

<https://www.ncdc.noaa.gov/cdoweb/datatools/lcd>

Sky Conditions: A report of each cloud layer (up to 3) giving the following information. Each layer given in the following format: ccc:llxxx where:

1) ccc is Coverage: CLR (clear sky), FEW (few clouds), SCT (scattered clouds), BKN (broken clouds), OVC (overcast), VV (obscured sky), 10 (partially obscured sky).

2) ll is Layer amount used in conjunction with coverage code above. Given in eighths (aka "oktas") of sky covered by cloud. Specifically 0008 indicates the number of oktas that cloud layer takes up in the total sky. 00 corresponds to CLR, 0102 corresponds to FEW, 0304 corresponds to SCT, 0507 corresponds to BKN and 08 corresponds to OVC. 09 indicates an obscuration (i.e. the sky cannot be seen due to obscuring phenomena e.g. due to smoke, fog, etc.). 10 indicates a portion of the sky is obscured (i.e. partial obscuration). For additional information see Integrated Surface Data documentation. (<http://www1.ncdc.noaa.gov/pub/data/ish/ishformatdocument.pdf>) in Cloud and Solar Data portion of Additional Data Section.

3) xxx is the Cloud base height at lowest point of layer. In the case of an obscuration this value represents the vertical visibility from the point of observation. Given in hundreds of feet (e.g. 50 = 5000 ft, 120 = 12000 feet). In some cases a cloud base height will be given without the corresponding cloud amount. In these case the cloud amount is missing or not reported. Up to 3 layers can be reported however by definition when clear skies are reported it will be reported as only one layer as CLR00. Obscurations will be reported as VVxx where xx is the vertical visibility into the obscuring phenomena.

Additional information about cloud cover data: The Integrated Surface Data documentation further defines the coverage of a layer in oktas (i.e. eighths) or tenths of sky covered by cloud as per the following table:

0 oktas/0 tenths is defined as CLR (clear sky)

12 oktas/13 tenths is defined as FEW (few clouds)

34 oktas/45 tenths is defined as SCT (scattered clouds)

5 to less than 8/6 to less than 10 is defined as BKN (broken clouds)

8 oktas/10 tenths is defined as OVC (overcast)

Partial obscuration sky is partially obscured and therefore cloud coverage cannot be fully determined

Total obscuration sky is completely obscured and therefore cloud coverage is not available

Note: Since up to 3 cloud layers can be reported, the full state of the sky can best be determined by the contraction given for the last layer. In other words if three layers are reported and the third layer uses BKN then the total state of sky is BKN which is similar in definition to "mostly cloudy." OVC is similar to "cloudy" or overcast and FEW or SCT is similar to "partly cloudy." It should also be noted that in cases where there are more than 3 cloud layers, the highest layers will not be reported.