

```
In [ ]: #import lib
import os
import glob
import pyart
import matplotlib.pyplot as plt
import warnings
warnings.filterwarnings('ignore')
```

```
In [ ]: #1 get radar NC files
folpath = r'/Volumes/SeagateH/Project/Jup/MDV*PPIVol.nc'
field_parameter = 'DBZH'
files = sorted(glob.glob(folpath))
```

```
In [ ]: #printing file names
files
```

```
In [ ]: #'''grid the data files'''
# by using pyart.map.grid_from_radars function

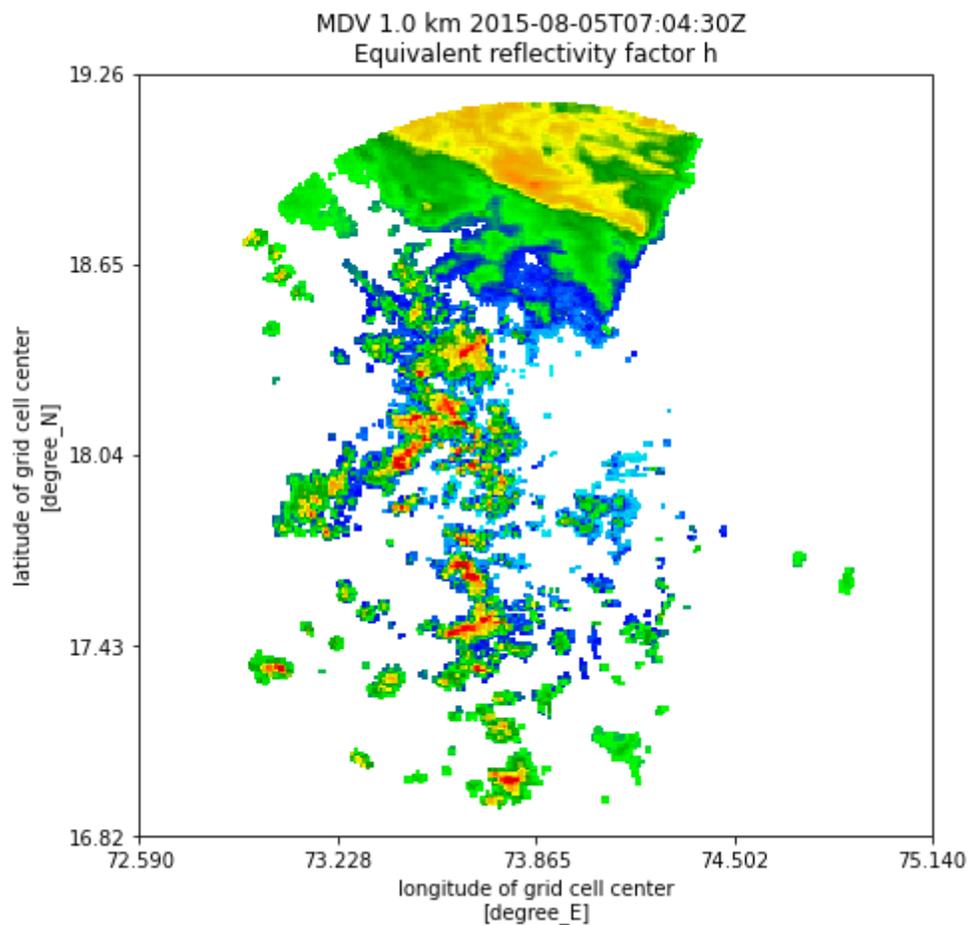
def get_grid(radar):
    """ Returns grid object from radar object. """
    grid = pyart.map.grid_from_radars(
        radar, grid_shape=(31, 251, 251),
        grid_limits=((0, 15000), (-125000, 125000), (-125000, 125000)),
        fields=['DBZH'], gridding_algo='map_gates_to_grid',
        h_factor=0., nb=0.6, bsp=1., min_radius=125.)
    return grid
```

```
In [ ]: #251 parts - 501parts 31 vert
```

```
In [ ]: #saving converted data
for filename in files:
    print('saving grid', filename)
    radar = pyart.io.read_cfradial(filename)
    grid = get_grid(radar)
    name = os.path.join(r'/Volumes/Seagate Exp/Project/Jup/', 'grid_' + fil
    pyart.io.write_grid(name, grid)
    del radar, grid
```

