**Weather Help - Surface & Low Level Significant Weather Maps**

**Surface Weather Depiction**

- Color of station as well as labeled directly to the right of station circle.
  - **VFR** (white) – visibility greater than 5 miles and ceiling greater than 3000 ft.
  - **MVFR** (green) – visibility between 3 and 5 miles and/or ceiling between 1000 and 3000 ft.
  - **IFR** (yellow) – visibility less than 3 miles and/or ceiling less than 1000 ft.
  - **LIFR** (red) – visibility less than or equal to 1 mile and/or ceiling less than or equal to 500 ft.
  - **BCAT1** (purple) – ceiling less than or equal to 200 ft.

**Flight Conditions**

- **Ceiling**
  - Number directly below station circle in hundreds of feet if a ceiling is present.

- **Visibility**
  - Number to the left of station circle. Value is in units normally reported in METAR for that region. North America reports visibility in statute miles, most other international areas report visibility in meters. If visibility is greater than or equal to 6 sm or 10,000 meters, it is omitted from the map.

- **Present Weather**
  - Weather symbol is directly to the left of station circle if station is reporting weather.

- **Wind Direction and Speed**
  - Wind flag used to indicate wind direction and speed. Speed value is in same units as reported in METAR. Most observations use knots, some countries (Russia and China) use meters per second.

Maps are updated once per hour, generally available near the top of each hour and contain the most recent observations from the stations on the map. Valid Time on the map represents the earliest observation time used on the map.
Surface Weather Analysis (U.S. & International Regions)

Surface Fronts
Cold fronts are dark blue, warm fronts are red, occluded fronts are purple, stationary fronts are alternating red/blue. Surface Troughs are dashed purple lines.

Isobars
Solid white lines representing contours of sea-level pressure. Drawn at 4 mb intervals and labeled with the pressure (1008 = 1008 mb and 996 = 996 mb).

Pressure Centers
Blue H denotes center of high sea-level pressure, and red L denotes center of Low sea-level pressure. Value of central pressure is labeled beneath the center with the last two digits (1008 = 1008 mb and 996 = 996 mb).

The current position of all tropical systems is depicted on the map using standard symbols. A red "L" denotes a Tropical Depression (wind speed less than 35 kts), a red tropical symbol with a hole in the middle denotes a Tropical Storm (wind speed between 35 and 64 kts), and a solid filled symbol denotes a hurricane/typhoon/tropical cyclone (wind speed greater than 64 kts).

Tropical Systems

Present Weather
Any station reporting present weather is depicted with the appropriate weather
sybmol in yellow at the airport location. To identify the type of weather, see the map symbol help page.

**Temperature Contours**
Dotted light blue lines represent contours of current temperature as reported by all available stations in the region.

**Radar Base Reflectivity**
U.S. maps only. Contains latest NEXRAD base reflectivity overlay.

Surface Analysis maps are drawn by Jeppesen meteorologists who analyze the latest METAR observations in conjunction with radar and satellite imagery.

Maps are valid at time of the observations, and are prepared for valid times of 0000, 0600, 1200 and 1800 UTC. Maps are available between 1 ½ and 2 hours after valid time.

**Surface Weather Analysis (Regional U.S. Versions)**
**Surface Fronts**
Cold fronts are dark blue, warm fronts are red, occluded fronts are purple,
stationary fronts are alternating red/blue. Surface Troughs are dashed purple lines.

**Isobars**
Solid white lines representing contours of sea-level pressure. Drawn at 4 mb intervals and labeled with the pressure (1008 = 1008 mb and 996 = 996 mb).

**Pressure Centers**
Blue H denotes center of high sea-level pressure, and red L denotes center of low sea-level pressure. Value of central pressure is labeled beneath the center with the last two digits (1008 = 1008 mb and 996 = 996 mb).

