# Unit 2: Tropical Disturbances

## Supplemental Resources

1. Climate Prediction Center, Global Tropical Hazards Outlook,[http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ghazards/index.php](http://www.google.com/url?q=http%3A%2F%2Fwww.cpc.ncep.noaa.gov%2Fproducts%2Fprecip%2FCWlink%2Fghazards%2Findex.php&sa=D&sntz=1&usg=AFQjCNHNET9vCKkt2EeZOkIcSzBwtRqOTg)
2. Unified Surface Analysis from the US National Weather Service,<http://www.opc.ncep.noaa.gov/index.shtml> (3-14 day archive animation)
3. COLA/IGES, Current and forecast weather maps

<http://wxmaps.org/>

Analysis of the Tropics, <http://wxmaps.org/pix/trop.00hr.html>

1. US National Hurricane Center, <http://www.nhc.noaa.gov/>
2. Find current satellite images and other tropical cyclone products at NESDIS websites: <http://www.ssd.noaa.gov/PS/TROP/>

<http://www.ospo.noaa.gov/Products/imagery/ocean.html>

1. CIMSS Tropical Cyclones and Regional Real-time Products,

<http://tropic.ssec.wisc.edu/>

1. US Naval Research Laboratory,Tropical Cyclones,

<http://www.nrlmry.navy.mil/tc_pages/tc_home.html>

1. Time-height plots from the National Hurricane Center used to track easterly waves <http://www.nhc.noaa.gov/index_station.shtml>, (14 days)
2. Plymouth State University Weather Center Archives

<http://vortex.plymouth.edu/u-make.html> (from 1998 – present)

Create customized meteograms, plot station observations, overlay isobaric and other analyses, create animations of satellite images for region of interest, etc…

1. Ocean Winds derived from satellite, NOAA NESDIS

<http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php>

1. NOAA Air Resources Laboratory Current and Forecast Meteorology

<http://www.ready.noaa.gov/READYcmet.php>

1. Statistical forecasts of weekly tropical cyclone activity from MeteoFrance,<http://www.meteo.nc/espro/previcycl/cyclA.php>
2. NOAA National Weather Service, African Weather and Climate, <http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/africa/africa.shtml>
3. EUMETrain ePortals for southern Africa, the Atlantic and eastern South America

<http://www.eumetrain.org/eport/archive_saws.html?width=1280&height=1024>,(2010- present)

Satellite products and ability to overlay surface observation and UK Met model fields

<http://www.eumetrain.org/eport/archive_atlantic.html?width=1680&height=1050> (2012- present)

Satellite products and ability to overlay surface observation and ECMWFmodel fields

1. Interactive Hurricane Tracker, University of Illinois at Urbana-Champaign <http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/hurr/hurtrack/index.html>
2. MJO and Equatorial Waves (real-time and 90-day MJO archive)

Australia CAWCR, <http://cawcr.gov.au/staff/mwheeler/maproom/OLR_modes/>

NOAA CPC,<http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/mjo.shtml>,

1. Tropical RAMSDIS Online, <http://rammb.cira.colostate.edu/ramsdis/online/tropical.asp>

RAMSDIS for Central and South America, and the Caribbean, <http://rammb.cira.colostate.edu/ramsdis/online/rmtc.asp> (4-week archive of images)

1. Kelvin waves and impact on weather in the Caribbean and Africa including tropical cyclone genesis, Lecture by Prof. Christopher Thorncroft from the 2011 NCAR ISP colloquium on African weather and climate, See Slides 77-117, <http://ral.ucar.edu/csap/events/ISP/presentations/Thorncroft_UCAR-Africa-Weather-Weds.pdf>
2. Soundings

University of Wyoming,<http://weather.uwyo.edu/upperair/sounding.html> (from 1973 to present)

NOAA ESRL,<http://esrl.noaa.gov/raobs/> (from 1946 to present)

1. Carleton College, Interactive hurricane related exercises

<http://serc.carleton.edu/NAGTWorkshops/hazards/hurricanes/activities.html>

1. University of Illinois-Urbana, Learning Objects on various topics <http://severewx.atmos.uiuc.edu/index.23.html>

A long loop of several days of IR data of Katrina: genesis to landfall!

Another IR loop of “Cloud clusters and tropical cyclones from space”

1. COMET Modules on the MJO and ENSO

The Madden-Julian Oscillation Lifecycle (webcast by Dr. Roland Madden)

<http://www.meted.ucar.edu/climate/mjo/index.htm>

The El Nino-Southern Oscillation (ENSO) Cycle (webcast by Dr. Vernon Kousky)

<http://www.meted.ucar.edu/climate/enso/>