

When the cloud base is given in height above MSL, it is so indicated by the contraction “MSL” or “ASL” following the height value. The heights of clouds tops, freezing level, icing, and turbulence are always given in heights above ASL or MSL.

7-1-15. Reporting Prevailing Visibility

a. Surface (horizontal) visibility is reported in METAR reports in terms of statute miles and increments thereof; e.g., $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, etc. (Visibility reported by an unaugmented automated site is reported differently than in a manual report, i.e., ASOS/AWOS: 0, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2, $2\frac{1}{2}$, 3, 4, 5, etc., AWOS: $M\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2, $2\frac{1}{2}$, 3, 4, 5, etc.) Visibility is determined through the ability to see and identify preselected and prominent objects at a known distance from the usual point of observation. Visibilities which are determined to be less than 7 miles, identify the obscuring atmospheric condition; e.g., fog, haze, smoke, etc., or combinations thereof.

b. Prevailing visibility is the greatest visibility equaled or exceeded throughout at least one half of the horizon circle, not necessarily contiguous. Segments of the horizon circle which may have a significantly different visibility may be reported in the remarks section of the weather report; i.e., the southeastern quadrant of the horizon circle may be determined to be 2 miles in mist while the remaining quadrants are determined to be 3 miles in mist.

c. When the prevailing visibility at the usual point of observation, or at the tower level, is less than 4 miles, certificated tower personnel will take visibility observations in addition to those taken at the usual point of observation. The lower of these two values will be used as the prevailing visibility for aircraft operations.

7-1-16. Estimating Intensity of Rain and Ice Pellets

a. Rain

1. **Light.** From scattered drops that, regardless of duration, do not completely wet an exposed surface up to a condition where individual drops are easily seen.

2. **Moderate.** Individual drops are not clearly identifiable; spray is observable just above pavements and other hard surfaces.

3. **Heavy.** Rain seemingly falls in sheets; individual drops are not identifiable; heavy spray to height of several inches is observed over hard surfaces.

b. Ice Pellets

1. **Light.** Scattered pellets that do not completely cover an exposed surface regardless of duration. Visibility is not affected.

2. **Moderate.** Slow accumulation on ground. Visibility reduced by ice pellets to less than 7 statute miles.

3. **Heavy.** Rapid accumulation on ground. Visibility reduced by ice pellets to less than 3 statute miles.

7-1-17. Estimating Intensity of Snow or Drizzle (Based on Visibility)

a. **Light.** Visibility more than $\frac{1}{2}$ statute mile.

b. **Moderate.** Visibility from more than $\frac{1}{4}$ statute mile to $\frac{1}{2}$ statute mile.

c. **Heavy.** Visibility $\frac{1}{4}$ statute mile or less.

7-1-18. Pilot Weather Reports (PIREPs)

a. FAA air traffic facilities are required to solicit PIREPs when the following conditions are reported or forecast: ceilings at or below 5,000 feet; visibility at or below 5 miles (surface or aloft); thunderstorms and related phenomena; icing of light degree or greater; turbulence of moderate degree or greater; wind shear and reported or forecast volcanic ash clouds.