

# KEY TO AVIATION WEATHER FORECASTS .....

TERMINAL FORECASTS contain information for specific airports on ceiling, cloud heights, cloud amounts, visibility, weather condition and surface wind. They are written in a form similar to the AVIATION WEATHER REPORT.

CEILING: Identified by the letter "C"

CLOUD HEIGHTS: In hundreds of feet above the station (ground)

CLOUD LAYERS: Stated in ascending order of height

VISIBILITY: In statute miles, but omitted if over 8 miles

SURFACE WIND: In tens of degrees and knots; omitted when less than 10.

## EXAMPLE OF TERMINAL FORECASTS

C15@	Ceiling 1500', broken clouds	O11/2GF	Clear, visibility one and one-half miles, ground fog.
20DC70 @ 6K 3230G.	Scattered clouds at 2000'; ceiling 7000' overcast, visibility 6 miles, smoke, surface wind 320 degrees 30 knots, gusty.	C5X1/4S	Sky obscured, vertical visibility 500-, visibility one-fourth mile, moderate snow.

AREA FORECASTS are 12-hour forecasts plus 12-hour OUTLOOKS of cloud, weather and frontal conditions for an area the size of several states. Heights of cloud tops, icing, and turbulence are above SEA LEVEL; ceiling heights, ABOVE GROUND LEVEL; bases of cloud layers are MSL OR ABV GRND LVL, as indicated. Area Forecasts are amended by SIGMET and AIRMET.

SIGMET and AIRMET warn airmen in flight of potentially hazardous weather such as squall lines, thunderstorms, fog, icing, and turbulence. SIGMET's concern severe and extreme conditions of importance to all aircraft. AIRMET's concern less severe conditions which may be hazardous to some aircraft or to relatively inexperienced pilots. Both are broadcast by FAA on NAVID voice channels.

WINDS (AND TEMPERATURES) ALOFT FORECASTS are 6- and 12-hour forecasts of direction (nearest 10° true N) and speed (knots) for selected flight levels. Temperatures aloft (°C) are included for all but the lowest and 7000-foot levels.

## EXAMPLES OF WINDS ALOFT FORECASTS:

LVL 3000 5000 FT 7000 10000FT  
MLT 2925 2833@00 2930 3030-06

At 5000 MSL wind from 280° at 33 knots  
with temperature 0°Celsius

PILOTS report in-flight weather to nearest FSS

# KEY TO AVIATION WEATHER REPORTS .....

LOCATION AND TYPE OF REPORT *	SKY AND CEILING	VISIBILITY AND WEATHER OBSTRUCTION TO VISION	SEA-LEVEL PRESSURE	TEMPERATURE AND DEW POINT	WIND	ALTIMETER SETTING	RUNWAY VISUAL RANGE	CODED PIREPS
<b>MKC150M250</b>		<b>4R-K 132</b>	<b>/58/56</b>	<b>/1807/993/</b>	<b>R04LVR20V40</b>	<b>/055</b>		

### SKY AND CEILING

Sky cover symbols are in ascending order. Figures preceding symbols are heights in hundreds of feet above station.

- Sky cover symbols are:
- Clear: Less than 0.1 sky
  - ⊙ Scattered: 0.1 to 1, 4 or 6 sky cover.
  - ⊕ Broken: 0.6 to 0.9 sky cover.
  - ⊕ Overcast: More than 0.9 sky cover
  - Thin (Wh) prefixed to the above symbols.)
  - X Partial obscuration: 0.1 to less than 1.0 sky hidden by precip. or obsc. to vision (bases at surface)
  - X Obscuration: 1.0 sky hidden by precipitation or obscuration to vision (bases at surface)

Letter preceding height of layer identifies ceiling layer and indicates how ceiling light was obtained. Thus:

- A Aircraft
- B Balloon (Pilot or Radiosonde Balloon or Radar)
- W Indefinite ceiling)
- D Estimated height of cirriform, ceiling layer unknown.
- U Height of cirriform non-cirriform clouds on basis of persistence.
- / Height of cirriform non-ceiling layer unknown.
- E Estimated heights of non-cirriform clouds immediately following numerical value indicates varying ceiling.
- M Measured

### VISIBILITY

Reported in Statute Miles and Fractions. (V=Variable)

### WEATHER AND OBSTRUCTION TO VISION SYMBOLS

A Hail	F Fog	R Rain Showers
AP Small Hail	GF Ground Fog	S Snow
BD Blowing Dust	H Haze	SG Snow Grains
BN Blowing Sand	IC Ice Crystals	SP Snow Pellets
BS Blowing Snow	IF Ice Fog	SW Snow Showers
D Dust	K Smoke	T Thunderstorm
E Sleet	L Drizzle	ZL Freezing Drizzle
EW Sleet Showers	R Rain	ZR Freezing Rain

Precipitation intensities are indicated thus:

-- Very Light; - Light; (no sign) Moderate; + Heavy

### WIND

Direction in tens of degrees from true north, speed in knots. 0000 indicates calm. G indicates gusty. Peak speed of gusts follows G or Q when squall is reported. The contraction WSHFT followed by local time group in remarks indicates wind-shift and its time of occurrence. (Kts. x 1.15 = statute mi/hr.)

EXAMPLES: 3627 360 Degrees, 27 Knots;  
3627G40 360 Degrees, 27 Knots Peak speed in gusts 40 knots.

### ALTIMETER SETTING

The first figure of the actual altimeter setting is always omitted from the report.

### RUNWAY VISUAL RANGE (RVR)

RVR is reported from some stations. Extreme values for 10 minutes prior to observation are given in hundreds of feet. Runway identification precedes RVR report.

### CODED PIREPS

Pilot reports of clouds not visible from ground are coded with MSL height data preceding and/or following sky cover symbol to indicate cloud bases and/or tops, respectively.

### DECODED REPORT

Kansas City: Record observation, 1500 feet scattered clouds, measured ceiling 2500 feet overcast, visibility 4 miles, light rain, smoke, sea level pressure 1013.2 millibars, temperature 58°F, dewpoint 56°F, wind 180°, 7 knots, altimeter setting 29.93 inches, Runway 04 left, visual range 2000 ft. variable to 4000. Pilot reports top of overcast 5500 feet.

### \*TYPE OF REPORT

The omission of type-of-report data identifies a scheduled record observation for the hour specified in the sequence heading; the time of an out-of-sequence, special observation is given as "SP" followed by a time group (24-hour clock GMT) e.g., "P11T 8 0715-XM...". A special indicates a significant change in one or more elements. Local reports are identified by "LCL" and a time group. Locals are transmitted on local teletypewriter circuits only.