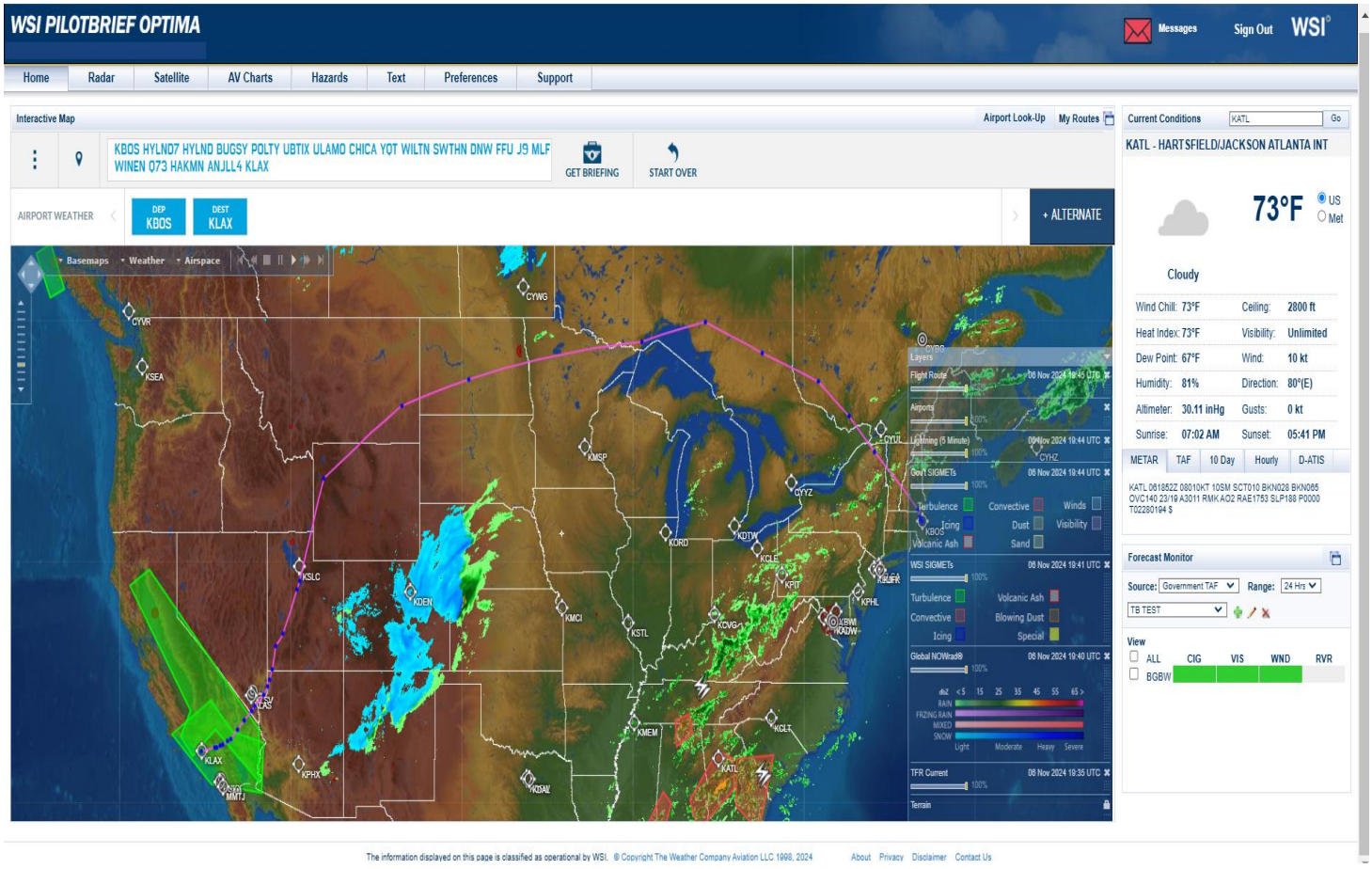
Jun 2025

WSI Pilotbrief Optima Web

Chart Overview



The Weather Company

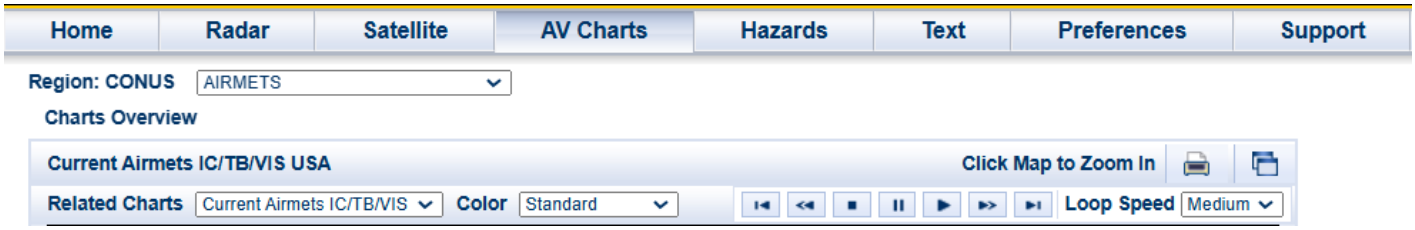
Contents

Overview

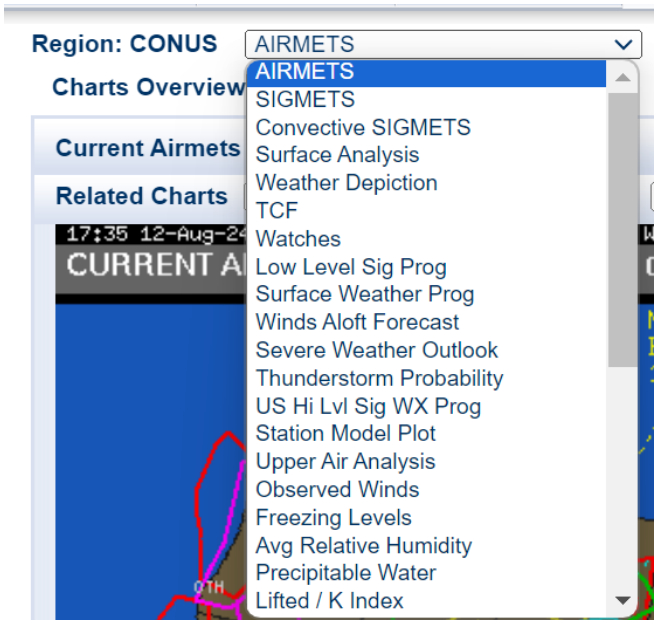
Users can view weather charts in either the Web or iPad product. For the Web, users will see tabs for Radar, Satellite, AV Charts, and Hazards on the top bar. For the iPad, users will see a Charts tab on the bottom of the application. This will open the window for users to select from Favorites, Radar, Satellite, AV Charts, Hazards, or Last Viewed. When users select any of the chart options, a list of tiles for charts available will be seen based on the Region selected. The region can be changed by selecting from the list in the dropdown menu. The list of Regions will change depending on the Chart option selected.

- Radar includes Alaska, Canada, Hawaii/C. Pacific, and Mexico/Caribbean
- Satellite includes Africa, Alaska, Asia Pacific, Australia/S. Pacific, Canada, CONUS, Europe/Atlantic, Hawaii/C. Pacific, Mexico/Caribbean, and South America
- AV Charts and Hazards both include Africa, Alaska, Asia Pacific, Australia/S. Pacific, Canada, CONUS, Europe/Atlantic, Hawaii/C. Pacific, Mexico/Caribbean, North Pole, and South America

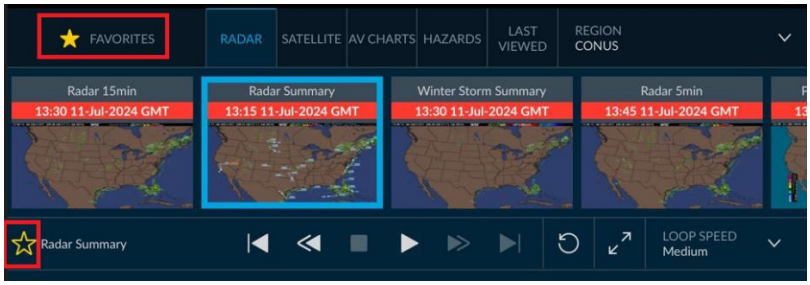
When a specific chart is selected, the user will have additional options such as Click Map to Zoom In, print the chart, return to the tile view, see Related charts (if applicable), change the map Color, animate the chart, and change the Loop (animation) speed.



Additionally, users can view other maps within the Region they have selected in the top dropdown menu.



On the iPad, users can tap on the hollow star icon on the left side of any chart and add that chart to their Favorites for easy access later.



Radar

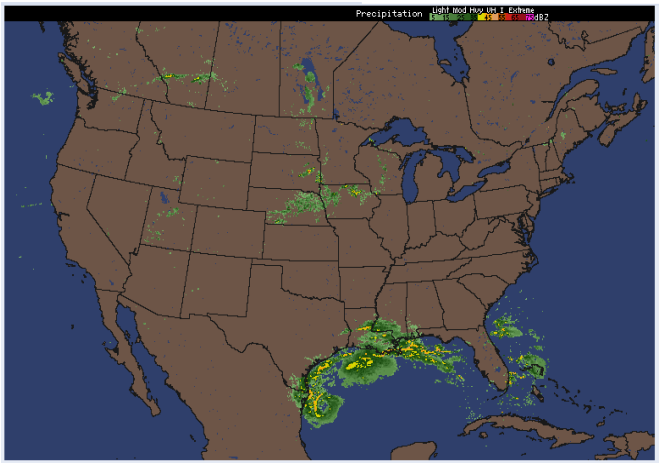
Global NOWrad imagery displays areas where precipitation is occurring, the intensity of the precipitation, and the type of precipitation (rain, freezing rain, mix, or snow). Mix precipitation include any combination of rain, snow, or sleet.

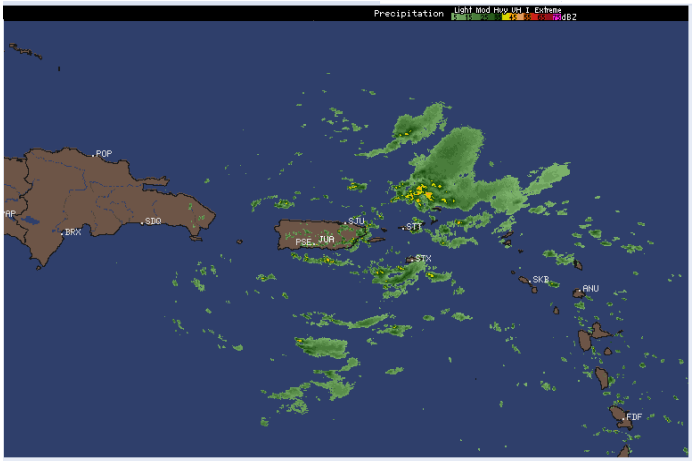
Precipitation areas are shaded to depict the type and intensity of precipitation as shown below:

The national (8km resolution) NOWrad mosaic images are created by combining data from more than 130 NEXRAD sites across the United States. Proprietary computer algorithms are used to create the seamless mosaic and eliminate ground clutter and anomalous propagation (AP). In addition, each image is visually inspected by a specially trained meteorologist to remove false echoes that cannot be detected by the computer algorithms. The result is a radar imagery product that is virtually free of false echoes (non-precipitating echoes).

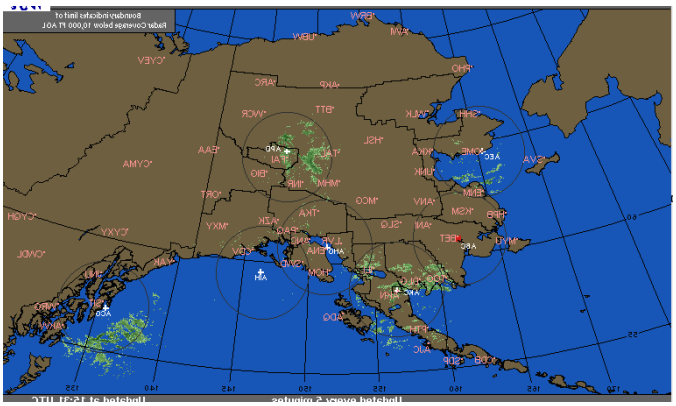
Users can view a 5 min, 15 min, radar mosaic, radar summary, precipitation estimate, or winter storm summary. These options will vary based on the Region the user selected.

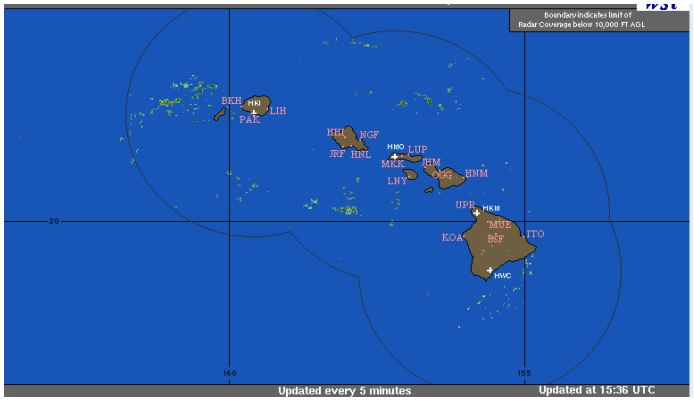
Radar 5 min and 15 min charts



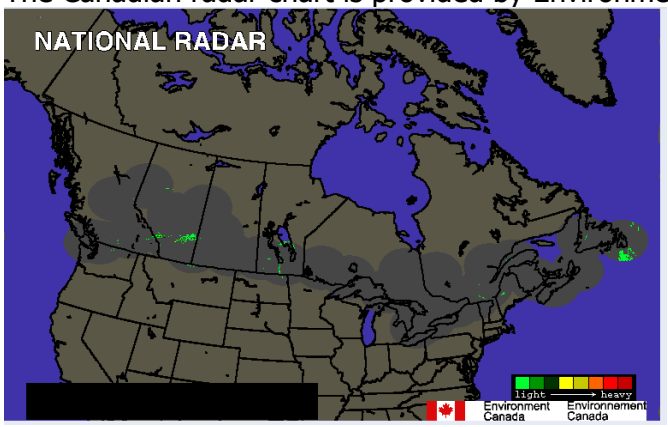


Radar mosaic charts
These are updated every 5 minutes. There is a boundary depicting the limit of radar coverage below 10,000 FT AGL.





National Radar
The Canadian radar chart is provided by Environment Canada and updates every 15 minutes.



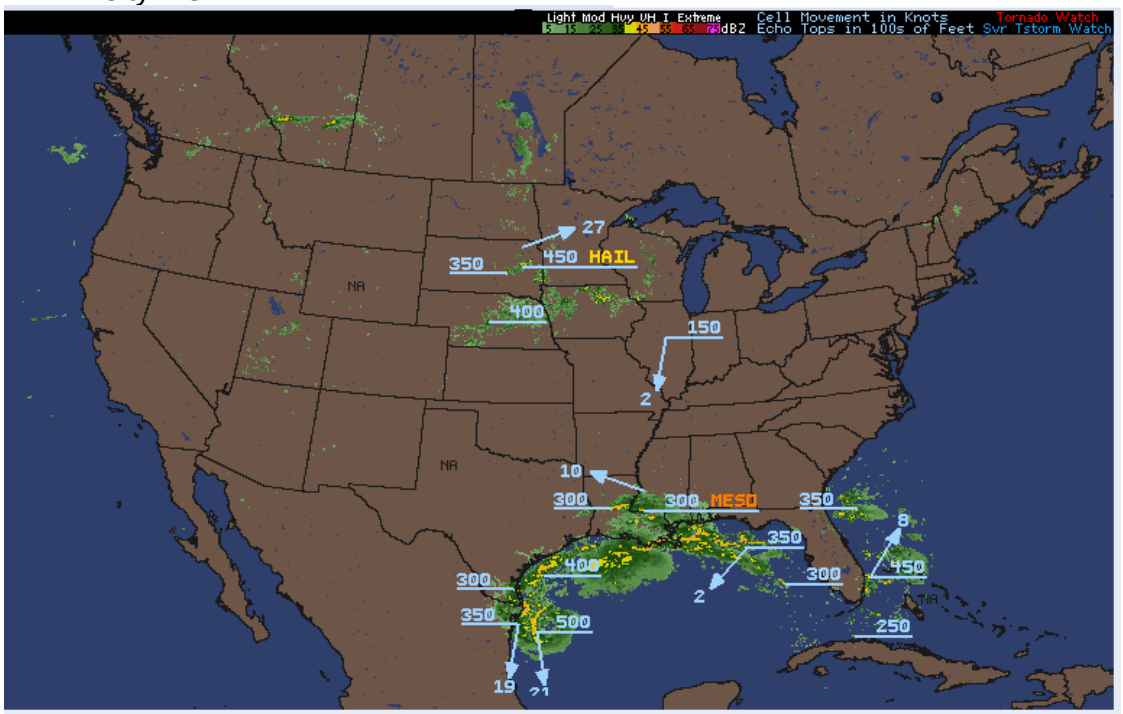
Radar Summary

The NOWRAD Radar Summary graphics are meant to help you track storms more quickly and accurately. These images consist of echo top heights, cell movement indicators, tornado and severe thunderstorm watch boxes, and the NEXRAD Storm Table information overlaid onto the mosaic radar imagery. The radar summary graphics display cell movement and direction by arrows, with speed in knots, and the echo top heights in hundreds of feet. An "NA" on the chart indicates that the radar report from that station was "Not Available", and "NE" shows that the radar was seeing "No Echoes". Severe weather watch boxes are also plotted - red boxes indicate a Tornado Watch has been issued for the area, and a blue box indicates a Severe Thunderstorm Watch is in effect for the area.

The NEXRAD storm Table data includes the following criteria:

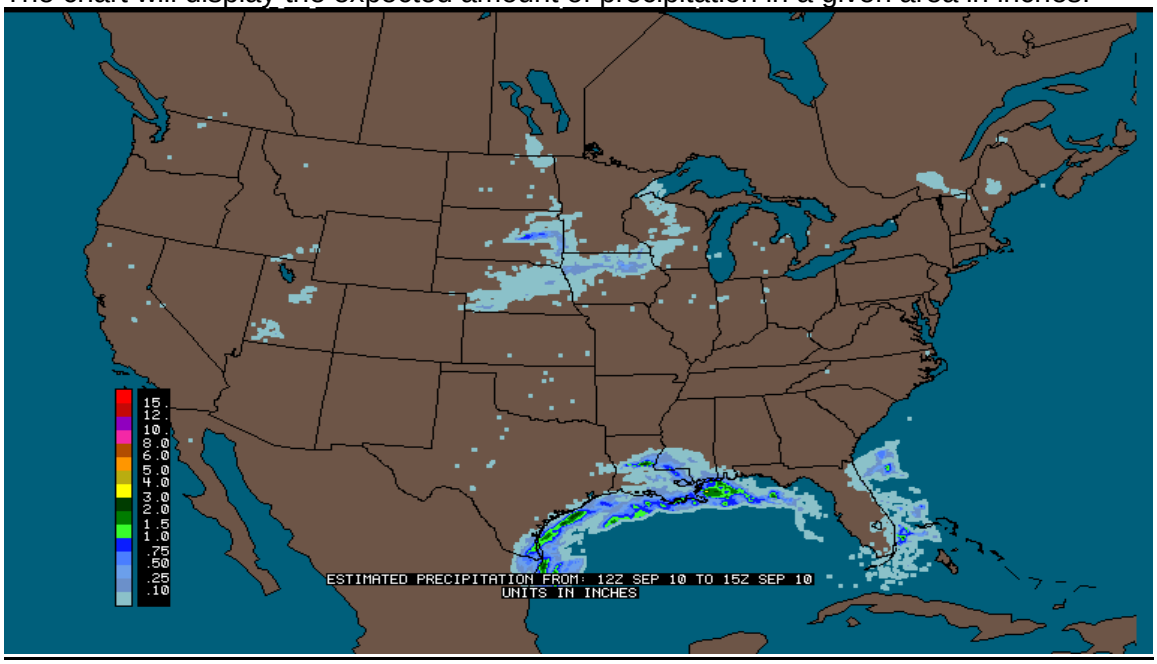
- Mesocyclone (MESO) - The NEXRAD algorithms detect a three-dimensional rotating section of a storm that is an indicator of severe weather.
- Tornadic vortex signature (TVS) - Potential tornadic activity is detected by the NEXRAD algorithms within the mesocyclone.

- Hail (HAIL) - The NEXRAD algorithms are detecting the probability of hail within the storm.
- Hook Echo (HOOK) - The radar observation (ROBs) is detecting a hook echo which is an indicator for potential tornadoes.
- Watch Boxes - Thunderstorm and tornado watches issued by the Storm Prediction Center in Kansas City MO.



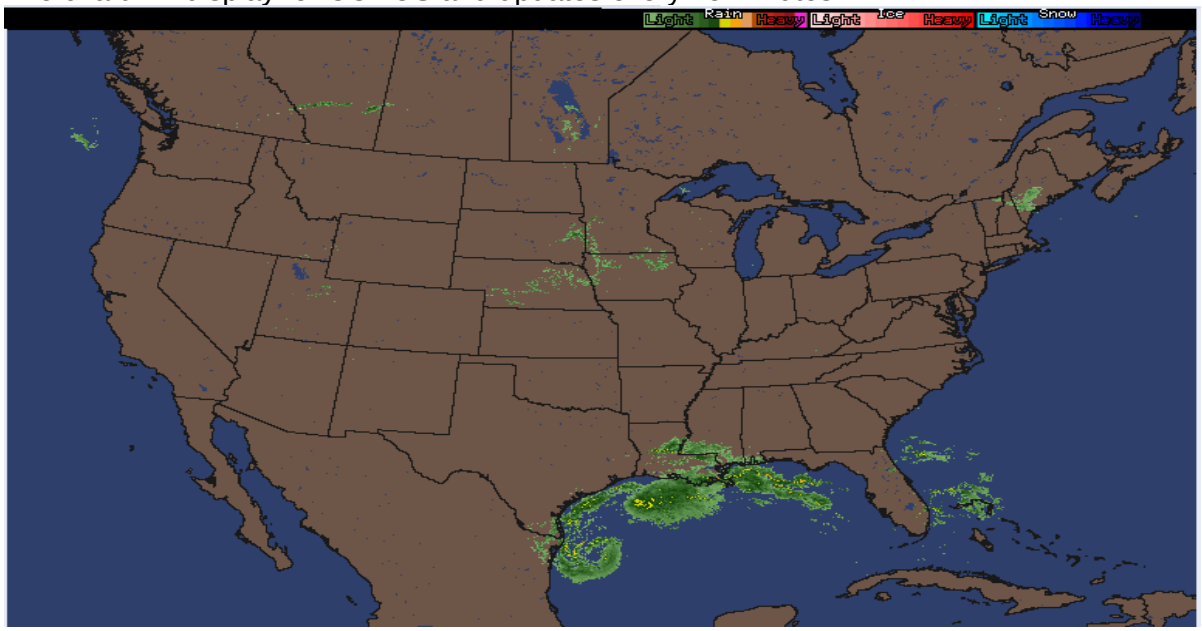
Precipitation Estimates

The chart will display the expected amount of precipitation in a given area in inches.



Winter Storm Summary

The chart will display for CONUS and updates every 15 minutes.

