

Local Three Month
Temperature Outlook





Project Background2

Accessing the Site3

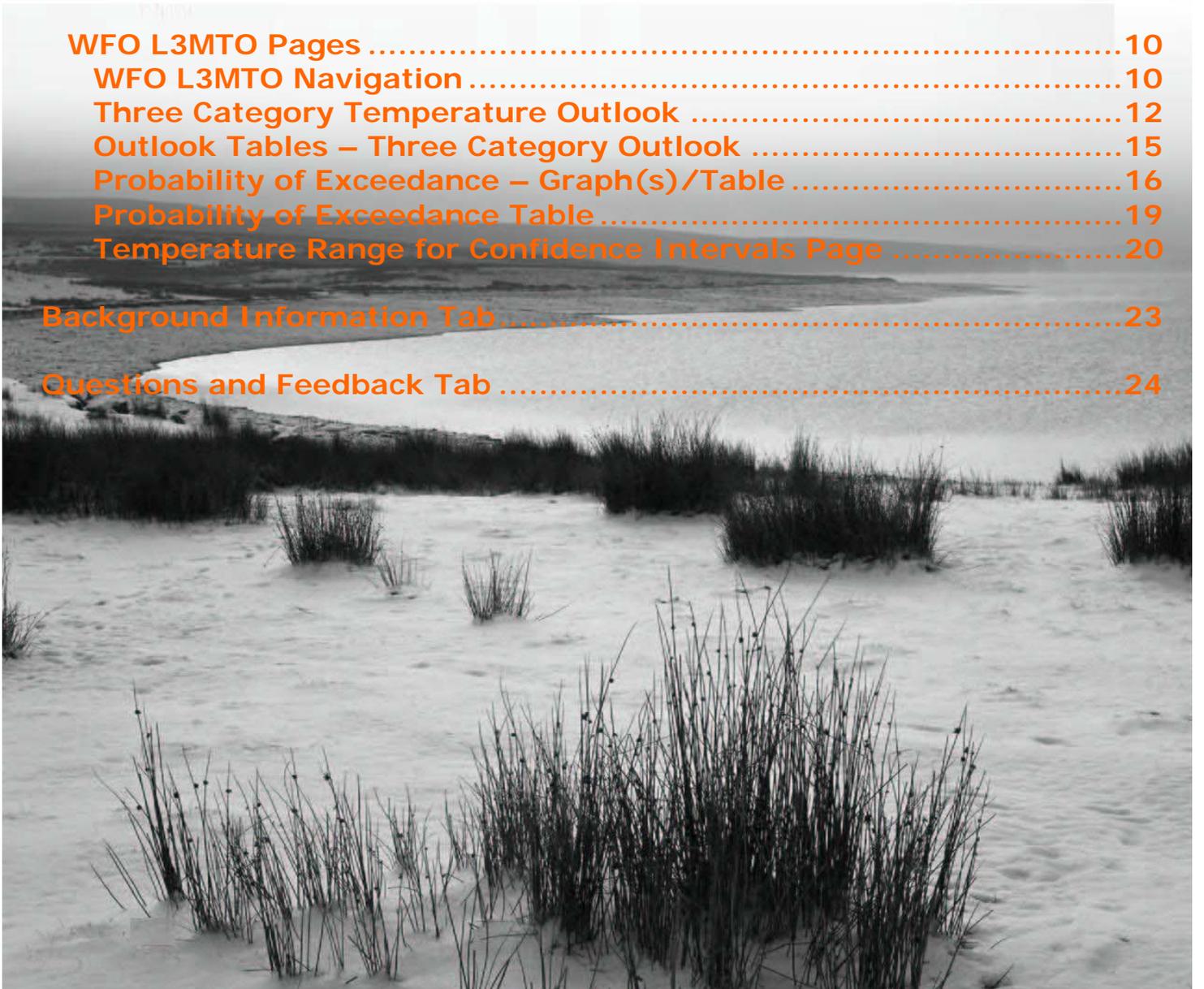
Using the L3MTO Site8

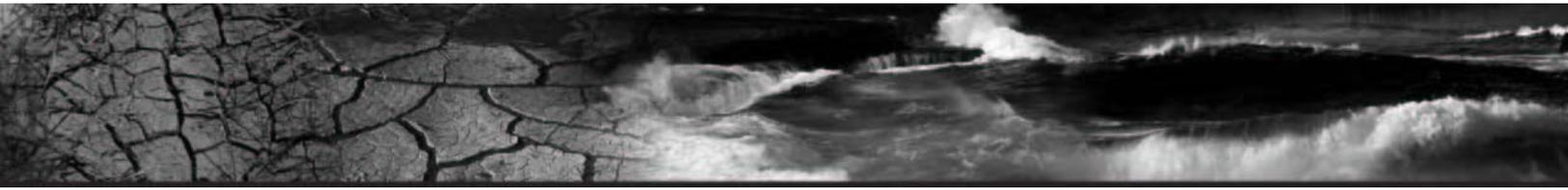
National L3MTO Page8
National Temperature Analyses Past 90-days9

WFO L3MTO Pages10
WFO L3MTO Navigation10
Three Category Temperature Outlook12
Outlook Tables – Three Category Outlook15
Probability of Exceedance – Graph(s)/Table16
Probability of Exceedance Table19
Temperature Range for Confidence Intervals Page20

Background Information Tab23

Questions and Feedback Tab24





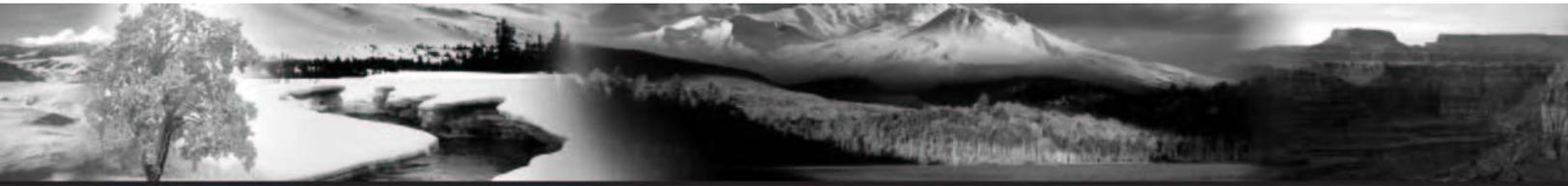
Project Background

CPC issues a series of thirteen three-month temperature and precipitation outlooks to provide information to decision makers in weather and climate activities sensitive to seasonal and inter-annual climate variation. Since these outlooks pertain to the average temperature and total precipitation for the entire valid period and **not** to the variability within it, they will **not** help people planning events for specific dates or sub-periods. The outlooks will be of most use for economic and business planning, particularly when used with Base Period Means.

CPC uses the General Meteorological Package (GEMPAK) software as an input into National Center Advanced Weather Interactive Processing System (NAWIPS). CPC issues these 13 outlooks simultaneously once a month on the third Thursday of the month at around 8:30 a.m. Eastern local time. CPC will issue the 13 outlooks with lead times from 0.5 months to 12.5 months. For example, in mid-January, CPC will issue Three-Month Outlooks for February through April, March through May, April through June, and so on to February through April of the following year; this is considered the "Valid Time" for these forecasts. For product/forecast expiration, the 0.5 month lead time outlook expires at the beginning of the valid time of that outlook. The other outlooks expire when the next set of outlooks are issued (i.e. on the third Thursday of the following month).

CPC develops the outlooks using tools applied to each of 102 area climate outlook divisions in the contiguous United States and 24 site specific cities in Alaska. Each area outlook division is composed of one (or more) National Climatic Data Center (NCDC) climate data division(s). CPC will express the outlooks in a 3-category probabilistic format as the chance the mean temperature or total precipitation for the period will fall into the most likely of three classes: above, below, or near normal. For each outlook divisional area and Alaskan city, CPC defines the classes as climatologically equally likely: the top 10 cases of a thirty year record define the above category (A); the middle 10 cases define the normal category (N), and the bottom 10 cases defining the below category (B). For areas where a favored class cannot be determined, CPC will indicate those areas with a "EC." EC means equal chances for each of the three climatological classes for the outlook's valid period. For each of the thirteen three-month outlook periods (January through March, February through April, etc.), CPC uses the 30-year mean temperature and 30-year mean total precipitation for the climatology and class limits. CPC updates this information once per decade.

CPC will indicate the total probability for the most likely class with solid contour lines. They will label the centers of maximum probability with the letters A, N, or B to denote the most likely class. For areas where a favored class cannot be determined, CPC will indicate those areas with a "EC" and not have contours. For example, if the probability for the above normal temperature class exceeds 40 percent for a given area and is the most likely class, then CPC will encircle the area by a probability contour of 40 percent on the temperature outlook chart and label the area with the letter A.



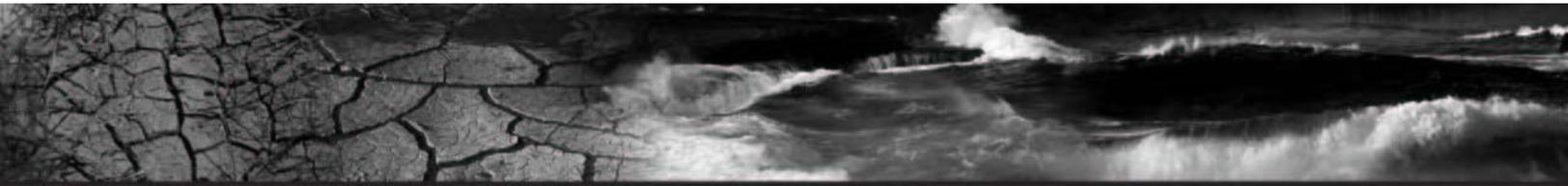
Accessing the Site

Users can access the Local Three Month Temperature Outlook (L3MTO) Web site one of two ways:

1. Access the site via the National Climate page using the “right-hand” dropdown selection box located just above the National Map. This will direct users to the National L3MTO Page. See **Figures 1 and 2**.
2. Access the site via the “Climate Prediction Tab” located on the local Weather Forecast Office (WFO) Climate Main Page. Once users select the tab, a page will display containing a thumbnail type graphic. Users will click on this thumbnail graphic to be directed to the L3MTO page of the WFO they accessed the Climate Prediction tab from. See **Figures 3, 4 and 5**.

