State of precipitation radar VAPs related to CStAT

Var 3D winds: Variational 3D wind retrievals
Pol DSD retrvl: Polarimetric Drop size retrieval in warm rain
Pol/NN Rainfall: Polarimetric or Neural Network based rainfall retrieval
Texture Map: Stiener based convective stratiform classification, echo top detection
Map to grid: Balltree based Barnes filter
Deallas: UWashington 4DD velocity unfolding
Atten. Cor: PhiDP based attenuation and differentia attenuation correction.

Optional:

Map to grid:

- X-NW MMCG
- X-SW MMCG
- X-SE MMCG
- C MMCG

Steps:

- Map to grid
- Var 3D winds
- Pol/NN Rainfall
- Pol DSD retrvl
- Texture Map

- Vertical Velocity
- QPE
- Lig. DSD, N0, D0
- Con/Str, Echo Tp

Easy, Algorithm essentially done
Moderate development work required
Significant development work required, or further science needed.
- First VAP from the ARM radars.
- Mapped Moments to a Cartesian Grid.
- At the SGP this includes inner and outer grids.
- Outer grid is CSAPR on a 240x240kmx17km grid.
- Inner grid is all radars on a 100x100x17km grid.