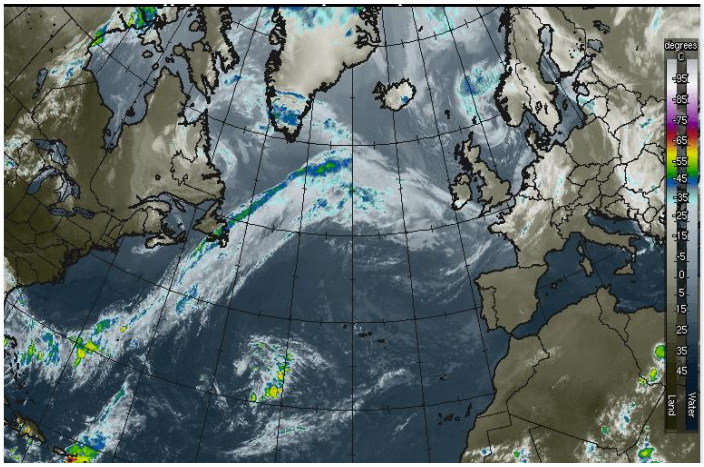


Satellite

IR Satellite

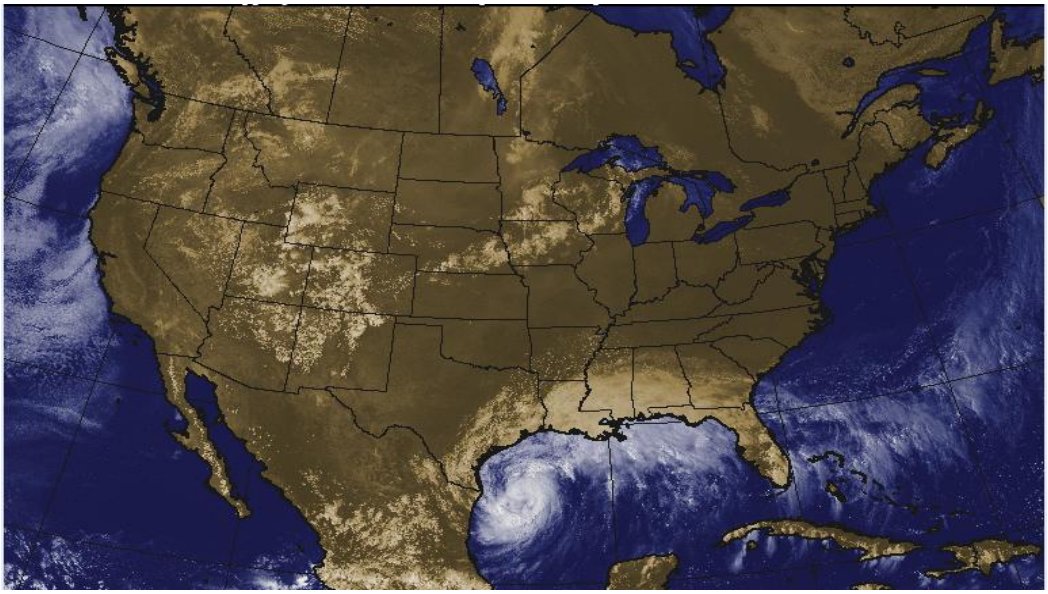
The satellite images displayed are infrared (IR) images. Warmest (lowest) clouds are shown in white; coldest (highest) clouds are displayed in shades of yellow, red, and purple. Imagery is obtained from the GOES and METEOSAT geostationary satellites.

IR satellite image



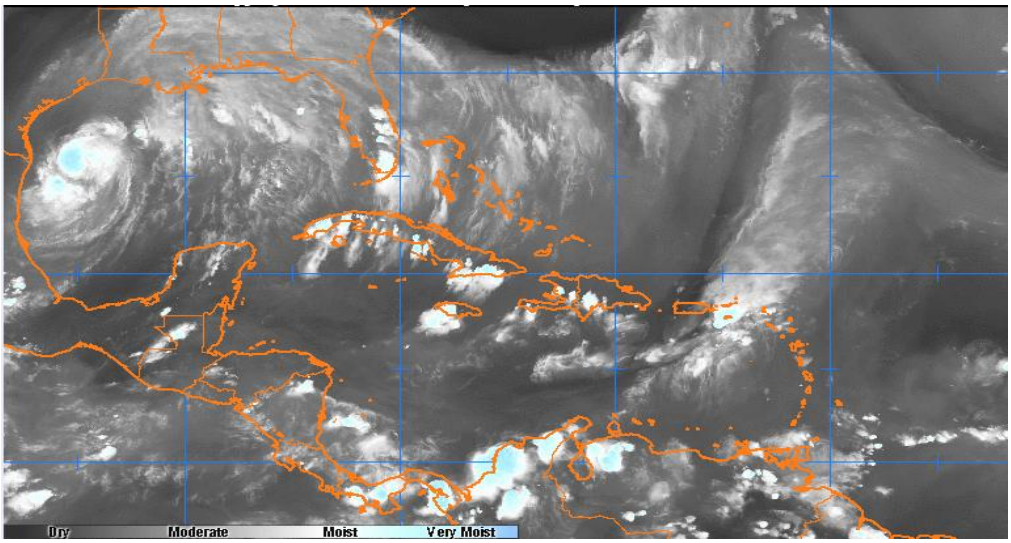
Visible Satellite

Unlike Infrared (IR) satellite imagery, which depicts the temperature of the clouds, Visible satellite imagery is essentially a snapshot of what the satellite sees. As the sun approaches midday over a given area, clouds will appear as bright white, as opposed to gray at sunrise and sunset. This is due to more sunlight being reflected as the sun moves overhead. Bodies of water, including lakes and rivers, absorb more sunlight and appear as black, with landmasses displaying as dark gray. It is also important to note that Visible imagery is only updated between sunrise and sunset, when each satellites "flashbulb" (a.k.a. the sun) is available.



Water Vapor

The water vapor satellite will indicate how much moisture is present in upper atmosphere. The area with high humidity will display the whitest and any dry areas will display as dark. This image helps to indicate where heavy rain is possible or high moisture areas can produce thunderstorms. Below is the Caribbean water vapor.



AV Charts

AIRMETs

An AIRMET (AIRmans METeorological Information) advises of weather that maybe hazardous, other than convective activity, to single engine, other light aircraft, and Visual Flight Rule (VFR) pilots. However, operators of large aircraft may also be concerned with these phenomena. The items covered are:

In the AIRMET Sierra bulletin:
- Ceilings less than 1000 feet and/or visibility less than 3 miles affecting over 50% of the area at one time.
- Extensive mountain obscuration.

In the AIRMET Tango bulletin:
- Moderate turbulence.
- Sustained surface winds of 30 knots or more at the surface.

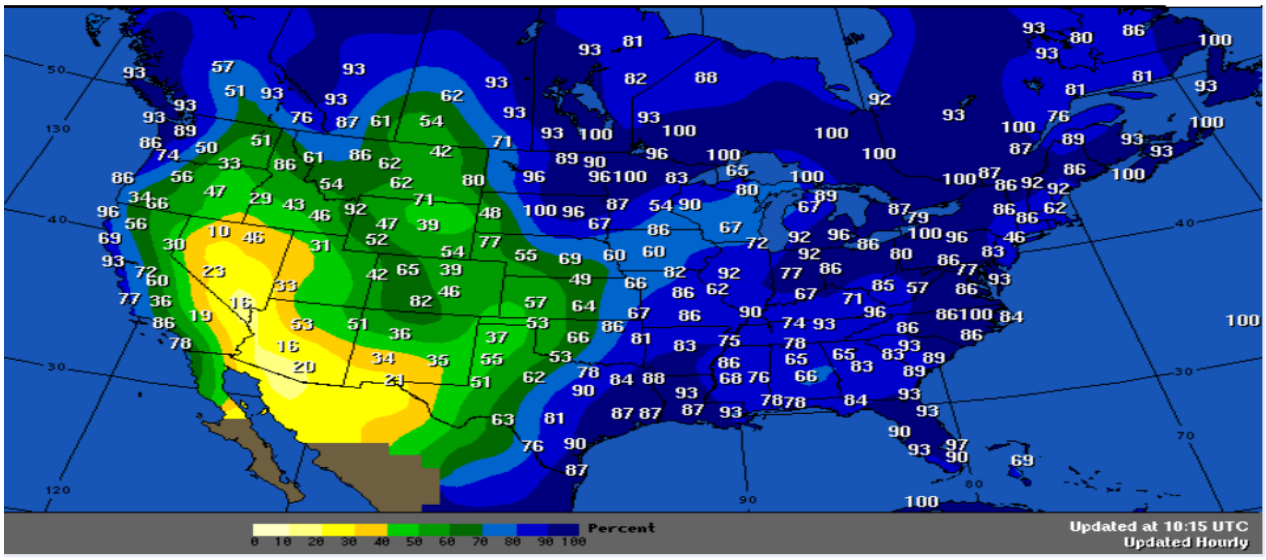
In the AIRMET Zulu bulletin:
- Moderate icing.
- Freezing levels.

These AIRMET items are considered to be widespread because they must be affecting or be forecast to affect an area of at least 3000 square miles at any one time. However, if the total area to be affected during the forecast period is very large, it could be that only a small portion of this total area would be affected at any one time.

AIRMETs are routinely issued for 6-hour periods beginning at 0245 UTC during Central Daylight Time and at 0145 UTC during Central Standard Time. AIRMETS are also amended as necessary due to changing weather conditions or issuance/cancellation of a SIGMET.

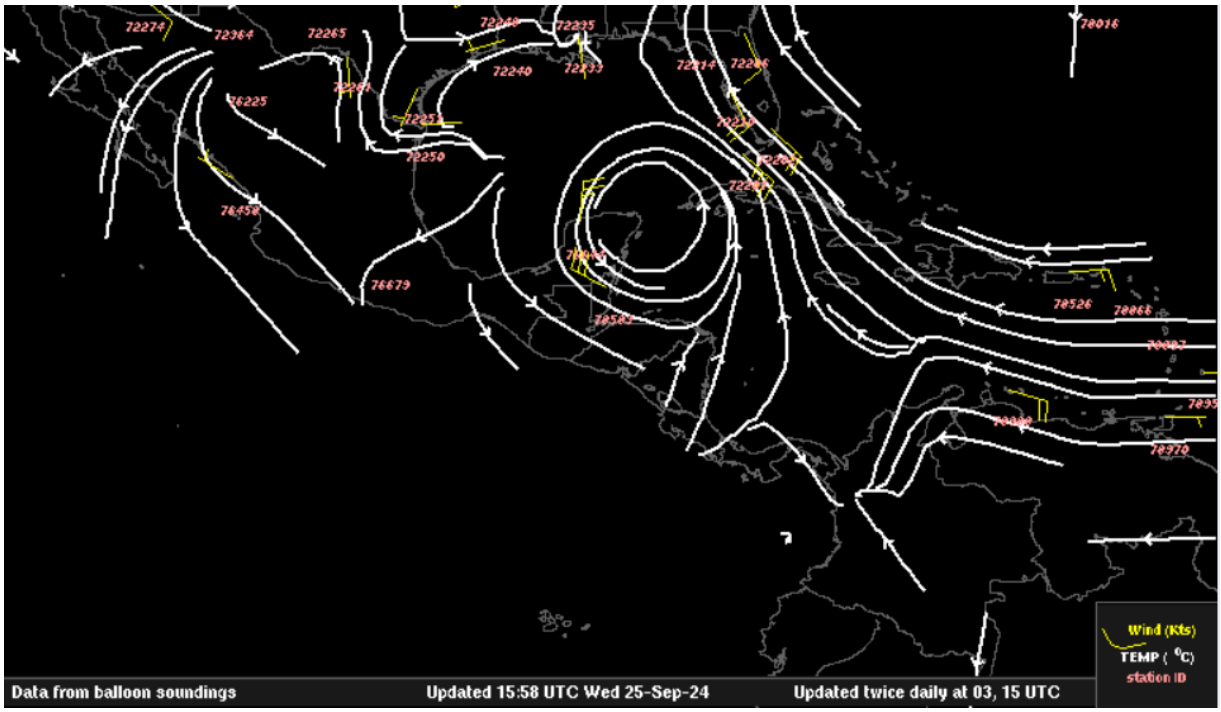
Average Relative Humidity

The Average relative humidity is derived by taking the average of the relative humidities from the surface layer up to 500 millibars based on observations taken from a profile of the atmosphere. These observations are taken twice a day around 12z and again at 00z.



Boundary Winds

The chart is updated at 03 and 15 UTC and displays data from balloon soundings. It will display wind (kts) and temp (C) along with the station ID.



Convective SIGMETs

CONVECTIVE SIGMETs are issued in the conterminous U.S. for any of the following:
Severe thunderstorms accompanied by:

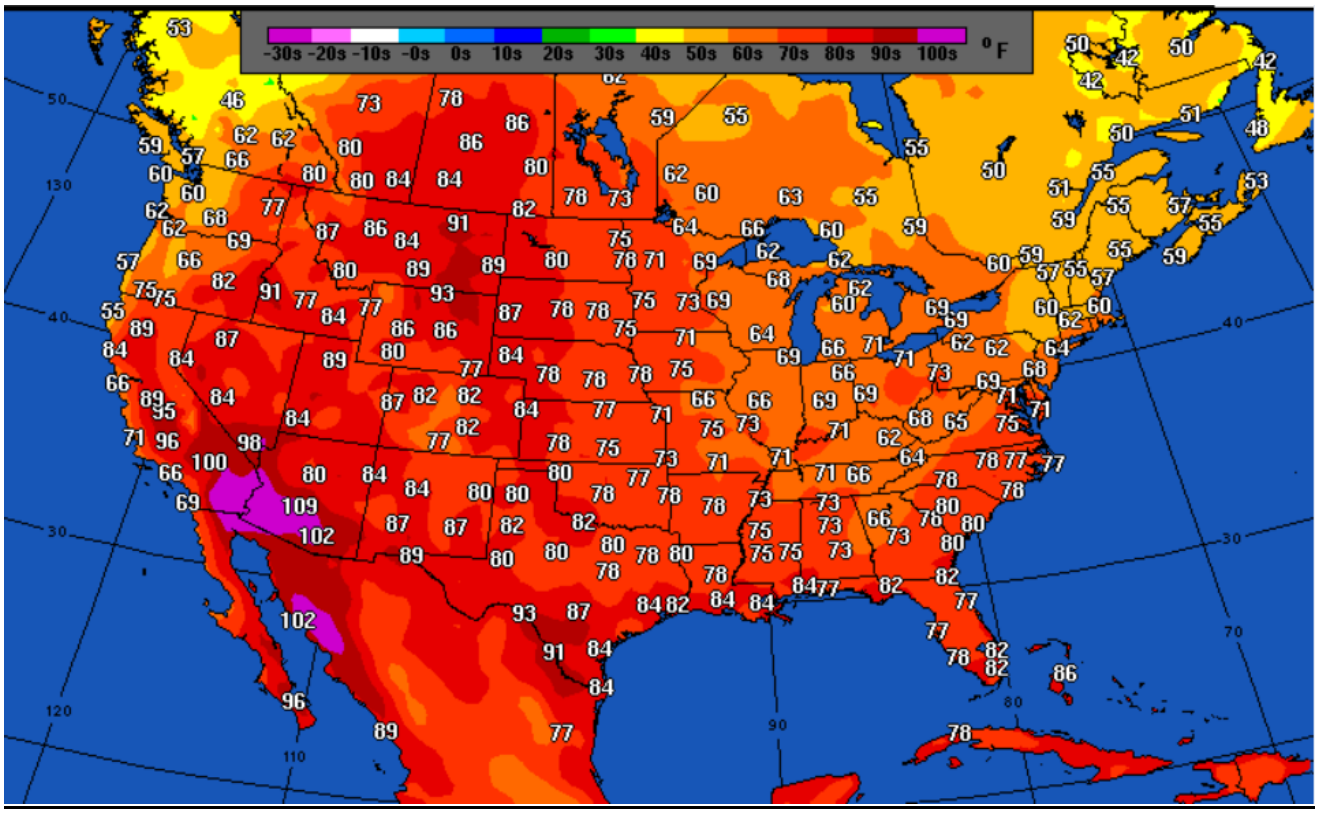
- surface winds greater than or equal to 50 knots.
- hail at the surface greater than or equal to 3/4 inches in diameter.
- tornadoes.
- Embedded thunderstorms.
- Line of thunderstorms.
- Thunderstorms greater than or equal to VIP level 4 affecting 40% or more of an area at least 3000 square miles.

Any Convective SIGMET implies severe or greater turbulence, severe icing, and low-level wind shear. A Convective SIGMETs may be issued for any convective situations which the forecaster feels are hazardous to all categories of aircraft.

Convective SIGMET bulletins are issued for the Eastern (E), Central (C), and Western (W) United States. The areas separate at 87- and 107-degrees west longitude with sufficient overlap to cover most cases when the phenomenon crosses the boundaries. Bulletins are issued hourly at Hour+55. The text of the bulletin consists of either an observation and a forecast or just a forecast. The forecast is valid for up to 2 hours. Animating this chart will loop radar every 15 mins and Convective SIGMETs hourly.

Current Temperature

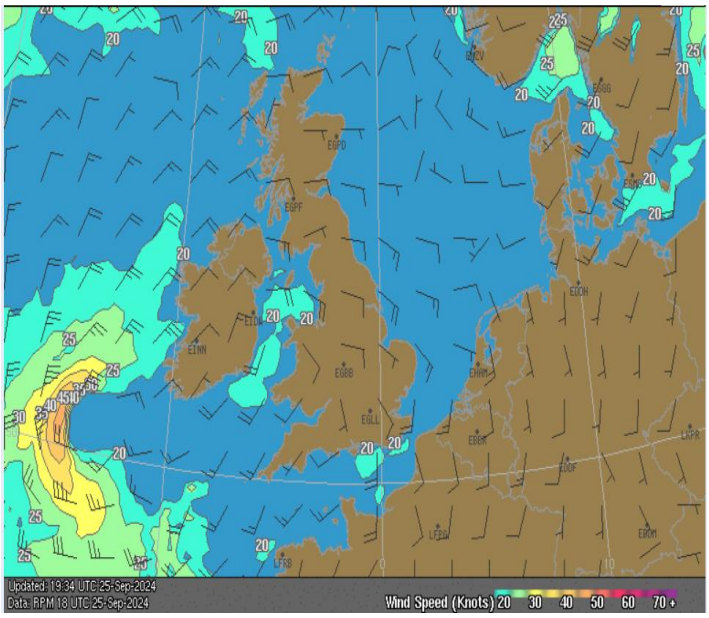
The chart will provide a visually display of the current temperature for regions including Canada, CONUS, Mexico/Caribbean, and South America. The legend provides the temperature ranges for users to see at a quick glance of locations that hotter or cooler. Some locations will display the actual temperature. The chart will animate in hour segments for a twelve-hour time period.



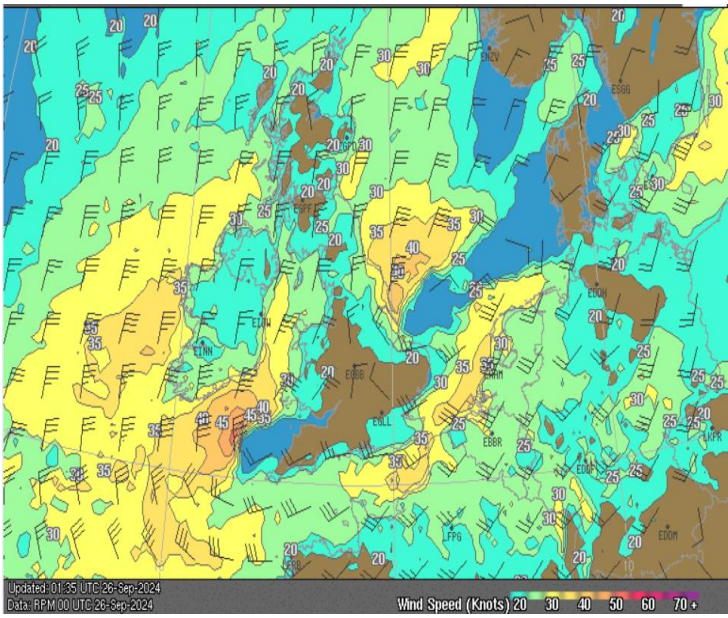
Forecast 10M and FL010 Wind

The British Isles forecast wind for 10 meters AGL and at FL010 will show wind speed (kts) updated every 3 hours for a twelve-hour time period. This chart is only available for Europe/Atlantic region.

10M

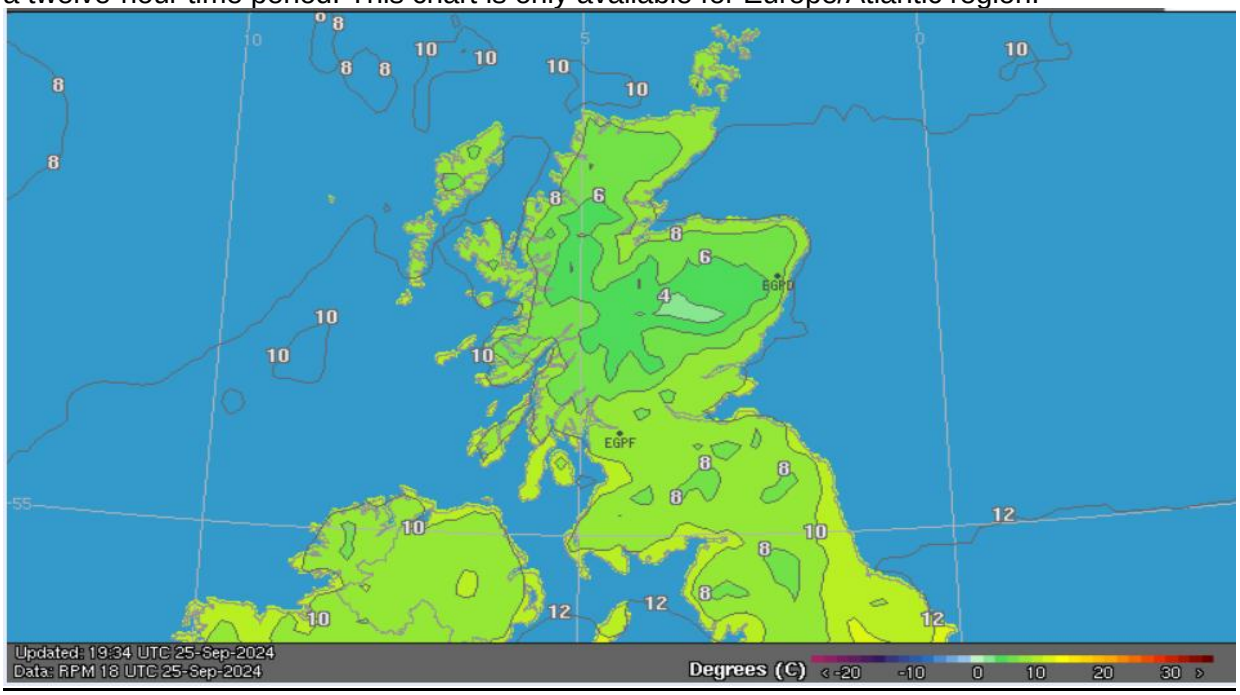


FL010



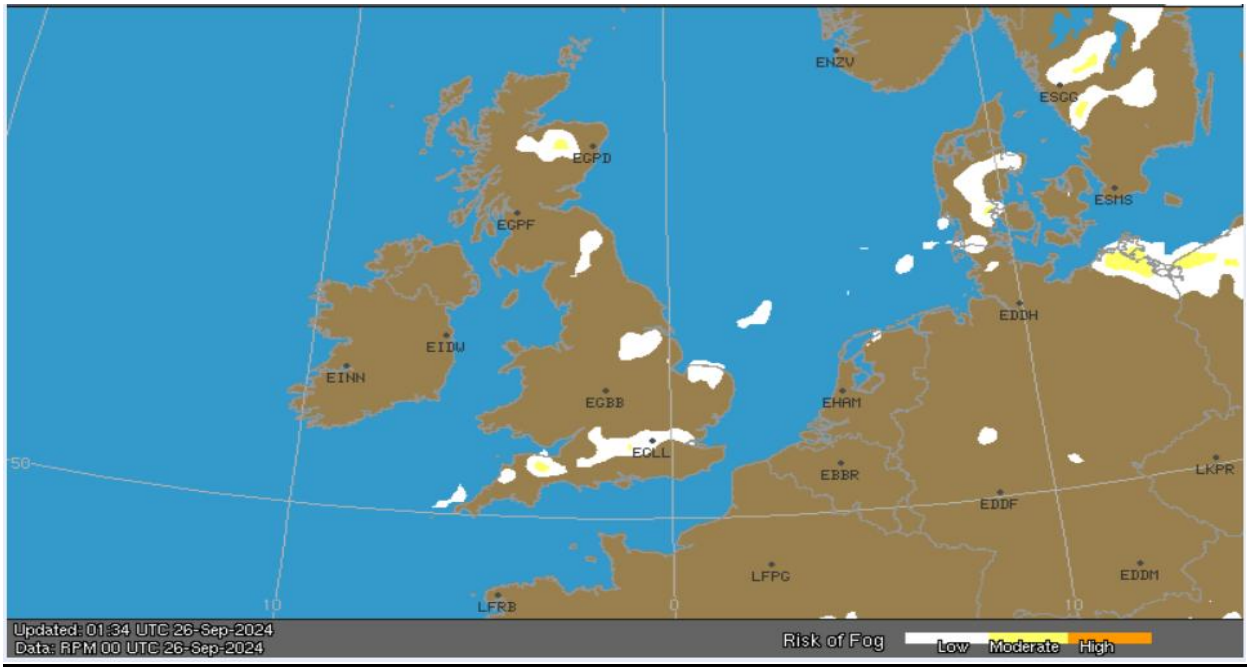
Forecast 2M Temperature

The British Isles forecast temperature for 2 meters AGL will show temperature (C) updated every 3 hours for a twelve-hour time period. This chart is only available for Europe/Atlantic region.



