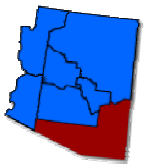
Southeast Arizona Climate Summary
Winter-Early Spring 2003



April 15, 2003 – El Nino conditions in the equatorial Pacific influenced temperature and precipitation patterns across the southwest U.S. through the winter months of 2002-2003. A strong ridge pattern dominated the entire western U.S. during most of January bringing above normal temperatures and well below normal precipitation. The ridge pattern broke down in February, allowing for several storms to track directly over southern Arizona. The below normal precipitation of January (-0.98") for climate division 7 was followed by above normal precipitation in February (+0.87") due to the shift to a more favorable storm track. March brought several storms that generated enough precipitation for the month to finish slightly below normal (-0.33"). The break down of the January ridge allowed for a storm-track that was more favorable to generate snows at higher elevations. Snowpack amounts of 75-90% of normal are being reported across southern and central Arizona. This much anticipated El Nino brought highly variable temperature and precipitation levels to southern Arizona for the winter of 2002-2003. Winter precipitation totals still ended slightly below normal with local precipitation amounts bringing short-term relief to ongoing drought conditions. (More information at http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/)

Southeast Arizona Palmer Drought Severity Index and Precip. Anomaly: 2001-2003

Above normal precipitation in February helped to slightly improve drought conditions as reflected in the improving PDSI values. Long-term drought conditions have been created by below normal monthly precipitation amounts extending back to July of 2001 (line with triangles)

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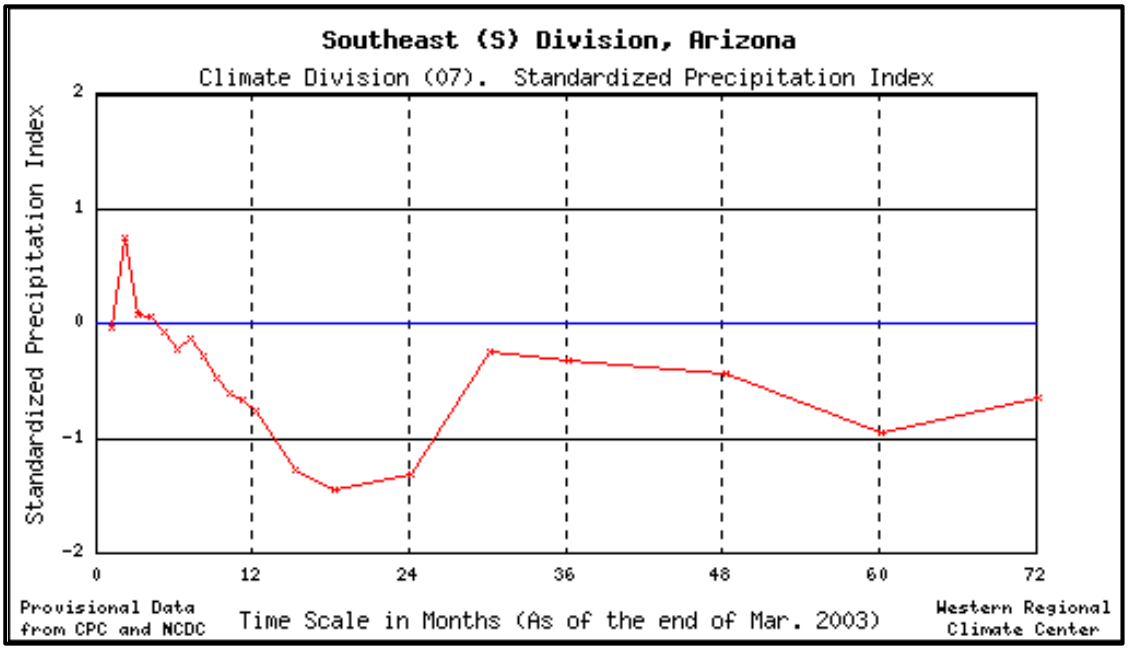


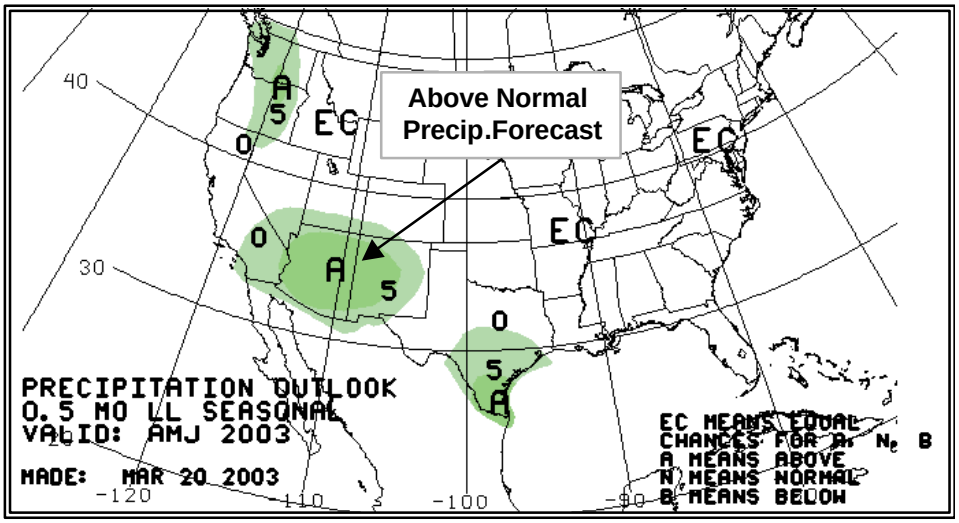
SPI values show that short-term precipitation amounts are above normal to normal for SE AZ due to precipitation Feb and Mar-03. 12-24 month periods prior to March 2003 are still 1.5 standard deviations below normal, indicating longer term drought conditions.

Monthly precipitation amounts were highly variable during the winter months over SE Arizona. January was exceptionally warm and dry due to a persistent ridge of high pressure over the southwest U.S. The Western Regional Climate Center estimates that most locations across SE AZ have received between 60-80% of normal precipitation amounts for the period between 10/1/02 – 4/15/03.

Location	Jan. 2003 Avg. Temp (F)	Jan. Long-term Avg. Temp (F)	Jan. 2003 Total Precip(in.)	Jan. Long-term Avg. Precip (in)
Willcox	49.1 F	42.1	0.15”	0.93”
Safford	52.4	44.1	0.05”	0.70”
Chiricahua N.M.	48.3	42.9	0.07”	1.47”
Douglas	49.5	45.6	0.01”	0.87”
Tucson	58.2	51.7	0.08”	0.90”

(data from http://www.wrh.noaa.gov/tucson and http://wrcc.dri.edu)

The spring forecast from the Climate Prediction Center shows a slight chance for above normal precipitation during the April-May-June period. This forecast is based on historical precipitation patterns in the southwest during past moderate and strong El Nino events. The current 02-03 El Nino is quickly subsiding and will most likely have a limited impact on southwest weather patterns during the spring months. Weather conditions are climatologically warm and dry for this period with very limited chances for precipitation.



From: http://www.cpc.noaa.gov/products/predictions/90day/lead01/p02.gif