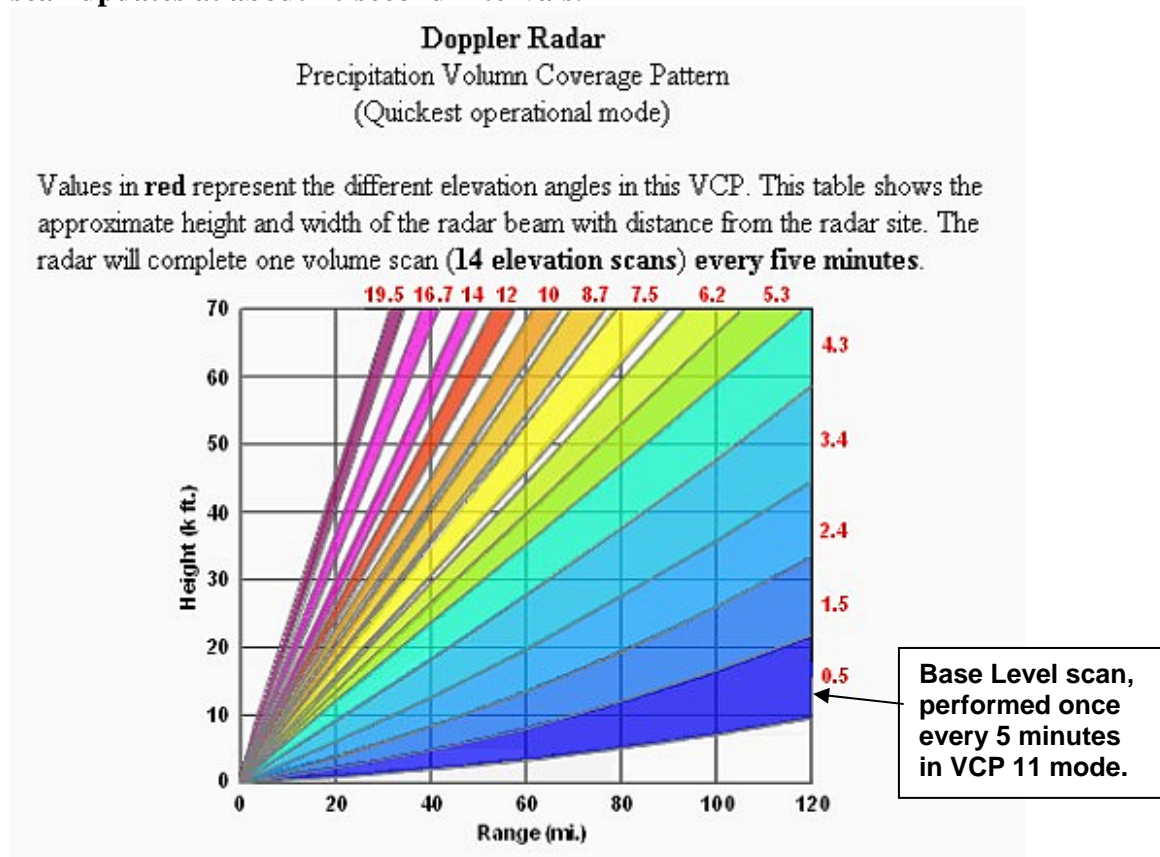
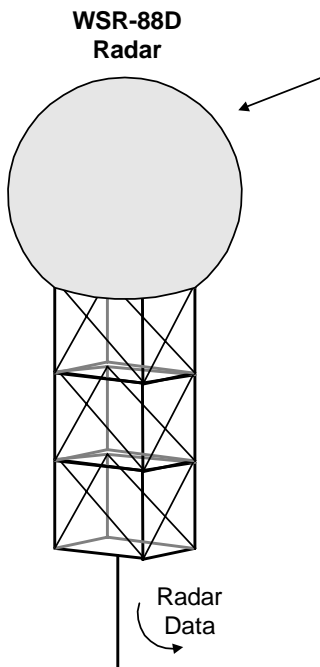


