

## Aviation Digital Data Service (ADDS)

Output produced by METARs form (1711 UTC 09 July 2013)

found at <http://aviationweather.gov/adds/metars/>

KMYF 091653Z COR 22007KT 180V270 8SM SCT012 23/18 A3001 RMK AO2 SLP1  
T02330178

KNKX 091655Z 20005KT 10SM FEW010 SCT150 24/18 A3001 RMK AO2 SLP155  
T02440178

TAF KNKX 0915/1015 VRB05KT 8000 BR BKN006 BKN120 QNH2993INS  
BECMG 0916/0918 27008KT 9999 NSW FEW010 BKN120 QNH2988IN  
BECMG 1004/1006 VRB05KT OVC010 QNH2991INS T26/0920Z T18/

KSEE 091547Z 00000KT 20SM BKN200 22/18 A3000

## Aviation Digital Data Service (ADDS)

Output produced by METARs form (1635 UTC 21 February 2013)  
found at <http://aviationweather.gov/adds/metars/>

KTUL 211312Z 2113/2212 01012KT 3SM -RAPL OVC015 WS020/18050KT  
TEMPO 2113/2116 2SM -TSRAPL BKN008CB  
FM211600 11015G25KT 4SM -DZ BR OVC007 WS020/19040KT  
FM212100 14015KT 4SM -DZ OVC012  
FM220100 24015KT P6SM BKN015  
FM220900 30012KT P6SM BKN050

KLGA 211433Z 2115/2212 30021G32KT P6SM SCT040  
FM220100 33014G22KT P6SM SKC  
FM220400 34012KT P6SM SKC  
FM220800 36009KT P6SM SKC

TAF UUEE 211350Z 2115/2215 VRB02MPS 9000 SCT015  
TEMPO 2118/2123 2000 -SN BR BKN005  
TEMPO 2123/2207 1000 -SN BR BKN003

## Aviation Digital Data Service (ADDS)

Output produced by METARs form (1659 UTC 21 February 2013)  
found at <http://aviationweather.gov/adds/metars/>

KFSM 211653Z 06010KT 3SM -RA BR OVC015 01/M01 A2986 RMK AO2 RAB26  
SLP113 P0003 T00111011

KFSM 211314Z 2113/2212 08017G25KT P6SM OVC025 WS020/18050KT  
FM211500 09018G25KT 4SM -FZRA BR OVC012 WS020/18050KT  
TEMPO 2115/2119 3SM -TSRA OVC008CB  
FM211900 09015G25KT 4SM -FZDZ BR OVC008 WS020/19040KT  
FM212100 08012KT P6SM OVC012  
FM220400 27008KT P6SM OVC015  
FM220600 28008KT P6SM BKN035

## Aviation Digital Data Service (ADDS)

Output produced by METARs form (1447 UTC 21 April 2013)  
found at <http://aviationweather.gov/adds/metars/>

KMYF 211353Z 00000KT M1/4SM FG VV001 13/12 A2997 RMK AO2 SLP147  
T01280122

KABR 211353Z AUTO 18013KT 10SM UP OVC060 01/M02 A2996 RMK AO2  
UPB14E35B52RAB24E32 SLP159 P0001 T00111017 \$



# KEY TO DECODING THE U.S. METAR OBSERVATION REPORT

## Example METAR Report

METAR KABC 121755Z AUTO 21016G24KT 180V240 1SM R11/P6000FT -RA BR BKN015  
0VC025 06/04 A2990 RMK A02 PK WND 20032/25 WSHFT 1715 VIS 3/4V1 1/2 VIS 3/4  
RWY11 RAB07 CIG 013V017 CIG 017 RWY11 PRESFR SLP125 POOO3 60009 T00640036  
10066 21012 58033 TSNO \$

