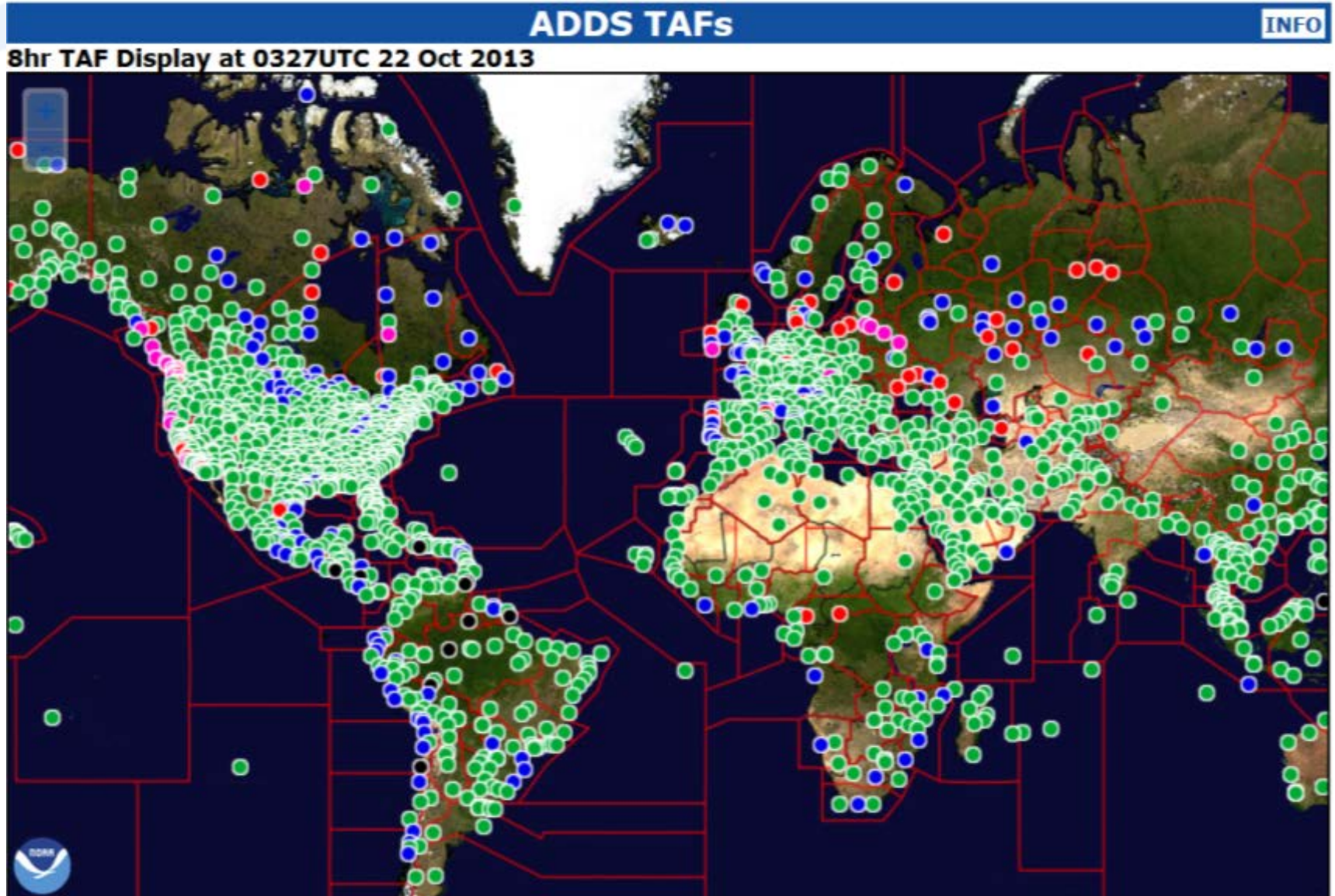
Ids: Format: Raw Decoded
most recent only ▾ Include TAF



