



METAR: Meteorological Aerodrome Report

A METAR is a format for reporting weather information. A METAR weather report is predominantly used by pilots in fulfillment of a part of a pre-flight weather briefing, and by meteorologists, who use aggregated METAR information to assist in weather forecasting.

A METAR is published in this order:

Where: The aerodrome of the report

When: Day of the current month & Zulu time

Wind: Direction of wind, speed in knots & speed of gusts (if applicable)

Visibility: In statute miles (SM) or metres (M) or Runway Visual Range (RVR) in feet.
9999 = Greater than 10 km

Weather: Significant weather phenomena in the area defined by codes and descriptors

Codes

BR - Mist
 DS - Dust Storm
 DU - Widespread Dust
 DZ - Drizzle
 FC - Funnel Cloud
 +FC - Tornado/Water Spout
 FG - Fog
 FU - Smoke
 GR - Hail
 GS - Small Hail/Snow Pellets
 HZ - Haze
 IC - Ice Crystals
 PE - Ice Pellets
 PO - Dust/Sand Whirls
 PY - Spray
 RA - Rain
 SA - Sand
 SG - Snow Grains
 SN - Snow
 SQ - Squall
 SS - Sandstorm
 UP - Unknown Precipitation
 VA - Volcanic Ash

Descriptors

BC - Patches
 BL – Blowing
 CAVOK – Ceiling and visibility are OK*
 DR - Low Drifting
 FZ - Supercooled/freezing
 MI - Shallow
 PR - Partial
 SH - Showers
 TS – Thunderstorm

* There is no significant weather, the visibility is 10 km or greater, and the ceiling is greater than 5,000 feet.

Intensity shown by:

“-“ Light
 “+“ Heavy
 “No Sign” Moderate

Clouds: Categorised by “Octas” (eights of the visible sky) & height AGL.

SKC = Sky Clear

FEW = Few clouds, 1-2 octas

SCT = Scattered clouds, 3-4 octas

BKN = Broken clouds, 5-7 octas (ceiling)

OVC = Overcast, 8 octas (ceiling)

Cloud types

CB = Cumulonimbus

TCU = Towering Cumulus

Temp/Dew Point: Outside air temperature (OAT) and the temperature to which air must be cooled to become saturated with water vapor (DP) measured in degrees Celsius.

Altimeter Setting: Barometric pressure at the airport measures in hectoPascals or inches of Mercury.

Standard altimeter settings are:

“2992” = 22.92 inches of Mercury (imperial)

Q1013 = 1013 hectoPascals (metric)

Example:

KJAX 020256Z 02003KT 10SM TSRA OVC01OCB SCT100 BKN130 18/17 A2996

Where	When	Wind	Visibility	Weather	Clouds	Temp/DP	Altimeter
KJAX	020256Z	22015G30KT	10SM	TSRA	OVC01OCB SCT100	18/17	A2996
Jackson Hole airport	02: 2 nd day of the month at time 02:56 Zulu	From 220° @ 15 knots Gusting to 30 knots	10 statute miles	Thunderstorms & Moderate Rain	Overcast ceiling at 1,000 feet of cumulonimbus cloud & scattered cloud at 10,000 feet	OAT:18°C DP: 17°C	Altimeter 29.92 inches of Mercury

TAF: Terminal Aerodrome Forecast

A TAF is basically a METAR on a timeline for a particular area. The difference between a TAF and a METAR is that a TAF provides information in terms of **time** and the **probability** of weather conditions.

EGLL 060326Z 060413 20013G23KT 9999 SCT014 BKN025 TEMPO 0413 8000 -RA BKN014 TEMPO 0813 19018G33KT RA

1. In the first section of the TAF we see that this report comes to us from London's Heathrow Airport.
2. In the second section we see that this report was taken on the 6th day of the month, at 0413Z.
3. In the third section we see that the winds are coming from 200 degrees and that the winds velocity is sustained at 13 knots, with gusts to 23 knots.
4. In section four we see that the visibility is greater than 10 km.
5. Section 5 lets us know that there are scattered clouds at 1,400 feet and broken clouds at 2,500 feet.
6. **Temporarily, from 0400Z to 1300Z**
7. Visibility is 8,000 meters.
8. Light rain
9. A broken Layer at 1,400 feet.
10. **Temporarily, from 0800Z to 1300Z**
11. Winds 190 at 18 knots, gusting to 33 knots.
12. Moderate Rain.

Source: <https://www.vatsim.net/pilot-resource-centre/general-lessons/interpreting-metars-and-tafs>

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