Forecast Fog Risk

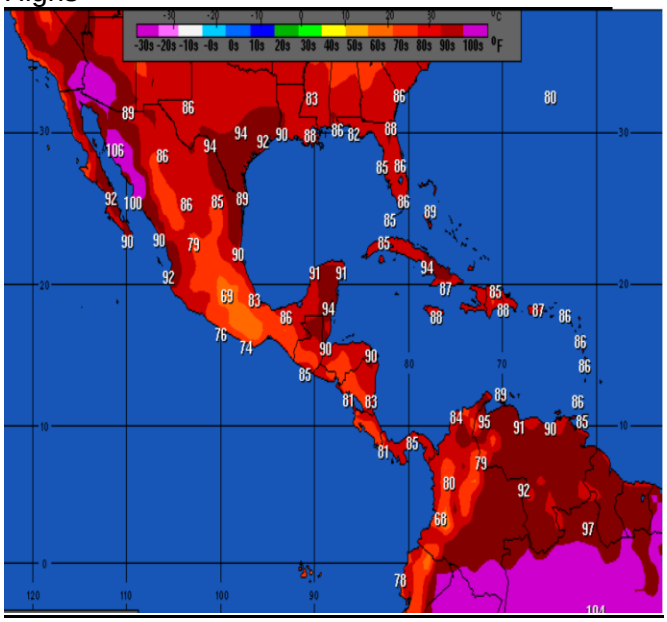
The British Isles fog risk will display Low, Moderate, High areas in the region and is updated every 3 hours for a twelve-hour time period. This chart is only available for Europe/Atlantic region.



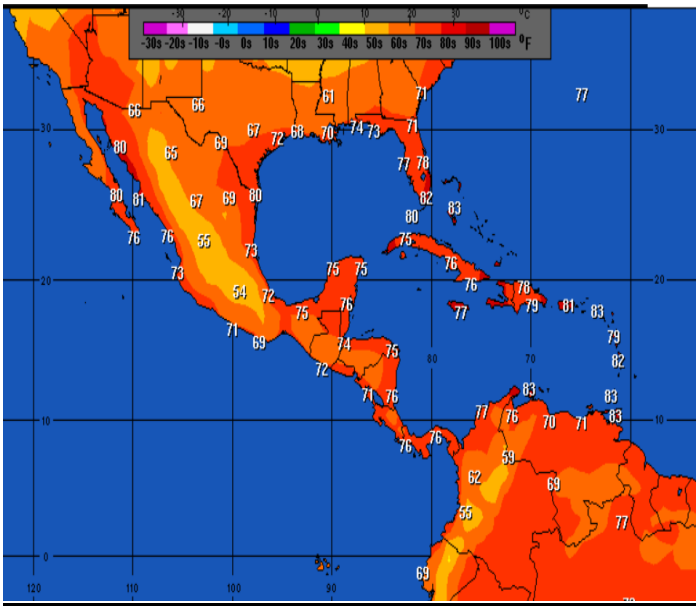
Forecast Highs and Lows

The chart will provide a visually display of the forecasted highs and lows for regions including Canada, CONUS, Mexico/Caribbean, and South American. The legend provides the temperature ranges for users to see at a quick glance of locations that hotter or cooler. Some locations will display the actual temperature. The chart will have a Forecast drop down menu for users to select a time to view.

Highs

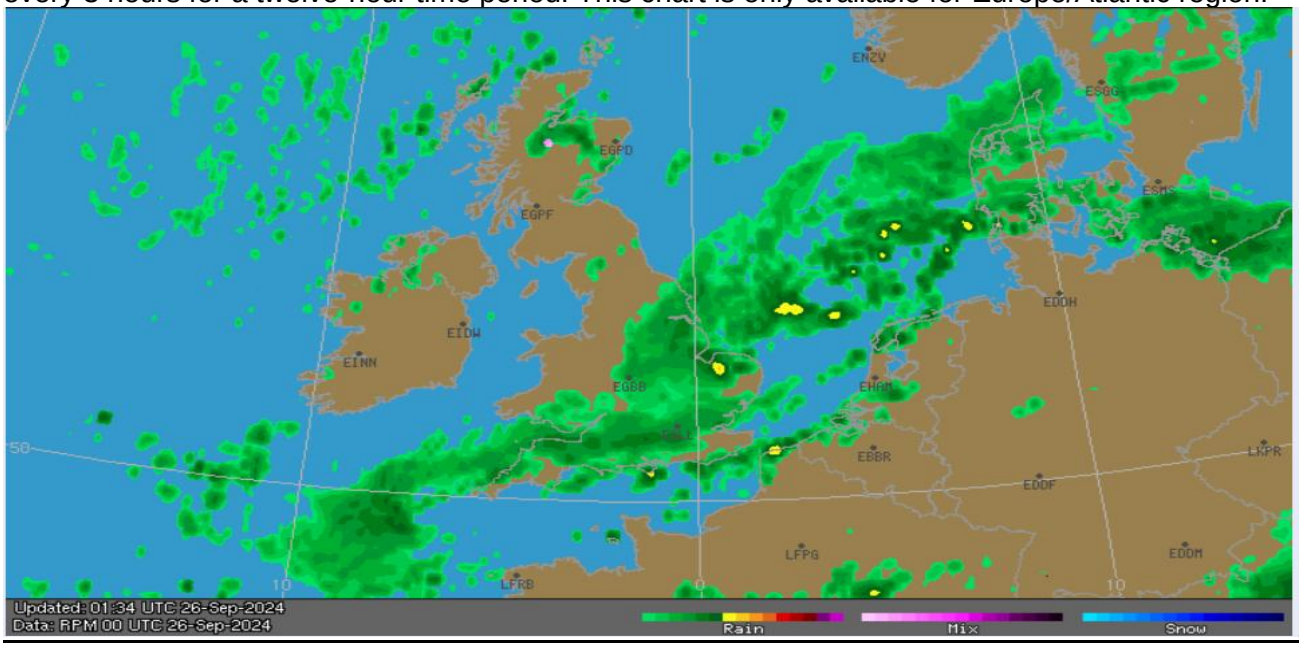


Lows



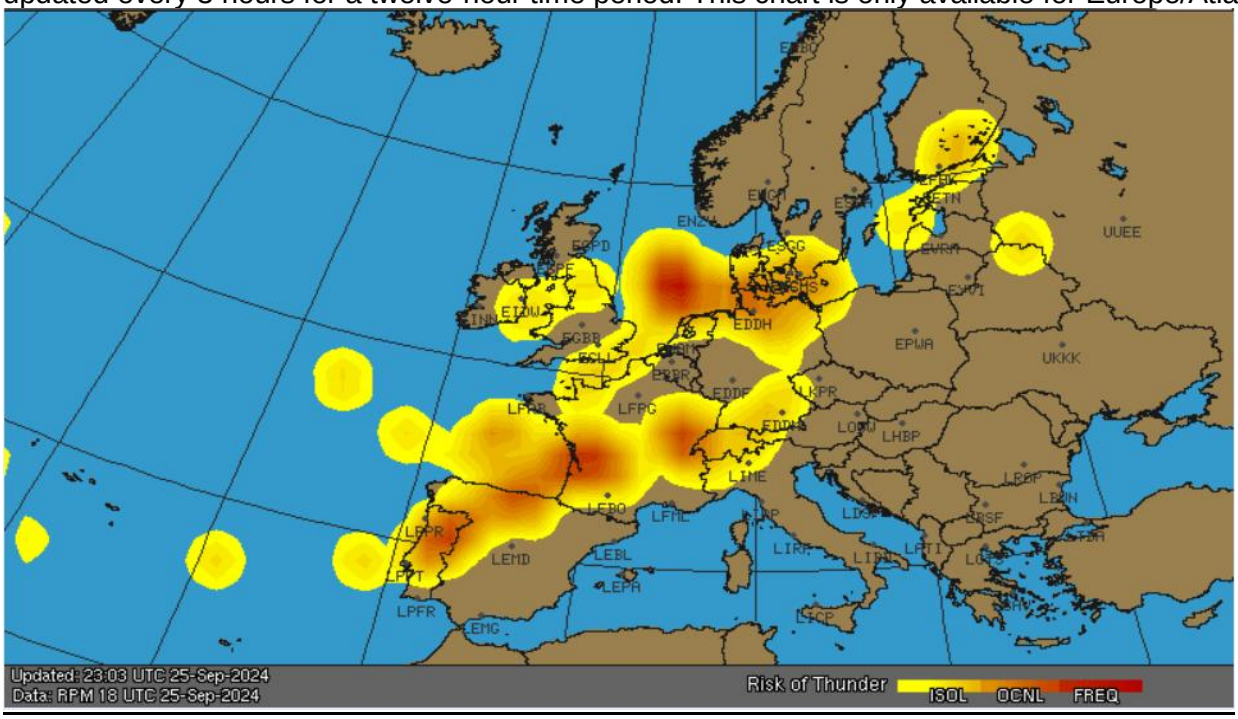
Forecast Precipitation

The British Isles forecast precipitation will display radar (rain, mix, and snow) for the region and is updated every 3 hours for a twelve-hour time period. This chart is only available for Europe/Atlantic region.



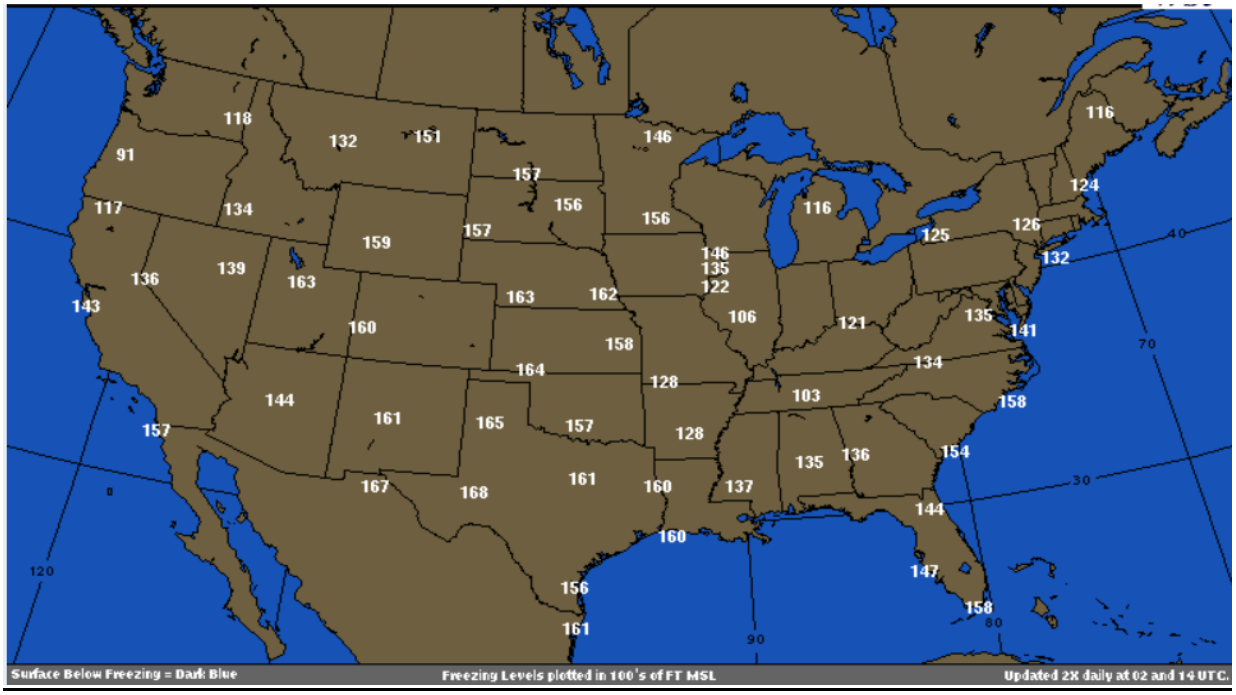
Forecast Thunder Risk

The Europe forecast thunder risk will display Isolated, Occasional, and Frequent areas in the region and is updated every 3 hours for a twelve-hour time period. This chart is only available for Europe/Atlantic region.



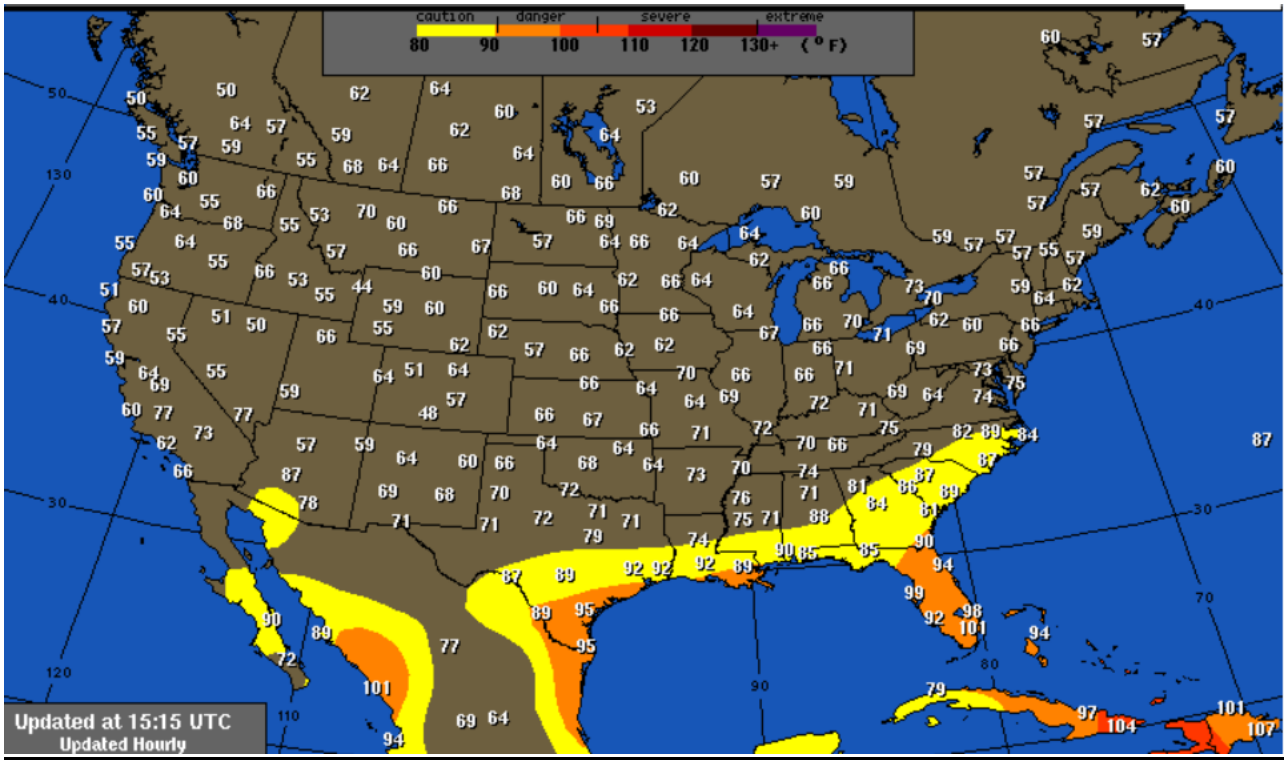
Freezing Levels

The chart is updated twice daily at 02 and 14 UTC and will display freezing levels in 100's FT MSL. It is only available for Asia Pacific and CONUS.



Heat Index (Summer Only)

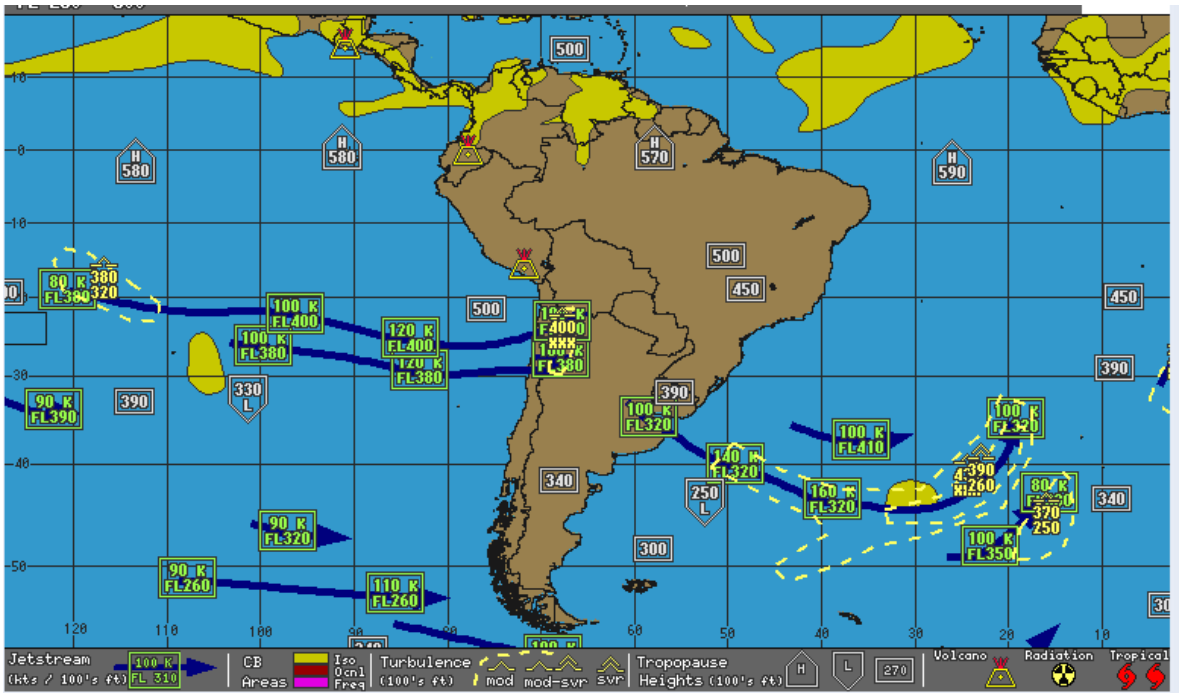
The heat index is displayed in caution, danger, severe, and extreme levels with some locations displaying their actual heat index number. This chart is updated hourly for a twelve-hour period and only available for Canada and CONUS.



High Level Sig Prog

The High Level Sig Wx will represent FL 250-600 and display jet streams, thunderstorms, turbulence, tropopause, volcano eruptions, and tropical storms. The chart will be updated in 6-hour segments for 36 hour forecast and available for all regions except Canada. It will display the following:

- Jetstream in 100's FT
- CB areas represent thunderstorms and cumulonimbus clouds with CB areas depicted as isolated (iso), occasional (ocnl), or frequent (freq).
- Turbulence represents moderate, moderate-severe, and severe listed in 100's FL
- Tropopause in 100's FT
- Volcano
- Radiation
- Tropical



Hurricane/Trop Tracks

The track will be displayed with Watch/Warning areas, location (past, current, and forecast), and wind speeds. These are available for Alaska, Asia Pacific, Australia/S. Pacific, CONUS, Europe/Atlantic, Hawaii/C. Pacific, and Mexico/Caribbean.

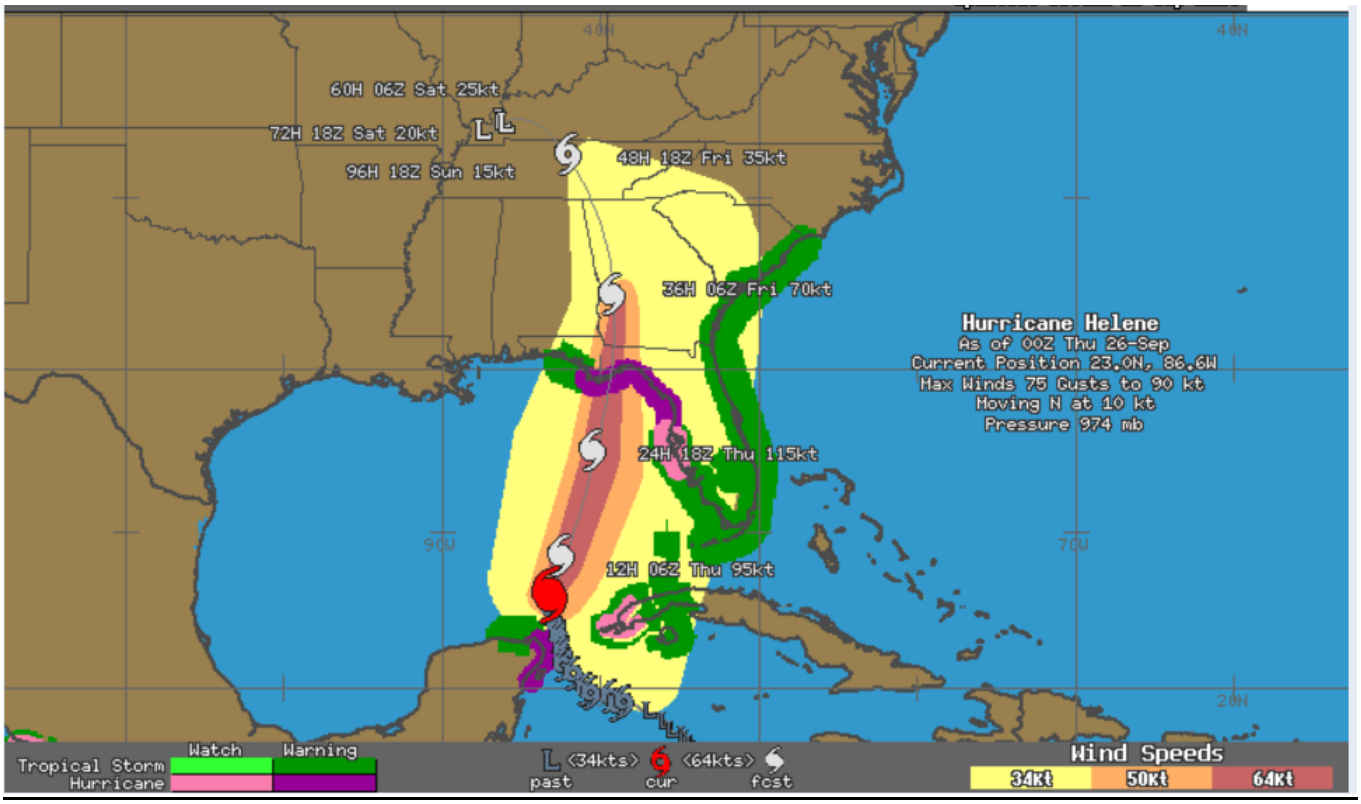
These charts are created in the Meteorological Operations department of TWC, using information supplied by the Tropical Prediction Center in Miami, FL. The charts are created for tropical systems in the Atlantic and Pacific, and production begins when the Tropical Prediction Center declares a disturbance as a Tropical Depression. Once begun, the charts are updated with every update issued by the TPC, which is every 6 hours normally, and every 2-3 hours as the storm approaches land.

The tropical system tracking charts provide information about current storms, including the latest statistics such as location, strength, and movement, categorical wind probabilities, watches and warnings in effect at the time, and 12 hr through up to120 hour forecasted positions and strengths.

The status of the storm is presented with the icon used to pinpoint location. A Tropical Depression is represented by an "L". A Tropical Storm is represented by an icon with an open center, and a Hurricane by the same icon with a closed center. Near the icon, the latest information about the storm is listed in the following order: name of the storm, time and date of the advisory from which this information was taken, latitude and longitude of the center of the storm, highest sustained winds recorded in the storm, direction and speed of movement of the storm, and the central pressure of the storm. Wind speed is also provided for the forecasted positions of the storm.