The screenshot shows the National Weather Service website interface. At the top, there's a NOAA logo and the text 'National Oceanic and Atmospheric Administration's National Weather Service'. Below this is a navigation bar with 'Home', 'News', 'Organization', and a search field. A sidebar on the left lists various services like 'Local forecast by City, St', 'Warnings', 'Observations', 'Forecasts', 'Forecast Models', 'Weather Safety', 'Information/Outreach', and 'Careers'. The main content area has a heading 'Click on map below to obtain local climate information.' and a map of the United States with temperature data points. A dropdown menu is open, showing options for 'Select Climate Outlook' and 'Temperature Outlook' with various time periods from 2006 to 2007. The page footer includes contact information for NOAA and links to disclaimer, credits, and glossary.

Figure 1: National Climate Page Access for L3MTO



National Oceanic and Atmospheric Administration's
National Weather Service

Home News Organization Search for: NWS All NOAA

Local forecast by "City, St"
City, St

Warnings
Current
By State/County...
Observations
Radar
Satellite
Snow Cover
Surface Weather...
Forecasts
Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather
Climate...
Forecast Models
Numerical Models
Statistical Models...
Weather Safety
Weather Radio
Hazard Assmt...
Education/Outreach
Information Center
Tsunamis
Past Weather
Glossary
Publications...
Careers
About Us
Contact Us
FAQ
Comments...

Click on the map below to obtain experimental local three-month temperature outlook information.

Warnings & Forecasts Graphical Forecasts National Maps Radar Rivers Air Quality Satellite Climate

Max/Min Temperatures Issued: June 2006 Jul-Aug-Sep 2006

H OUTLOOK F PROBABILITY EC MEANS EQUAL

Would you like to look at your local information?
Click on the map above or enter a location and time period below.

Search for a Location ("City, ST" or "Zip") Select Time Period Jul-Aug-Sep 2006

National map provided by
NOAA National Centers for Environmental Prediction Climate Prediction Center

Click right thumbnail to see National Temperature Averages for past 90 days

Figure 2: National L3MTO Page

From this page users can access their desired WFO L3MTO page by clicking on the appropriate geographical area on the map. Also, users can enter their local geographic information (City, State, or Zip) to search for the WFO that is located nearest to the information entered. A time period for a forecast/outlook can also be specified in this search.



National Weather Service Forecast Office
Phoenix, AZ

weather.gov

Home News Organization Search for: [] NWS All NOAA Go

Local forecast by "City, St"
City, St [] Go

Current Hazards
Watches/Warnings
StormCenter
National Outlooks
Current Conditions
Observations
Rivers & Lakes
AHPS
Weather Roundup
Radar Imagery
Satellite Imagery
NOAA Weather
Radio
Forecasts
Local Forecasts
Forecast Matrix
Numerical Models
Weather Center
Aviation
Fire Weather
Tropical
Climate
Local
National
More...
Hydrology
Forecasts/Data
AHPS Page
CO Basin RFC
CA-Nevada RFC
Quick Weather
Phoenix Zones
Flagstaff Zones
Tucson Zones
Las Vegas Zones
Discussion

As part of its ongoing efforts to improve service to the public, The National Weather Service has released an experimental local 3-month temperature outlook. Access the product for your area here. Through August 20, 2006, we are asking for your feedback regarding this product's usefulness and effectiveness. Please click here to complete the feedback survey.

Observed Weather | Climate Locations | **Climate Prediction** | Climate Resources | Local Data/Records | Astronomical | NOWData

Observed Weather Reports

1. Product »
 Daily Climate Report (CLI)
 Preliminary Climatology Data (CF6)
 Record Event Report (RER)
 Monthly Weather Summary (CLM)
 Regional Summary (RTP)
 State Summary (Temp/Precip)

2. Location »
Phoenix

3. Timeframe »
 Most Recent
 Archived Data:
No Records Found

4. View »
Go

Storm Event Database (SPC)
Storm Data (NCDC)

Product Description:
DAILY CLIMATE REPORT - issued daily:
Detailed daily weather statistics (usually for yesterday), including temperature, precipitation, degree days, wind, humidity, sunrise/sunset, and record temperature data for the following day. Precipitation data includes both calendar year and water year totals, percent of normal values, and comparisons to normal. This product is available for up to 2 months.

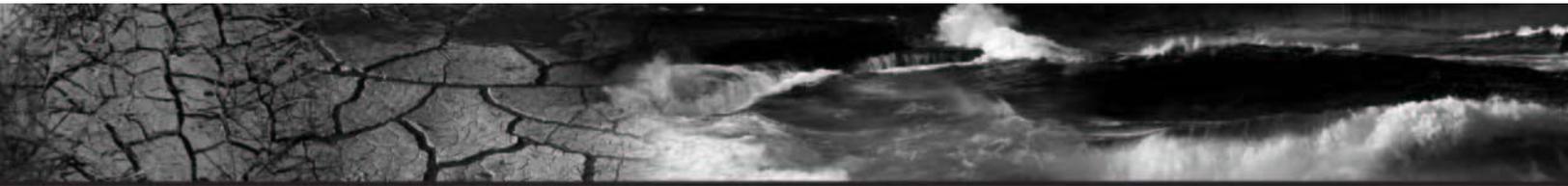
Phoenix Weather Forecast Office
P.O. Box 52025
Phoenix, AZ 85072
Tel: (602) 275-0073
Ask Questions/ Webmaster
Page last modified: 23-Nov-2005 3:38 PM

Disclaimer
Credits
Glossary

Privacy Policy
About Us
Career Opportunities

Figure 3: Local WFO Climate Prediction Tab Access to L3MTO

Once users have accessed the local WFO Climate Page, they will be presented with navigational tabs located at the top of the page. The tab labeled "Climate Prediction" will be selected in order to access the WFO L3MTO site.



National Weather Service Forecast Office
Phoenix, AZ

Home News Organization Search for: NWS All NOAA Go

Local forecast by "City, St"
City, St Go

Current Hazards
Watches/Warnings
StormCenter
National Outlooks
Current Conditions
Observations
Rivers & Lakes
AHPS
Weather Roundup
Radar Imagery
Satellite Imagery
NOAA Weather Radio
Forecasts
Local Forecasts
Forecast Matrix
Numerical Models
Weather Center
Aviation
Fire Weather
Tropical
Climate
Local
National
More...
Hydrology
Forecasts/Data
AHPS Page
CO Basin RFC
CA-Nevada RFC
Quick Weather
Phoenix Zones
Flagstaff Zones
Tucson Zones
Las Vegas Zones
Discussion
AZ Today
Yuma Sunrise
Phoenix Sunrise
Weather Safety
Weather Radio

NWS Home > Climate > NWS Phoenix > Climate Prediction

CPC climate forecasts are provided, CDC climate information, as well as El Niño/La Niña, drought information, and other climate pattern information.

Observed Weather | Climate Locations | **Climate Prediction** | Climate Resources | Local Data/Records | Astronomical | NOWData

Climate Prediction and Variability

Climate Prediction

Long range forecasts across the U.S.

Climate Prediction Web Sites

- Climate Prediction Center (CPC)
- Climate Diagnostics Center (CDC)

Week Two Forecasts (6-14 days)

- 6-10 Day Temperature Forecast Map
- 6-10 Day Precipitation Forecast Map
- 8-14 Day Temperature Forecast Map
- 8-14 Day Precipitation Forecast Map
- 6-10 Day & 8-14 Day Forecast Discussions
- U.S. Hazards Assessment

Monthly (30 day) Outlooks

- CPC Seasonal Outlooks
- Seasonal Outlook Discussion
- Monthly & Seasonal Outlook Maps

Climate Variability

Topics important to climate assessment and prediction

Information on El Niño and La Niña

- CPC's El Niño / La Niña Page
- El Niño Theme Page
- What is La Niña
- ENSO Diagnostic Discussion

Drought Information

- U.S. Drought Assessment

Intraseasonal Oscillations

- Monitoring Intraseasonal Oscillations
- Madden-Julian Oscillation
- Daily Indices

Teleconnections

- Northern Hemisphere Teleconnections
- Daily Indices
- Forecasts of Teleconnection Indices

Figure 4: Local Climate Prediction Page

Once users have selected Climate Prediction, they will be directed to the page shown above, **Figure 4**, users need to click on the thumbnail graphic, highlighted by the **Red** rectangle, in order to access the WFO's L3MTO page. An example of the WFO L3MTO Page can be seen below.