KEY TO DECODING A METAR REPORT		
<b>METAR</b>	TYPE OF REPORT	METAR: hourly (scheduled) report; SPECI: special (unscheduled) report.
<b>KABC</b>	ICAO STATION (location) IDENTIFIER	Four character ICAO location identifier.
<b>121755Z</b>	DATE/TIME group	All dates and times in UTC using a 24-hour clock; two-digit date and four-digit time; always appended with <b>Z</b> to indicate UTC.
<b>AUTO</b>	REPORT MODIFIER	<b>AUTO</b> : Indicates a fully automated report with no human intervention. It is removed when an observer logs on to the system. <b>COR</b> : Indicates a corrected observation. No modifier indicates human observer or automated system with human logged on for oversight functions.
<b>21016G24KT 180V240</b>	WIND DIRECTION AND SPEED	Direction in tens of degrees from true north (first three digits); next two digits: speed in whole knots; if needed, include character as: <b>Gusts</b> (character) followed by maximum observed speed; always appended with <b>KT</b> to indicate knots; 00000KT for calm; if direction varies by 60° or more and speed greater than 6 knots, a Variable wind direction group is reported, otherwise omitted. If wind direction is variable and speed 6 knots or less, replace wind direction with <b>VRB</b> followed by wind speed in knots. <u>Observing and Coding Wind</u> for additional information.
<b>1SM</b>	VISIBILITY	Prevailing visibility in statute miles and fractions with space between whole miles and fractions; always appended with <b>SM</b> to indicate statute miles; values <1/4SM reported as M1/4SM. See <u>Observing and Coding Visibility</u> for additional information.
<b>R11/P6000FT</b>	RUNWAY VISUAL RANGE	A 10-minute RVR evaluation value in hundreds of feet is reported <b>if prevailing visibility is &lt; or = 1 mile or RVR &lt; or = 6000 feet</b> ; always appended with <b>FT</b> to indicate feet; value prefixed with <b>M</b> or <b>P</b> to indicate value is lower or higher than the reportable RVR value. See <u>Observing and Coding Runway Visual Range</u> for additional information.
		Present weather:
		<b>QUALIFIER</b>
		Intensity or Proximity
		- Light      "no sign"      + Heavy

-RA BR	WEATHER PHENOMENA	Moderate			
		VC Vicinity: but not at aerodrome; in U.S. METAR, between 5SM and 10SM of the point(s) of observation.			
		Descriptor			
		MI Shallow BL Blowing	BC Patches SH showers	PR Partial DR Drifting	TS Thunderstorm FZ Freezing
		WEATHER PHENOMENA			
		Precipitation			
		DZ Drizzle IC Ice Crystals UP Unknown in automated observations	RA Rain PL Ice pellets	SN Snow GR Hail	SG Snow grains GS Small hail/ snow pellets
		Obscuration			
		BR Mist (< or = 5/8SM) SA Sand	FU Smoke HZ Haze	VA Volcanic Ash PY Spray	DU Widespread Dust
		Other			
SQ Squall FC Funnel Cloud	SS Sandstorm +FC Tornado/ Waterspout	DS Duststorm	PO Well developed dust/sand whirls		
See <u>Observing and Coding Present Weather Group</u> for additional information.					
BKN015 OVC025	SKY CONDITION	Cloud amount and height: CLR (In automated METAR reports only, no clouds detected below 12000 feet.); <b>SKy</b> Clear 0/8; <b>FEW</b> 1/8-2/8; <b>SC</b> attered 3/8-4/8; <b>BroKeN</b> 5/8-7/8; <b>OV</b> erCast 8/8; 3-digit height of base in hundreds of feet; followed by <b>T</b> owering <b>C</b> umulus or <b>C</b> umulonim <b>B</b> us if present. For an observed sky: <b>V</b> ertical <b>V</b> isibility followed by vertical veisibility in hundreds of feet into the obscuration, example: <b>VV004</b> . More than 1 layer may be reported. See <u>Observing and Coding Sky Conditions</u> for additional information.			
06/04	TEMPERATURE/DEW POINT	Each is reported in whole degrees Celsius using two digits; values are separated by a solidus (/); sub-zero values are prefixed with an <b>M</b> (minus). See <u>Observing and Coding Temperature and Dew Point</u> for additional information.			
A2990	ALTIMETER	Altimeter setting (in U.S. reports) is always prefixed with an <b>A</b> indicating inches of mercury; reported using four digits: tens, units, tenths, and hundredths. See <u>Observing and Coding Pressure</u> for additional information.			
The following groups are reported in the Remarks section of the METAR report					
	REMARKS	Remarks includes clarifying or augmenting data concerning			