**Tropical Systems**
The current position of all tropical systems is depicted on the map using standard symbols. A red "L" denotes a Tropical Depression (wind speed less than 35 kts), a red tropical symbol with a hole in the middle denotes a Tropical Storm (wind speed between 35 and 64 kts), and a solid filled symbol denotes a hurricane/typhoon/tropical cyclone (wind speed greater than 64 kts).

**Station Observations**
White circles and text represent the actual METAR observation data. Cloud Cover - Shading of option circle. Open = CLR, ¼ shaded = SCT, ¾ shaded = BKN, Solid shaded = OVC.
Temperature - upper left of circle in degrees Celsius
Sea-Level Pressure - upper right of circle using 3 digit notation (123 = 1112.3 mb/987 = 998.17 mb)
Present Weather - center left of circle using standard weather symbology
Wind Direction and Speed - Wind flag denotes direction and speed. Value in METAR units.

**Radar Base Reflectivity**
U.S. maps only. Contains latest NEXRAD base reflectivity overlay.

Surface Analysis maps are drawn by Jeppesen meteorologists who analyze the latest METAR observations in conjunction with radar and satellite imagery.

Maps are valid at time of the observations, and are prepared for valid times of 0000, 0300, 0600, 0900, 1200, 1500, 1800 and 2100 UTC. Maps are available approximately 1 ½ hours after valid time.
Surface Weather Forecast

Surface Fronts
Cold fronts are dark blue, warm fronts are red, occluded fronts are purple, stationary fronts are alternating red/blue. Surface Troughs are dashed purple lines. Dry Line is similar to warm front except for unfilled pips.

Isobars
Solid white lines representing contours of sea-level pressure. Drawn at 4 mb intervals and labeled with the pressure (1008 = 1008 mb and 996 = 996 mb).

Pressure Centers
Blue H denotes center of high sea-level pressure, and red L denotes center of low sea-level pressure. Value of central pressure is labeled beneath the center with the last two digits (08 = 1008mb and 96 = 996mb).

The current position of all tropical systems is depicted on the map using standard symbols. A red "L" denotes a Tropical Depression (wind speed less than 35 kts), a red tropical symbol with a hole in the middle denotes a Tropical Storm (wind speed between 35 and 64 kts), and a solid filled symbol denotes a hurricane/typhoon/tropical cyclone (wind speed greater than 64 kts).
Areas expected to experience precipitation at the forecast valid time are depicted with symbol shading. Regions where greater than half the area is expected to experience precipitation is shaded with diagonal lines. Unshaded regions represent areas where less than half the area is expected to experience precipitation. See the precipitation type legend in the below map.

Surface Weather Forecast maps depict conditions from the surface to FL240 and are created by Jeppesen meteorologists using numerical forecast guidance and current observations. Maps are created for 24 forecast periods for various regions.

Valid Times for 24 hour forecast maps are 0000 and 1200 UTC and maps are produced twice daily. U.S. maps are additionally available at 0700 (valid at 1800) and 1900 (valid at 0600) UTC.

Low Level Significant Weather Forecast

Flight Conditions Regions expected to experience IFR conditions at the valid time of the map are
depicted with yellow shading. Regions expected to experience MFVR conditions at the valid time of the map are depicted with yellow scalloped lines.

Areas of turbulence are depicted by red dashed lines. Areas are labeled with the intensity of turbulence expected using the standard red turbulence symbology (moderate or severe) and with the altitude range in white (hundreds of feet). If only one number appears for the range, it is implied that the turbulence exists from the surface up to that flight level.

**Freezing Levels**

Freezing level contours are depicted with light blue dashed lines at 4000 ft intervals. They are labeled in hundreds of feet. The surface freezing line is a light blue dotted line and is labeled with SFC.

Maps are valid for 12 and 24 hour forecast periods. The 12 hour forecast is updated 4 times per day, and the 24 hour forecast is updated twice daily. Maps are valid at 0000, 0600, 1200 or 1800 UTC. Maps are available at 0130, 0730, 1330 and 1930 UTC.