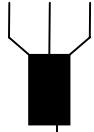


Wind Data Processing Within ASOS

At the sensor:

Ice Free
Wind Sensor

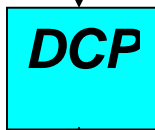


- 1) Every 1 second, the wind direction and speed are sampled
- 2) Every 1 second, a running average of the most recent 3 seconds of data is computed*, producing the "3 second peak"***
- 3) Every 5 seconds, the average of the most recent 5 seconds of data is computed*, producing a discrete "5 second average"

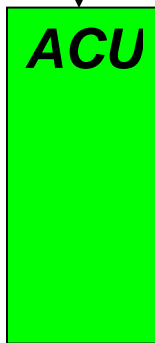
* To the nearest degree and tenth of a knot

** The running 3 second average is assigned to the 5 second block in which it ends

At the Data Collection Package (DCP):



- 1) Every 5 seconds, the 5 second average and the highest 3 second peak collected during the past 5 seconds are collected from the sensor and sent to the ACU.
NOTE: The DCP acts as a "pass through", i.e. data is not altered by the DCP.



At the Acquisition Control Unit (ACU):

- 1) Every 5 seconds, the 5 second average and the 3 second peak are received from the DCP. Wind speed data are received to the nearest tenth of a knot and are truncated by the ACU to the nearest knot (i.e. 22.8 kts becomes 22 kts).

At this point, the algorithm to compute the observed wind (average direction, speed and peak wind direction and speed) will begin