RMK	IDENTIFIER	elements in the body of the METAR, additive coded data and maintenance data.
<b>TORNADO, FUNNEL CLOUD or WATERSPOUT</b>	TORNADIC ACTIVITY	Augmented; report should include TORNADO, FUNNEL CLOUD or WATERSPOUT, time (after the hour) of beginning/end, location, movement; e.g., TORNADO B25 N MOVE E See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>AO2</b>	TYPE OF AUTOMATED STATION	AO1; automated station without a precipitation discriminator. AO2; automated station with precipitation discriminator. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>PK WND 20032/25</b>	PEAK WIND	PK WND dddff(F)/(hh)mm; direction in tens of degrees, speed in whole knots, time in minutes after the hour. Only minutes after the hour is included if the hour can be inferred from the report. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>WSHFT 1715</b>	WIND SHIFT	WSHFT followed by hours and minutes of occurrence. The term FROPA may be entered after the time if it is reasonably certain that the wind shift was a result of a frontal passage. See <a href="#">Observing and Coding Remarks</a> for additional information and here for wind definitions.
<b>Not on this report</b>	TOWER OR SURFACE VISIBILITY	TWR VIS vvvvv: visibility reported by tower personnel, e.g., TWR VIS 2; SFC VIS vvvvv: visibility reported by ASOS or observer. See <a href="#">Observing and Coding Remarks</a> for additional information and here for visibility criteria and definitions..
<b>VIS 3/4V1 1/2</b>	VARIABLE PREVAILING VISIBILITY	VIS $v_n v_n v_n v_n v_n V_{v_x v_x v_x v_x v_x}$ ; reported if prevailing visibility is <3 statute miles and variable. See <a href="#">Observing and Coding Remarks</a> for additional information and here for visibility criteria and definitions.
<b>VIS 3/4 RWY11</b>	VISIBILITY AT SECOND LOCATION	VIS vvvvv(LOC); reported if different than the reported prevailing visibility in the body of the report. See <a href="#">Observing and Coding Remarks</a> for additional information and here for visibility criteria and definitions.
<b>Not on this report</b>	LIGHTNING	(FREQUENCY) LTG (LOCATION); when detected the frequency and location is reported, e.g., FRQ LTG NE, meaning frequent lightning to northeast of station. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>RAB07</b>	BEGINNING AND ENDING OF PRECIPITATION AND THUNDERSTORMS	w'w'B(hh)mmE(hh)mm; TSB(hh)mmE(hh)mm, where w'w' is the present weather precipitation contraction, B indicates began, E indicates ended; (hh) indicates the hour the phenomena began or ended and can be omitted if the hour can be inferred from the report, mm indicates the minutes after the hour the phenomenon began or ended. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>Not on this report</b>	VIRGA	Augmented to report by human observer; indicates precipitation not reaching the ground is observed. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>CIG 013V017</b>	VARIABLE CEILING	CIG $h_n h_n h_n V_{h_x h_x h_x}$ ; reported if the ceiling in the body of the report is < 3000 feet and variable. See <a href="#">Observing and Coding Remarks</a> for additional