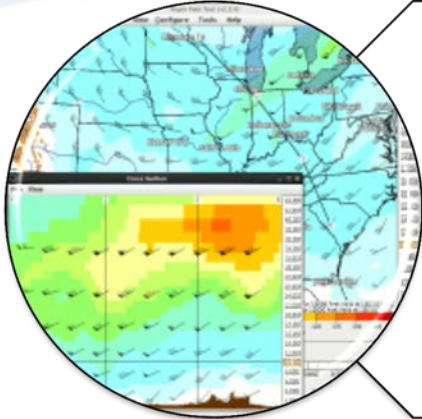
FAA



Full Global Data

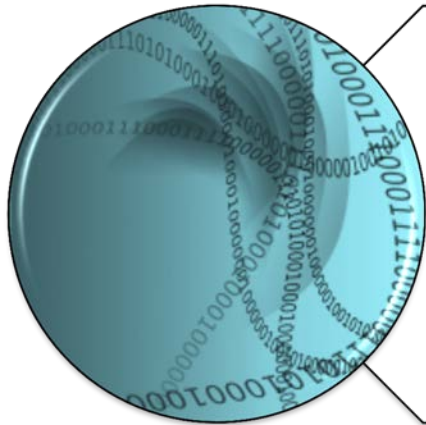


Flight Path Tool and Data Server



Flight Path Tool Version 2 will continue to be supported

- It's a Java Application; Not an applet



Data Server also uses Java

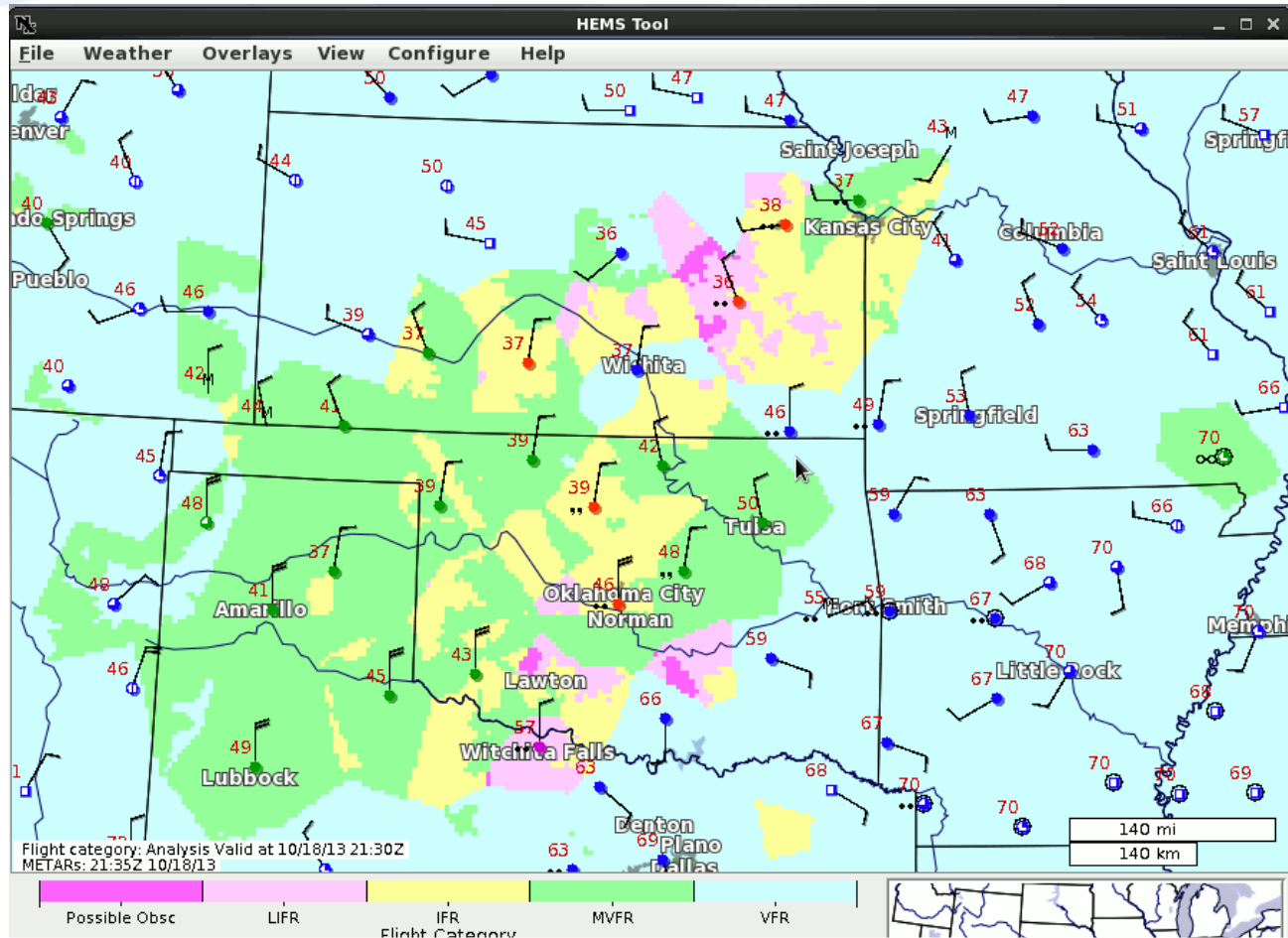
- Also not going away



FAA

