The North American Drought Monitor: A Continental Approach

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GEOSS Drought Workshop XL: Monitoring through Earth Observations
Sydney, Australia, April 10, 2011
The U.S. Drought Monitor

Since 1999, NOAA (CPC and NCDC), USDA, and the NDMC have produced a weekly composite drought map -- the U.S. Drought Monitor -- with input from numerous federal and non-federal partners.
History of the North American Drought Monitor (NADM)

- The concept for the NADM was developed and discussed in 2002.
- The first NADM map was released in March 2003.
- The first NADM map in all three languages (English, Spanish, and French) was released in October 2003.
History of the NADM

- The United States started off as the only country to author and organize the map.
- Canada began authoring in January 2006.
- Mexico began authoring in October 2008.
North American Drought Monitor Partners

**Canada**
- Agriculture and Agrifood Canada
- Environment Canada
- Meteorological Service of Canada

**Mexico**
- National Meteorological Service of Mexico (SMN-Servicio Meteorologico Nacional)
- CONAGUA (Comision Nacional del Agua)

**United States**
- National Drought Mitigation Center
- National Climatic Data Center
- Climate Prediction Center
- United States Department of Agriculture
How do we get there???
The U.S. Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

Released Thursday, March 3, 2011
Author: Laura Edwards, Western Regional Climate Center
All 3 Countries merged together using ArcGIS shapefiles
North American Drought Monitor
National Oceanic and Atmospheric Administration
National Climatic Data Center

NADM Overview
NADM maps
NADM maps (limited access)
ArcGIS ArcView (limited access)
Drought Monitoring Indices and Data
Other Drought Monitoring Indices
- NESDIS Satellite VHII
- CPC Modeled Soil Moisture
- U.S. NWS Precipitation Analysis
Geographical Reference Maps
Climatology Maps
Associated Links

North American Drought Monitor Overview
The North American Drought Monitor (NADM) is a cooperative effort between drought experts in Canada, Mexico and the United States to monitor drought across the continent on an ongoing basis. The program was initiated at a three-day workshop in late April 2002 and is part of a larger effort to improve the monitoring of climate extremes on the continent. The NADM (Lawrimore et al. 2002) is based on the highly successful U.S. Drought Monitor (USDMS), and as such, is being developed to provide an ongoing comprehensive and integrated assessment of drought throughout all three countries.

http://www.ncdc.noaa.gov/oa/climate/monitoring/drought/nadm/
SPI: 1, 3, 6, 9, 12 and 24-month
Palmer Drought Index
March 2011

* Based on Preliminary Data
** Calibration Period 1951 – 2001

- PDSI
- PDHI
- Z

Dry
Near Normal
Wet
Role of Remote Sensing?
Any Questions?

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