

Correlation Coefficient (CC)

What It Measures: How uniform or diverse radar targets are

Key Uses:

Determining Weather
Vs. Non-Weather

Identifying Hail Spikes

Identifying Tornadic
Debris

Identifying the
Melting Layer

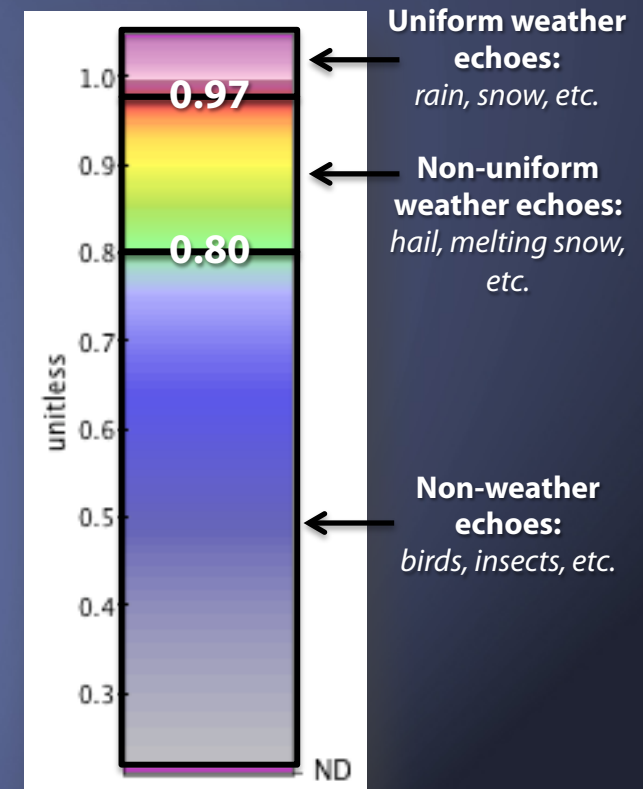
What To Look For:

CC > 0.8 for weather
CC < 0.8 for non-weather

Low CC (generally 0.5 to 0.6)
down radial of a hail core

General minima of CC (~0.5 to
0.6) in an area of rotation

General minima of CC (~0.9) in
a ring around the radar



Differential Reflectivity (ZDR)

What It Measures: The shape of radar targets – how flat, spherical, or tall

Key Uses:

Identifying Hail

Identifying Heavy Rain

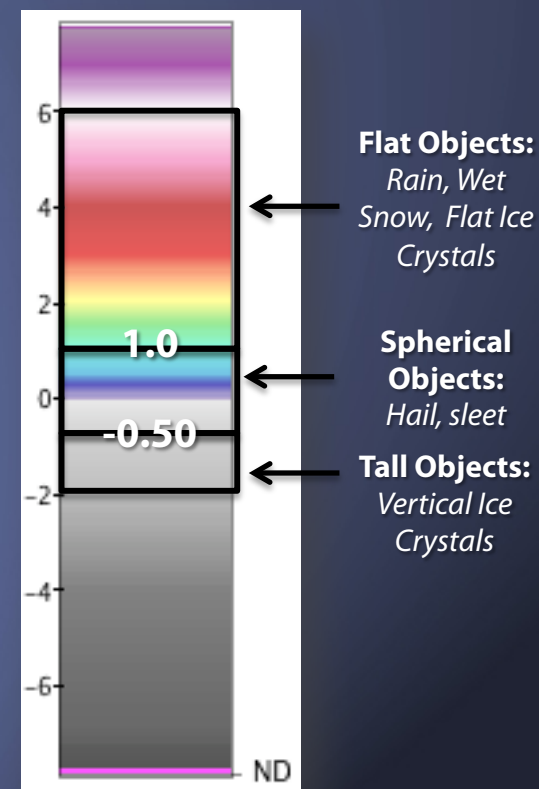
Identifying Melting Layer

What To Look For:

Near-zero ZDR. If hail is melting, larger ZDR (1 to 2.5 dB)

The larger the drops, the larger the ZDR (from 0.5 to 5 dB)

General maxima of ZDR (1 to 3 dB) in a ring around the radar



Specific Differential Phase (KDP)