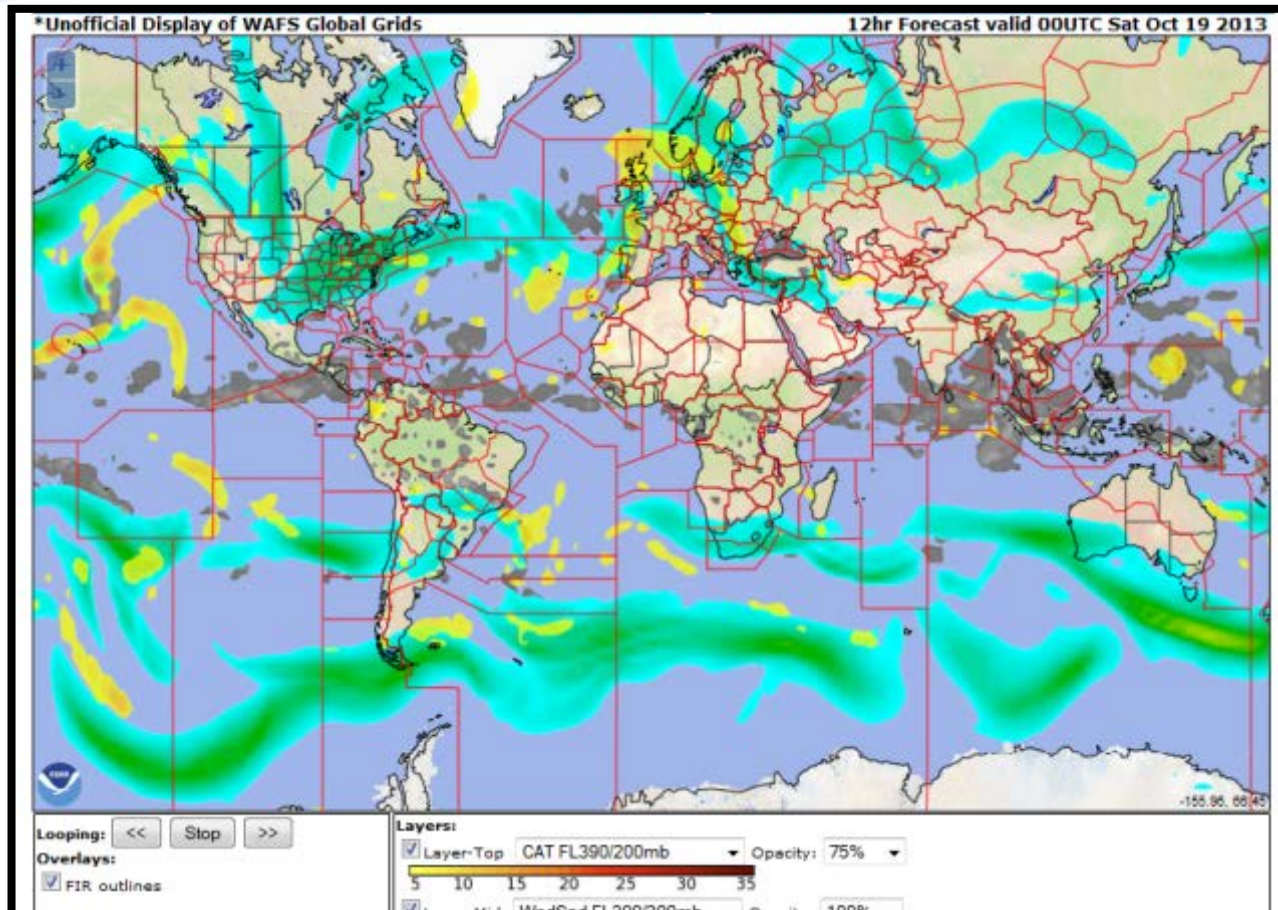
Next**GEN**

HEMS Tool



Work to Operationalize Ongoing

World Area Forecast System Global Grids



<http://www.AviationWeather.gov/wafs>

TFM Support

Aviation Weather Tested
Aviation Weather Center



Home News Organization Search Go

Experiments Products Projects Links

Traffic Flow Management Portal