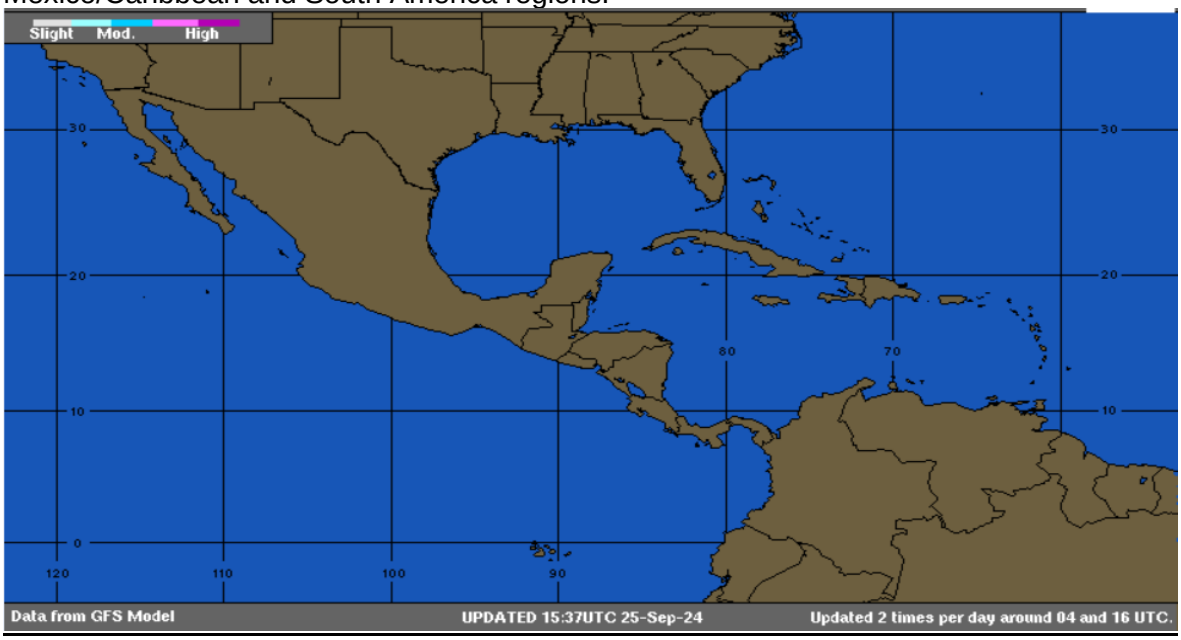
Any watches or warnings for areas being affected are highlighted along the coast in the appropriate color. Refer to the color chart on the image for the type of watch or warning in effect. A watch indicates that conditions are likely for that particular storm to affect the region, a warning indicates that the conditions are imminent. The color filled wind probability contours indicate the overall likelihood of winds reaching the

thresholds of 34mph (yellow), 50mph (orange) and 64mph (dark red). There are dark line contours within these filled areas which show the probability of that threshold being met. There are 3 probability levels contoured, 10%, 40% and 70%, with the numeric label matching the color of the threshold being described.



Icing

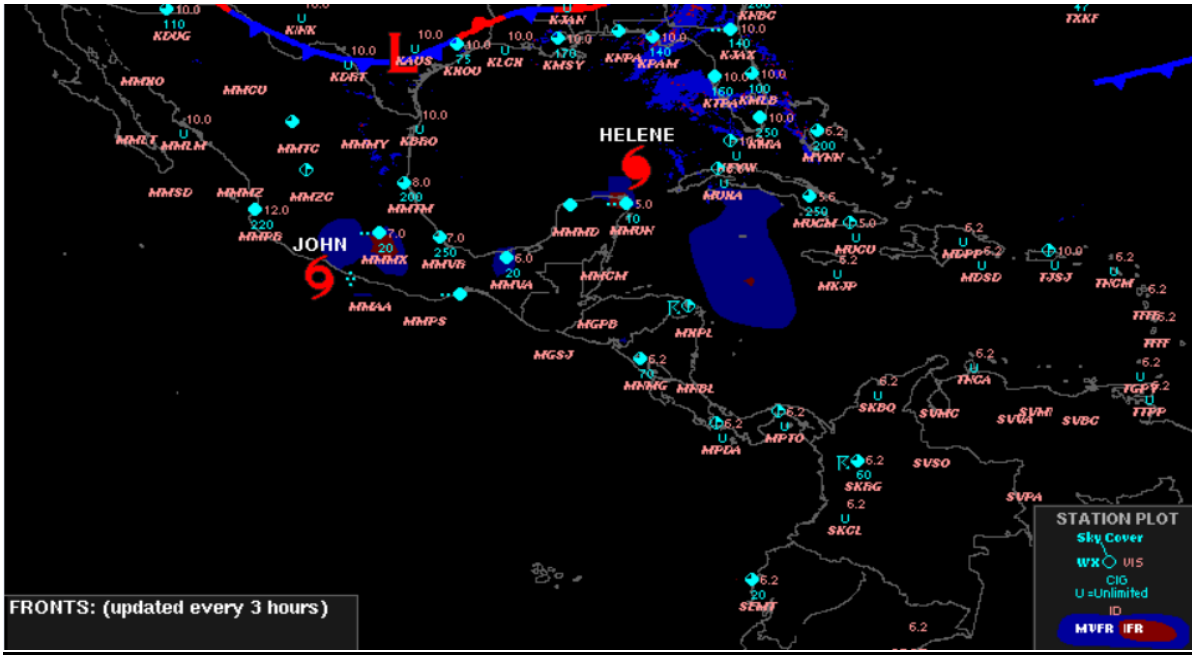
The chart allows users to select Altitude and Forecast from drop down menus to view slight, moderate, or high icing areas. The chart is updated twice daily around 04 and 16 UTC. These are available for Mexico/Caribbean and South America regions.



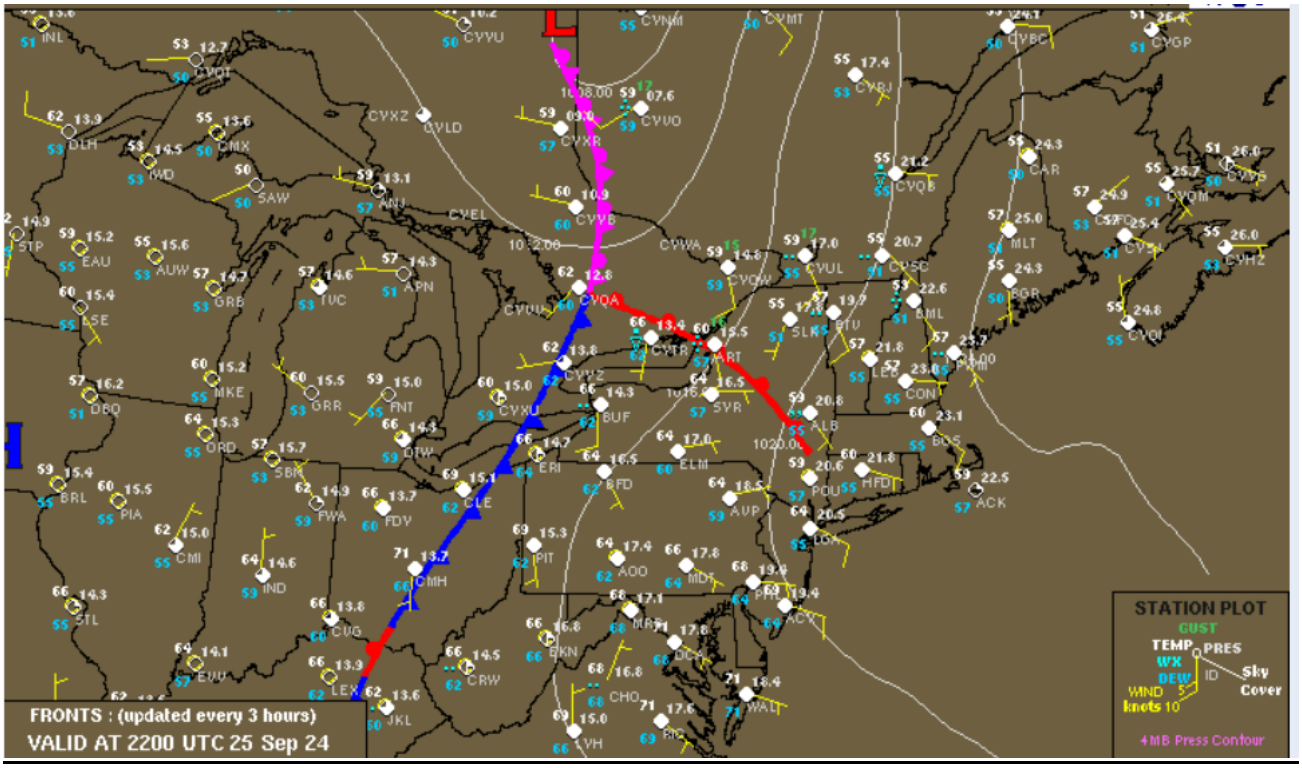
IFR/Surface Station Plot

The chart will provide users station plot details such and sky cover, ceiling, wind, temp, and MVFR/IFR conditions. These are available for Mexico/Caribbean, South America, and CONUS regions.

IFR Plot



Station Plot



Lifted/K Index

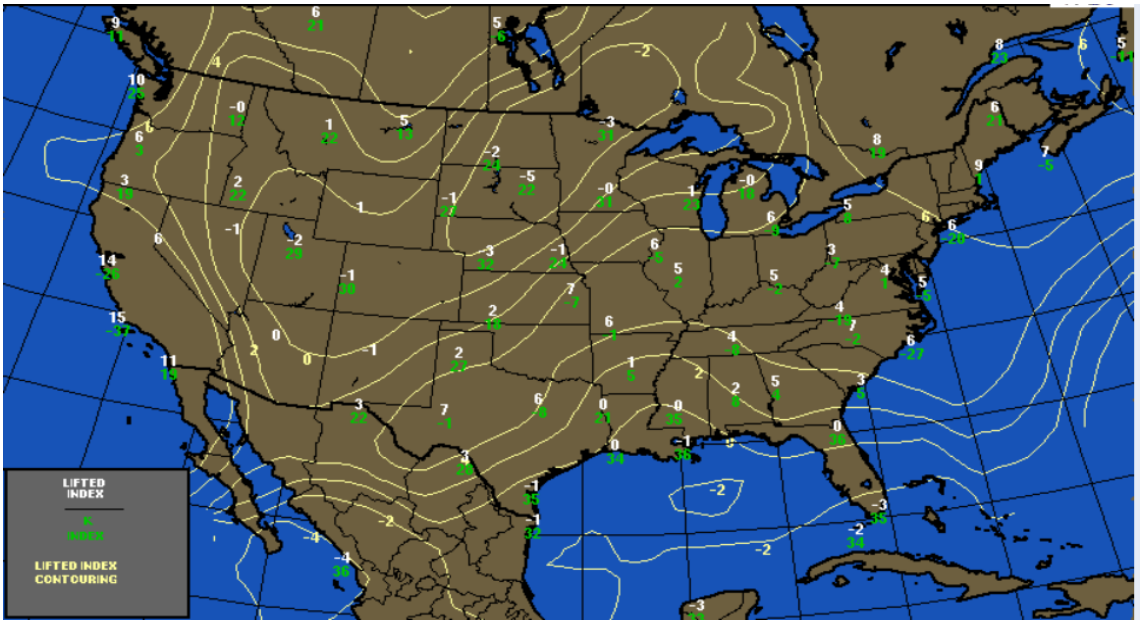
The Lifted/K Index chart is updated twice daily at approximately 0330Z (00Z data) and 1530Z (12Z Data) that combines two indices commonly used to measure atmospheric instability and the related potential for thunderstorm development.

The Lifted Index (upper number) is a measure of the chance of severe thunderstorms. It is the difference between the observed 500 mb temperature and the temperature that a parcel of air would have if lifted from the boundary layer to the 500 mb level. If the temperature at 500 mb is warmer than the parcel lifted to that level, the air is stable, and the chance of thunderstorms is low. If the temperature at 500 mb is colder than the parcel lifted to that level, the air is unstable, and thunderstorms are likely. The difference in temperature is directly related to the chance of severe thunderstorms.

Lifted Index	Chance of Thunderstorms
0 to -2	Weak
-3 to -5	Moderate
-6 or less	Strong

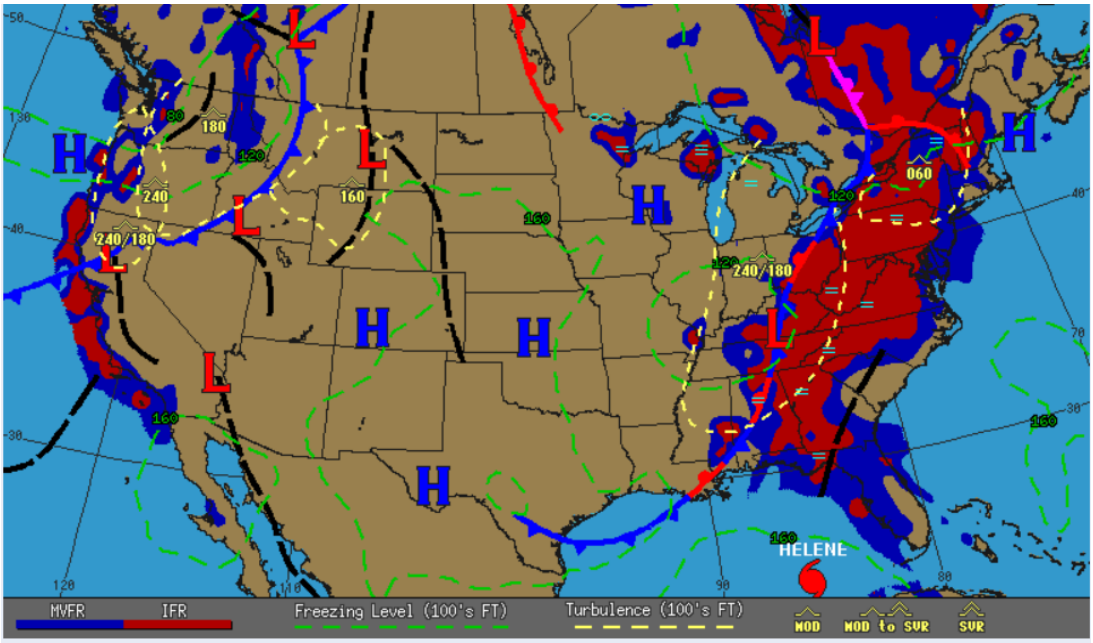
The K Index (lower number) is a measure of the probability of airmass thunderstorms. It takes into account the temperature lapse rate between 850 mb and 500 mb, the amount of moisture at 850 mb, and the dryness of the air at 700mb.

K Index	Thunderstorm Probability (%)
Less than 15	near 0%
15 to 20	20%
21 to 25	20% to 40%
26 to 30	40% to 60%
31 to 35	60% to 80%
80% to 90%	20% to 40%
over 40	near 100%



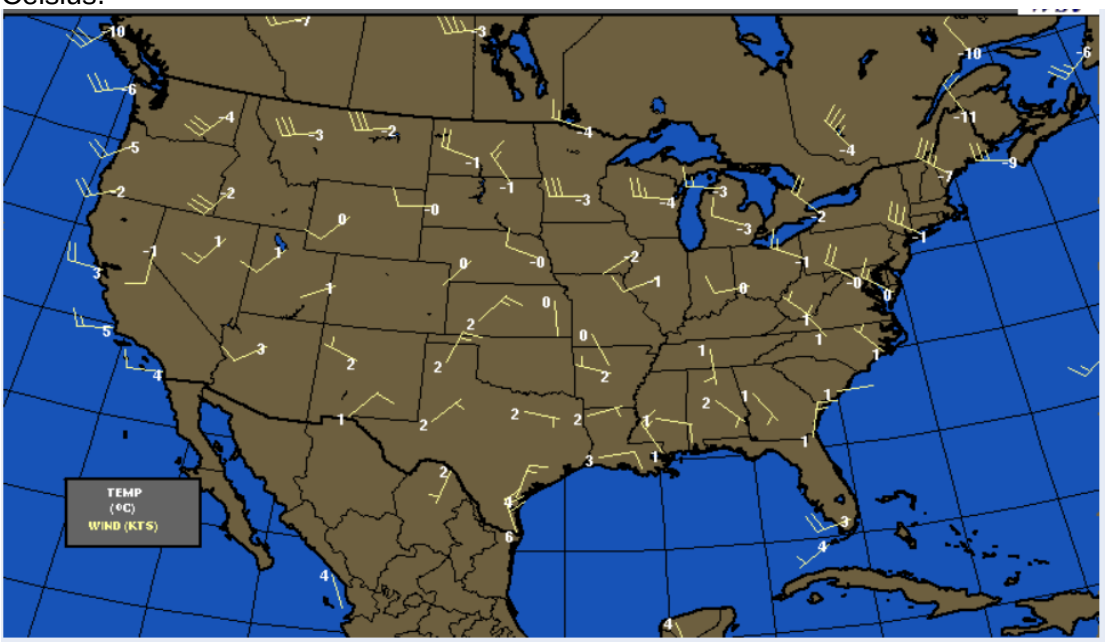
Low Level Sig Prog

The Low-Level Sig Wx will represent up to FL 240 and display MVFR and IFR areas, freezing levels (in 100's ft), and turbulence (in 100's ft) as moderate, moderate to severe, and severe. There is a drop-down menu to select the forecast time to display.



Observed Winds

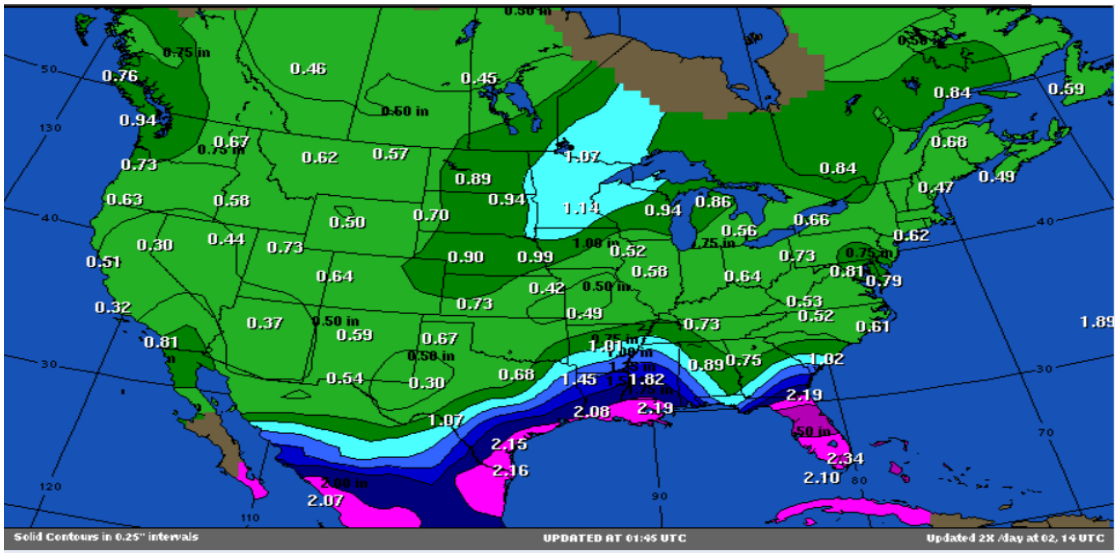
The observed winds aloft charts are updated twice daily at approximately 0200Z (00Z data) and 1400Z (12Z data). Levels shown are the 2nd standard level (approximately 2,000 ft. above the surface), 14,000 ft. (600 mb level), 24,000 ft. (400 mb level), and 34,000 ft. (250 mb level). Temperatures are given in degrees Celsius.



Precipitable Water

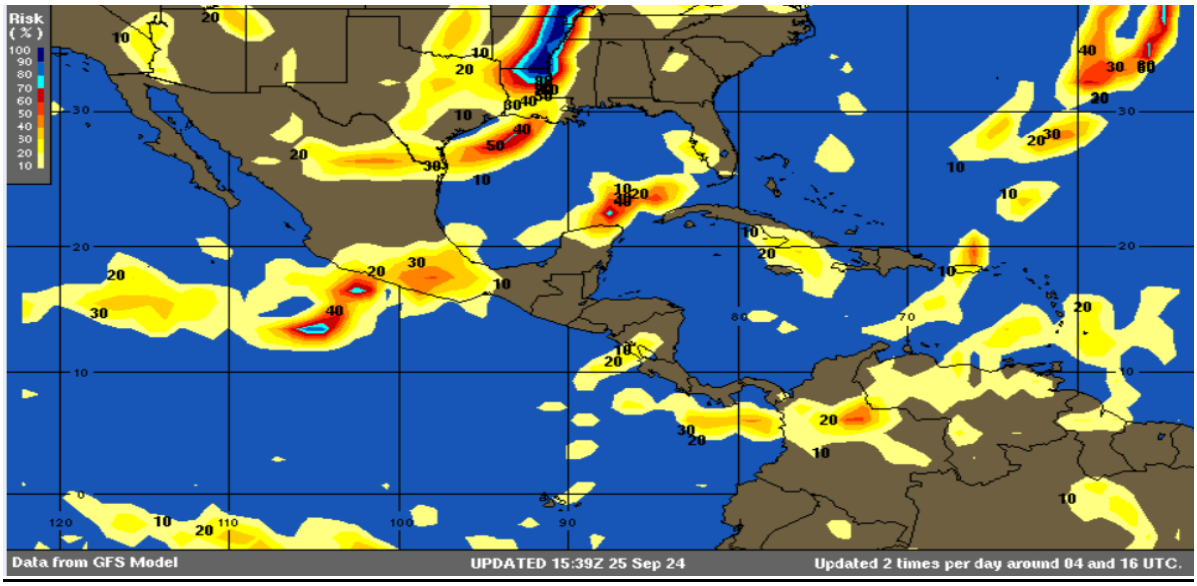
The precipitable water (PW) graphic depicts the observed quantity of water vapor between the surface and 500mb (18,000 feet MSL). The chart shows the amount of water (inches) the air would contain if all the vapors were condensed.

Some Constants:
- Warmer air has the ability to store more water vapor, hence the amounts are generally higher in the summer months.
- Higher elevations have less vertical atmosphere between surface and 500mb, hence they generally have lower PW values.



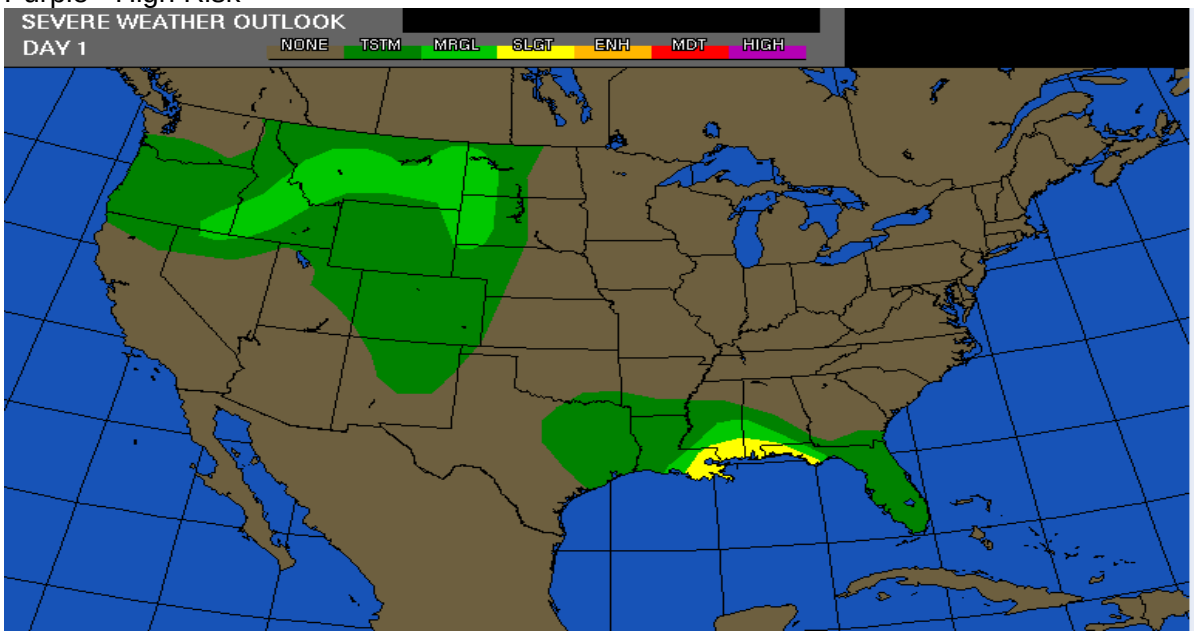
SCATR (CAT Risk FL240 Forecast)

The CAT risk forecast chart will display the percentage based on the altitude and forecast hours that were selected in the drop-down menu. The chart is updated twice daily around 04 and 16 UTC and available for Mexico/Caribbean and South America.



