Met. decodes Aerodrome actual weather

METAR and SPECI decode

Code element	Example	Decode	Notes
1. Identification *METAR or SPECI* *Location indicator* *Date/time*	 METAR EGLL 291020Z AUTO	 Meteorological Airfield Report London Heathrow 'ten twenty Zulu on the 29th' a fully automated report with no human intervention	 METAR – aviation routine report, SPECI – selected special (not from UK civil aerodromes) Station four-letter indicator AUTO METARS may only be disseminated when an aerodrome is closed or at H24 aerodromes, where the accredited met. observer is on a CAA approved overnight duty break. Users are reminded that reports of visibility, present weather and cloud from automated systems should be treated with caution due to the limitations of the sensors themselves and the spatial area sampled by the sensors
2. Wind *Wind direction/speed* *Extreme direction*	 31015G27KT 280V350	 'three one zero degrees, fifteen knots, gusting twenty seven knots' 'varying between two eight zero and three five zero degrees'	 Max only given if ≥10 KT than mean. VRB = variable. 00000KT = calm. Variation given in clockwise direction, but only when mean speed is greater than 3 KT. Wind direction is given in degrees true
3. Visibility *Prevailing visibility* *Minimum visibility (In addition to the prevailing visibility required)*	 3200 1200SW	 'three thousand two hundred metres' 'twelve hundred metres to the south-west'	 0000 = 'less than 50 metres' 9999 = 'ten kilometres or more'. No direction is required The minimum visibility is also included alongside the prevailing visibility when the visibility in one direction, which is not the prevailing visibility, is less than 1,500 metres or less than 50% of the prevailing visibility and less than 5000 metres. A direction is also added as one of the eight *if* points of the compass.
4. RVR	R27R/1100	'RVR, runway two seven right, one thousand one hundred metres'	RVR tendency (U = increasing; D = decreasing; N = no change) may be added after figure (not currently used in the UK) e.g. R27R/1100D P1500 = more than 1,500 m; M0050 = less than 50 m. Significant variations – example: R24/0950V1100, i.e. varying between two values. (Not from UK civil aerodromes)
5. Present weather	+SHRA	'heavy rain showers'	+ = Heavy (well developed in the case of +FC and +PO); - = Light; no qualifier = Moderate. BC = Patches, BL = Blowing, BR = Mist, DR = Drifting, DS = Duststorm, DU = Dust, DZ = Drizzle, FC = Funnel cloud FG = Fog, FU = Smoke, FZ = Freezing, GR = Hail (>5 mm) GS = Small hail or snow pellets, HZ = Haze, IC = Ice crystals MI = Shallow, PL = Ice pellets, PO = Dust devils, PR = Banks RA = Rain, SA = Sand, SH = Showers, SG = Snow grains SN = Snow, SQ = Squalls, SS = Sandstorm, TS = Thunderstorm VA = Volcanic ash, VC = In vicinity, UP = Unidentified precipitation (AUTO METARS only) Up to three groups may be present, constructed by selecting and combining from the above. Group omitted if no weather to report.

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6. Cloud	FEW005 SCT010CB BKN025	'few at five hundred feet, scattered cumulonimbus at one thousand feet, broken at two thousand five hundred feet'	FEW = 'few' (1-2 oktas), SCT = 'Scattered' (3-4 oktas), BKN = 'Broken' (5-7 oktas), OVC = 'Overcast', NSC = no significant cloud (none below 5,000 ft and no TCU or CB) There are only two cloud types reported; TCU = towering cumulus and CB = cumulonimbus. VV/// = 'state of sky obscured' (cloud base not discernable). Figures in lieu of '///' give vertical visibility in hundreds of feet. Up to three, but occasionally more, cloud groups may be reported. Cloud heights are given in feet above airfield height NCD = no cloud detected (AUTO METARS only)
7. CAVOK†	CAVOK	'cav-oh-kay'	Visibility greater or equal to 10 km, no cumulonimbus or towering cumulus, no cloud below 5,000 ft or highest minimum sector altitude (MSA) (whichever is the greater) and no weather significant to aviation.
8. Temp and dew point	10/03	'temperature ten degrees Celsius, dew point three degrees Celsius'	If dew point is missing, example would be reported as 10///. M indicates a negative value.
9. QNH	Q0995	'nine nine five'	Q indicates millibars. If the letter A is used QNH is in inches and hundredths.
10. Recent weather	RETS	'recent thunderstorm'	RE = recent, weather codes given above. Up to three groups may be present.
11. Wind shear	WS RWY24	'wind shear runway two four'	Will not be reported at present for UK aerodromes.
12. Colour state	BLU	Blue	Military reports also display a colour state BLU, WHT, GRN, YLO1, YLO2, AMB or RED, coded according to cloud and visibility. BLACK indicates the runway is unusable.
13. Trend	BECMG FM1100 23035G50KT 3000 SHRA	'becoming from 1100, 230 degrees 35 KT, max 50 KT, temporarily, 3,000 metres, moderate rain showers	A forecast of significant changes in conditions during the two hours after observation time. BECMG = Becoming TEMPO = Temporarily NOSIG = No sig change NSW = No sig weather AT = At FM = From TL = Until NSC = No sig cloud Any of the wind, visibility, weather or cloud groups may be used, and CAVOK. Multiple groups may be present.
† CAVOK will replace visibility and cloud groups			

Example SAUK02 EGGY 301220 METAR
EGLY 301220Z 24015KT 200V280 8000 –RA FEW010 BKN025 18/15 Q0983
TEMPO 3000 RA BKN008=

An example of the above METAR for 1220 UTC on the 30th of the month, in plain language:

EGLY: Issued at 1220Z on 30th. Surface wind: mean 240 deg true, 15 KT; varying between 200 and 280 deg; prevailing visibility 8 km; weather: light rain; cloud: 1-2 oktas base 1,000 ft, 5-7 oktas 2,500 ft; temperature +18 °C, dew point: +15 °C; QNH 983 mb; Trend: temporarily 3,000 m in moderate rain with 5-7 oktas 800 ft.

Example SAUK02 EGGY 301220 METAR
EGPZ 301220Z 30025G37KT 270V360 6000 1200NE +SHSN SCT005 BKN010CB
03/M01 Q0999 RETS BECMG AT1300 9999 NSW SCT015=

An example of the above METAR for 1220 UTC on the 30th of the month, in plain language:

EGPZ: Issued at 1220Z on the 30th. Surface wind: mean 300 deg true, 25 KT; maximum 37 KT, varying between 270 and 360 deg; prevailing visibility 6 km, minimum visibility 1,200 m (to north-east); heavy shower of snow; Cloud. 3-4 oktas base 500 ft, 5-7 oktas CB base 1,000 ft; temperature +3 °C, dew point –1 °C; QNH 999 mb; Thunderstorm since the previous report; Trend: improving at 1300 Zulu to 10 km or more, nil significant weather, 3-4 oktas 1,500 ft.