

AMS Peer Training Module

Weather Radar - Precipitation

Activity: Interpreting a Radar Precipitation Display

1. about 55 km to northwest. Three levels of intensity.
2. toward the east-northeast, about 30 km
an advisory for possible heavy rain would be appropriate for communities downstream
3. all echoes have moved to the east-northeast, the entire line has advanced, cell of previous A & B echoes have merged and grown
the echo around the radar station in the lower right corner is the same
4. the lower right echo area is surrounding the site, it is called “ground clutter”
5. most intense echo is now level 4 intensity, an increase
6. 4 PM cell positions well forecast, within projected locations
7. curved feature at southwest end of cell is called a “hook echo”, traditionally this reflectivity shape has been the basis for issuing a tornado warning
[Current practice also includes watching Doppler radial velocity and dual polarization information plus using ground-based spotter reports.]
8. the line shape is considered to advance at 90 degrees to itself, that is, to the southeast
 - individual cells are moving toward the east-northeast
 - this suggest that mid-tropospheric winds are moving toward the east-northeast
9. the more intense rainfall amounts occurred along the paths of the cells with greatest amounts from the cells displaying the highest reflectivity (rainfall rate) values
10. hydrologists can use this rainfall amount placement based on local topography to estimate the accumulation of water in various time spans to warn of inundations
other factors affecting runoff is surface conditions – how dry is the soil, is the ground frozen, are there enough pathways for runoff, how steep is the terrain, etc.

Real World Applications

1. is, ground clutter
2. increased
3. increased
4. eastward
5. along with other ground reports, a warning for damaging winds should be considered
6. west to east
7. where the most intense rainfall passed