National Weather Service Forecast Office
Phoenix, AZ

weather.gov

Home News Organization Search for: MWS All NOAA

NWS Home > Climate > NWS Phoenix > Climate Prediction > Local Temperature Outlook

Experimental Three-Month Temperature Outlook (Issued: June 2006)

National Outlook Local Outlook Background Information Questions and Feedback

Phoenix Sky Harbor Intl Apt, AZ
 Maricopa County, Coop ID: 26481
 Elevation: 1107 ft.
 Latitude: 33° 25' N Longitude: 111° 59' W

Three Category Temperature Outlook
 Jul-Aug-Sep 2006

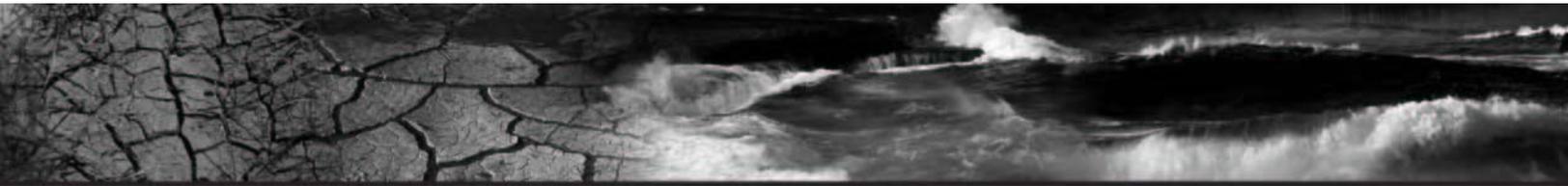
Aug-Sep-Oct 2006	Sep-Oct-Nov 2006	Oct-Nov-Dec 2006	Nov-Dec-Jan 2006/07	Dec-Jan-Feb 2006/07	Jan-Feb-Mar 2007
Feb-Mar-Apr 2007	Mar-Apr-May 2007	Apr-May-Jun 2007	May-Jun-Jul 2007	Jun-Jul-Aug 2007	Jul-Aug-Sep 2007

Click on individual chart to view outlook details.

FIRSTGOV.gov
 The U.S. Government's Official Web Portal

Figure 5: WFO L3MTO Page (PSR)

****Please note throughout this document, WFO PSR will be used in all examples.



Using the L3MTO Site

National L3MTO Page

Once users have arrived on the National L3MTO Page, they have the option to select any 3-Month Temperature Outlook/Forecast(s) Map for the next year: **Blue** rectangle; access local WFO L3MTO pages by clicking the appropriate geographical area on the National Map: **Red** rectangle; or view National Temperature Analyses for the past 90 days by clicking the thumbnail image highlighted by the **Green** rectangle. See **Figure 6** below. Users can also access the L3MTO User Help Pages by clicking **Help**; this feature will be available to users throughout the L3MTO Web Suite located toward the top of each page.

The screenshot shows the National Weather Service website interface. At the top, the NOAA logo and 'National Oceanic and Atmospheric Administration's National Weather Service' are displayed. A navigation bar includes 'Home', 'News', 'Organization', and a search bar. Below this, a section titled 'Click on the map below to obtain experimental local three-month temperature outlook information.' contains a map of the United States with various regions labeled (e.g., EC, B, A). A red rectangle highlights the map area. Below the map, a blue rectangle highlights a 'Help' button. A green rectangle highlights a thumbnail image of a temperature analysis map. The page also includes a search bar for location and time period, and a 'Go' button.

Figure 6: National L3MTO Page Features



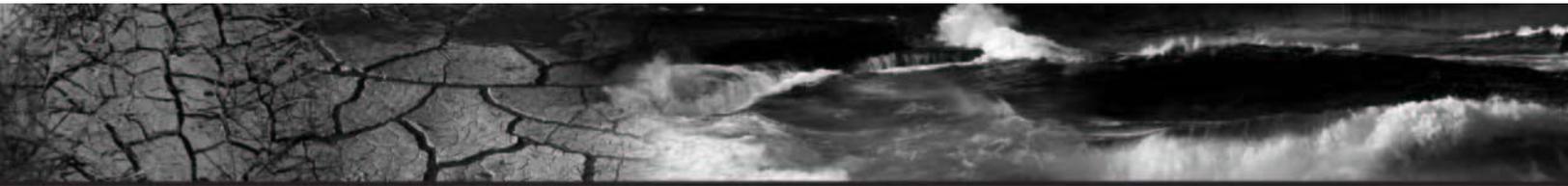
National Temperature Analyses Past 90-days

From the National L3MTO Page users have the ability to access the National Temperature Averages Analyses that have occurred over the past 90-days. Once users have clicked on the thumbnail image highlighted by the **Green** rectangle in **Figure 6** above, they will be redirected to the page below; see **Figure 7**.

The screenshot shows the National Weather Service Climate Prediction Center website. The header includes the NOAA logo, the text 'National Weather Service Climate Prediction Center', and the URL 'www.nws.noaa.gov'. A navigation bar contains 'Site Map', 'News', 'Organization', and a search box. The main content area features a breadcrumb trail: 'HOME > Monitoring & Data > U.S. Climate Data > Precipitation & Temperature > U.S. Daily Temperature Analyses > Ninety Day'. Below this is a large title '90-Day Temperature Analyses' in a cursive font. Two columns of links are provided: 'Mean Temperature' and 'Maximum and Minimum Temperature'. Each column contains a list of 20 numbered links, ranging from 20060513 down to 20060418.

Mean Temperature	Maximum and Minimum Temperature
20060513	20060514
20060512	20060513
20060511	20060512
20060510	20060511
20060509	20060510
20060508	20060509
20060507	20060508
20060506	20060507
20060505	20060506
20060504	20060505
20060503	20060504
20060502	20060503
20060501	20060502
20060430	20060501
20060429	20060430
20060428	20060429
20060427	20060428
20060426	20060427
20060425	20060426
20060424	20060425
20060423	20060424
20060422	20060423
20060421	20060422
20060420	20060421
20060419	20060420
20060418	20060419

Figure 7: National Temperature Averages Analyses (past 90-days)



WFO L3MTO Pages

Once users have navigated to the WFO's L3MTO main page, they can access the following features:

- Access the 13 available Three-Month Temperature Outlooks for multiple locations by clicking the desired station on the WFO's County Warning Area (CWA) Map.
- View the Three Category Outlook Table, Probability of Exceedance, and Temperature Range graphs for the selected station.
- Access the Outlook Evaluation tools provided by NWS and NWS Partner groups.
- Navigate to adjacent WFOs via the Compass Navigation Feature.

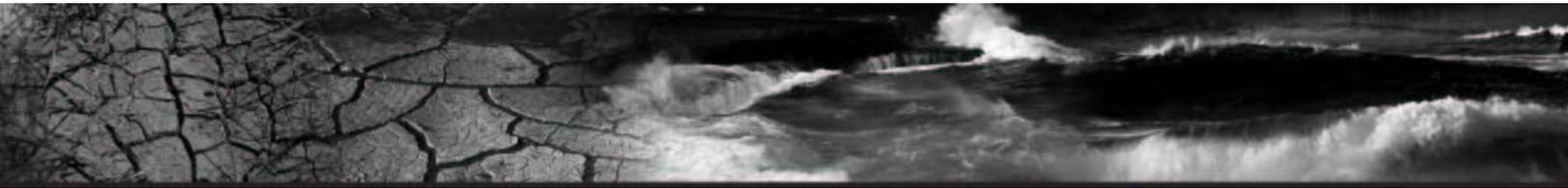
These are just a few examples of items that users can utilize to interact with the site to produce data that are meaningful for their particular needs. This guide will now go into more detail regarding the features located on the WFO L3MTO Page(s) to better educate users on how to use the specific tools.

WFO L3MTO Navigation

To allow for ease of navigation around the WFO L3MTO Web suite, graphical navigation tools have been utilized throughout the site. Once users arrive on the WFO L3MTO default page they will notice tabular navigation buttons at the top of the page and graphical thumbnails located at the bottom of the page. Users can click on the tabular navigation items to move around the different levels within the L3MTO site. Likewise, they can click on the graphical thumbnails located at the bottom of the page to navigate between the different L3MTO products/variables. These items include Outlook Tables, Probability of Exceedance Graphs, Temperature Range Graphics and Probability of Exceedance Tables. These are highlighted by the **Red** rectangle in *Figure 8a and 8b* below. Also, users can utilize the Compass Navigation Tool, highlighted by the **Blue** rectangle, to navigate and view L3MTO data from adjacent WFOs.



Figure 8a: L3MTO Tabular Navigation



Satellite Imagery
NOAA Weather Radio
Forecasts
Local Forecasts
Forecast Matrix
Numerical Models
Weather Center
Aviation
Fire Weather
Tropical
Climate
Local
National
More...
Hydrology
Forecasts/Data
AHPS Page
CO Basin RFC
CA-Nevada RFC
Quick Weather
Phoenix Zones
Flagstaff Zones
Tucson Zones
Las Vegas Zones
Discussion
AZ Today
Yuma Sunrise
Phoenix Sunrise
Weather Safety
Weather Radio
Storm Ready
Safety Rules
Other Information
SKYWARN
Storm Report
Links
General
Contact Us
Webmaster
Ask Questions

FIRSTGOV.gov
The U.S. Government's Official Web Portal

2006
Suggested Temperature Outlook Breakdown

Click site to change location or use Select Location tool below.

Legend:
■ Above Normal
■ Near Normal
■ Below Normal

Jul-Aug-Sep 2006

Aug-Sep-Oct 2006

Sep-Oct-Nov 2006

Oct-Nov-Dec 2006

Nov-Dec-Jan 2006/07

Dec-Jan-Feb 2006/07

Jan-Feb-Mar 2007

Feb-Mar-Apr 2007

Mar-Apr-May 2007

Apr-May-Jun 2007

May-Jun-Jul 2007

Jun-Jul-Aug 2007

Click on individual chart to view outlook details.