NEXRAD Level 2 Data

- NEXRAD Level 2 data is provided in real time directly from the NEXRAD Radar Data Acquisition (RDA) unit. The attached page provides a diagram which illustrates this.
- NEXRAD *always* operates in “volume scan mode”. That means the antenna *always* scans a volume of the atmosphere from ground level up to a predetermined altitude, with the antenna making one complete revolution at successively higher altitudes. Once the antenna has completed scanning up to the top altitude, it returns to the “base level” and begins a new scan. Each of these scan levels is shown in the chart below.
- The base level scan is the *only* scan that provides the image of the weather closest to the ground, i.e., that is the weather viewers will experience, and the level that is typically put on the air. The base level scan is shown in dark blue on the chart below.
- *The base level scan is performed once, and only once, in each volume scan.* Thus, the base level data is updated at time intervals for each Volume Control Program (VCP) mode indicated in the chart on the next page.
- The bottom line is that, even though Level 2 data is provided in real time, the actual base level update rate is no faster than current level 3 data. Both depend on the VCP mode in use.
- **Even though it is provided in real time, NEXRAD Level 2 data does NOT provide faster base level updates, i.e., data refresh rate, when tracking severe weather!**
- **NEXRAD Level 2 is NOT a substitute for a local radar which typically provides base level scan updates at about 20 second intervals.**

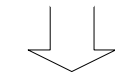
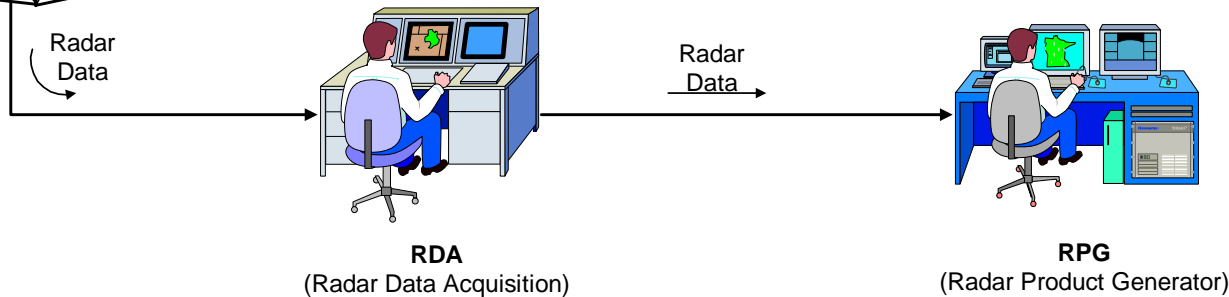




Antenna Scan Program	VCP 11	VCP 21	VCP 12*	VCP 121*‡	VCP 31	VCP 32
Mode	Precip Svr Wx	Precip	Precip	Precip	Clear Air	Clear Air
Pulse Length	Short	Short			Long	Short
No. of Elevation Angles	14	9	17	20	5	5
Separate Base Level Z & V Scans	Yes	Yes			Yes	Yes
Update Rate	5 min.	6 min.	4.1 min.	5 min.	10 min.	10 min.

* New capabilities not yet implemented on all WSR-88D's as of 5/10/2004

‡ Uses multiple PRF rates to de-alias velocity data



- Level 2 Data**
(Radial Format)
- Base Reflectivity (Z)
 - Base Velocity (V)
 - Base Spectrum Width (W)



- Level 3 Data**
(Radial Format)
- Base Reflectivity (Z)
 - Base Velocity (V)
 - Base Spectrum Width (W)

Note: Level 2 data is delivered in real time as the data comes off the radar. However, the update rate, i.e., the waiting time until the next scan is available, is determined by the antenna Volume Control Program (VCP) as shown in the table above.

Base level scan updates are no more frequent in Level 2 than in Level 3.

Products

- Base Reflectivity
- Base Velocity
- Base Spectrum Width
- Composite Reflectivity
 - Echo Tops
- Hail Index Overlay
- Mesocyclone Overlay
- One-hour Precipitation
- Severe Weather Probability Overlay
 - Storm Mean Relative Velocity
- Storm Total Precipitation Overlay
- Storm Tracking Information Overlay
- Tornadoic Vortex Signature Overlay
 - VAD Wind Profile
- Vertically Integrated Liquid