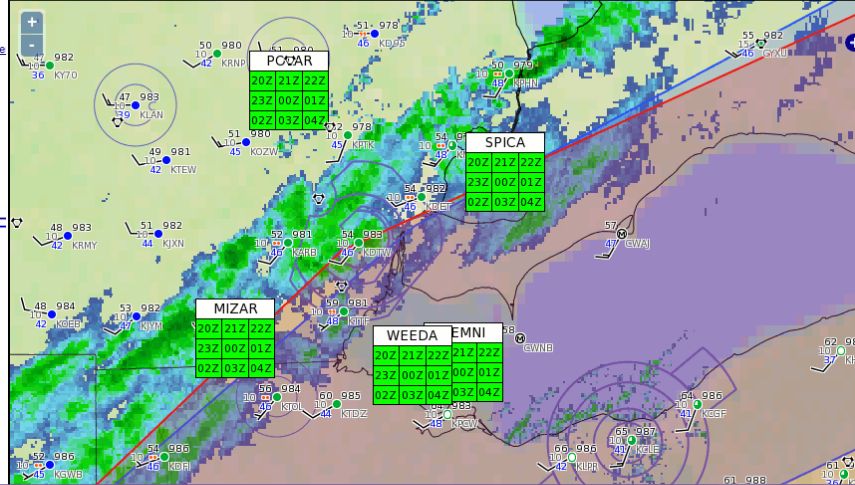
Planning and Forecasting

						
4-hr CCFP	0-hr CoSPA	Day 1 Outlook	ECFP	SREF	SREF Plumes	HRRR
						
LAMP	3 Day Outlook	International Enroute Weather	Domestic Enroute Weather	INSITE		

Tactical

TFM Tactical Decision Aid

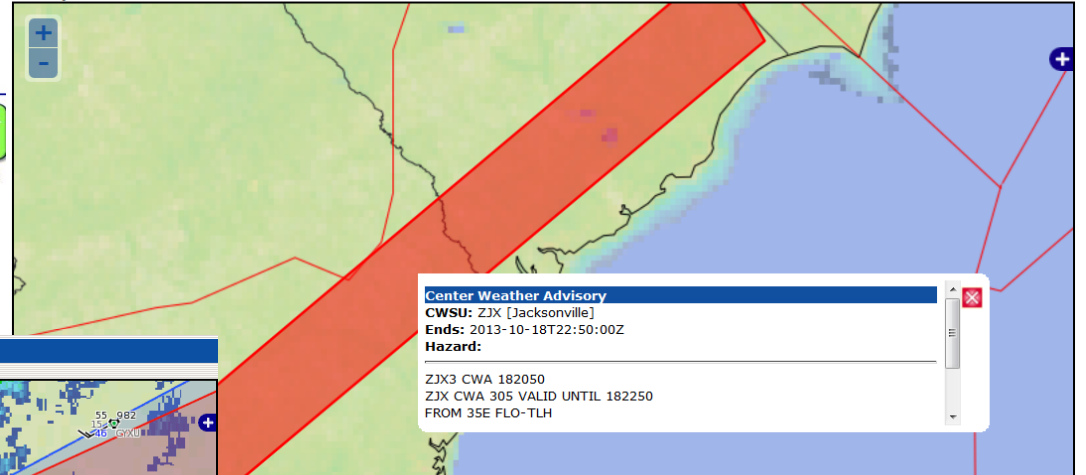
METARS G-AIRMETS SIGMETs valid 1930UTC 21 Oct 2013