Select Location
Phoenix Sky Harbor Intl Ap

Select Variable
Three Category Temperature

Go

Outlook Evaluation

Outlook Table

Month	Below Normal	Near Normal	Above Normal
Jul	40%	40%	20%
Aug	30%	50%	20%
Sep	20%	60%	20%
Oct	10%	70%	20%
Nov	5%	80%	15%
Dec	5%	85%	10%
Jan	5%	85%	10%
Feb	10%	75%	15%
Mar	15%	65%	20%
Apr	20%	55%	25%
May	25%	45%	30%
Jun	30%	35%	35%
Jul	40%	40%	20%

Probability of Exceedance

Temperature Range

Phoenix Weather Forecast Office
P.O. Box 52025
Phoenix, AZ 85072
Tel: (602) 275-0073
Ask Questions/Webmaster
Page last modified: 23-May-2006 1:57 PM

Disclaimer
Credits
Glossary

Privacy Policy
About Us
Career Opportunities

Figure 8b: WFO L3MTO Navigation Thumbnail Graphics/Selection Navigation

Users also have the ability to navigate to different sections within the WFO L3MTO site by using the “**Select Location**” (Station) and “**Select Variable**” options highlighted by the **Blue** rectangle. Here users can switch between station(s) and products/variables by simply making choices using the dropdown menus.



Three Category Temperature Outlook

When users arrive on the WFO L3MTO site, the Three Category Temperature Outlook is displayed by default. Here users are presented with graphical representations of the Suggested Temperature Outlook Breakdowns for the selected station. Users can click the thumbnail graphic, labeled with the specific three-month period they're interested in, to get a more in-depth look at that particular three-month period. This action will present users with a new page containing a larger graphic and color-coded text breakdown of that specific three-month period. See **Figures 9 and 10**.

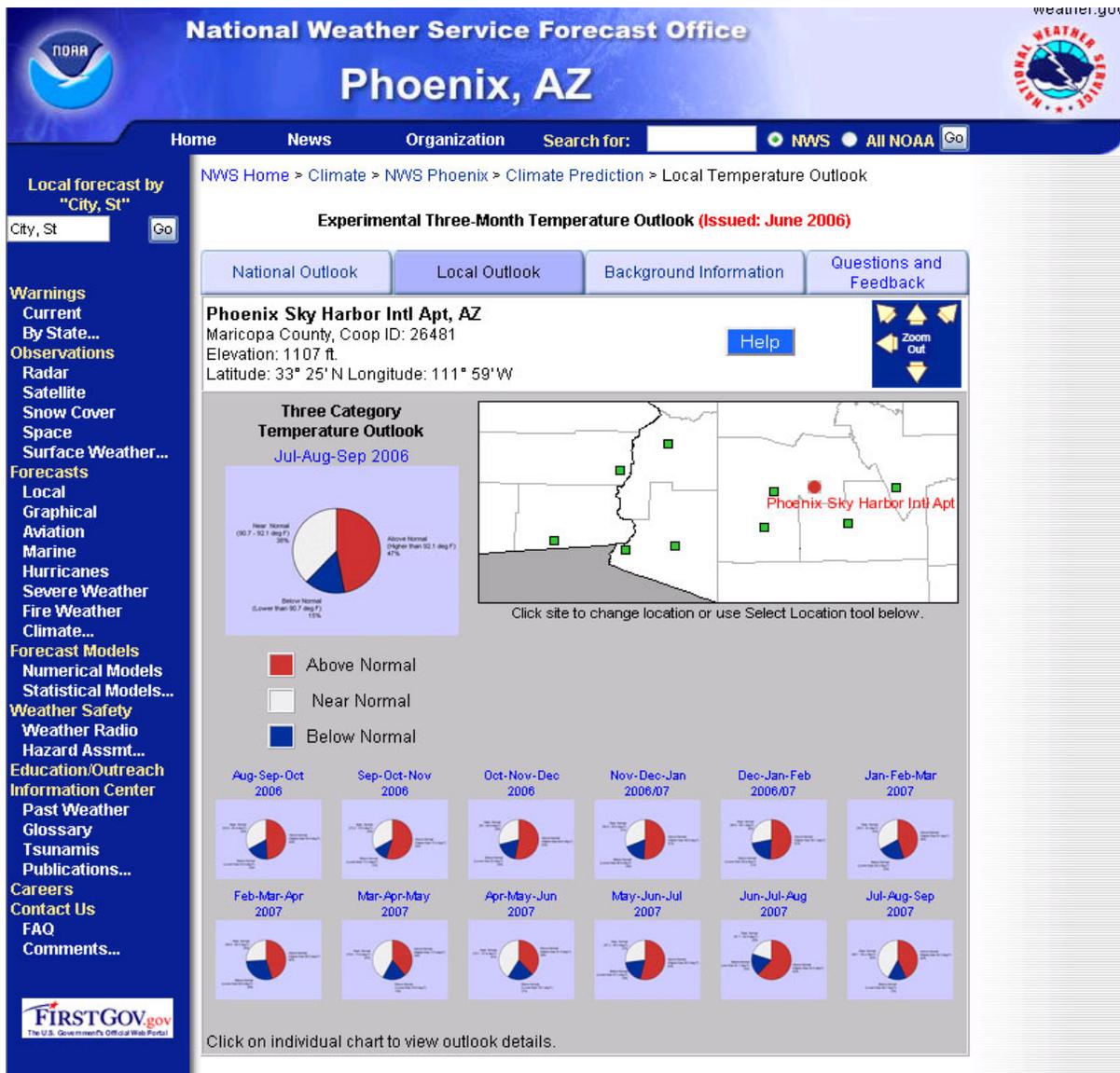
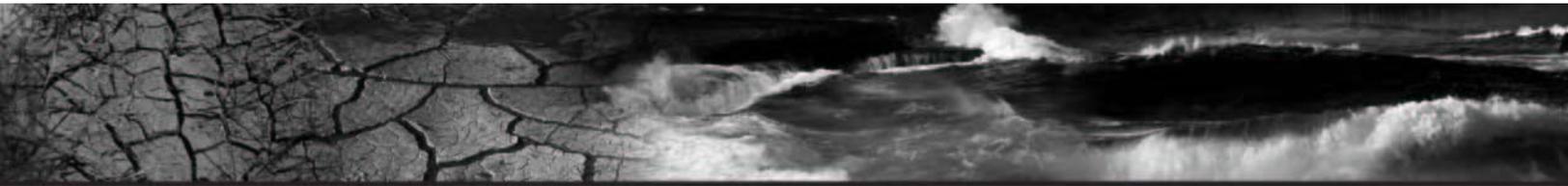


Figure 9: WFO L3MTO Default Page (Three Category Temperature Outlook)



National Weather Service Forecast Office
weather.gov

Phoenix, AZ

Home News Organization Search for: NWS All NOAA Go

NWS Home > Climate > NWS Phoenix > Climate Prediction > Local Temperature Outlook

Experimental Three-Month Temperature Outlook (Issued: June 2006)

National Outlook Local Outlook Background Information Questions and Feedback

Phoenix Sky Harbor Intl Apt, AZ

Maricopa County, Coop ID: 26481
Elevation: 1107 ft.
Latitude: 33° 25' N Longitude: 111° 59' W

Three Category Temperature Outlook: Jul-Aug-Sep 2006

Category	Percentage	Description
Above Normal	47%	Higher than 92.1 deg F
Near Normal	38%	90.7 - 92.1 deg F
Below Normal	15%	Lower than 90.7 deg F

There is a 47.0% chance for the average temperature during this 3-month period to be higher than 92.1°.

There is a 38.0% chance for the average temperature during this 3-month period to be between 90.7° and 92.1°.

There is a 15.0% chance for the average temperature during this 3-month period to be lower than 90.7°.

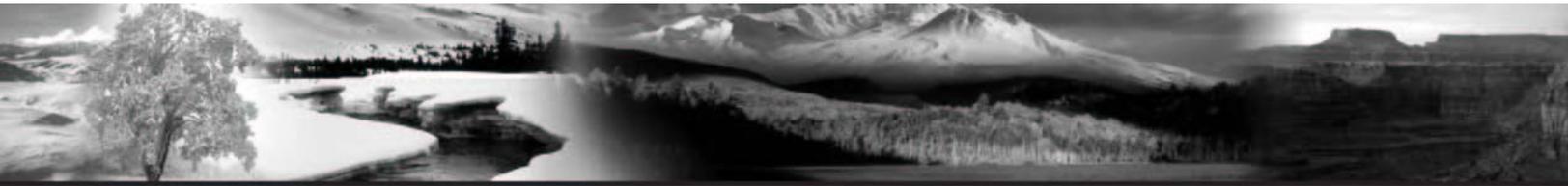
Table Text Only

Select Location: Phoenix Sky Harbor | Select Time Period: Jul-Aug-Sep 2006 | Select Product: Three Category Outl | Outlook Evaluation

Three Category Calendar | Temperature Range | Probability of Exceedance

Figure 10: More in-depth Three Month Categorized Outlook

On this page, users have the option of viewing the text-only format of the graphical representations. To view this format of data click [Table Text Only](#); this will bring up a separate window containing all of the current Three-Month, Three-Category Outlooks in a text format, see **Figure 11**.