## Plotting Converted data , here you can change the value of parameter, i've used 2 for 1km altitude

```
In [ ]: grid = pyart.io.read_grid('/Volumes/Seagate Exp/Project/Jup/grid_MDV-201508
#grid.fields['DBZH']['data'] = np.ma.masked_outside(grid.fields['DBZH']['da
fig = plt.figure(figsize=(10,7))
display = pyart.graph.GridMapDisplay(grid)
display.plot_grid('DBZH', 2, vmin=0, vmax=60, mask_outside=True,
                  cmap='pyart_NWSRef', colorbar_flag=0)
```



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## Example and comparison b/w ppi and cappi

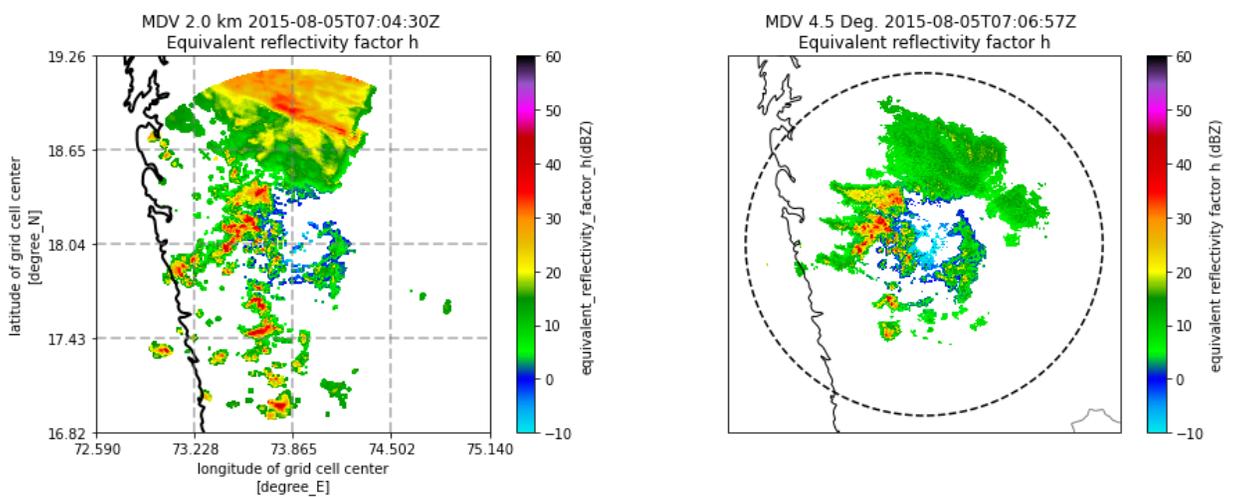
```
In [10]: import warnings
warnings.filterwarnings('ignore')
%matplotlib inline
import numpy as np
import pyart
import matplotlib.pyplot as plt
import cartopy
import cartopy.crs as ccrs
import cartopy.feature as cfeature
from cartopy.mpl.gridliner import LONGITUDE_FORMATTER, LATITUDE_FORMATTER
import cartopy.io.shapereader as shpreader
import cartopy.io.img_tiles as cimgt
import cartopy.mpl.geoaxes
```

**Here I've read two data files, one is volume data file (radar) and other is converted datafile (grid)**

```
In [11]: grid = pyart.io.read_grid('/Volumes/SeagateH/Project/Jup/grid_MDV-20150805-
radar = pyart.io.read('/Volumes/SeagateH/Project/Jup/MDV-20150805-070428-PP
```

```
In [12]: projection = ccrs.LambertConformal(central_latitude=grid.radar_latitude['da
central_longitude=grid.radar_longitude['
```

```
In [13]: #grid.fields['DBZH']['data'] = np.ma.masked_outside(grid.fields['DBZH']['da
fig = plt.figure(figsize=[15,5])
ax = plt.subplot(1,2,1,projection=ccrs.PlateCarree())
display = pyart.graph.GridMapDisplay(grid)
display.plot_grid('DBZH', 4, vmin=-10, vmax=60, mask_outside=True,
                  cmap='pyart_NWSRef',colorbar_flag=1)
ax = plt.subplot(1,2,2,projection=ccrs.PlateCarree())
display = pyart.graph.RadarMapDisplay(radar)
display.plot_ppi_map('DBZH', sweep=4, resolution='10m',
                    vmin=-10, vmax=60,
                    cmap='pyart_NWSRef')
display.plot_range_ring(radar.range['data'][2], line_style='k--')
#fig.tight_layout()
plt.show()
```



In [ ]: