

# Format Description of Santa Clara X-Band Radar Data

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- **The Santa Clara radar data is in NetCDF format. Each radar plan position indicator (PPI) sweep is stored as a single NetCDF file.**
  - naming convention: san\_jose.ca-YYYYMMDD-HHMMSS.qc.netcdf
  
- **The data enclosed in the NetCDF files are archived in radar polar coordinates.**
  - The data dimensions (radial, gate) are denoted by the number of radials and range gates.
  - The key variables include:
    - radar scan azimuth, elevation, gate width
    - radar measured moment data such as reflectivity, radial velocity, spectral width, differential reflectivity, differential phase, correlation coefficient, and signal-to-noise ratio
    - attenuation corrected reflectivity/differential reflectivity
    - processed differential phase
    - estimated instantaneous rainfall rate
  
- **The key system deployment information is stored in global attributes, including but not limited to:**
  - Latitude = 37.398882;
  - Longitude = -121.833404;
  - Height = 136. ;
  - NumGates = 675;
  - AntennaGain = 42.;
  - AntennaBeamwidth = 1.4 ;