Experimental Three-Month Temperature Outlook
Issued: June 2006

Phoenix Sky Harbor Intl Apt, AZ
Maricopa County, Coop ID: 26481 Elevation: 1107 ft. Latitude: 33° 25' N Longitude: 111° 59' W

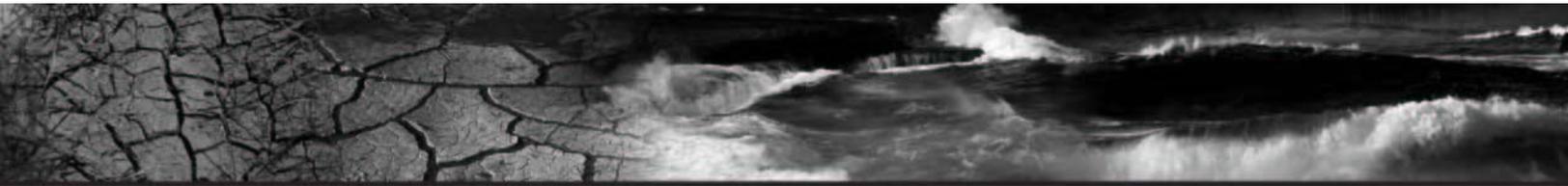
Three Category Outlook Table

Season	Below Normal		Near Normal			Above Normal		
Jul-Aug-Sep 2006	15.0%	90.7°	38.0%	90.7°	and	92.1°	47.0%	92.1°
Aug-Sep-Oct 2006	18.0%	83.9°	33.0%	83.9°	and	85.4°	49.0%	85.4°
Sep-Oct-Nov 2006	12.0%	73.2°	33.0%	73.2°	and	75.5°	55.0%	75.5°
Oct-Nov-Dec 2006	18.0%	63°	29.0%	63°	and	64.8°	53.0%	64.8°
Nov-Dec-Jan 2006/7	18.0%	56.9°	31.0%	56.9°	and	58.8°	51.0%	58.8°
Dec-Jan-Feb 2006/7	21.0%	56.6°	28.0%	56.6°	and	58.1°	51.0%	58.1°
Jan-Feb-Mar 2007	22.0%	59.2°	33.0%	59.2°	and	61°	45.0%	61°
Feb-Mar-Apr 2007	29.0%	64.8°	26.0%	64.8°	and	66.5°	45.0%	66.5°
Mar-Apr-May 2007	19.0%	70.6°	42.0%	70.6°	and	73.5°	39.0%	73.5°
Apr-May-Jun 2007	21.0%	79.1°	41.0%	79.1°	and	81.6°	38.0%	81.6°
May-Jun-Jul 2007	19.0%	87.2°	27.0%	87.2°	and	88.3°	54.0%	88.3°
Jun-Jul-Aug 2007	18.0%	91.7°	20.0%	91.7°	and	92.5°	62.0%	92.5°
Jul-Aug-Sep 2007	15.0%	90.7°	42.0%	90.7°	and	92.2°	43.0%	92.2°

Close Window

Figure 11: Three Category Outlook (Text-Only Format)

In the text-only format, data from all 13 Three Category Outlooks for the particular location are displayed. The station location information [issue dates, location, elevation, latitude, and longitude of the outlook(s)] are displayed in this summary as well. Click the “Close Window” button, highlighted in the graphic above with the **Red** rectangle, to close the window containing the Text-Only Format of the Three Month-Three Category Outlook.



Outlook Tables – Three Category Outlook

Users have the ability to view the Three Category Outlook(s) in either graphical chart(s) or in tabular form. On the WFO L3MTO main page, graphical chart view is the default view; however if users wish to view the current station information in tabular form, they only need to click on the thumbnail graphic labeled “Outlook Table” to view all 13 Three-Month, Three Category Outlooks on one table. Like the graphical outlook calendar, users have the option of selecting the text-only format of this table by clicking

[Table Text Only](#)

. See *Figure 12*.

National Weather Service Forecast Office
Phoenix, AZ

Home News Organization Search for: NWS All NOAA Go

NWS Home > Climate > NWS Phoenix > Climate Prediction > Local Temperature Outlook

Experimental Three-Month Temperature Outlook (Issued: June 2006)

National Outlook Local Outlook Background Information Questions and Feedback

Phoenix Sky Harbor Intl Apt, AZ
 Maricopa County, Coop ID: 26481
 Elevation: 1107 ft.
 Latitude: 33° 25' N Longitude: 111° 59' W

Three Category Outlook Table

Season	Below Normal		Near Normal		Above Normal	
	There is a chance for	temperature during this 3-month period to be lower than	There is a chance for	the average temperature during this 3-month period to be between	There is a chance for	temperature during this 3-month period to be higher than
Jul-Aug-Sep 2006	15.0%	90.7°	38.0%	90.7° and 92.1°	47.0%	92.1°
Aug-Sep-Oct 2006	18.0%	83.9°	33.0%	83.9° and 85.4°	49.0%	85.4°
Sep-Oct-Nov 2006	12.0%	73.2°	33.0%	73.2° and 75.5°	56.0%	75.5°
Oct-Nov-Dec 2006	18.0%	63°	29.0%	63° and 64.8°	53.0%	64.8°
Nov-Dec-Jan 2006/7	18.0%	56.9°	31.0%	56.9° and 58.8°	51.0%	58.8°
Dec-Jan-Feb 2006/7	21.0%	56.6°	28.0%	56.6° and 58.1°	51.0%	58.1°
Jan-Feb-Mar 2007	22.0%	59.2°	33.0%	59.2° and 61°	46.0%	61°
Feb-Mar-Apr 2007	29.0%	64.8°	26.0%	64.8° and 66.5°	45.0%	66.5°
Mar-Apr-May 2007	19.0%	70.6°	42.0%	70.6° and 73.5°	39.0%	73.5°
Apr-May-Jun 2007	21.0%	79.1°	41.0%	79.1° and 81.6°	38.0%	81.6°
May-Jun-Jul 2007	19.0%	87.2°	27.0%	87.2° and 88.3°	54.0%	88.3°
Jun-Jul-Aug 2007	18.0%	91.7°	20.0%	91.7° and 92.5°	62.0%	92.5°
Jul-Aug-Sep 2007	15.0%	90.7°	42.0%	90.7° and 92.2°	43.0%	92.2°

Legend: Blue, Gray, or Red Shading indicate an enhanced chance for Below, Near, or Above Normal Category respectively.

[Table Text Only](#)

Select Location: Phoenix Sky Harbor Select Time Period: Jul-Aug-Sep 2006 Select Product: Outlook Table [Outlook Evaluation](#)

Figure 12: Three-Category, Three-Month Temperature Outlook (Tabular Form)



Probability of Exceedance – Graph(s)/Table

Once users have chosen to view Probability of Exceedance (PoE) for a location within a WFO’s CWA, they will be directed to a page that is designed similar to the default WFO L3MTO page (Three Category-Three Month Temperature Outlook) however, instead of pie charts, the users will see PoE line graphs, see **Figure 13**. Navigation works exactly the same as it did for the Three Category Outlook page. When a user wishes to view a particular 3-month period they only need to click the thumbnail graphic associated with that period to be directed to a page that displays more information for the period.

