

## KEY TO DECODE AN ASOS (METAR) OBSERVATION

METAR KABC 121755Z AUTO 21016G24KT 180V240 1SM R11/P6000FT -RA BR BKN015 OVC025 06/04 A2990  
 RMK AO2 PK WND 20032/25 WSHFT 1715 VIS 3/4V1 1/2 VIS 3/4 RWY11 RAB07 CIG 013V017 CIG 017 RWY11 PRESFR  
 SLP125 P0003 60009 T00640036 10066 21012 58033 TSNO \$

<b>TYPE OF REPORT</b>	METAR: hourly (scheduled) report; SPECI: special (unscheduled) report.	METAR
<b>STATION IDENTIFIER</b>	Four alphabetic characters; ICAO location identifier.	KABC
<b>DATE/TIME</b>	All dates and times in UTC using a 24-hour clock; two-digit date and four-digit time; always appended with <u>Z</u> to indicate UTC.	121755Z
<b>REPORT MODIFIER</b>	Fully automated report, no human intervention; removed when observer signed-on.	AUTO
<b>WIND DIRECTION AND SPEED</b>	Direction in tens of degrees from true north (first three digits); next two digits: speed in whole knots; as needed <u>G</u> usts (character) followed by maximum observed speed; always appended with <u>KT</u> to indicate knots; 00000KT for calm; if direction varies by 60° or more a <u>V</u> ariable wind direction group is reported.	21016G24KT 180V240
<b>VISIBILITY</b>	Prevailing visibility in statute miles and fractions (space between whole miles and fractions); always appended with <u>SM</u> to indicate statute miles; values <1/4 reported as M1/4.	1SM
<b>RUNWAY VISUAL RANGE</b>	10-minute RVR value in hundreds of feet; reported if prevailing visibility is ≤ one mile or RVR ≤ 6000 feet; always appended with <u>FT</u> to indicate feet; value prefixed with <u>M</u> or <u>P</u> to indicate value is lower or higher than the reportable RVR value .	R11/P6000FT
<b>WEATHER PHENOMENA</b>	RA: liquid precipitation that does not freeze; SN: frozen precipitation other than hail; UP: precipitation of unknown type; intensity prefixed to precipitation: light (-), moderate (no sign), heavy (+); FG: fog; FZFG: freezing fog (temperature below 0°C); BR: mist; HZ: haze; SQ: squall; maximum of three groups reported; augmented by observer: FC (funnel cloud/tornado/waterspout); TS (thunderstorm); GR (hail); GS (small hail; <1/4 inch); FZRA (intensity; freezing rain); VA (volcanic ash).	-RA BR
<b>SKY CONDITION</b>	Cloud amount and height: CLR (no clouds detected below 12000 feet); FEW (few); SCT (scattered); BKN (broken); OVC (overcast); followed by 3-digit height in hundreds of feet; or vertical visibility ( <u>VV</u> ) followed by height for indefinite ceiling.	BKN015 OVC025
<b>TEMPERATURE/DEW POINT</b>	Each is reported in whole degrees Celsius using two digits; values are separated by a solidus; sub-zero values are prefixed with an <u>M</u> (minus).	06/04
<b>ALTIMETER</b>	Altimeter always prefixed with an <u>A</u> indicating inches of mercury; reported using four digits: tens, units, tenths, and hundredths.	A2990

