# Unit 3: General Mesoscale Phenomena

## Tools

* Radar images for monitoring and analysis of thunderstorm cells and mesoscale convective systems. See a list of tropical radar images websites in

*Introduction to Tropical Meteorology, Chapter 2, Appendix A,*

<http://www.meted.ucar.edu/tropical/textbook_2nd_edition/navmenu.php?tab=3&page=14.0.0>

* High resolution visible images (1km) are useful for observing mesoscale and convective-scale phenomena where radar is unavailable. Examples are available from RAMSDIS Online, <http://rammb.cira.colostate.edu/ramsdis/online/rmtc.asp> (4-week archive available). Other high resolution product loops also available in Google earth format, <http://rammb.cira.colostate.edu/products/google_earth/>
* Suomi VIIRS high resolution satellite imagery (new day/night band - near visible images at night),<http://www.nrlmry.navy.mil/VIIRS.html>
* NOAA CLASS Archive, choose area and period of interest,<http://www.class.ncdc.noaa.gov/>
* Multi-scale analysis can be performed by integrating various observational data. For example, use satellite and synoptic charts to understand the big picture, and radar and local observations to narrow the focus of the analysis.
* Use meteograms to monitor changes at surface stations on hourly or shorter time scales.

Plymouth State Weather Center,<http://vortex.plymouth.edu/statlog-u.html> (since 1998)

University of Wyoming,<http://weather.uwyo.edu/surface/meteorogram/> (two-week archive)