CWSU Advisories

INFO

CWA/MIS statements valid 2124UTC 18 Oct 2013

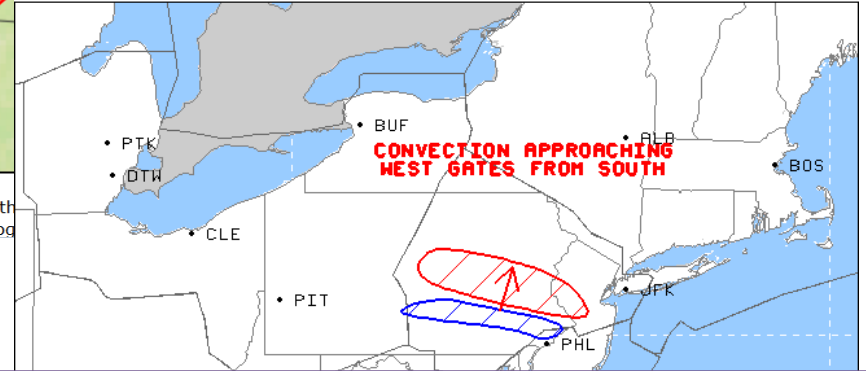


Center Weather Advisory
CWSU: ZJX [Jacksonville]
Ends: 2013-10-18T22:50:00Z
Hazard:

ZJX3 CWA 182050
ZJX CWA 305 VALID UNTIL 182250
FROM 35E FLO-TLH

AVIATION WEATHER STATEMENT

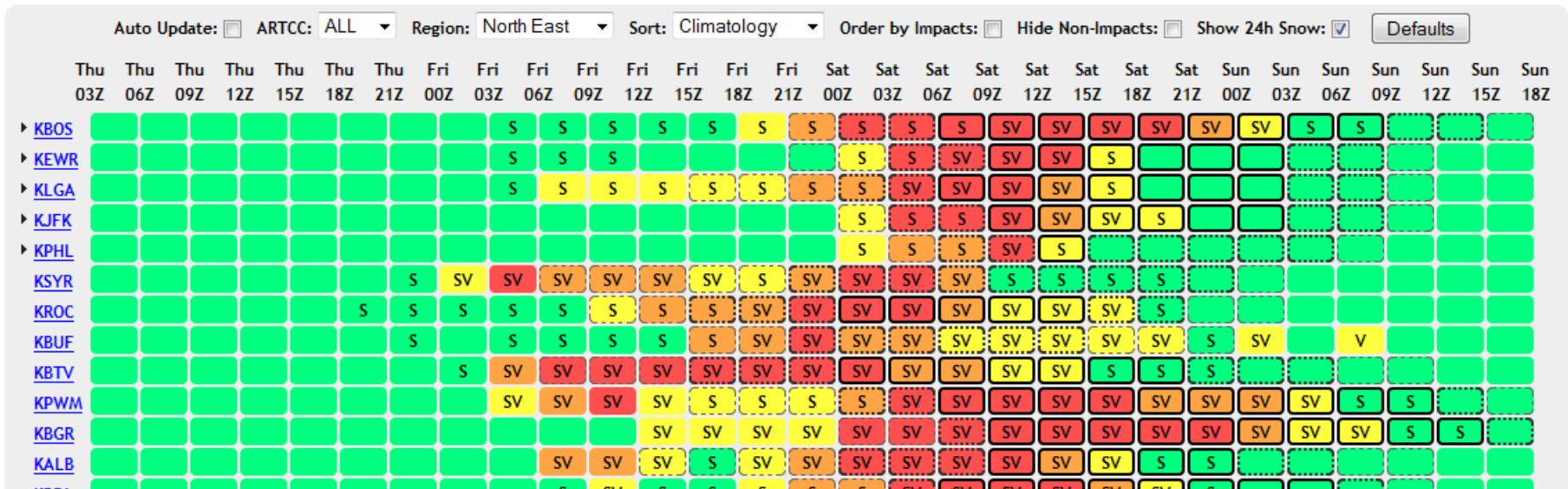
VALID: 1900Z



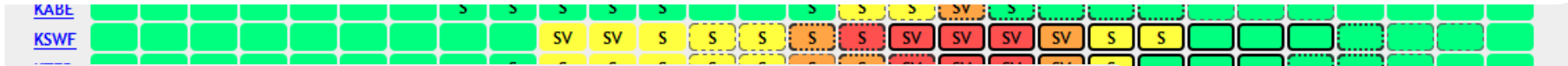
<http://testbed.AviationWeather.gov/page/public?name=TFM%20Portal>

