

# TAF and METAR/SPECI reference card

This reference card contains selected TAF and METAR/SPECI information to help users gain a better understanding of aerodrome forecasts and reports.

**TAF (Aerodrome forecast)** is a coded statement of meteorological conditions expected at an aerodrome and within a radius of 8 kilometres of the aerodrome reference point.

**TAF3** is a TAF issued routinely every 3 hours and receives priority, proactive amendments.

**METAR (Meteorological aerodrome report)** is a routine aerodrome weather report issued at half hourly time intervals.

**SPECI (Special meteorological report)** is a special aerodrome weather report issued only when meteorological parameters meet specific criteria.

## Sample TAF & METAR/SPECI

```
TAF AMD YPPH 020328Z 0203/0306
01010KT 9999 -SHRA SCT030
FM020400 25014KT 9999 -SHRA SCT030
FM030300 28020G30KT 9999 -SHRA SCT025
INTER 0203/0208 25015G25KT 4000 SHRA SCT015
INTER 0208/0212 25015G25KT 6000 SHRA SCT020
INTER 0304/0306 28025G35KT 4000 SHRA BKN015
RMK
T 11 15 15 13 Q 1019 1017 1018 1019
TAF3
```

```
SPECI YPPH 020500Z 27007KT 9999 FEW016
SCT035 13/11 Q1018
RMK RFO0.4/006.2 HAZE
```

## Elements of TAF and METAR/SPECI

**AUTO** will be included when a METAR/SPECI contains only automated observations.

**Wind** is given in the format DDDSSKT. DDD is the mean direction in degrees true rounded to the nearest 10 degrees and SS is the mean speed in knots (KT).

The maximum gust will be given after the letter G if it is forecast or observed to exceed the mean wind by 10 knots or more, e.g. 33028G40KT gives a mean wind direction of 330 degrees true, with a mean wind speed of 28 knots and a maximum gust of 40 knots.

At selected aerodromes, an additional wind variation group may also be included in METAR/SPECI when the wind direction varies by 60 degrees or more during the sampling period used for the wind report. For example, 150V220 indicates that the wind has varied between 150 and 220 degrees.

**Visibility** (horizontal visibility) is given in metres, in a 4-figure group (e.g. 0500 = 500 metres, 2000 = 2,000 metres). 9999 indicates visibility of 10 kilometres or more.

In METAR/SPECI, where there is manual input, 2 groups may be reported when visibility is not the same in different directions; the prevailing

visibility first, then the minimum visibility and its direction (using one of the 8 points of the compass) from the observing station, e.g. 8000 2000NE.

**Air temperature** (and **dew point** in METAR/SPECI) are given in degrees Celsius in a 2-digit group, rounded to the nearest whole degree. Negative values are preceded by M (minus), e.g. M03. In TAF, air temperature values are preceded by the letter T. In METAR/SPECI, the air temperature and dew point are given in the format TT/TdTd, where T is the air temperature and Td is the dew point, e.g. 22/15.

**QNH** is given in hectopascals in a 4-figure group, e.g. 1008 or 0998. QNH values are preceded by the letter Q. QNH values in METAR/SPECI are rounded down to the whole hectopascal.

**TAF3** label, following the forecast QNH in the RMK section of the TAF, indicates a TAF3 service. It may also be followed by a VALID TL (till) and time stamp indicating the cessation of the TAF3 service at aerodromes offering a limited service, i.e. TAF3 VALID TL 150600.

**TAF issue time** and **METAR/SPECI report time** are given in the format DDHHMMZ. For example, 171655Z indicates an issue time of 1655 UTC on the 17th day of the month.

### Did you know?

In TAF, the 4 temperature and QNH values are point forecasts for HH, HH+3, HH+6 and HH+9 where HH is the commencement of the TAF validity.

Use linear interpolation to determine the forecast value between these points.

## TAF cloud information

Code	Cloud amount
FEW	Few (1 to 2 oktas)
SCT	Scattered (3 to 4 oktas)
BKN	Broken (5 to 7 oktas)
OVC	Overcast (8 oktas)
NSC	Nil significant cloud
NCD*	Nil cloud detected
VV**	Vertical visibility

\*not used in TAF code – used in AUTO METAR/SPECI reports only

\*\*VV used in lieu of cloud information when smoke is obscuring the sky

A TAF is normally issued half an hour to 2 hours prior to the start of the validity period.

**Validity period** is given in the format DDHH/DDHH, e.g. 1718/1900 indicates a validity of 30 hours from 1800 UTC on the 17th.

**Cloud amount** is forecast using the abbreviations above.

**Cloud information** in TAF and METAR/SPECI is given in the order of lowest to highest in accordance with the following rules:

**1st group** is the lowest layer regardless of amount. **2nd group** is the next layer covering more than 2 oktas of sky. **3rd group** is the next layer covering more than 4 oktas of sky.

**Extra groups** – cumulonimbus (CB) and towering cumulus (TCU) when not included in the above.

**Cloud type** is not given in AUTO METAR/SPECI and only given in TAF for CB and TCU.

**Vertical visibility (VV)** is provided in the TAF in lieu of cloud information when smoke is obscuring the sky, e.g. VV009 indicates a thick layer of smoke aloft at 900 feet.

**Weather** is included in a forecast or report using the abbreviations in the table, e.g.

**BCFG** for fog patches

**SHRA** for moderate showers of rain.

Intensity is indicated for precipitation, dust storms, sandstorms and funnel clouds (tornados and water spouts), by prefixing the weather groups as shown in these examples:

**+TSRA** for thunderstorm with heavy rain showers  
**DZ** for moderate drizzle  
**-RA** for light rain.

Note: not all weather types are included in AUTO METAR/SPECI.

## Common abbreviations

<b>BECMG</b> Becoming
<b>CAVOK</b> Cloud and visibility and weather OK
<b>FM</b> From
<b>INTER</b> Intermittent variations – periods < 30 mins in an hour
<b>MOD</b> Moderate
<b>PROB30</b> 30% chance of forecast conditions occurring
<b>PROB40</b> 40% chance of forecast conditions occurring
<b>RMK</b> (remark) in TAF precedes information on turbulence (if forecast), temperatures, QNH and TAF3 (when applicable)
<b>SEV</b> Severe
<b>TEMPO</b> Temporary variations – periods of 30 mins to < 60 mins
<b>Z</b> times are UTC (Coordinated Universal Time)

## Weather information

Prefix	Weather intensity
+	Heavy
no prefix	Moderate
-	Light

  

Code	Weather descriptor
BC	Patches
BL	Blowing
DR	Drifting
DL	Distant lightning
FZ	Freezing
MI	Shallow
PR	Partial
SH	Shower(s)
TS	Thunderstorm
VC	in the Vicinity

  

Code	Weather phenomenon
BR	Mist
DU	Dust
DS	Dust storm
DZ	Drizzle
FC	Funnel cloud
FG	Fog
FU	Smoke
GR	Hail
GS	Small hail/snow pellets
HZ	Haze
PL	Ice pellets
PO	Dust devil
RA	Rain
SA	Sand
SG	Snow grains
SN	Snow
SQ	Squall
SS	Sandstorm
VA	Volcanic ash
UP	Unidentified precipitation

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| A vertical line in the margin indicates a text amendment since last update.