Severe Weather Outlook

The chart will display areas where severe thunderstorms are expected. There will be depicted as:
Green - General (non-severe)
Yellow - Slight risk
Red - Moderate risk
Purple - High Risk



SIGMETs

A SIGMET (SIGnificant METeorlogical Information) advises of weather potentially hazardous to all aircraft other than convective activity. In the conterminous U.S., items covered are:
- Severe icing
- Severe or extreme turbulence
- Dust storms and sandstorms lowering visibilities to less than three (3) miles.
- Volcanic Ash

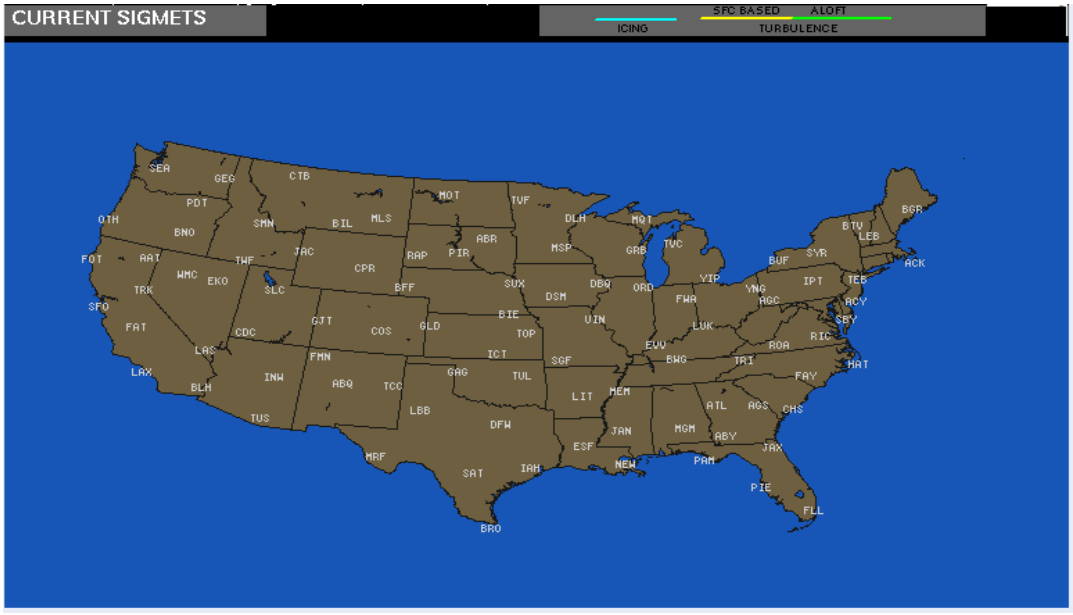
In Alaska and Hawaii, SIGMETs are also issued for the following events:
- Tornadoes
- Lines of thunderstorms
- Embedded thunderstorms
- Hail greater than or equal to 3/4 inch in diameter

For the lower 48 states and adjacent coastal waters, Convective SIGMETs are issued hourly for Thunderstorm-related aviation hazards.

These SIGMET items are considered to be widespread because they must be affecting or be forecast to affect an area of at least 3000 square miles at any one time. However, if the total area to be affect during the forecast period is very large, it could be that only a small portion of this total area would be affected at any one time.

SIGMETs are issued for 6-hour periods for conditions associated with hurricanes and 4 hours for all other

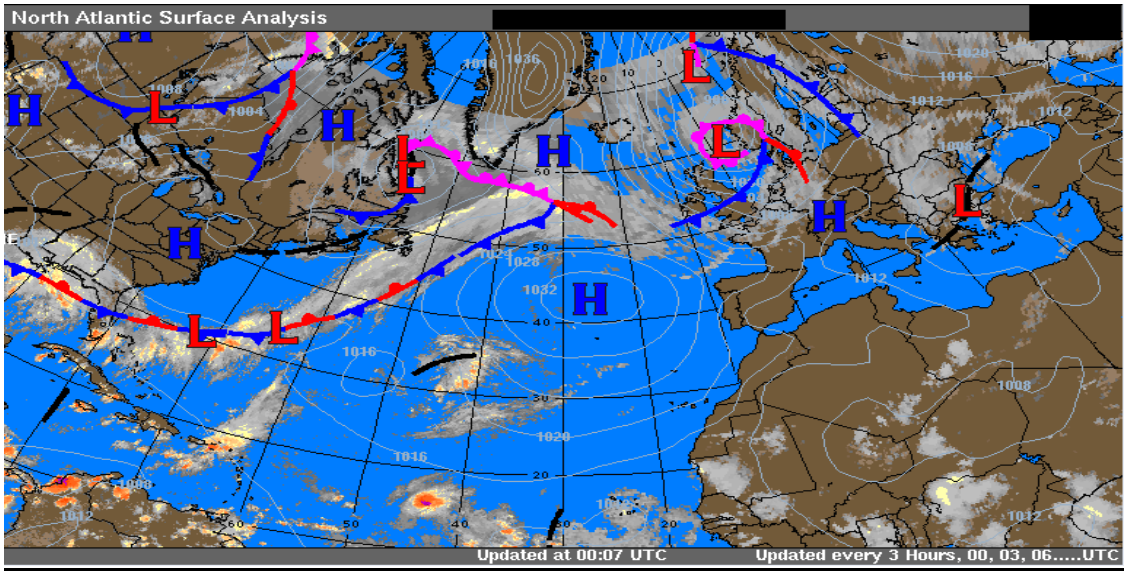
events. If conditions persist beyond the forecast period, the SIGMET is updated and reissued.



Surface Analysis

Displays current weather conditions like high and low pressures, fronts, temperature, dewpoints, wind direction and speed, and precipitation. Some items displayed are:

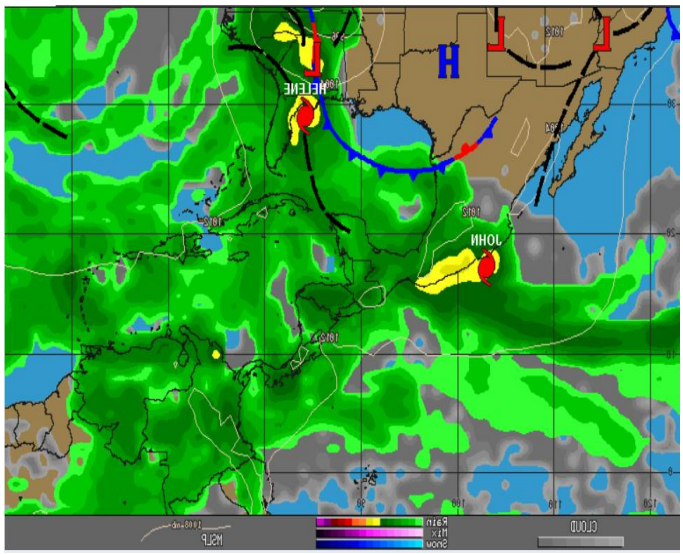
- Pressure lines (isobars) – indicating areas of equal pressure
- Frontal boundaries – displayed as read and blue lines alternating
- H for High pressure – implied clear skies and relatively warm weather
- L for Low pressure – frequently accompanied by precipitation.



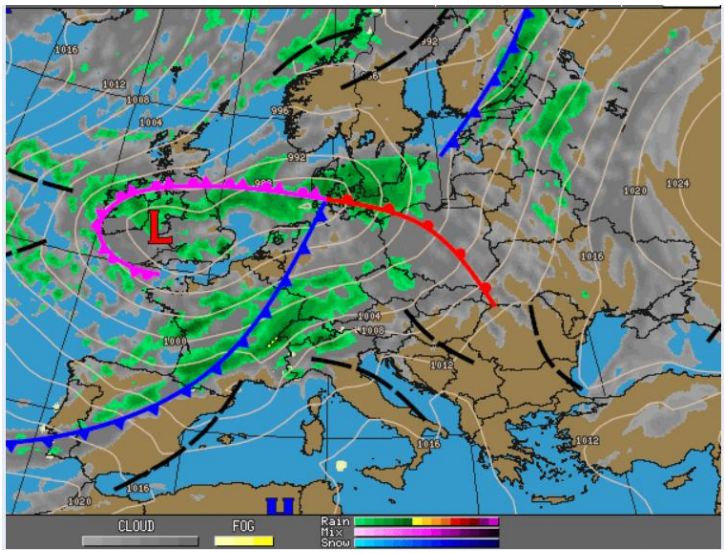
Surface Prog and Weather Prog

The surface prog and surface weather prog charts are similar with displaying radar with cloud, but prog will also provide MSLP lines while weather prog will add fog display. Prog and weather prog charts will provide users a drop-down menu for forecast times to select from for viewing.

Surface prog

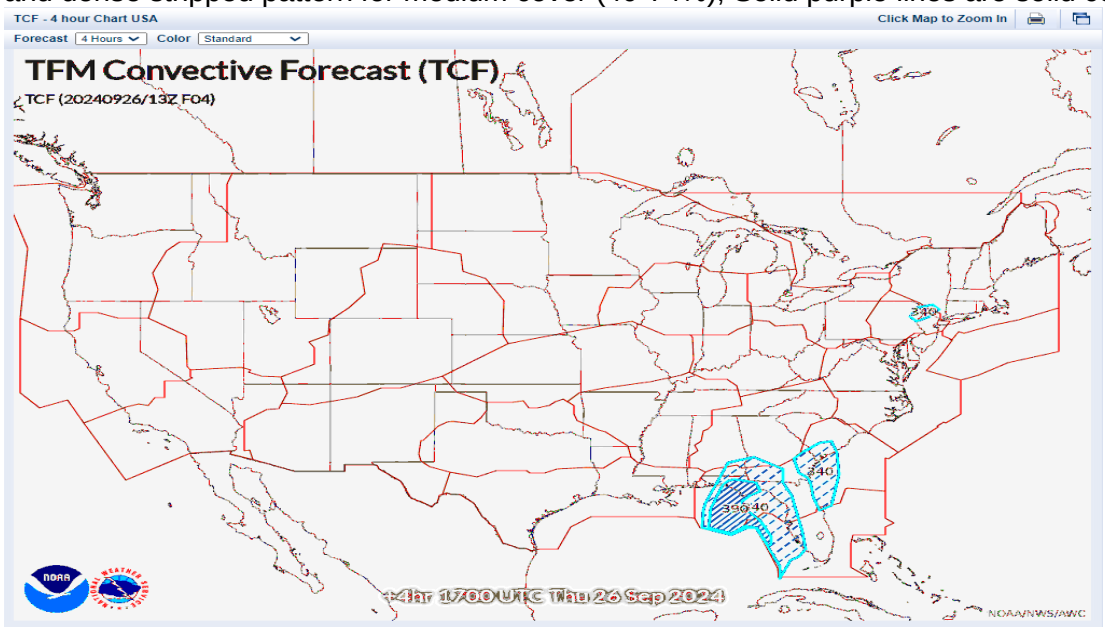


Surface weather prog



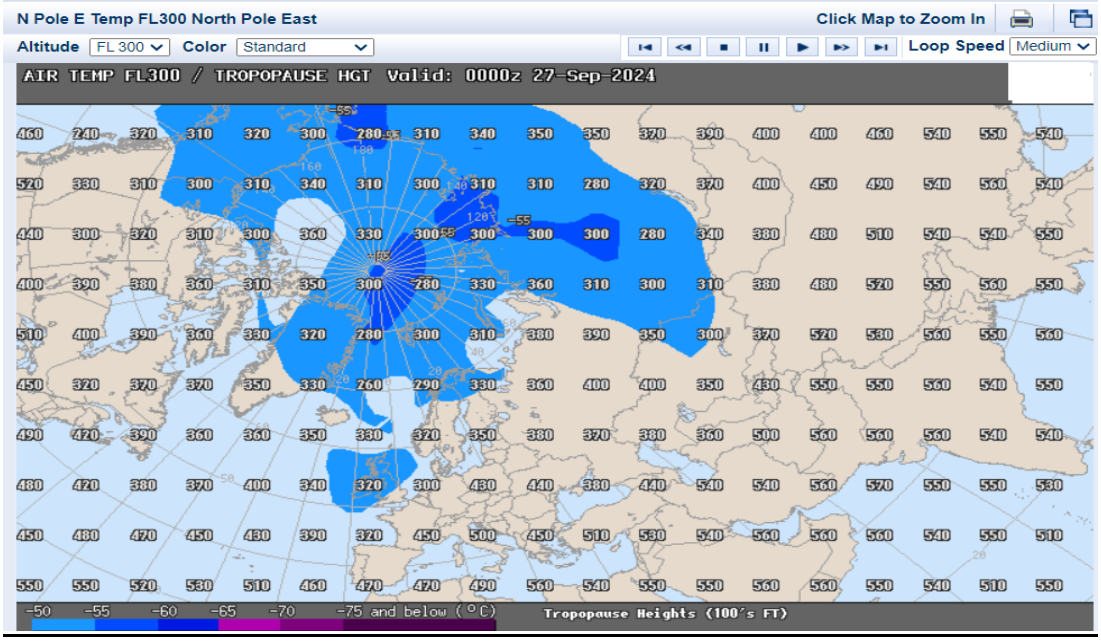
TCF

This chart is Traffic Flow Management (TFM) Convective Forecast (TCF) and will display graphically the forecasted convection that TFM decision makers use (CONUS only). The high confidence of thunderstorms valid for 4, 6, and 8 hours after issued. Blue polygons with light hatch pattern are sparse coverage (25-39%) and dense stripped pattern for medium cover (40-74%), Solid purple lines are solid coverage (75-100%).



Temp/Trop Hgt and Prog

The temperature and tropopause height are only available for North Pole. Users can select an altitude from the drop-down menu. Temperature is displayed by the color displayed and tropopause heights are in 100's FT.

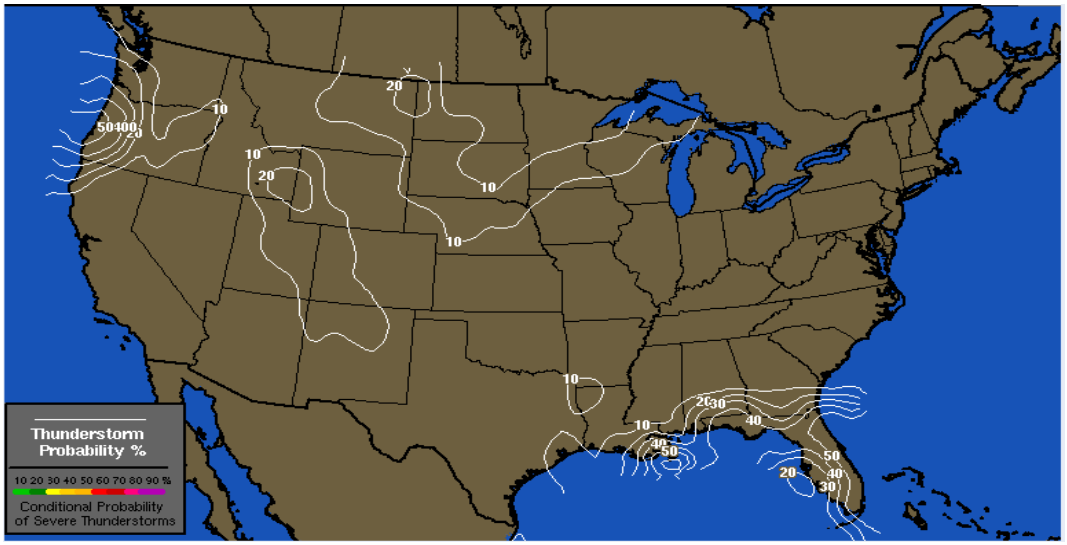


Thunderstorm Probability

NGM (Nested Grid Model) is run twice a day at 0000z and 1200z. Products are updated by 0400z and 1600z respectively.

- Solid white lines are thunderstorm probability contours in 10% intervals
- Color contour lines are probabilities of severe weather in 10% intervals

NOTE: For a thunderstorm to be classified as severe, it must produce winds greater than or equal to 58mph (50kts) and/or hail 3/4 inch or greater in diameter



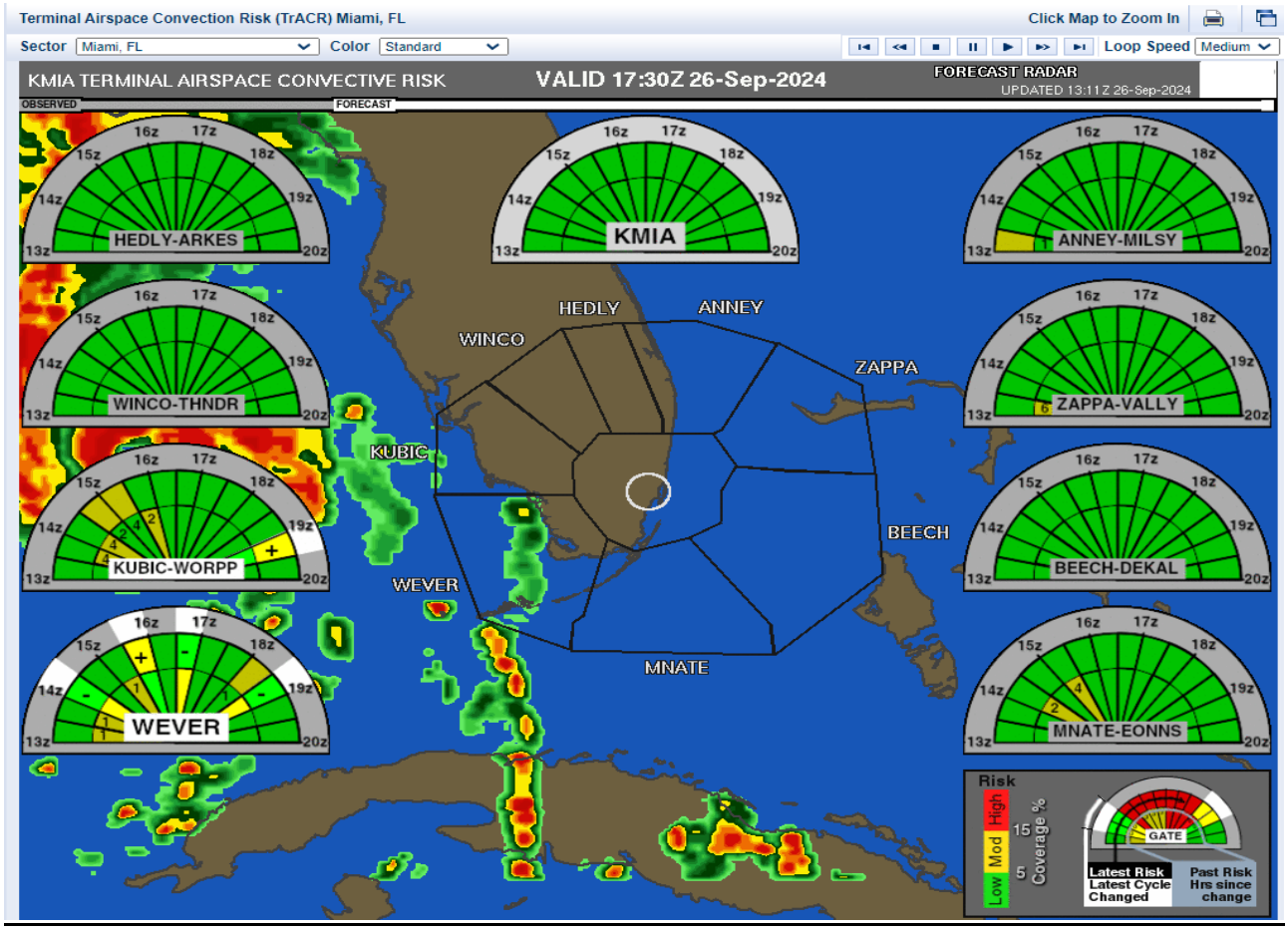
TrACR

The Terminal Airspace Convection Risk (TrACR) is for a few airports in CONUS. Users can drop-down menu to select another airport. It provides a forecast of convective potential in arrival/departure corridors around the selected airport. The risks are defined as low (green), moderate (yellow, 5% coverage), and high (red, 15% coverage) along with the expected area coverage of radar reflectivity above a threshold that is currently 35 dBZ. Forecasts are displayed in 30-minute intervals and cover 7 hours updated every 30 minutes.

The TrACR image on the chart include the following:

- Forecast hours on the outer edge from left to right
- Current risk identified by color in the outermost ring.
- Previous risk identified by color in the innermost ring,
- Number in the innermost ring are the number of hours since risk forecast for the forecast period has changed.
    - NOTE: No number indicates no change in the forecast.

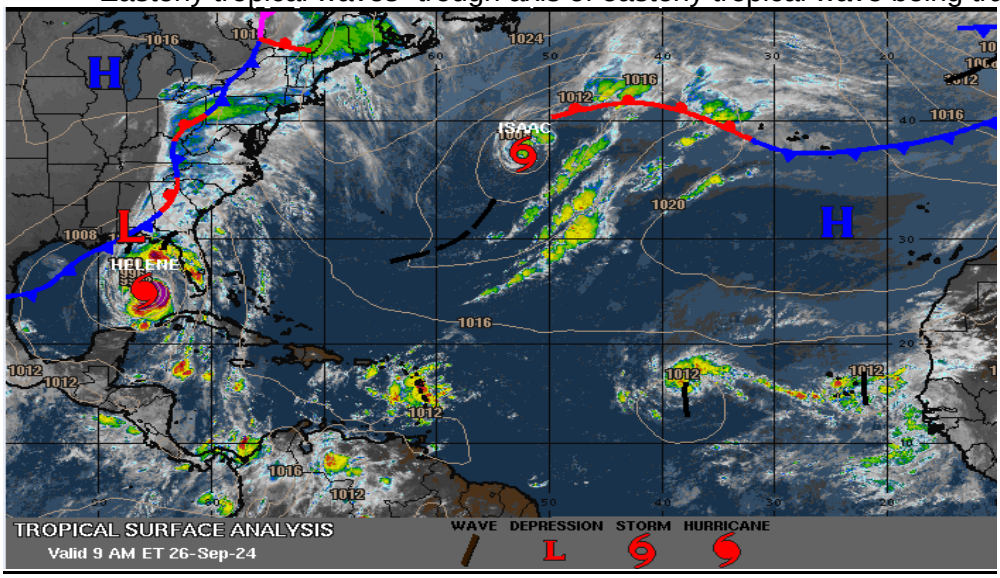
If a forecast risk level has changed in the latest issuance, it is indicated by the gate name highlighted in white and the modified forecast hour(s) are highlighted. When users animate/loop the radar, the view will contain three frames for past/current and nine frames for forecast.



Tropical Surface Analysis

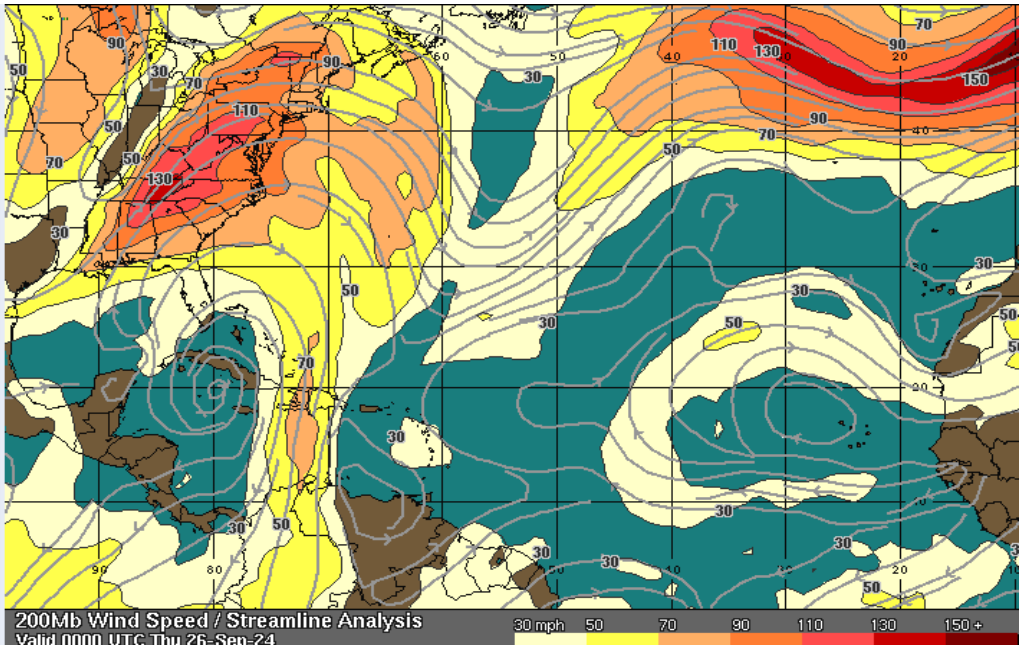
The chart will display the current weather conditions at surface and low altitudes with emphasis on tropical weather. These can include:

- Pressure – isobars, high, and low pressure areas
- Tropical features – cyclones, waves, and intertropical convergence zone (ITCZ)
- Frontal systems – cold, warm, stationary, or occluded.
- Active tropical cyclone – current position, intensity, and motion of active tropical cyclones in the basin
- Easterly tropical waves- trough axis of easterly tropical wave being tracked.