<input type="checkbox"/> Simple	<input checked="" type="checkbox"/> SIGMET	<input checked="" type="checkbox"/> Icing G-AIRMET	<input type="checkbox"/> Metric	<input type="checkbox"/> ARTCC/PIR Bounds
<input type="checkbox"/>	<input checked="" type="checkbox"/> Turb-Lo G-AIRMET	<input checked="" type="checkbox"/> IFR G-AIRMET	<input type="checkbox"/>	<input checked="" type="checkbox"/> Class B
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> VOR Sites
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Fix Sites

Aviation Winter Weather Dashboard



Operational this Winter



Mouseover dashboard boxes above to display detailed impact information for the selected airport and time period.
Click on the Airport Identifier to view SREF plume diagrams.

Impact Type: S : Snowfall F : Freezing Rain V : Visibility^[1]

Impact Category: Nominal Slight Moderate High

24h Snowfall: Nominal Slight Moderate High

[1] Impacts due to visibility are only displayed when 2m temperature ≤ 28°F.



ADDS TAF Board

ADDS TAF Board INFO

TAF Home Plot Data Board

@NY Format: Expanded Condensed

Time	18/20Z	18/21Z	18/22Z	18/23Z	19/00Z	19/01Z	19/02Z	19/03Z	19/04Z	19/05Z	19/06Z	19/07Z	19/08Z
KALB	WGst	WGst	WGst										WX
KART	WSpd	WSpd	WSpd	WSpd									
KBGM	WSpd	WSpd	WSpd	WSpd									
KBUF	WSpd	WSpd	WSpd	WSpd						VIS	VIS		CIG
KELM	WGst	WGst	WGst	WGst									
KGFL													

KGTB	CIG	CIG	WSpd	WSpd	WSpd	WSpd							
KHPN	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd							
KIAG	WSpd	WSpd	WSpd										
KISP	WSpd	WSpd											
KITH	WSpd	WSpd	WSpd	WSpd									
KJFK	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd							
KJHW	WSpd	WSpd	WSpd	WSpd									
KLGA	WSpd	WSpd	WSpd	WSpd	WSpd	WSpd							
KMSS	WSpd	WSpd	WSpd										
KPBG	WGst	WGst											
KPOU	WGst	WGst											
KRME	WSpd	WSpd	WSpd										
KROC	WSpd	WSpd	WSpd	WSpd									
KSLK	WGst	WGst	WGst										
KSWF	WSpd	WSpd											
KSYR	WSpd	WSpd	WSpd										

ADDS TAF Board INFO

TAF Home Plot Data Board

KBUF Format: Expanded Condensed

KBUF [Buffalo-Niagara Intl, NY, US]

Time	18/20Z	18/21Z	18/22Z	18/23Z	19/00Z	19/01Z	19/02Z	19/03Z	19/04Z	19/05Z	19/06Z	19/07Z	19/08Z
Visib	>6	>6	>6	>6	>6	>6	>6	>6	>6	>6	3	3	>6
Cig	50	50	50	50	35	35	35	35	35	35	15	15	18
CldCvg	BKN	BKN	BKN	BKN	BKN	BKN	BKN	BKN	BKN	BKN	OVC	OVC	BKN
Wx	--	--	--	--	--	--	--	--	--	--	15	15	18
WDir	250	250	250	250	230	230	230	230	230	230	OVC	OVC	BKN
WSpd	16	16	16	16	8	8	8	8	8	8	-SHRA	-SHRA	-SHRA
WGst	27	27	27	27	--	--	--	--	--	--	220	220	240
Raw TAF	KBUF 181746Z 1818/1918 25016G27KT P6SM BKN050 FM190000 23008KT P6SM BKN035 FM190600 22008KT 3SM -SHRA OVC015 FM190800 24007KT P6SM -SHRA BKN018 FM191400 21007KT P6SM OVC020 FM191700 22009KT 6SM SHRA OVC018												



Longer-term ADDS Enhancements

Login & Profile storage

User Portals

- GA/135 portal
- 121 pilot portal; dispatch portal
- Alaska
- Passenger portal

Mobile Apps

- HEMS,121 and GA pilot mobile app

Customized weather briefing capability

Archive retrieval

Integration of verification on product displays