*REMARKS ON REVERSE SIDE*

<b>REMARKS IDENTIFIER:</b> RMK	RMK
<b>TORNADIC ACTIVITY:</b> Augmented; report should include TORNADO, FUNNEL CLOUD, or WATERSPOUT, time begin/end, location, movement; e.g., TORNADO B25 N MOV E.	
<b>TYPE OF AUTOMATED STATION:</b> AO2; automated station with precipitation discriminator.	AO2
<b>PEAK WIND:</b> PK WND dddff(f)/(hh)mm; direction in tens of degrees, speed in whole knots, and time.	PK WND 20032/25
<b>WIND SHIFT:</b> WSHFT (hh)mm	WSHFT 1715
<b>TOWER OR SURFACE VISIBILITY:</b> TWR VIS vvvvv: visibility reported by tower personnel, e.g., TWR VIS 2; SFC VIS vvvvv: visibility reported by ASOS, e.g., SFC VIS 2.	
<b>VARIABLE PREVAILING VISIBILITY:</b> VIS v <sub>n</sub> v <sub>n</sub> v <sub>n</sub> v <sub>n</sub> V <sub>v</sub> v <sub>x</sub> v <sub>x</sub> v <sub>x</sub> ; reported if prevailing visibility is < 3 miles and variable.	VIS 3/4V1 1/2
<b>VISIBILITY AT SECOND LOCATION:</b> VIS vvvvv [LOC]; reported if different than the reported prevailing visibility in body of report.	VIS 3/4 RWY11
<b>LIGHTNING:</b> [FREQ] LTG [LOC]; when detected the frequency and location is reported, e.g., FRQ LTG NE.	
<b>BEGINNING AND ENDING OF PRECIPITATION AND THUNDERSTORMS:</b> w'w'B(hh)mmE(hh)mm; TSB(hh)mmE(hh)mm	RAB07
<b>VIRGA:</b> Augmented; precipitation not reaching the ground, e.g., VIRGA.	
<b>VARIABLE CEILING HEIGHT:</b> CIG h <sub>n</sub> h <sub>n</sub> h <sub>n</sub> V <sub>h</sub> xh <sub>x</sub> h <sub>x</sub> ; reported if ceiling in body of report is < 3000 feet and variable.	CIG 013V017
<b>CEILING HEIGHT AT SECOND LOCATION:</b> CIG hhh [LOC]; Ceiling height reported if secondary ceilometer site is different than the ceiling height in the body of the report.	CIG 017 RWY11
<b>PRESSURE RISING OR FALLING RAPIDLY:</b> PRESRR or PRESFR; pressure rising or falling rapidly at time of observation.	PRESFR
<b>SEA-LEVEL PRESSURE:</b> SLPppp; tens, units, and tenths of SLP in hPa.	SLP125
<b>HOURLY PRECIPITATION AMOUNT:</b> Prrrr; in .01 inches since last METAR; a trace is P0000.	P0003
<b>3- AND 6-HOUR PRECIPITATION AMOUNT:</b> 6RRRR; precipitation amount in .01 inches for past 6 hours reported in 00, 06, 12, and 18 UTC observations and for past 3 hours in 03, 09, 15, and 21 UTC observations; a trace is 60000.	60009
<b>24-HOUR PRECIPITATION AMOUNT:</b> 7R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> ; precipitation amount in .01 inches for past 24 hours reported in 12 UTC observation, e.g., 70015.	
<b>HOURLY TEMPERATURE AND DEW POINT:</b> T <sub>s</sub> <sub>n</sub> T <sub>a</sub> T <sub>a</sub> T <sub>a</sub> T <sub>a</sub> s <sub>n</sub> T <sub>a</sub> T <sub>a</sub> T <sub>a</sub> ; tenth of degree Celsius; s <sub>n</sub> : 1 if temperature below 0°C and 0 if temperature 0°C or higher.	T00640036
<b>6-HOUR MAXIMUM TEMPERATURE:</b> 1s <sub>n</sub> T <sub>x</sub> T <sub>x</sub> T <sub>x</sub> ; tenth of degree Celsius; 00, 06, 12, 18 UTC; s <sub>n</sub> : 1 if temperature below 0°C and 0 if temperature 0°C or higher.	10066
<b>6-HOUR MINIMUM TEMPERATURE:</b> 2s <sub>n</sub> T <sub>n</sub> T <sub>n</sub> T <sub>n</sub> ; tenth of degree Celsius; 00, 06, 12, 18 UTC; s <sub>n</sub> : 1 if temperature below 0°C and 0 if temperature 0°C or higher.	21012
<b>24-HOUR MAXIMUM AND MINIMUM TEMPERATURE:</b> 4s <sub>n</sub> T <sub>x</sub> T <sub>x</sub> T <sub>x</sub> s <sub>n</sub> T <sub>n</sub> T <sub>n</sub> T <sub>n</sub> ; tenth of degree Celsius; reported at midnight local standard time; 1 if temperature below 0°C and 0 if temperature 0°C or higher, e.g., 400461006.	
<b>PRESSURE TENDENCY:</b> 5app; the character (a) and change in pressure (ppp; tenths of hPa) the past 3 hours.	58033
<b>SENSOR STATUS INDICATORS:</b> RVRNO: RVR missing; PWINO: precipitation identifier information not available; PNO: precipitation amount not available; FZRANO: freezing rain information not available; TSNO: thunderstorm information not available; VISNO [LOC]: visibility at secondary location not available, e.g., VISNO RWY06; CHINO [LOC]: (cloud-height-indicator) sky condition at secondary location not available, e.g., CHINO RWY06.	TSNO
<b>MAINTENANCE CHECK INDICATOR:</b> Maintenance needed on the system.	\$
If an element or phenomena does not occur, is missing, or cannot be observed, the corresponding group and space are omitted (body and/or remarks) from that particular report, except for Sea-Level Pressure (SLPppp). SLPNO shall be reported in a METAR when the SLP is not available.	