Trop 200 MB Wind Analysis

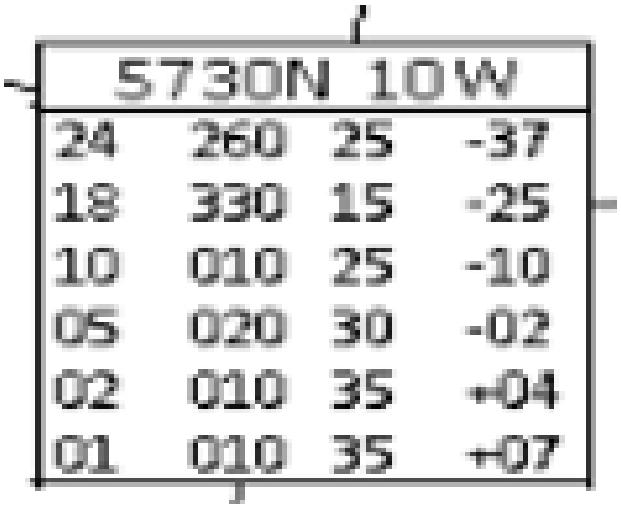
The 200 mb wind analysis chart will represent wind speed and direction, air pressure, and location of the jet stream.



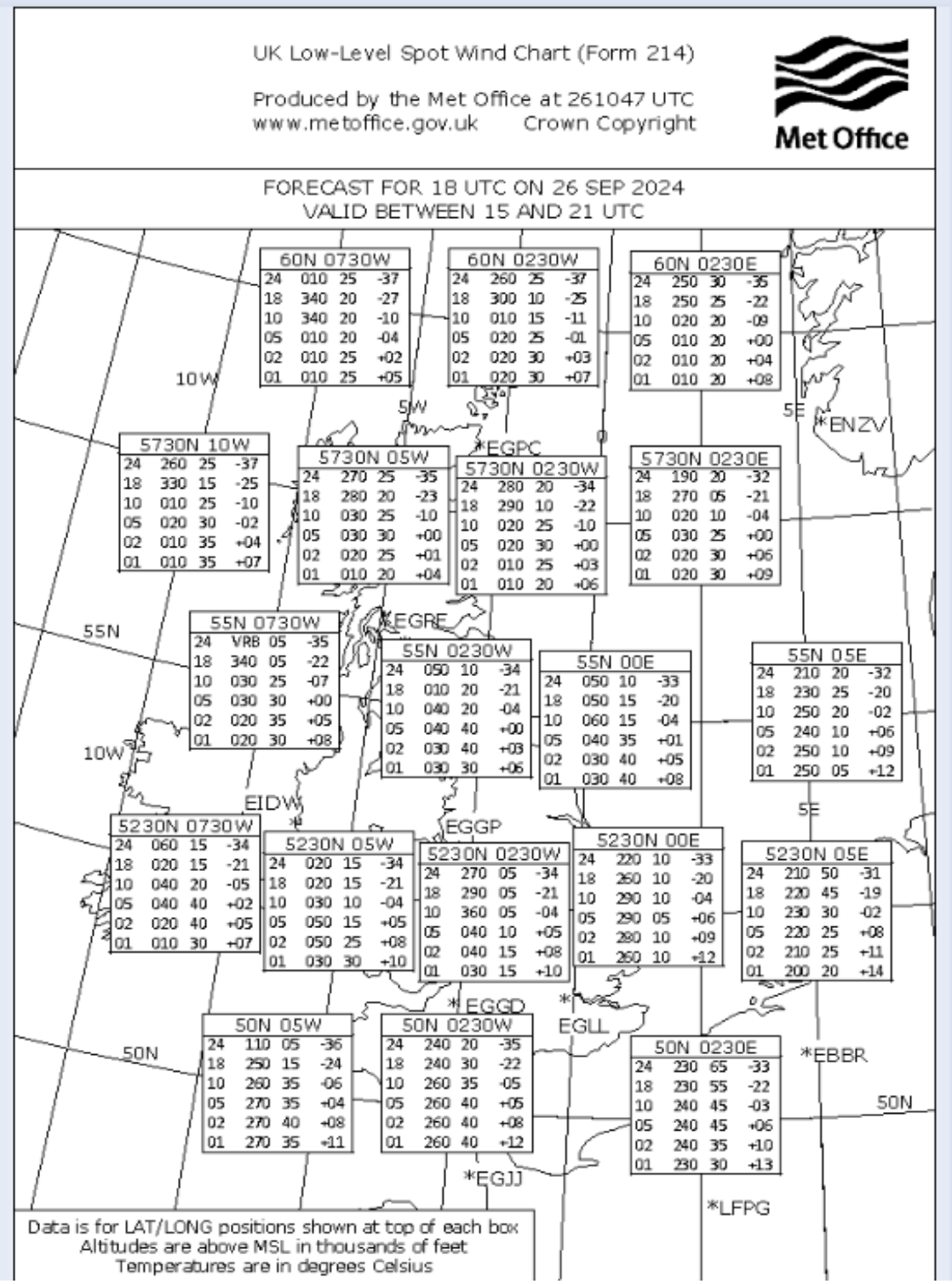
UK Metform

The UL Low-Level Spot wind chart will display data by location (lat/lon). Each box contains four columns of data. These include the following:

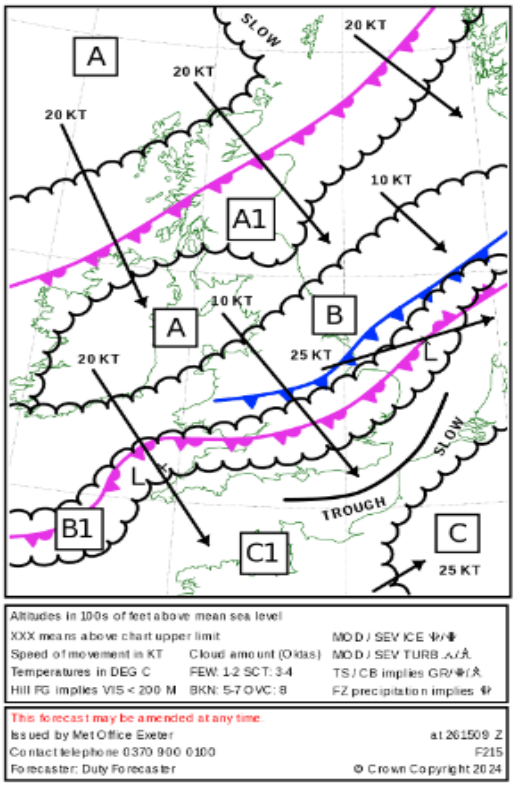
- 1st column is flight level in 100's FL MSL
- 2nd column is wind direction
- 3rd column is wind speed in kts
- 4th column is temperature where a minus is annotated by '-'.



The full chart example



The Forecast Weather below 10000 FT provides a chart and a textual table for surface visibility and weather, cloud, and location.



Forecast Weather below 10000 FT

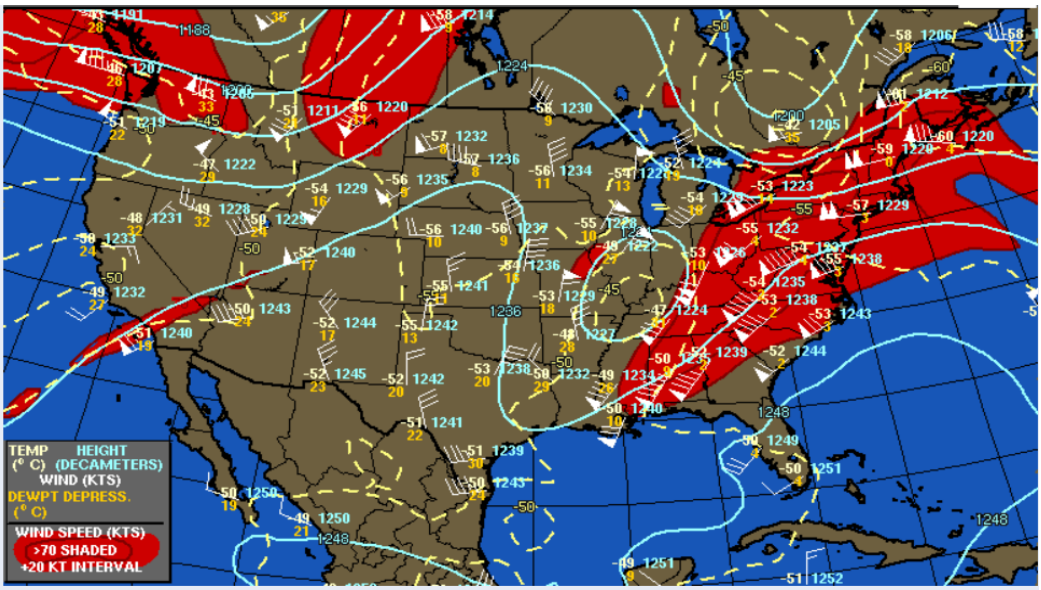
Met Office — Valid 262000 to 270500 Z — SEP 24 — Fronts/zones valid at 270000 Z

AREA	SURFACE VIS AND WX	CLOUD	0 C
A	35 KM NIL ISOL (OCNL FRONT AND SEA COT NW) ... ... 7 KM SHRA ISOL 3500 M +SHRA **A1** ISOL 3000 M +TSRAGS FRONT ISOL 500 M SHSN MON MTW MAX VSP 600 FPM AT 060 UK ISOL (OCNL FAR SW) ^ NEAR FRONT ... ... AND SW (ISOL ^ FAR SW) ISOL HILL FG	ISOL SCT/BKN AC ^ ... ... 070-090 / XXX FAR NW ISOL (OCNL **A1** AND NW) SCT/BKN ... ... CU SC ^ 015-040 / 060-090 ... ... (XXX **A1**) ISOL CB 015-035 / XXX FRONT ISOL SCT/BKN ST 012 / 015 NW ... ... MAINLY FRONT	015-035 NW 040-060 SE
B	30 KM NIL OCNL (WDSPR FRONTS) 7 KM ... ... RA/SHRA/-RADZ ISOL (OCNL FRONTS AND **B1**) 3000 M ... ... +RA/RADZ ISOL 2000 M +SHRA/+TSRA **B1** MTW MAX VSP 600 FPM AT 050 UK N ISOL (OCNL W) ^ (ISOL ^) NW OCNL HILL FG	BKN/OVC AC AS ^ (ISOL ^ NW ... ... NORTH SEA TL 24 Z) ^ 070 / XXX BKN/OVC (SCT LEE MON) CU SC ... ... ^ 015-040 / 070-XXX ISOL EMBD CB 015-025 / XXX **B1** OCNL (WDSPR FRONTS) SCT/BKN ST ... ... 004-010 / 015	040-060 W 060-080 E
C	30 KM NIL ISOL (OCNL SEA COT) (FRQ TROUGH) ... ... 7 KM SHRA ISOL (OCNL TROUGH) 3500 M +SHRA ISOL (OCNL TROUGH) 3000 M ... ... +TSRAGS **C1** OCNL ^ ISOL ^ ISOL HILL FG	ISOL (OCNL SEA COT) (WDSPR ... ... TROUGH) SCT/BKN CU SC AC ... ... ^ ^ 020-035 / 080-XXX ISOL (OCNL TROUGH) CB ... ...015-035 / XXX **C1**	050-070

Outlook Until 271200 Z: SIMILAR

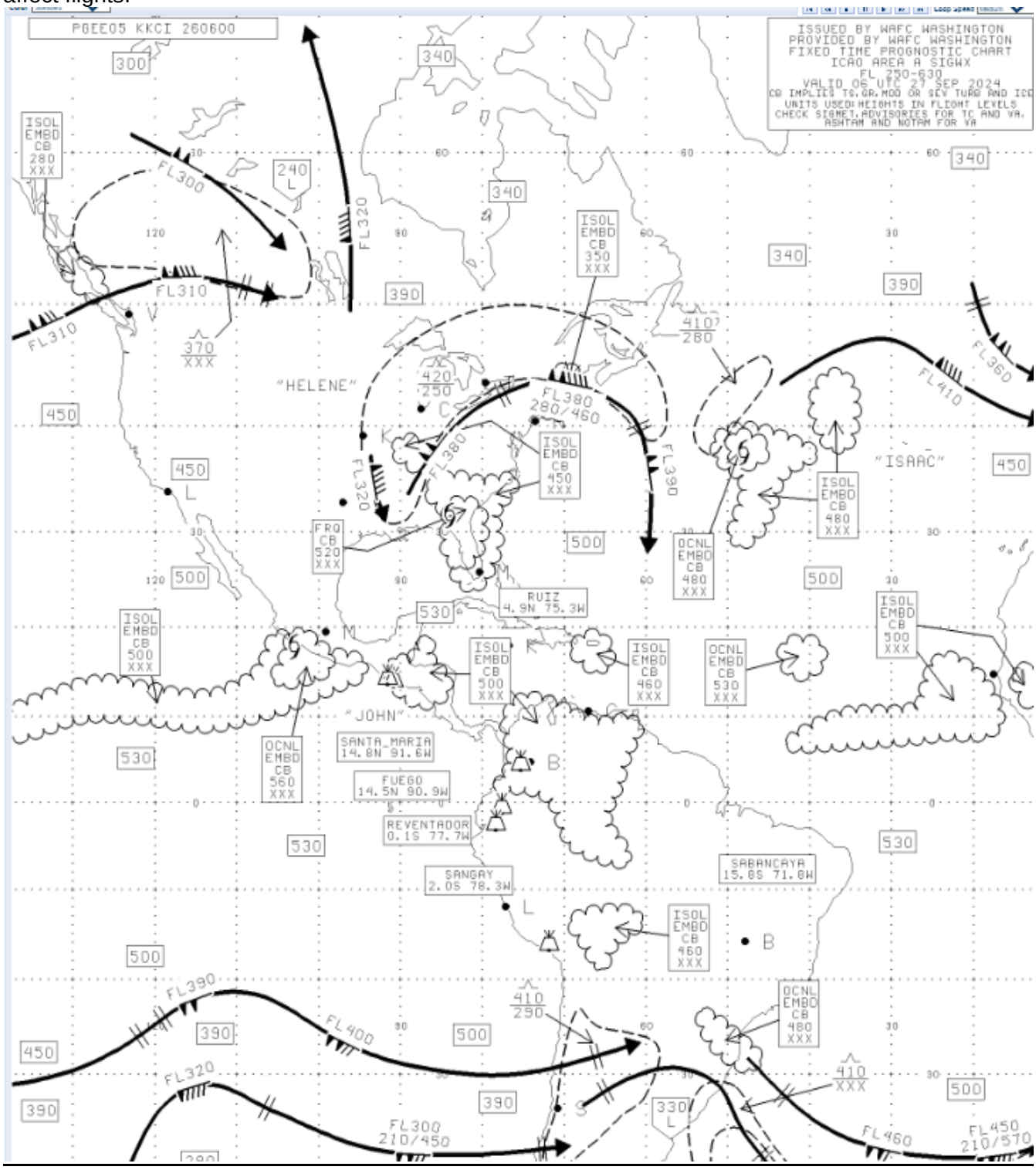
Upper Air Analysis

The upper air analysis will display temp, height, wind, and dew point details. Users can select an altitude from the drop-down menu to view.



WAFS Hi Lvl Sig Wx

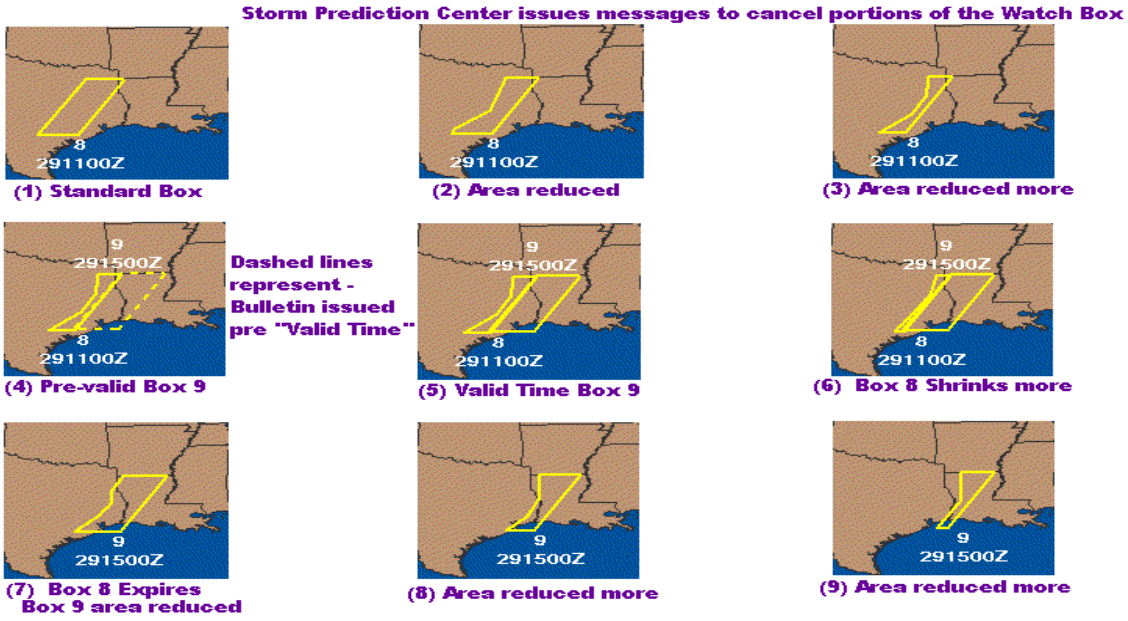
The World Area Forecast System (WAFS) charts display weather conditions for FL250 to FL630 that could affect flights.

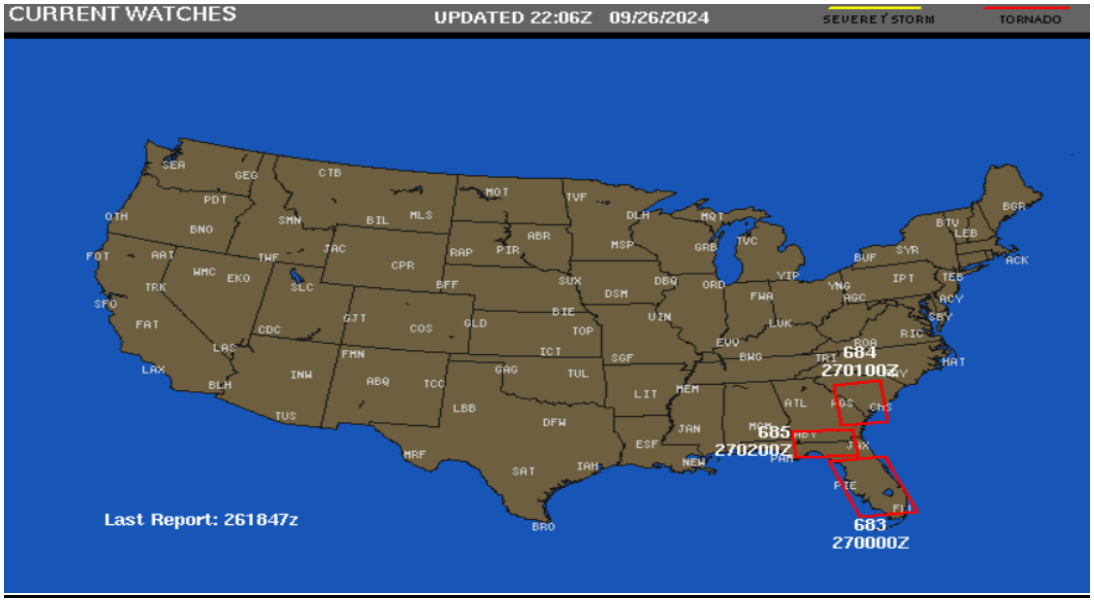


Watches

Weather Watches are issued by the Storm Prediction Center (SPC). They are issued in advance of expected severe thunderstorms or tornados. The "Current Watches" advisory graphic will plot these watch boxes in yellow for severe thunderstorm watches, and red for tornado watches. The watch number and expiration time will also be plotted near the box. Occasionally the SPC issues a watch which is not immediately valid but scheduled to become valid within an hour. These "impending" Watch Boxes will be plotted with dashed lines from the time of issuance until the time they are scheduled to become valid. At "valid" time, the dashed lines change to solid lines.

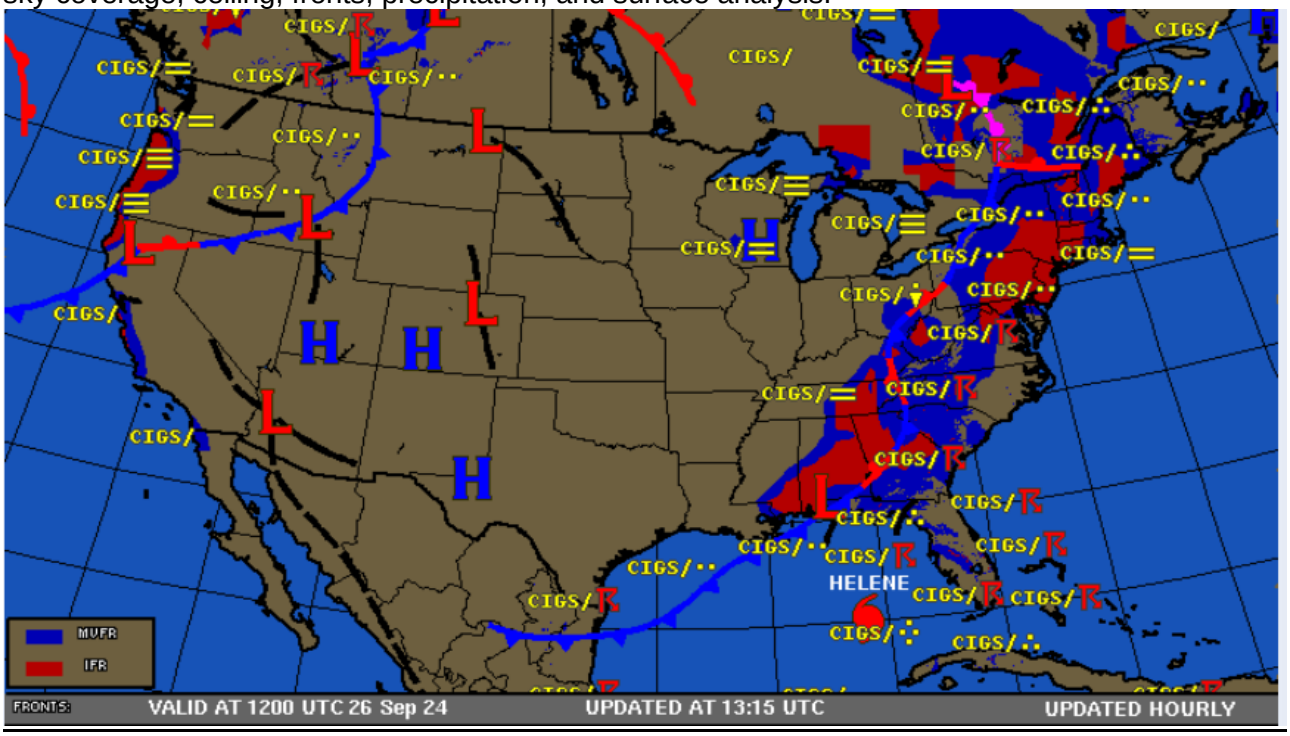
The SPC will also issues status messages referring to valid watch boxes. These messages will often cancel portions of the original box, as the severe weather threat diminishes. The effect on the plot will be for the box to become "trimmed" away.



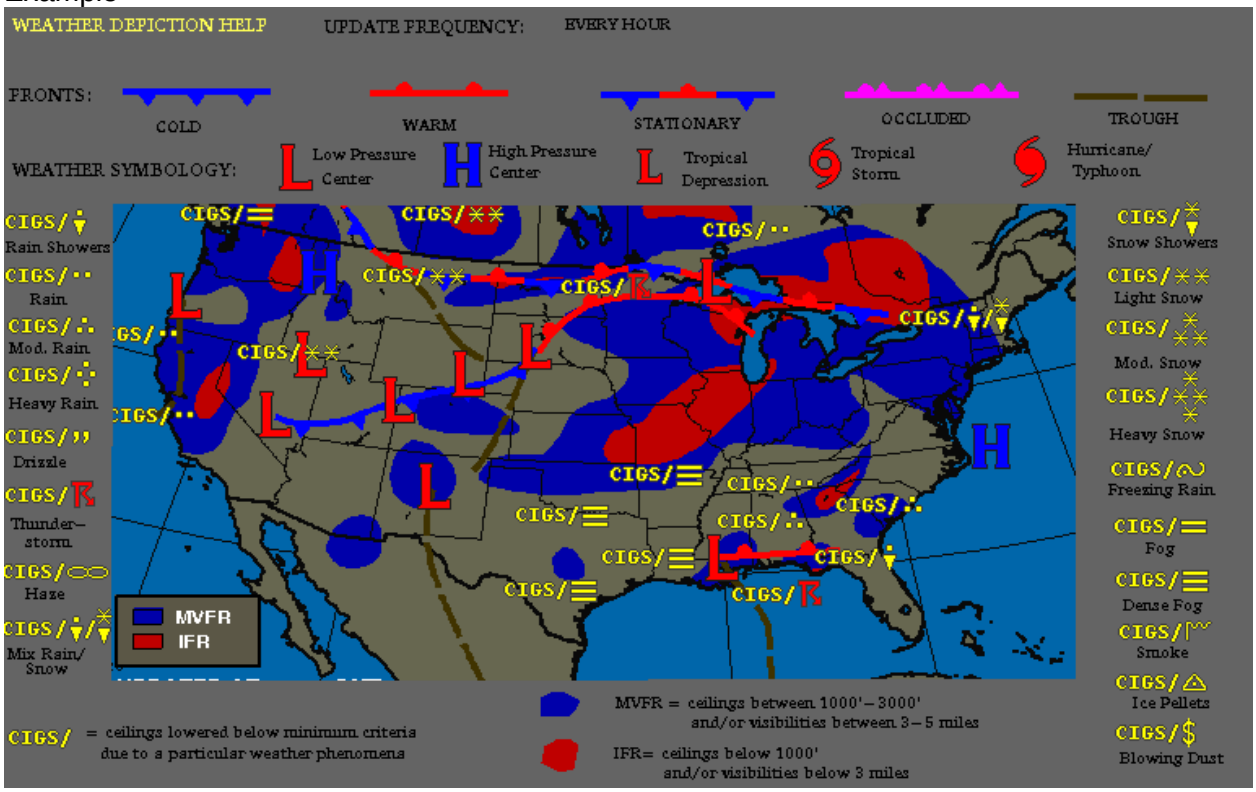


Weather Depiction

The chart will depict areas of IFR and/or MVFR conditions along with current weather conditions, visibility, sky coverage, ceiling, fronts, precipitation, and surface analysis.