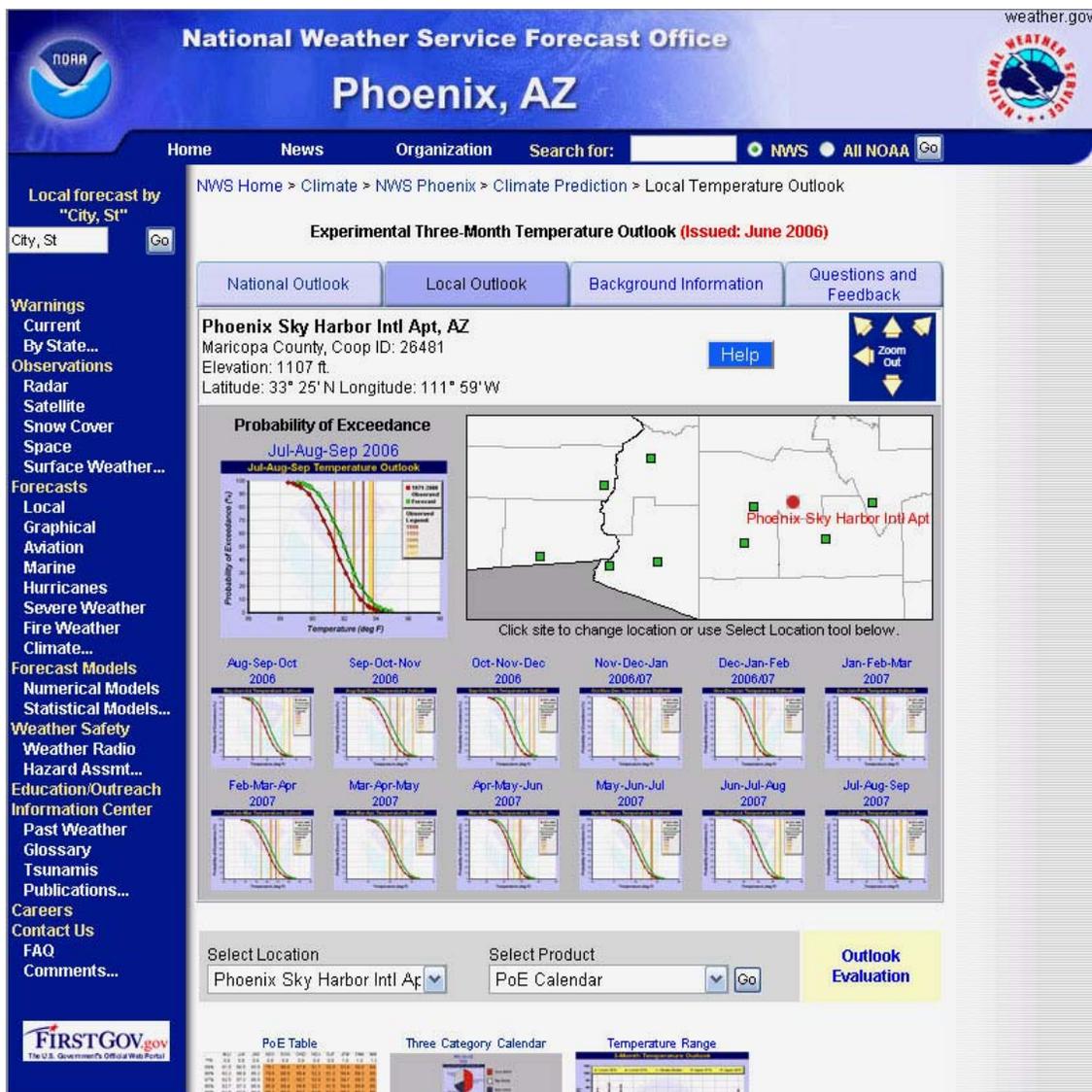


Figure 13: Probability of Exceedance Main Page

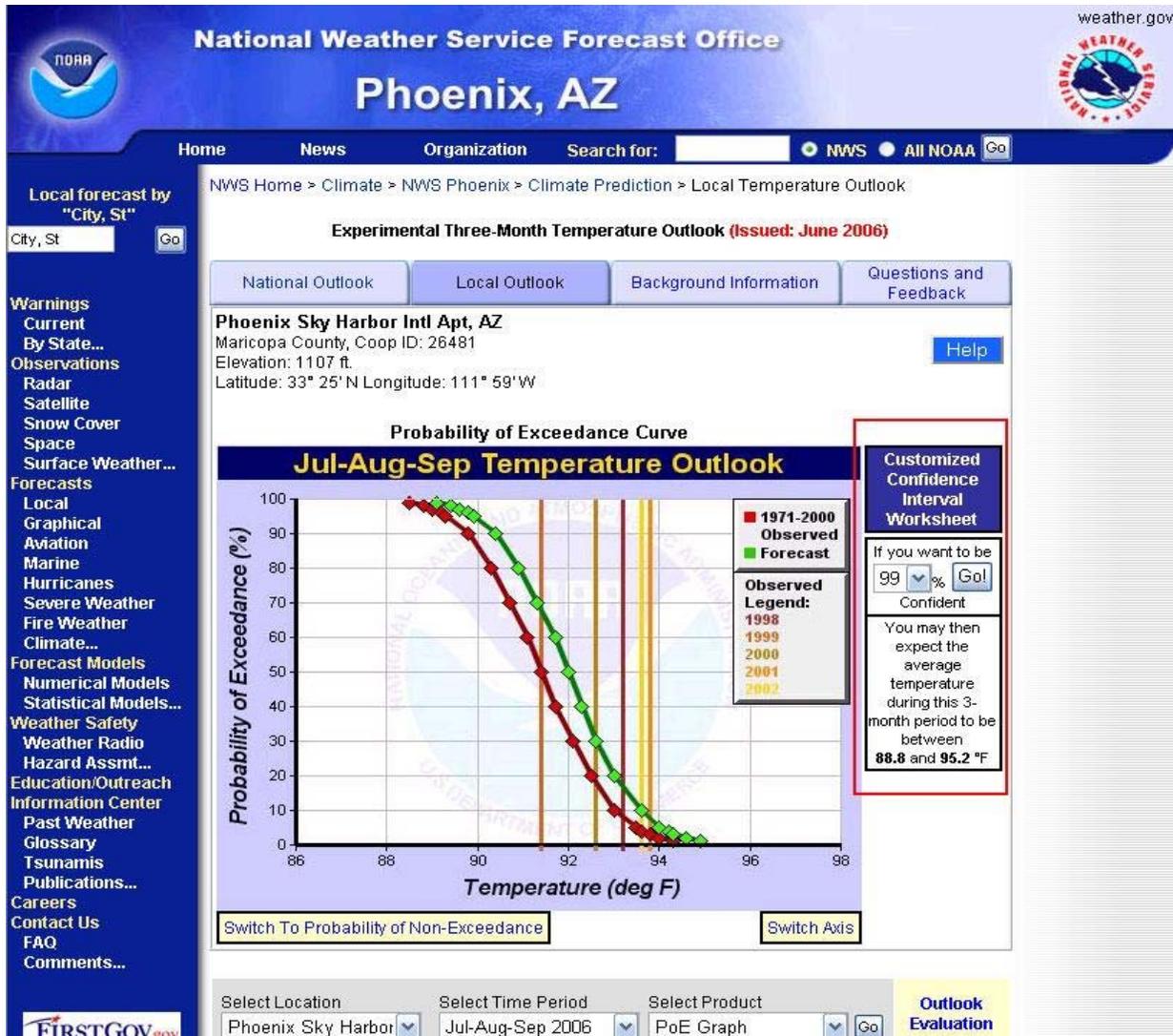


Figure 14: Probability of Exceedance Curve for 3-Month Period

Once users have arrived at this level within the variable of PoE, they will be presented with options that will allow them to view the data in a manner that is more meaningful to their needs. Users can click

[Switch To Probability of Non-Exceedance](#)

to change the currently displayed Probability of Exceedance graph into a Probability of Non-Exceedance graph. Users also have the ability to change the axis in which the data

[Switch Axis](#)

are displayed/plotted in the graph by clicking . Also located on these pages (Probability of Exceedance and Probability of Non-Exceedance) is the Customized Confidence Interval Worksheet. This tool allows users to input a percentage of confidence value that, in turn, will produce an average temperature range within that level of confidence percentage within the tool. The tool can be seen above highlighted with the Red rectangle, and can also be seen below in more detail; see **Figure 15**

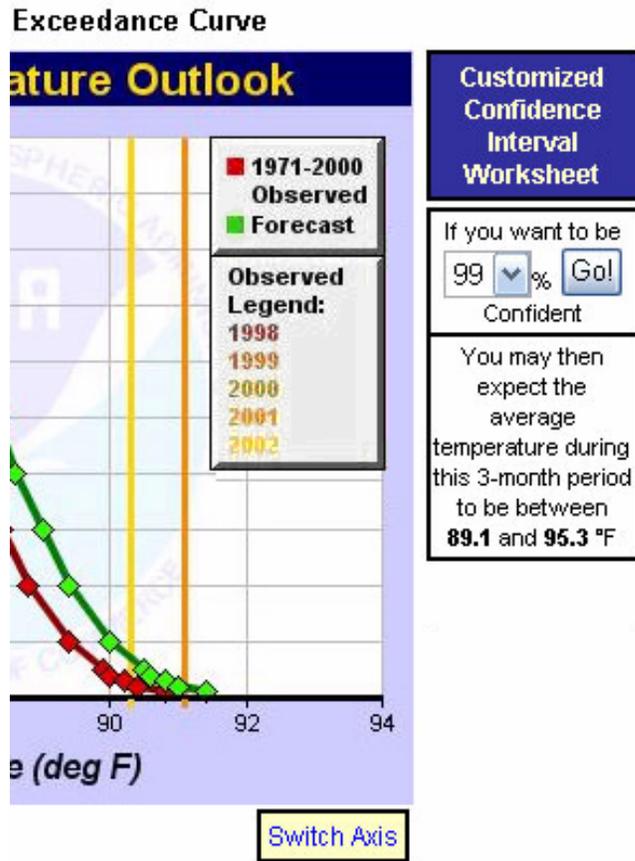
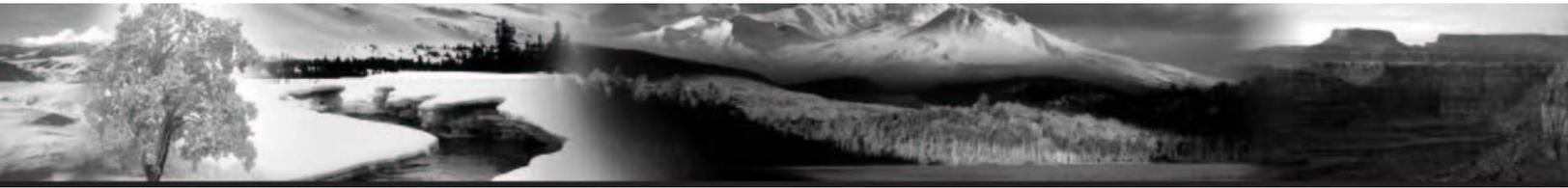
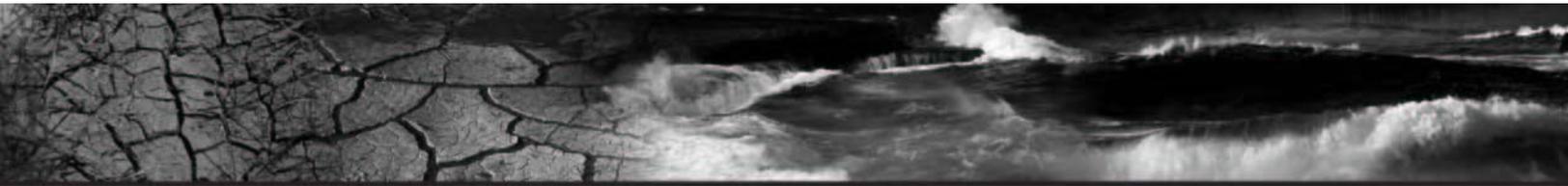


Figure 15: Customized Confidence Interval Worksheet



Probability of Exceedance Table

Users can view the Probability of Exceedance data for all 13 outlook/forecast(s) at the same time by clicking the thumbnail labeled PoE Table. Here users can see all data in tabular format with a color legend to easily distinguish areas of exceedance.

