

**g.** Ten minute maximum and minimum RVR values for the designated RVR runway are reported in the body of the aviation weather report when the prevailing visibility is less than one mile and/or the RVR is 6,000 feet or less. ATCTs report RVR when the prevailing visibility is 1 mile or less and/or the RVR is 6,000 feet or less.

**h.** Details on the requirements for the operational use of RVR are contained in FAA AC 97-1, Runway Visual Range (RVR). Pilots are responsible for compliance with minimums prescribed for their class of operations in the appropriate CFRs and/or operations specifications.

**i.** RVR values are also measured by forward scatter meters mounted on 14-foot frangible fiberglass poles. A full RVR system consists of:

1. Forward scatter meter with a transmitter, receiver and associated items.
2. A runway light intensity monitor (RLIM).
3. An ambient light sensor (ALS).
4. A data processor unit (DPU).
5. Controller display (CD).

**j.** The forward scatter meter is mounted on a 14-foot frangible pole. Infrared light is emitted from the transmitter and received by the receiver. Any obscuring matter such as rain, snow, dust, fog, haze or smoke increases the amount of scattered light reaching the receiver. The resulting measurement along with inputs from the runway light intensity monitor and the ambient light sensor are forwarded to the DPU which calculates the proper RVR value. The RVR values are displayed locally and remotely on controller displays.

**k.** The runway light intensity monitors both the runway edge and centerline light step settings (steps 1 through 5). Centerline light step settings are used for CAT IIIb operations. Edge Light step settings are used for CAT I, II, and IIIa operations.

**l.** New Generation RVRs can measure and display RVR values down to the lowest limits of Category IIIb operations (150 feet RVR). RVR values are displayed in 100 foot increments and are reported as follows:

1. 100-foot increments for products below 800 feet.
2. 200-foot increments for products between 800 feet and 3,000 feet.
3. 500-foot increments for products between 3,000 feet and 6,500 feet.
4. 25-meter increments for products below 150 meters.
5. 50-meter increments for products between 150 meters and 800 meters.
6. 100-meter increments for products between 800 meters and 1,200 meters.
7. 200-meter increments for products between 1,200 meters and 2,000 meters.

## 7-1-14. Reporting of Cloud Heights

**a.** Ceiling, by definition in the CFRs and as used in aviation weather reports and forecasts, is the height above ground (or water) level of the lowest layer of clouds or obscuring phenomenon that is reported as “broken,” “overcast,” or “obscuration,” e.g., an aerodrome forecast (TAF) which reads “BKN030” refers to height above ground level. An area forecast which reads “BKN030” indicates that the height is above mean sea level.

### REFERENCE-

*AIM, Para 7-1-28, Key to Aerodrome Forecast (TAF) and Aviation Routine Weather Report (METAR), defines “broken,” “overcast,” and “obscuration.”*

**b.** Pilots usually report height values above MSL, since they determine heights by the altimeter. This is taken in account when disseminating and otherwise applying information received from pilots. (“Ceiling” heights are always above ground level.) In reports disseminated as PIREPs, height references are given the same as received from pilots, that is, above MSL.

**c.** In area forecasts or inflight advisories, ceilings are denoted by the contraction “CIG” when used with sky cover symbols as in “LWRG TO CIG OVC005,” or the contraction “AGL” after, the forecast cloud height value.