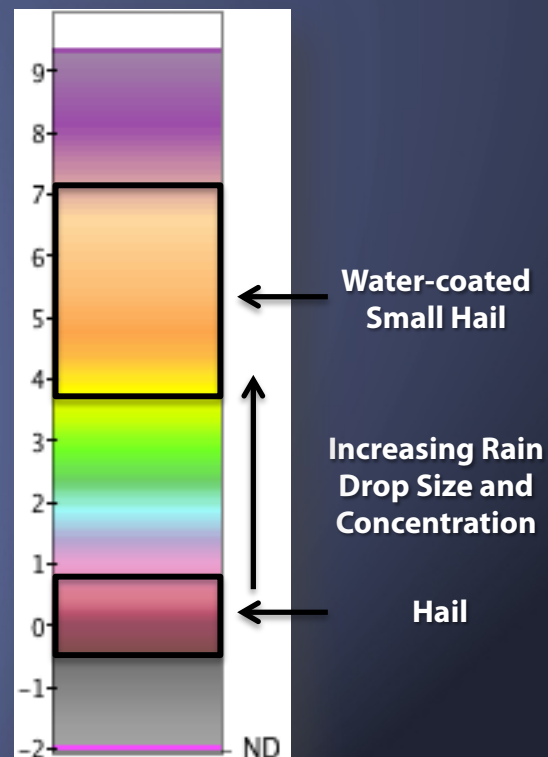
What It Measures: How much the horizontal and vertical pulses slow down compared to each other

Key Uses:

Identifying Heavy Rain

What To Look For:

The heavier the rain and the greater the concentration of drops, the larger the KDP



Hydrometeor Classification (HC)

What It Is: The radar's best guess of what radar echoes are

Key Uses:

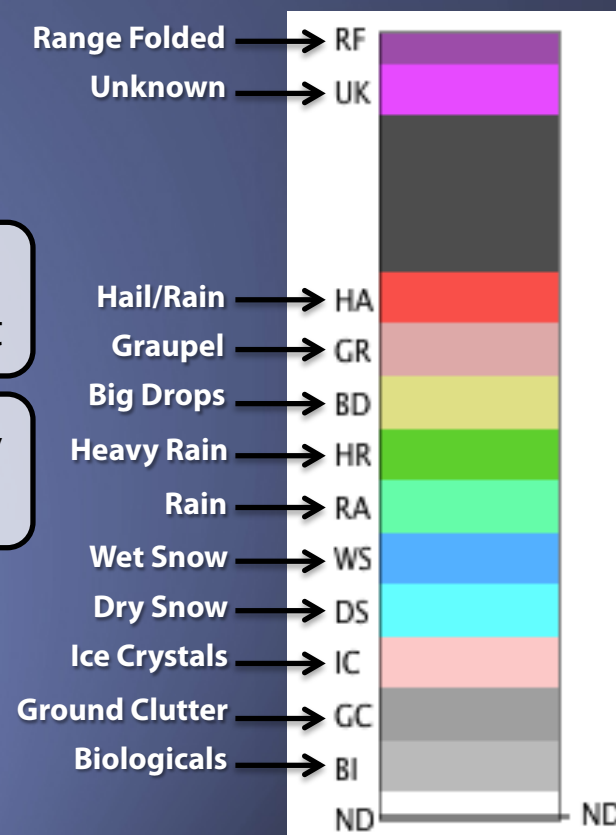
Quick look at areas to focus on

Second opinion on possible precip types

What To Look For:

HA, HR, RA, and any other precipitation types of interest

View HC and Base Reflectivity Simultaneously



Precipitation Estimation

What It Is: The radar's best guess of how much precipitation is falling

Key Uses:

Estimating How Much Rain **Has Fallen**

Estimating How Much Rain Is Falling **Right Now**

What To Look For:

Digital Accumulation Array (DAA):
unbiased, hi-resolution 1-hour accumulation

One Hour Accumulation (OHA):
lower resolution 1-hour accumulation

Digital Storm Total Accumulation (DSA):
hi-resolution storm total precipitation

Digital Precipitation Rate (DPR):
Current rate of precipitation