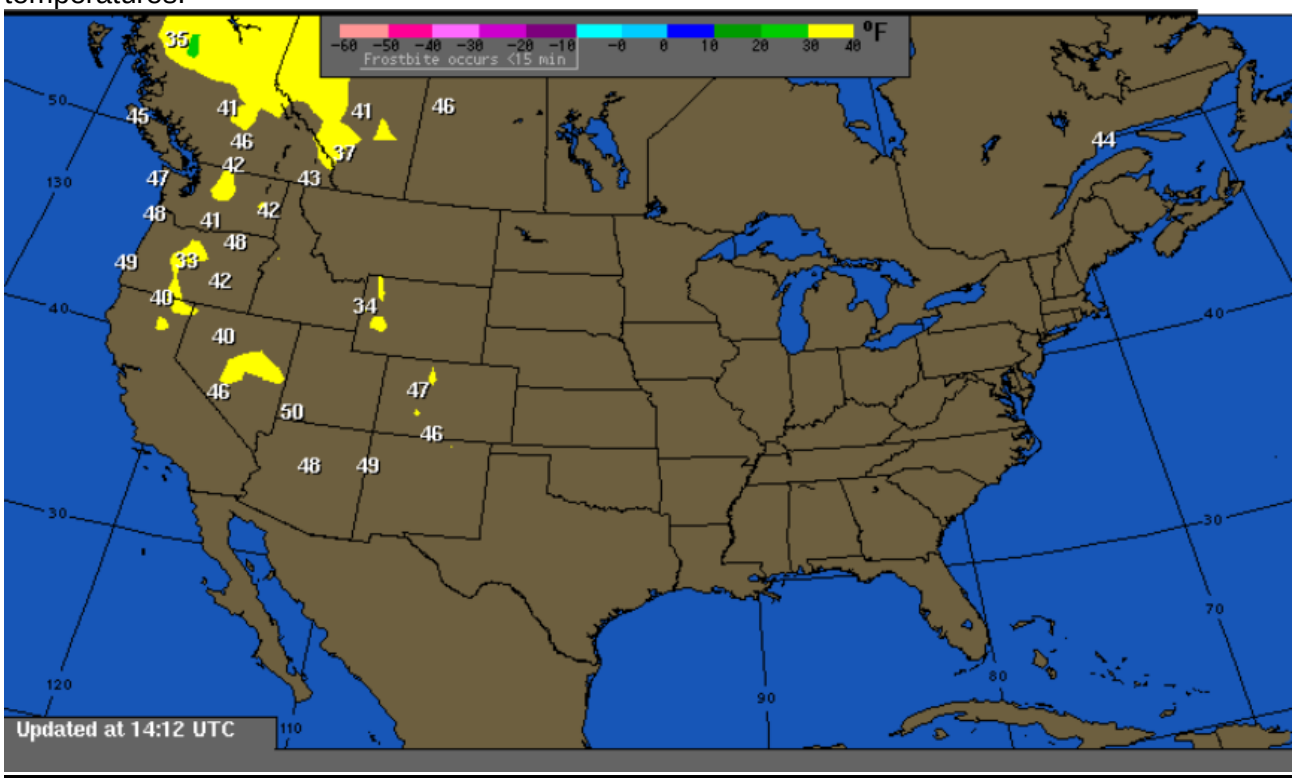


Example



Wind Chill (Winter Only)

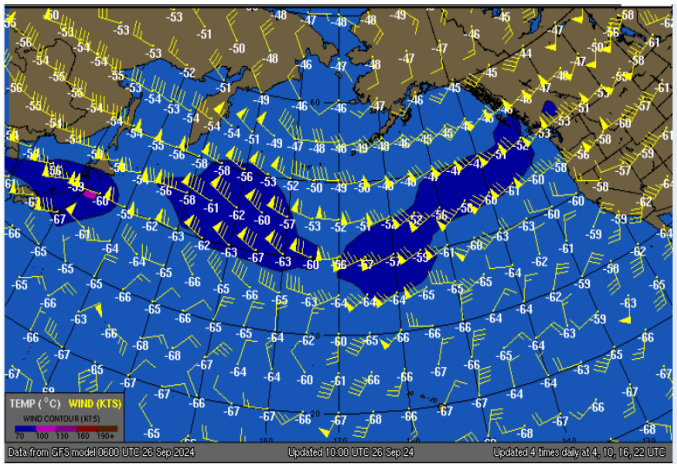
The temperature and frostbite occur scales are displayed on the map with some locations displaying actual temperatures.



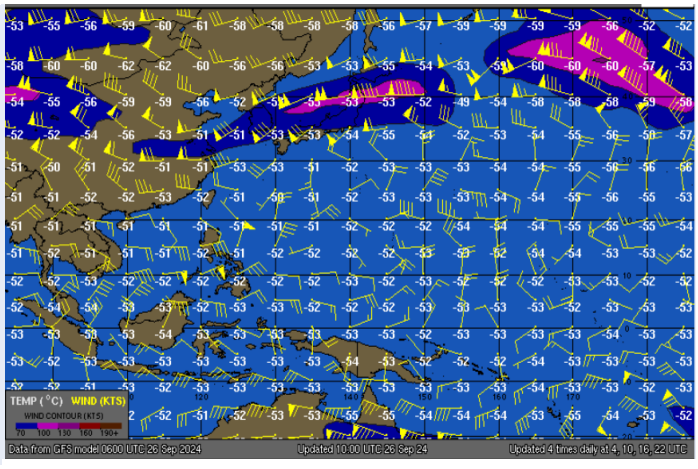
Wind/Temp

These charts will display wind barbs for wind speed and direction along with a temperature displayed.

150MB

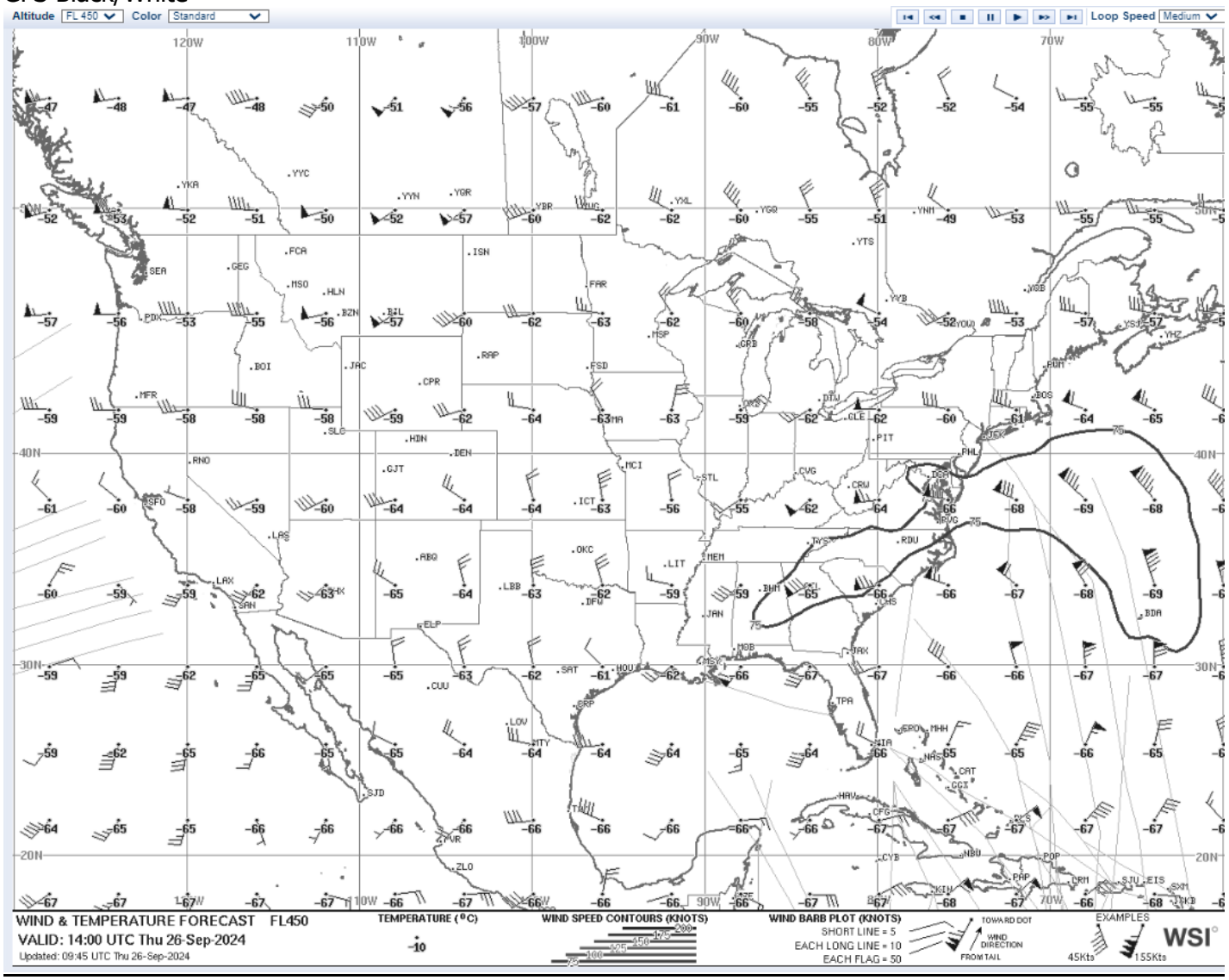


200MB

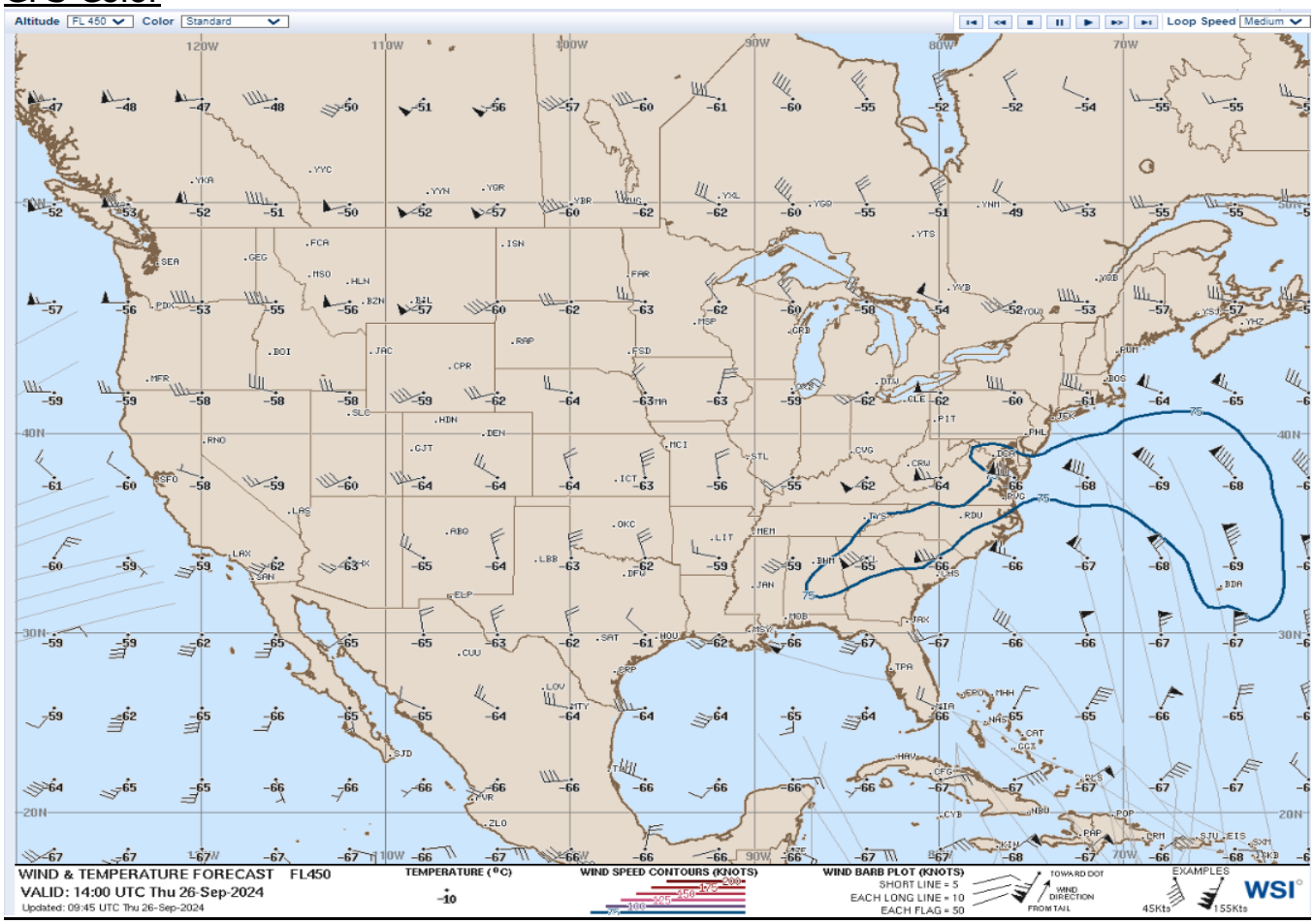


Forecast system (GFS) charts are in black/white and in color. This model provides wind speed and direction.

GFS Black/White

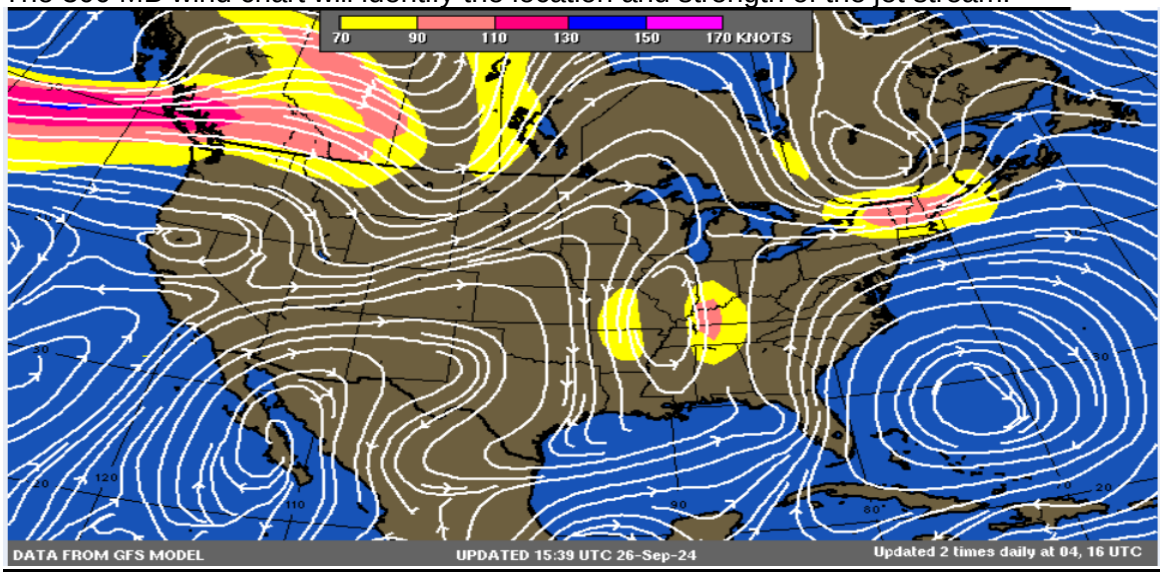


GFS Color



300 MB Jet Stream/Wind

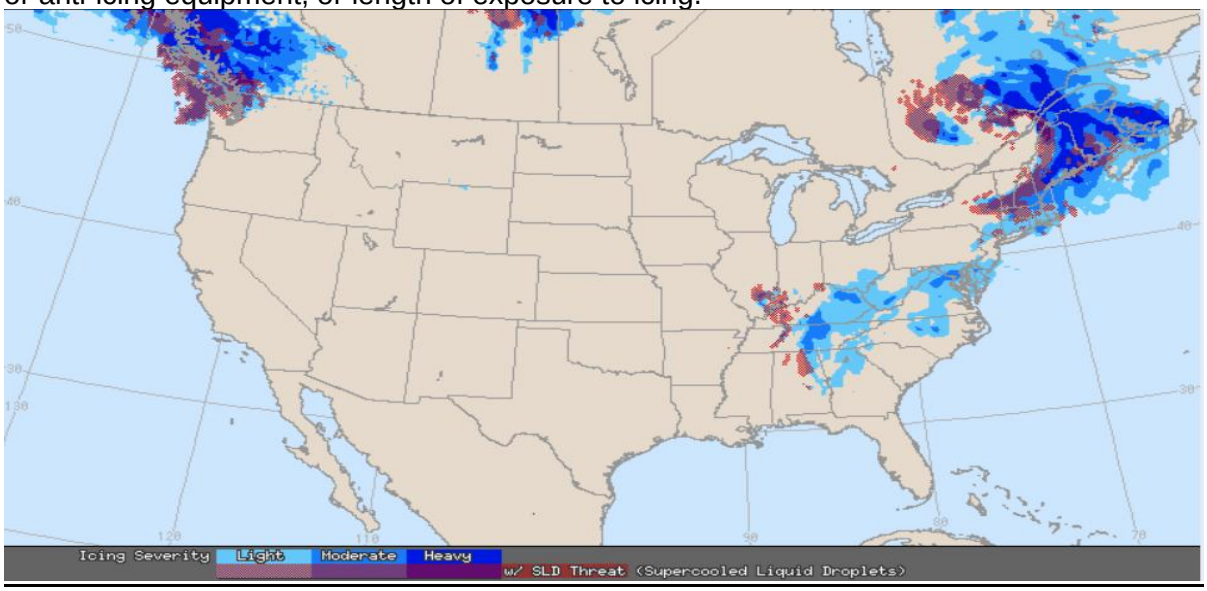
The 300 MB wind chart will identify the location and strength of the jet stream.



Hazards

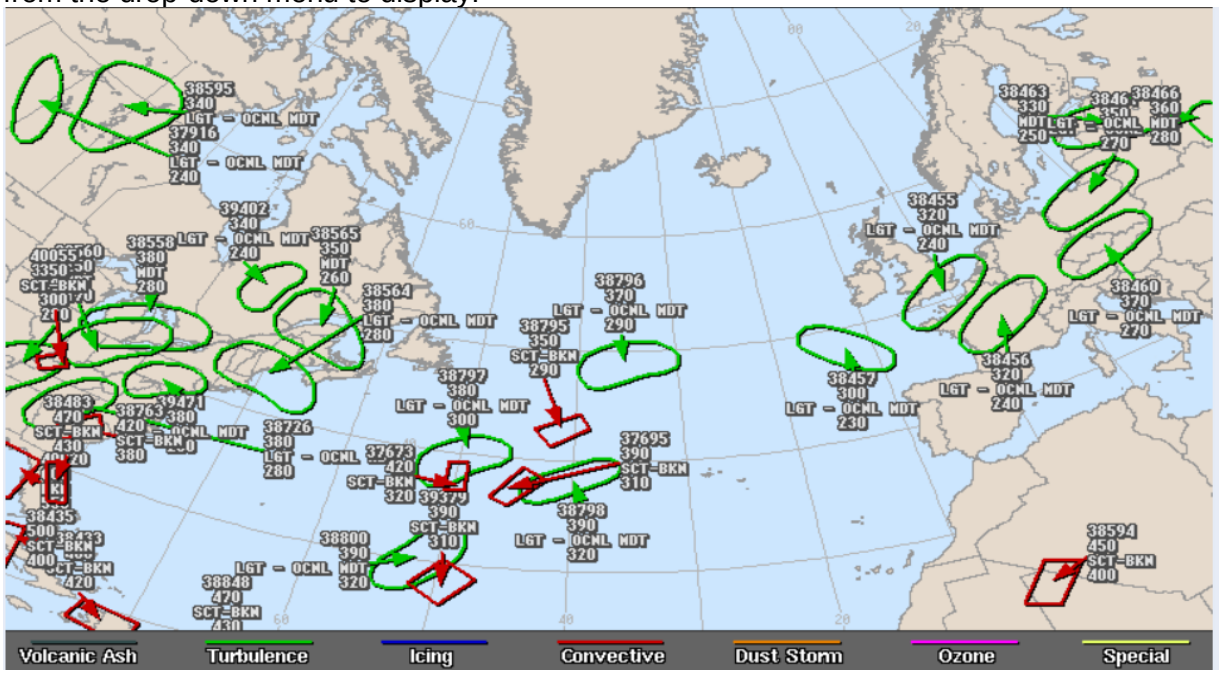
Current Icing Severity

The icing intensity is reported as trace, light, moderate, or severe. Severity factors in type of aircraft, de-icing or anti-icing equipment, or length of exposure to icing.



Flight Plan Guidance (FPGs)

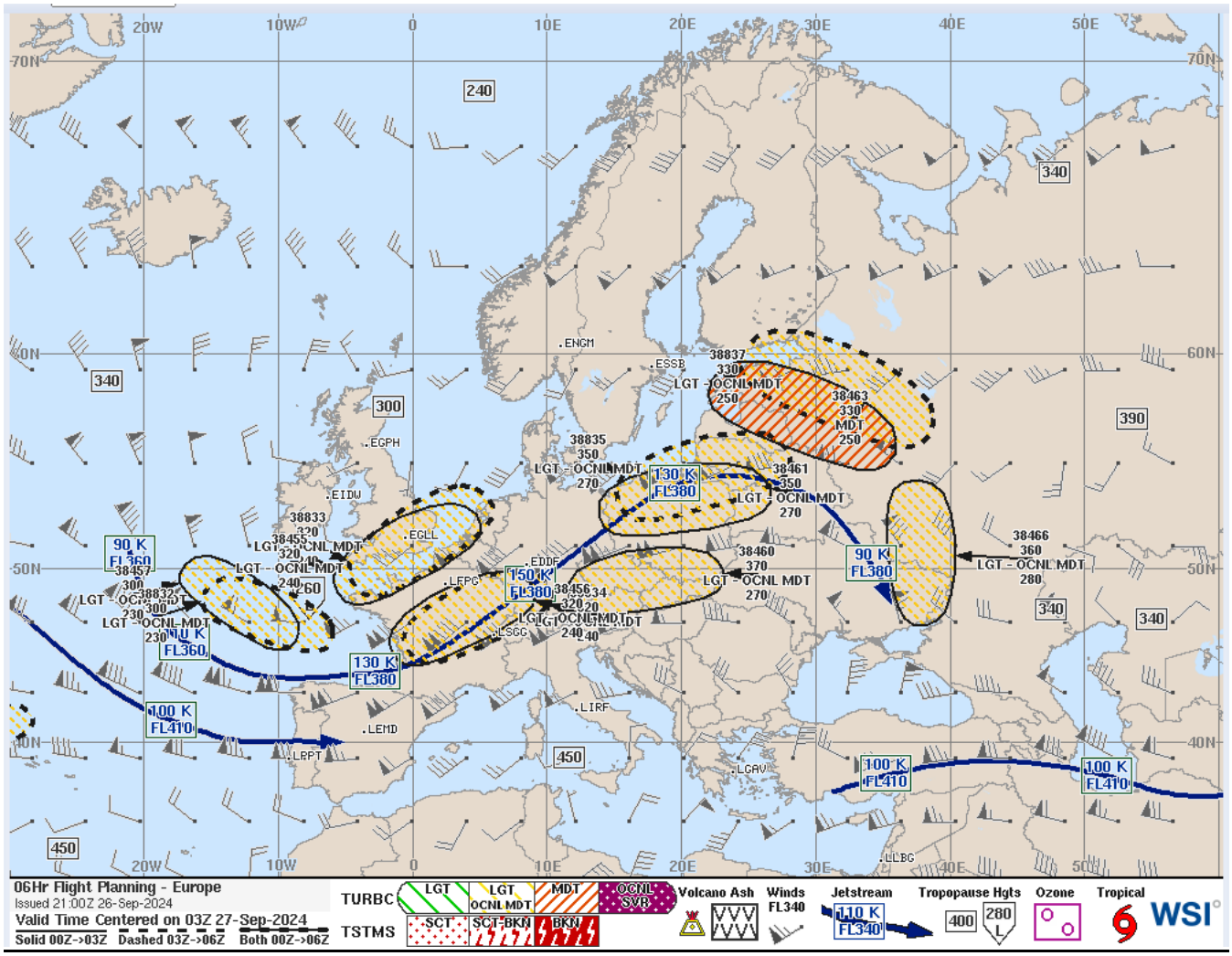
Depicts potential flight hazards including turbulence, thunderstorms, icing, volcanic ash, and dust storms. The interactive map display also includes ozone and other significant events. Users can select the forecast from the drop-down menu to display.