NWS Home > Climate > NWS Phoenix > Climate Prediction > Local Temperature Outlook

Experimental Three-Month Temperature Outlook (Issued: June 2006)

National Outlook | Local Outlook | Background Information | Questions and Feedback

Phoenix Sky Harbor Intl Apt, AZ
 Maricopa County, Coop ID: 26481
 Elevation: 1107 ft.
 Latitude: 33° 25' N Longitude: 111° 59' W

Probability of Exceedance Table

	JAS	ASO	SON	OND	NDJ	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS
**R	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
99%	89.1	81.5	70.8	59.9	54.0	53.7	56.2	60.7	66.9	75.6	85.3	90.0	89.1
98%	89.4	82.0	71.4	60.5	54.6	54.2	56.7	61.3	67.5	76.2	85.7	90.4	89.4
97%	89.6	82.3	71.8	60.9	55.0	54.5	57.0	61.7	68.0	76.6	85.9	90.6	89.6
96%	89.8	82.5	72.0	61.2	55.2	54.8	57.3	62.0	68.3	76.9	86.1	90.7	89.8
95%	89.9	82.7	72.3	61.4	55.5	55.0	57.5	62.3	68.6	77.1	86.2	90.9	89.9
90%	90.4	83.3	73.0	62.2	56.2	55.7	58.2	63.1	69.5	78.0	86.7	91.3	90.4
80%	90.9	84.0	73.9	63.2	57.1	56.5	59.1	64.2	70.6	79.0	87.3	91.8	91.0
70%	91.3	84.5	74.6	63.9	57.8	57.1	59.7	64.9	71.4	79.7	87.7	92.2	91.4
60%	91.7	85.0	75.2	64.4	58.3	57.6	60.2	65.6	72.1	80.4	88.1	92.5	91.7
50%	92.0	85.4	75.7	65.0	58.9	58.1	60.7	66.2	72.8	81.0	88.4	92.8	92.0
40%	92.3	85.8	76.3	65.6	59.4	58.6	61.2	66.8	73.4	81.6	88.7	93.1	92.3
30%	92.6	86.3	76.8	66.2	60.0	59.1	61.7	67.4	74.1	82.2	89.1	93.5	92.7
20%	93.0	86.8	77.5	66.8	60.6	59.7	62.3	68.2	74.9	82.9	89.5	93.8	93.1
10%	93.6	87.5	78.4	67.8	61.5	60.5	63.2	69.2	76.0	83.9	90.1	94.4	93.6
5%	94.0	88.1	79.2	68.6	62.3	61.2	63.9	70.1	76.9	84.8	90.6	94.8	94.1
4%	94.2	88.3	79.4	68.8	62.5	61.4	64.1	70.3	77.2	85.0	90.7	94.9	94.2
3%	94.3	88.5	79.7	69.1	62.8	61.7	64.4	70.6	77.5	85.3	90.9	95.1	94.4
2%	94.6	88.8	80.0	69.5	63.1	62.0	64.7	71.0	78.0	85.7	91.1	95.3	94.6
1%	94.9	89.2	80.6	70.1	63.7	62.5	65.2	71.7	78.7	86.4	91.5	95.6	94.9
*Mean	92.0	85.4	75.7	65.0	58.9	58.1	60.7	66.2	72.8	81.0	88.4	92.8	92.0
StDev	1.3	1.7	2.1	2.2	2.1	1.9	1.9	2.4	2.5	2.3	1.3	1.2	1.3

Color Legend: Deviation from Climatology (deg F)

Color Legend	Deviation from Climatology (deg F)	Color Legend	Deviation from Climatology (deg F)	Color Legend	Deviation from Climatology (deg F)
Dark Blue	< -2.5	Light Blue	-0.5 thru -1.0	Red	1.5 thru 2.0
Blue	-2.0 thru -2.5	White	-0.5 > deg F < 0.5	Dark Red	2.0 thru 2.5
Dark Blue	-1.5 thru -2.0	Orange	0.5 thru 1.0	Dark Red	> 2.5
Blue	-1.0 thru -1.5	Orange	1.0 thru 1.5		

Table Text Only

Switch To Probability of Non-Exceedance Table

Figure 16: Probability of Exceedance Table

Users also have the ability to view the PoE table data in a text-only format by clicking

Table Text Only

. This will display the data in a separate window just like the Three Category Outlook text-only data. Additionally, users have the ability to view Non-Exceedance Data in tabular format

Switch To
Probability of Non-Exceedance Table

by clicking



Temperature Range for Confidence Intervals Page

Upon clicking/using the appropriate dropdown link or thumbnail graphic to navigate to the Temperature Range Confidence Intervals Page, users will initially see a plotted graph at the 99% confidence level for the selected station. Using the Customized Confidence Interval Worksheet on this page, same tool shown in **Figure 15**, users can re-plot the graph using other available pre-defined confidence intervals within this tool: 50, 70, 90, 95, and 99%. Just like the other graphical representations throughout the site, users have the ability to view the text-only format for this data by clicking [Table Text Only](#). See **Figure 17**.

Local forecast by "City, St"

City, St

Warnings

- Current
- By State...

Observations

- Radar
- Satellite
- Snow Cover
- Space
- Surface Weather...

Forecasts

- Local
- Graphical
- Aviation
- Marine
- Hurricanes
- Severe Weather
- Fire Weather
- Climate...

Forecast Models

- Numerical Models
- Statistical Models...

Weather Safety

- Weather Radio
- Hazard Assmt...
- Education/Outreach
- Information Center
- Past Weather
- Glossary
- Tsunamis
- Publications...

Careers

- Contact Us
- FAQ
- Comments...

NWS Home > Climate > NWS Phoenix > Climate Prediction > Local Temperature Outlook

Experimental Three-Month Temperature Outlook (Issued: June 2006)

National Outlook
Local Outlook
Background Information
Questions and Feedback

Phoenix Sky Harbor Intl Apt, AZ
 Maricopa County, Coop ID: 26481
 Elevation: 1107 ft.
 Latitude: 33° 25' N Longitude: 111° 59' W

[Help](#)

Temperature Range for 99% Confidence Interval

3-Month Temperature Outlook

Customized Confidence Interval Worksheet

If you want to be %

Confident

[Tabular Data](#)

	JAS	ASO	SON	OND	NDJ	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS
Median	92.0	85.4	75.7	65.0	58.9	58.1	60.7	66.2	72.8	81.0	88.4	92.8	92.0
99%	95.2 88.8	89.7 81.1	81.1 70.3	70.7 59.4	64.2 53.5	63.0 53.2	65.7 55.7	72.3 60.1	79.3 66.2	87.0 75.0	91.8 85.0	95.9 89.7	95.3 88.8

[Table Text Only](#)
[Text Discussion](#)

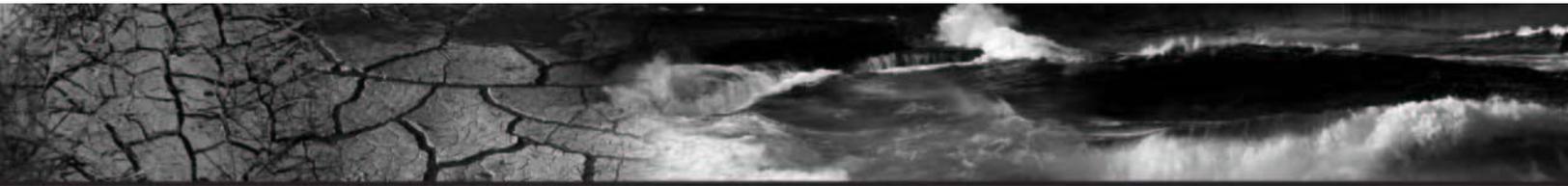
Select Location: Phoenix Sky Harbor

Select Time Period: Jul-Aug-Sep 2006

Select Product: Temperature Range

[Outlook Evaluation](#)

Figure 17: Temperature Range Page



The data on the Temperature Range Confidence Intervals Page can also be viewed in Tabular Format by clicking [Tabular Data](#); this action will redirect users to the Probability of Exceedance Table page, **Figure 16**.

Users can also view the text discussions for each Three-Month Outlook period by clicking

[Text Discussion](#)

. This action will display a new window containing all of the text discussions for the valid forecast/outlook period. See **Figure 18** below. Just as with the other Text-Only Format products, users can click the “Close Window” button to close the window and return to the last L3MTO page they were viewing.

Jun-Jul-Aug 2007

There is a 99% chance that the average 3-month temperature will be within the range of 89.7 and 95.9 Deg F.

There is a greater (72.1%) chance that the temperature will be higher than the climatological median* of 92.1 Deg F, and a lesser (27.9%) chance that the temperature will be lower than the climatological median*.

Jul-Aug-Sep 2007

There is a 99% chance that the average 3-month temperature will be within the range of 88.8 and 95.3 Deg F.

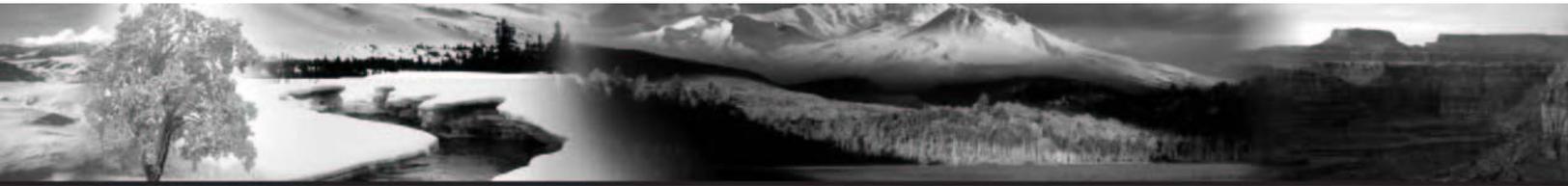
There is a greater (68.6%) chance that the temperature will be higher than the climatological median* of 91.2 Deg F, and a lesser (31.4%) chance that the temperature will be lower than the climatological median*.

