Description of the NOAA's Climate Prediction Center
International Desks Web Page

Background

NOAA's National Weather Service, with support from the State Department, established the African Desk at the Climate Prediction Center (CPC) of the National Centers for Environmental Predictions (NCEP) in 1994. The initial objective of the African Desk was to provide National Meteorological Services in Africa with real time climate information to enable planning for food security. The first African Desk website was implemented in 1995. However, as demand for access to global weather and climate information increased tremendously over the years, the African Desk, in partnership with USAID, expanded its mission and evolved into the CPC International Desks. A website to meet NOAA's goal to provide access to real time regionalized weather and climate information globally was implemented in 2010.

Content and Layout

The web link to the CPC International Desks main web page is http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/index.shtml. The webpage features NCEP observed and model data for the globe and different sub-regions. It was designed to meet user needs and requirements and is intended primarily to provide forecast guidance to National Meteorological Services, especially in developing countries and emerging nations, and provide support to humanitarian assistance program such as the USAID Famine Early Warning System Network (FEWSNET) and the Disaster Risk Reduction Program of the Office of Foreign Disaster Assistance. The webpage is still under development. Information is made available to the public and feedback is always welcomed to improve it. The starting webpage includes links to specialized real time operational products (forecast bulletins, regional hazards outlooks, and climate monitoring briefs), NCEP model guidance up to day-14 forecasts, NCEP real time analysis of sea surface temperature (SST) and atmospheric circulation, and satellite rainfall estimates. On top of the main page are links to the NCEP climate forecast system (CFS) and to the U.S. National Multimodel Ensemble (NMME) forecasts. These are seasonal climate forecasts for the globe and for the different continents and sub-regions of the world. The regions covered on the web page include: Africa and its four sub-regions (Northern Africa, West Africa, East Africa, and Southern Africa); the Americas (Caribbean and Central, North and South America); Asia (Central, East, and South); Australia, and Europe.

The main Web Page

The page features NCEP model weather forecasts, NCEP model data analysis, sea surface temperature (SST), and satellite observations. In addition, Africa, Caribbean and Central America, and Central Asia sub-pages contain expert assessment products including the regional hazards outlooks for food security. The Africa page http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/africa/africa.shtml also contains short (24-hour to 48-hour) and medium range (3 to 5 days) weather forecast bulletins, week-1 and week-2 outlooks, seasonal rainfall outlooks, and weekly African monsoon briefings. The top of each of the regional web pages features

numerical weather prediction (NWP) products from the NCEP global forecast system (GFS) and the global ensemble forecast system (GEFS). Forecasts parameters include precipitation, temperature at various atmospheric levels, winds, relative humidity, geopotential heights, etc. For Africa, information relevant to the World Meteorological Orgainzation (WMO) Severe Weather Demonstration Project (SWFDP) is also provided. Below the NWP section is the analysis tab that contains information pertinent to the current state of the weather and climate in that region. This section features the most recent weather conditions derived from the NCEP global data assimilation system (GDAS) and includes meteorological variables described in the NWP section. The analysis section provides access to gridded precipitation data derived from gauge measurements, sea surface temperature (SST), the current state of the El Nino Southern Oscillation (ENSO) and the Madden Julian Oscillation (MJO) and other specialized products such as the monitoring of the Intertropical front (ITF), a meteorological phenomenon relevant to the West African monsoon system. The final tab on each regional web page has satellite rainfall estimates showing the evolution of precipitation from the present through the last 180 days. The African Rainfall Climatology (ARC2) features both spatial maps and cumulative time series. Clickable grid point time series as well as area average time series are provided. CMORPH and RMM precipitation estimates consist of totals only due to the short climatology data for each of these datasets.

A cyclone monitoring page is found at the bottom of the “Ocean Regions” section featuring both observed and predicted trajectories of active tropical storms and cyclones and the associated model predicted precipitation. TC alerts are also automatically generated upon detecting the presence of a tropical storm or tropical cyclone.

Climate Forecasting Web Page

At the top of the main web page are links to regionalized climate forecasts from the NCEP CFSv2 and the US NMME forecasts. The NMME models include the CFSv2, two versions of the Canadian model CMC1 and CMC2, NOAA’ Geophysical Fluid Dynamic (GFDL), National Aeronautics and Space Administration (NASA), the National Center for Atmospheric Research (NCAR), and the ensemble mean of all the models. Seasonal forecasts maps are displayed in “Multi-Season” mode or in “Multi-Model” mode for all the regions of the world. See web link: http://www.cpc.ncep.noaa.gov/products/international/nmme/nmme.shtml.
The “Data Downloads” button provides users with access to the seasonal forecast data in binary format and in Climate Predictability (CPT) format for further tailoring of the seasonal forecasts. A readme file is included to help the user download and use the data. Both the binary data and CPT consist of standardized anomaly forecasts of SST, precipitation, and air temperature or 2-meter temperature. In addition, NMME hindcasts (retrospective forecasts) from 1982-2010 for 12 three-month running seasons are also available in CPT format. Hindcasts in binary format can be accessed from the National Climatic Data Center (NCDC) at this link: www.ncdc.noaa.gov. Clickable seasonal forecasts maps for all regions are provided in terms of anomalies, standardized anomalies, standardized anomalies with a skill mask applied, and probabilistic forecasts. Skill (anomaly correlation between observed and predicted variables) maps for each seasonal forecast are also available.