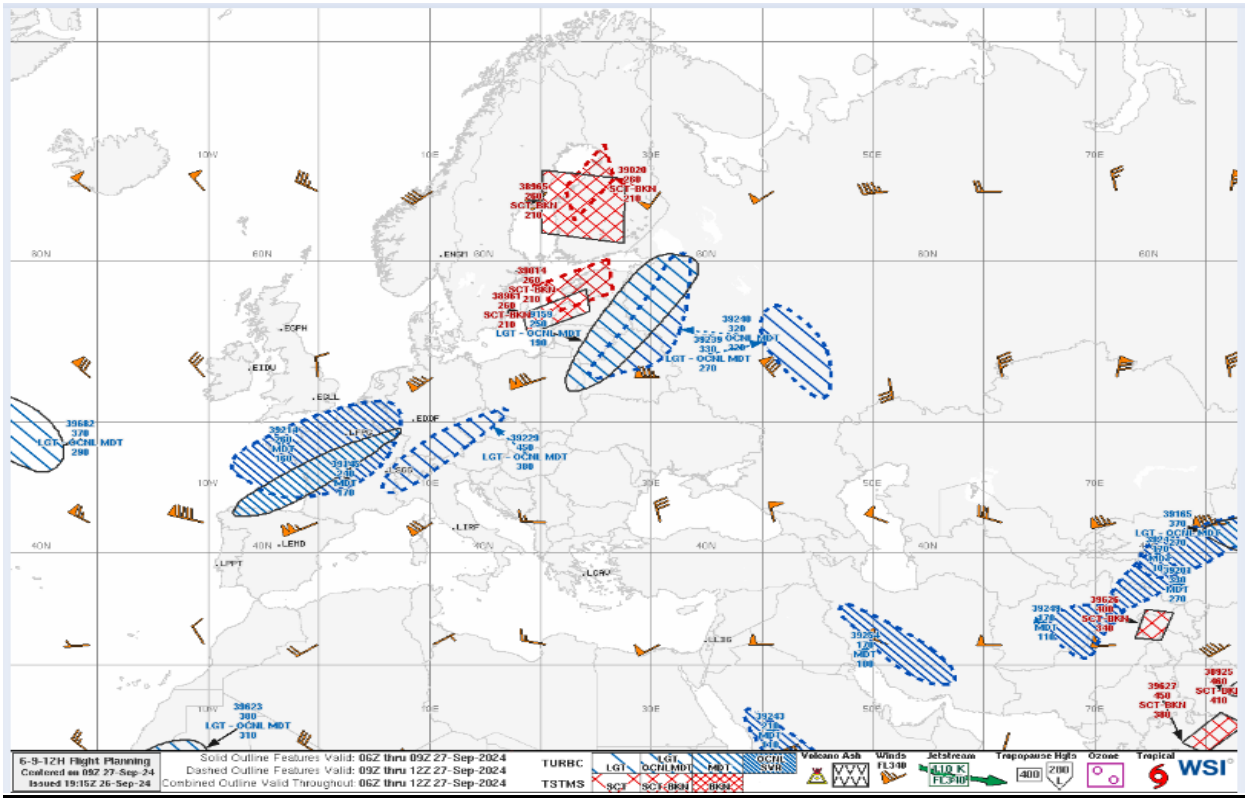
Enroute (6 Hr and 9 Hr)

These charts are available for many regions. They will display turbulence, thunderstorms, winds, Jetstream, tropopause heights, volcanic ash, ozone, and tropical.

6 Hr

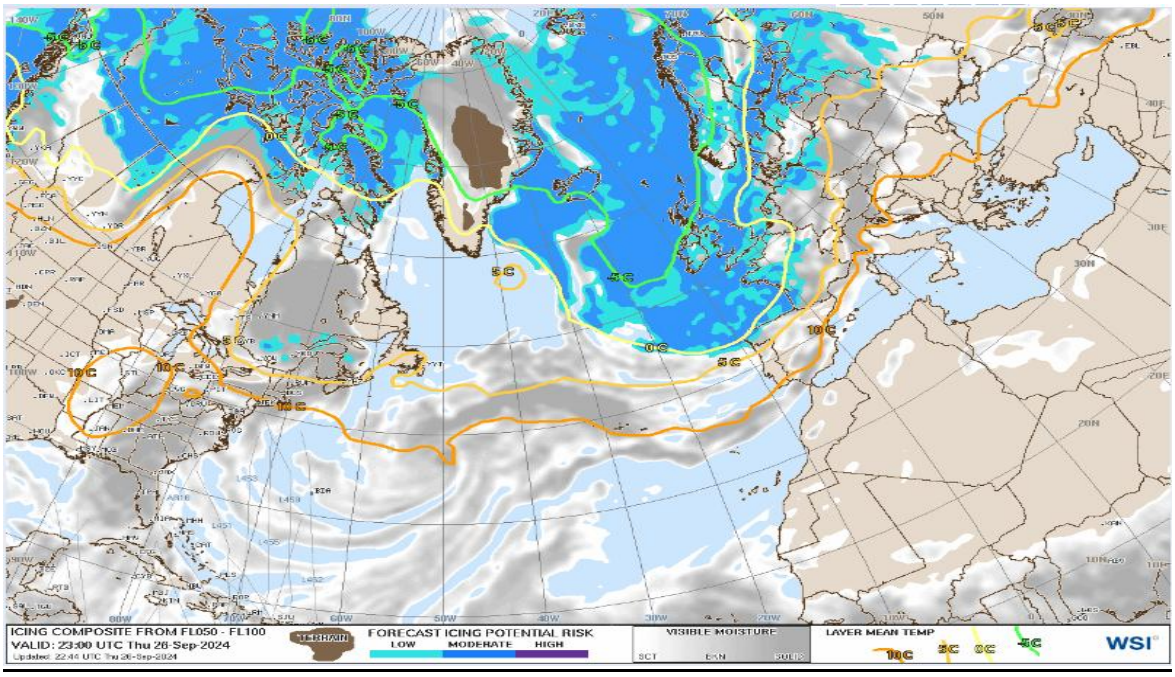


9 Hr



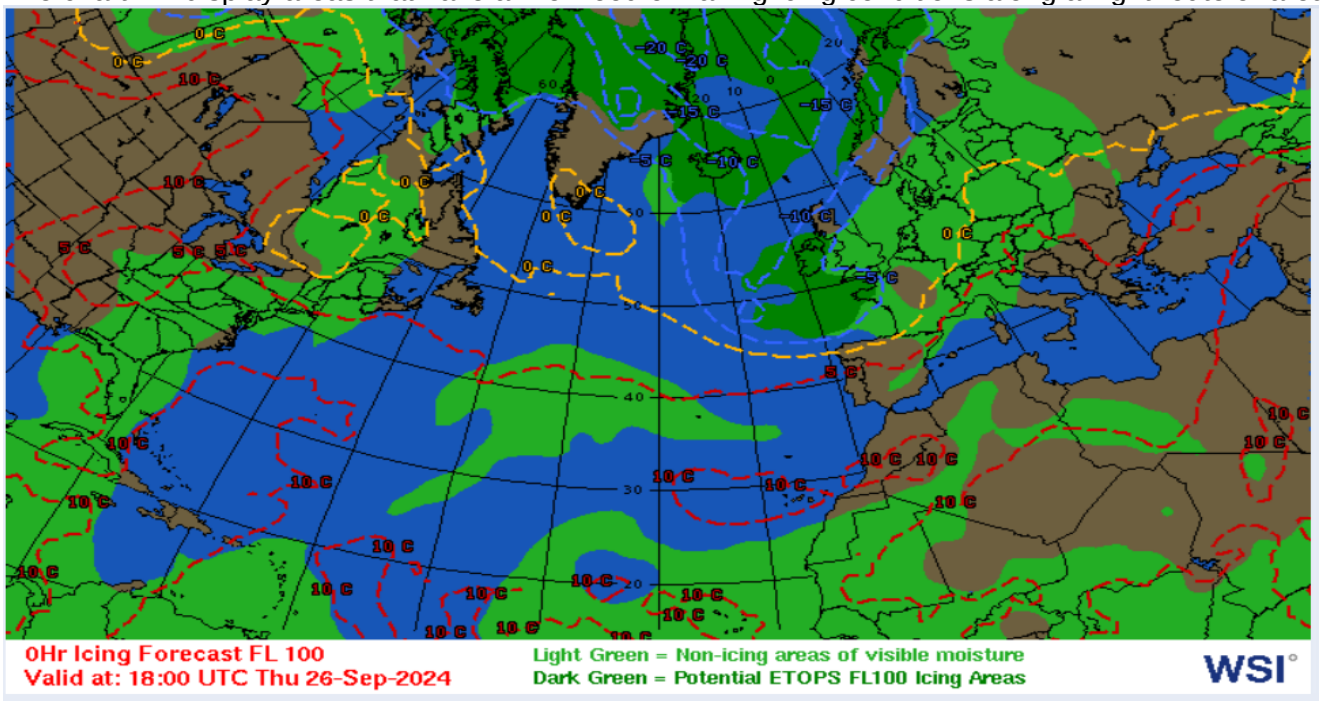
Icing

The forecast icing potential risk will be displayed as low, moderate, or high. Visible moisture will be displayed as scattered, broken, or solid. The layers temperature will also be annotated.



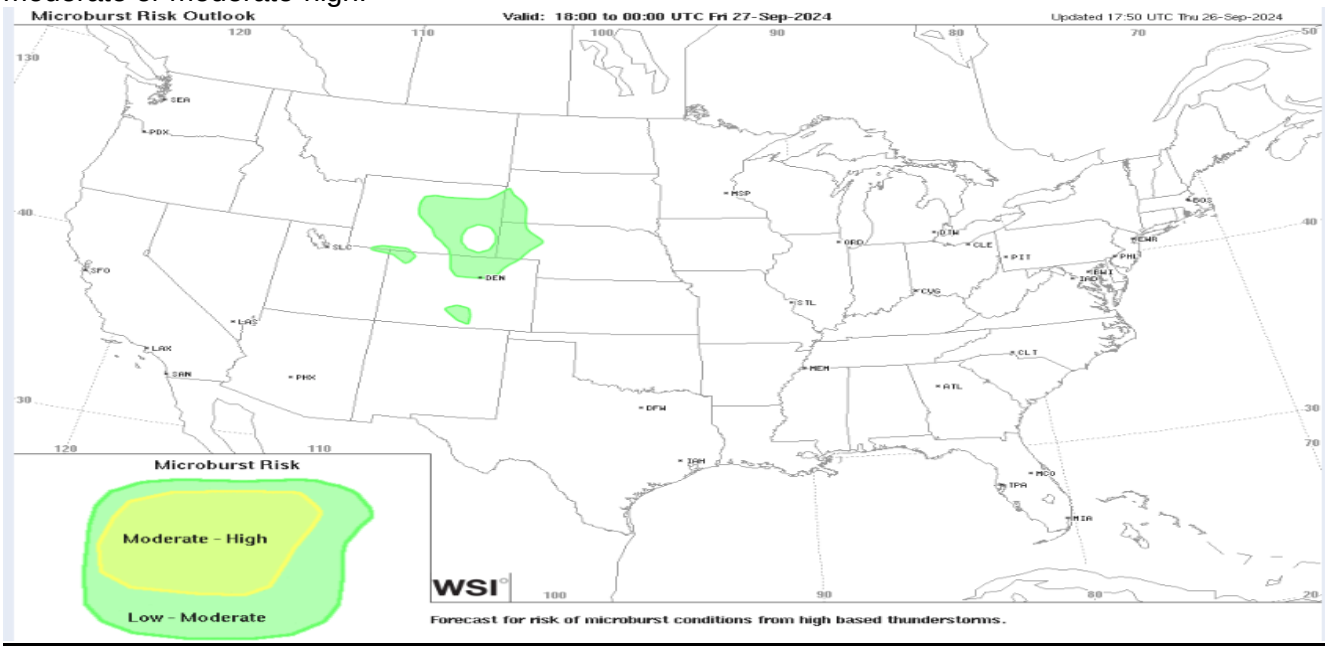
Icing Forecast

The chart will display areas that have a likelihood of having icing conditions along a flight route or area.



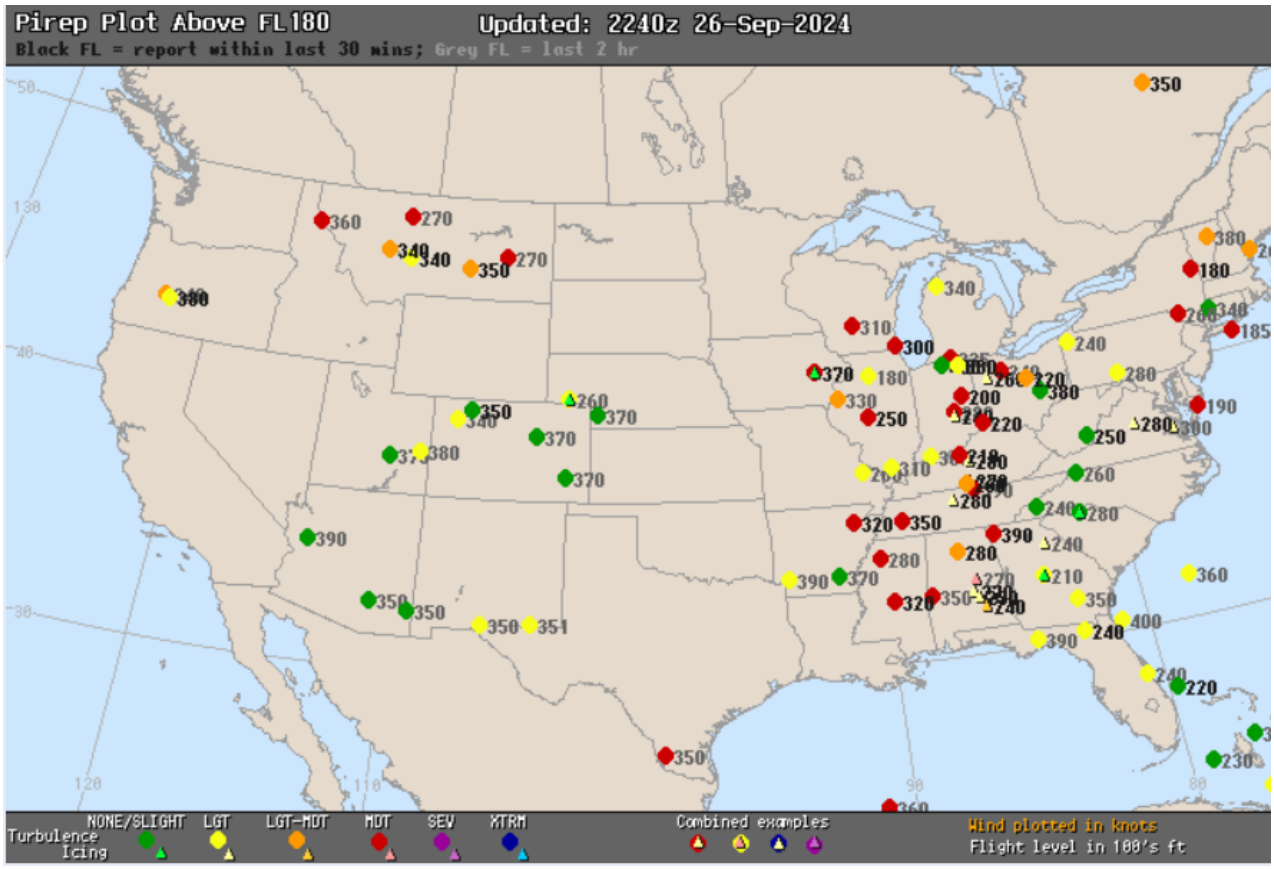
Microburst Risk Outlook

The use of atmospheric parameters to predict microburst potentials. These will be displayed as low-moderate or moderate-high.



PIREPs

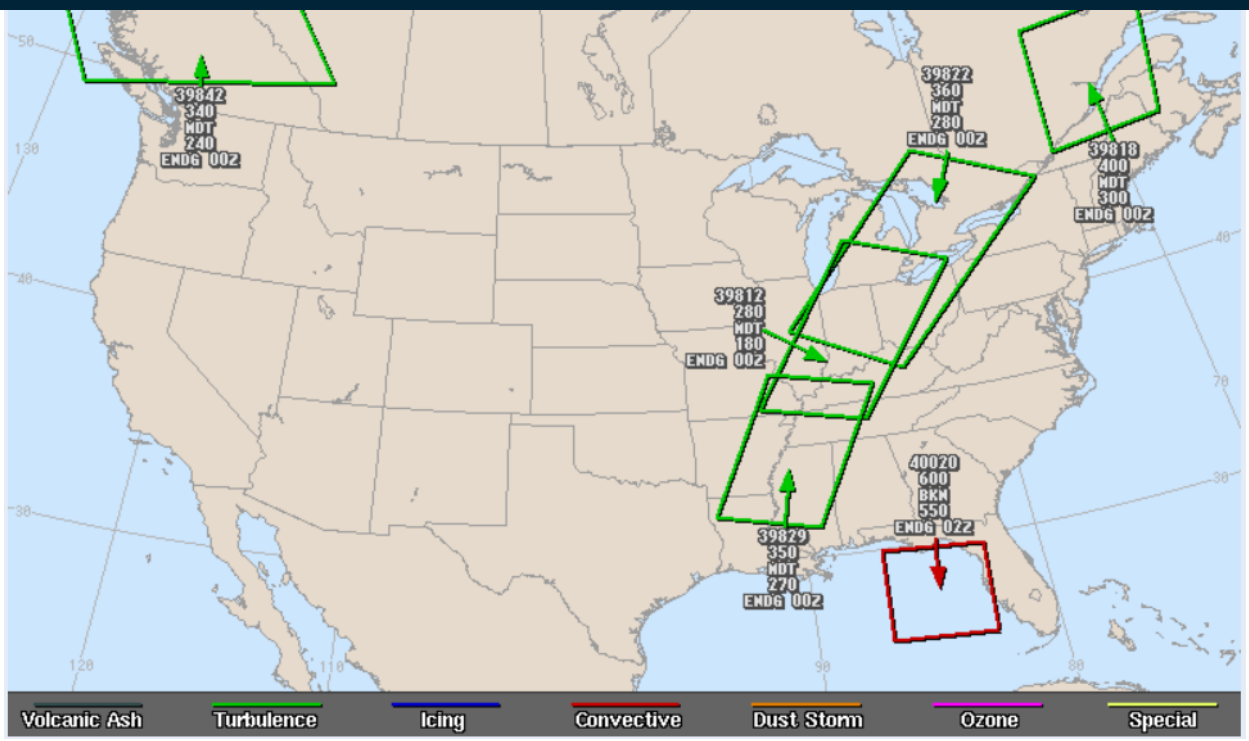
The Pilot Report (PIREP) will be for turbulence or icing with a severity from none/slight, light, light-moderate, moderate, severe, or extreme.



SIGMETs

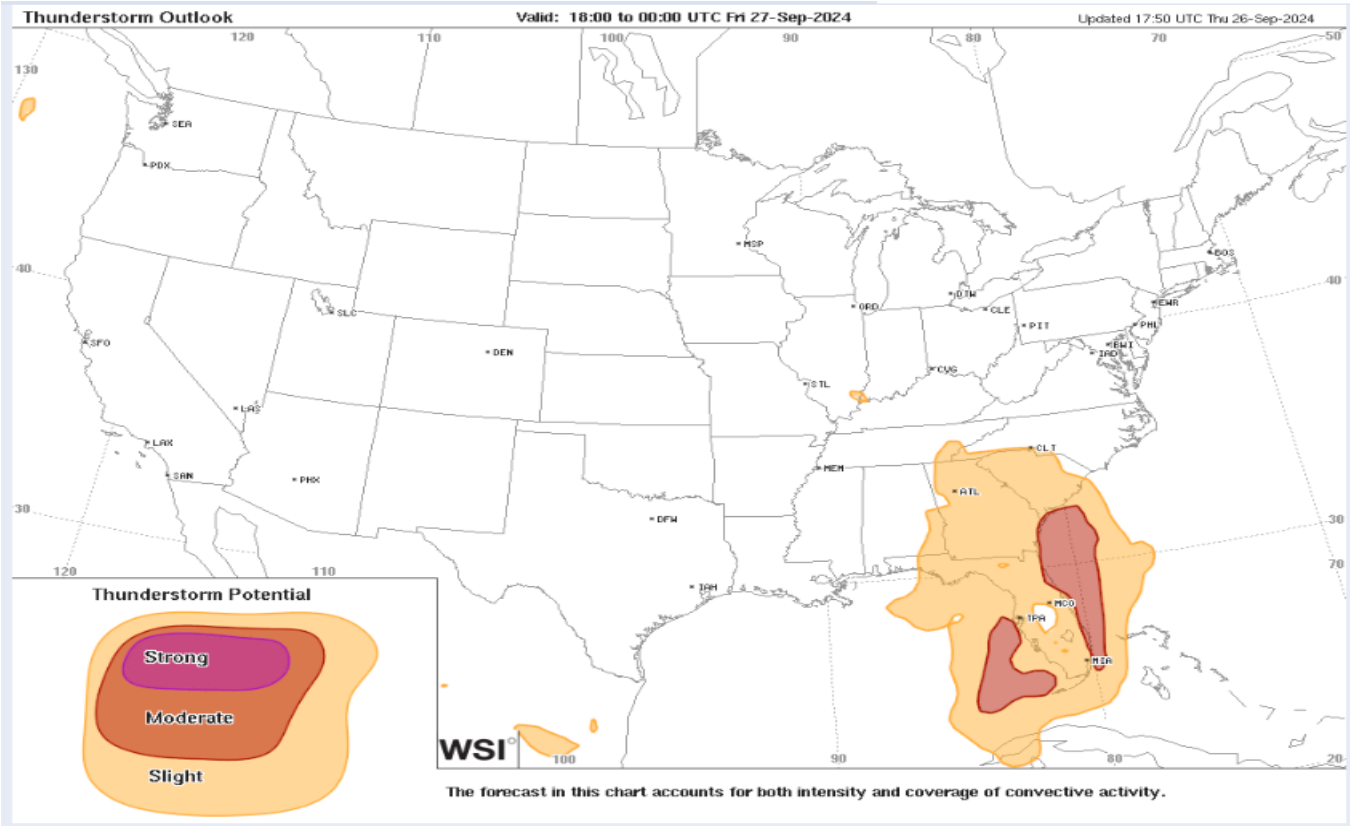
Issued for significant turbulence, convection, icing, volcanic ash, or dust storm advisories. WSI SIGMETs are valid for up to 6 hours and are issued and updated as necessary.

- Icing - moderate of greater icing forecasted for the highlighted area
- Convection - 35% thunderstorm coverage or more
- Volcanic ash - Ash above FL180 and forecasted to impact flight operations
- Dust - Significant dust forecasted to reduce surface visibilities.



Thunderstorms Outlook

The chart will display the potential for thunderstorms. These will be displayed as slight, moderate, or strong.



WSI SATrad

The chart will display satellite radar for precipitation for the region selected.

WSI Tropical Forecast

The tropical forecast chart provides information about current storms, including the latest statistics such as location, strength, and movement. The tracks are annotated for WSI and TPC along with tropical depression (TD), tropical storm (TS), and hurricane (HUR). The wind speed in kts is displayed by the color displayed.