*For the climatological reference information, the median statistic is reported. The median value means that during the present climatological reference period (1971-2000), half of the years (50%) temperature was greater than the median and in the other half (50%) less than that.

Close Window

Figure 18: Text Discussion Examples

Users can also view individual text discussions for a specific three-month period by clicking on the plotted graph in the desired outlook date range. See **Figure 19** for example.



Local forecast by "City, St"
 City, St

Current Hazards
 Watches/Warnings
 StormCenter
 National Outlooks

Current Conditions
 Observations
 Rivers & Lakes
 AHPS
 Weather Roundup
 Radar Imagery
 Satellite Imagery
 NOAA Weather Radio

Forecasts
 Local Forecasts
 Forecast Matrix
 Numerical Models
 Weather Center
 Aviation
 Fire Weather
 Tropical

Climate
 Local
 National
 More...

Hydrology
 Forecasts/Data
 AHPS Page
 CO Basin RFC
 CA-Nevada RFC

Quick Weather
 Phoenix Zones
 Flagstaff Zones
 Tucson Zones
 Las Vegas Zones
 Discussion

AZ Today
 Yuma Sunrise
 Phoenix Sunrise

Weather Safety
 Weather Radio
 Storm Ready
 Safety Rules

Other Information
 SKYWARN
 Storm Report
 Links
 General
Contact Us
 Webmaster
 Ask Questions

NWS HO
 Phoe
 Maricop
 Elevatio
 Latitude

PHOENIX SKY HARBOR INTL AP - Microsoft Internet Explorer
 File Edit View Favorites Tools Help
 Address https://dev.enable-us.com/climate/text.php?site=26481&lead=9
 Google Search
 Norton AntiVirus

Average Temperature Outlook for PHOENIX SKY HARBOR INTL AP (issued in May 2006) suggests that during Feb-Mar-Apr 2007:

There is a 67% chance that the seasonal temperature will be within the range of 63.8 and 68.5 Deg F, and a 95% chance that the temperature will be greater than 61.4 and less than 70.9 Deg F.

There is a greater (63.4%) chance that the temperature will be above the climatological median* of 65.7 Deg F, and a lesser (36.6%) chance that the temperature will be below the climatological median*.

*For the climatological reference information, the median statistic is reported. The median value means that during the present climatological reference period (1971-2000), half of the years (50%) temperature was greater than the median and in the other half (50%) less than that.

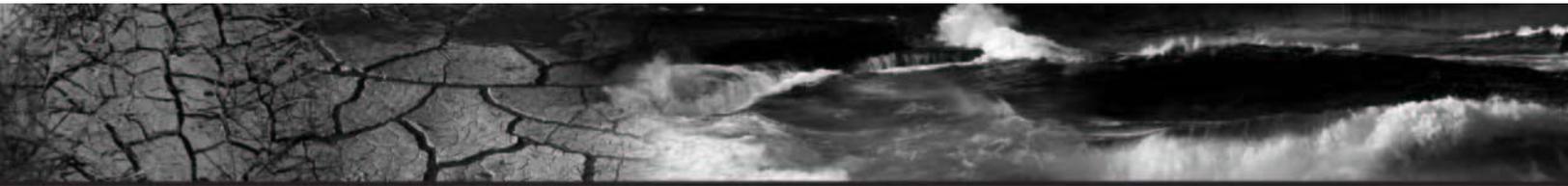
Average 3-Month Temperature (F)

Median																										
95%	89.8	89.3	82.1	71.5	60.6	54.6	54.2	56.8	61.4	67.7	75.8	85.2	89.6	94.6	94.3	88.7	79.9	69.4	62.9	61.8	64.6	70.9	77.8	85.1	90.6	94.4
67%	91.0	90.6	83.7	73.6	62.8	56.7	56.1	58.7	63.8	70.2	78.2	86.6	90.8	93.4	93.1	87.1	77.8	67.2	60.9	59.9	62.6	68.5	75.3	82.8	89.2	93.2

Table Text Only Text Discussion

Select Location: Phoenix Sky Harbor Intl
 Select Time Period: Jun-Jul-Aug 2006
 Select Variable: Temperature
 Outlook Evaluation

Figure 19: Click on Graph Text Discussion Example



Background Information Tab

Background Information shows at-a-glance all product components of Three Month Temperature Outlook and their interrelationship. Access to current outlooks is provided using small icons with the component image. Additionally, a [Help](#) button is available for each product component and a Product Description Document is available through the [NWS National Catalogue of New or Enhanced Products](#). Also, a glossary of terms is available by clicking the following link: [Climate Glossary](#).

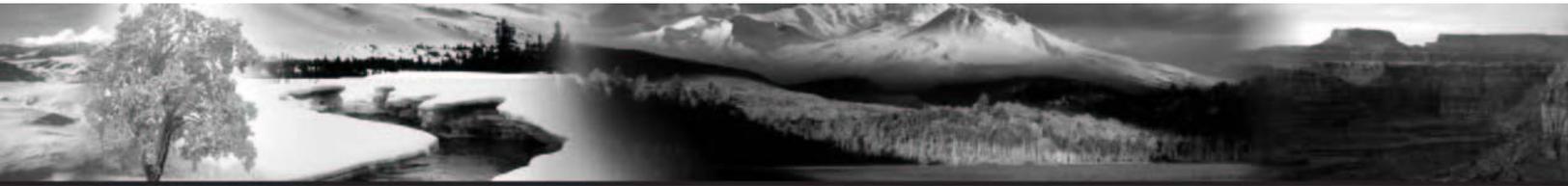
The screenshot shows the NWS Phoenix website interface. At the top, it says "National Weather Service Forecast Office Phoenix, AZ". Below that is a navigation bar with "Home", "News", "Organization", and a search field. The main content area is titled "Experimental Three-Month Temperature Outlook (Issued: June 2006)". There are four tabs: "National Outlook", "Local Outlook", "Background Information" (which is selected), and "Questions and Feedback".

The "Background Information" tab contains a detailed description of the outlook products. It features a central diagram showing the relationships between various outlook components:

- National Outlook** (with a map of the US) and **Local Outlook** (with a grid of icons) are at the top.
- Arrows point from these to **Probability of Exceedance Calendar** and **Temperature Range**.
- From **Temperature Range**, arrows point to **Probability of Exceedance** and **Probability of Non-Exceedance**.
- From **Probability of Exceedance**, arrows point to **PoE Table** and **PoNE Table**.
- From **Probability of Non-Exceedance**, an arrow points to **PoNE Table**.
- Other components shown include **Three Category Outlook**, **Outlook Table**, and **Text Discussion**.

Each component in the diagram has a small "Help" button below it. The left sidebar contains various navigation links such as "Warnings", "Observations", "Forecasts", "Weather Safety", and "Education/Outreach".

Figure 20: Background Information Page



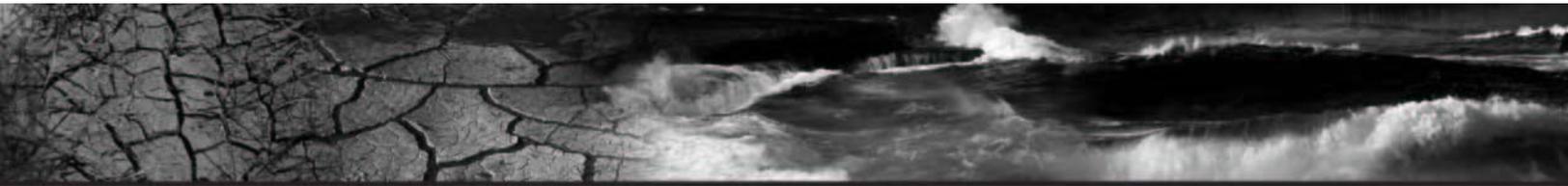
Questions and Feedback Tab

The Questions and Feedback Tab is designed to allow users to provide both general and specific feedback about the L3MTO Web site. Users need to simply use the selection areas and text input boxes to answer questions pertaining to their experiences on the site. See **Figure 21** below:

The screenshot shows the National Weather Service Forecast Office Phoenix, AZ website. The page title is "Local Three-Month Temperature Outlook (Issued: June 2006)". The page includes a navigation menu with "Home", "News", "Organization", and "Search for:" followed by "NWS" and "All NOAA" buttons. The main content area is titled "Local Three-Month Temperature Outlook (Issued: June 2006)" and includes a note about providing feedback and a "Privacy Policy" link. The "Questions and Feedback" tab is selected, showing four questions:

- 1) What products/services did you obtain?**
 - National 3-Month Temperature Outlook
 - Local 3-Month Temperature Outlook
 - Probability of Exceedance
 - Probability of Non-Exceedance
 - Temperature Range for 95 and 67% Confidence Intervals
 - Text Products
 - Other
- 2) How did you find out about our products?**
- 3) What will be the primary use of the service?**
 - Scientific Research
 - Business
 - Legal
 - Education
 - Personal
 - Other
- 4) Do you have suggestions as to how NWS can improve its products and services?**

Figure 21: Questions and Feedback Page



Users can also access the Questions and Feedback Page at any time during their visit to the L3MTO Site by clicking the link highlighted with the **Red** rectangle below in **Figure 22**. This link is located at the bottom left of every page within the L3MTO Web Suite.

Phoenix Weather Forecast Office
P.O. Box 52025
Phoenix, AZ 85072
Tel: (602) 275-0073
Page last modified: 17-Jul-2006 12:08 PM

Disclaimer
Credits
Glossary

Privacy Policy
About Us
Career Opportunities

[Click here to provide comments on this service.](#)

Figure 22: Questions and Feedback Link