		information.
<b>CIG 017 RWY11</b>	CEILING HEIGHT AT SECOND LOCATION	CIG hhh[LOC]; Ceiling height reported if secondary ceilometer site ceiling value is different than the ceiling height in the body of the report. See <a href="#">Observing and Coding Remarks</a> for additional information and here for sky condition criteria and definitions.
<b>PRESFR</b>	PRESSURE RISING OR FALLING RAPIDLY	PRESRR or PRESFR; pressure rising or falling rapidly at time of observation. See <a href="#">Observing and Coding Remarks</a> for additional information and here for pressure criteria and definitions.
<b>SLP125</b>	SEA LEVEL PRESSURE	SLPppp; sea level pressure reported for ppp in tens, units, and tenths of hPa. See <a href="#">Observing and Coding Remarks</a> for additional information and here for pressure criteria and definitions.
<b>P0003</b>	HOURLY PRECIPITATION AMOUNT	Prrrr; in tens, units, tenths and hundredths of an inch since last regular hourly METAR. A trace is reported as P0000. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>60009</b>	3- AND 6-HOUR PRECIPITATION AMOUNT	6RRRR; precipitation amount, including water equivalent, to nearest 0.01 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. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>Not on this report</b>	24-HOUR PRECIPITATION AMOUNT	7R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> ; precipitation amount to nearest 0.01 inches for past 24 hours reported in 12 UTC observation; e.g., 70015 indicates 0.15 inches of precipitation for past 24 hours. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>T00640036</b>	HOURLY TEMPERATURE AND DEW POINT	T <sub>s</sub> <sub>n</sub> T <sub>a</sub> <sub>n</sub> T <sub>a</sub> <sub>n</sub> T <sub>a</sub> <sub>n</sub> s <sub>n</sub> T <sub>a</sub> <sub>n</sub> T <sub>a</sub> <sub>n</sub> T <sub>a</sub> <sub>n</sub> ; reported to nearest tenth of °C; s <sub>n</sub> : 1 if temperature or dew point below 0°C and 0 if temperature/dew point 0°C or higher. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>10066</b>	6-HOUR MAXIMUM TEMPERATURE	1s <sub>n</sub> T <sub>x</sub> <sub>n</sub> T <sub>x</sub> <sub>n</sub> T <sub>x</sub> <sub>n</sub> ; maximum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on 00, 06, 12, 18 UTC reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher.. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>21012</b>	6-HOUR MINIMUM TEMPERATURE	2s <sub>n</sub> T <sub>n</sub> <sub>n</sub> T <sub>n</sub> <sub>n</sub> T <sub>n</sub> <sub>n</sub> ; minimum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on 00, 06, 12, 18 UTC reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher.. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>Not on this report</b>	24-HOUR MAXIMUM AND MINIMUM TEMPERATURE	4s <sub>n</sub> T <sub>x</sub> <sub>n</sub> T <sub>x</sub> <sub>n</sub> T <sub>x</sub> <sub>n</sub> T <sub>n</sub> <sub>n</sub> T <sub>n</sub> <sub>n</sub> T <sub>n</sub> <sub>n</sub> ; maximum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on midnight local standard time reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher; e.g., 400461006 indicates a 24-hour maximum temperature of 4.6°C and a 24-hour minimum temperature of -0.6°C. See <a href="#">Observing and Coding Remarks</a> for additional information.
		5appp; the character (a) and amount of change in pressure (ppp) in

<b>58033</b>	<b>PRESSURE TENDENCY</b>	tenths of hPa for the past 3 hours. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>TSNO</b>	<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 (may indicate augmenting weather observer not logged on); VISNO [LOC} visibility at second location not available, e.g. VISNO RWY06; CHINO [LOC}: (cloud-height- indicator) sky condition at secondary location not available, e.g., CHINO RWY06. See <a href="#">Observing and Coding Remarks</a> for additional information.
<b>\$</b>	<b>MAINTENANCE CHECK INDICATOR</b>	Maintenance is needed on the system. See <a href="#">Observing and Coding Remarks</a> for additional information.
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.		

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