



# NOAA's National Weather Service Climate Services Program Customer Satisfaction Study 2009

## Introduction

NOAA's National Weather Service (NWS) Climate Services program is committed to meeting the needs of its customers through collaboration and partnerships, outreach and training, and the NWS delivery infrastructure, which includes the Climate Prediction Center and NWS Regional and Local offices. The NWS is researching user satisfaction with products and services provided by the Climate Services program, and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help NWS improve its climate products and services for you and others like you.

Your answers are voluntary, but your opinions are very important for this research. Your responses will be held completely confidential, and you will never be identified by name. CFI Group, a third party research and consulting firm, is administering this survey via a secure server. The time required to complete this survey will be dependent on how certain questions are answered, but it will likely take approximately 20 minutes, and is authorized by Office of Management and Budget Control No. 1505-0191.

Please click on the "Next" button below to begin the survey.

## Part 1: Information about you:

- 1.1 Please provide your zip code.
- 1.2 What area best applies to you as a user of NWS climate information?
  - a. Academia
  - b. Government (non-NOAA)
  - c. NOAA (non-NWS)
  - d. NWS
  - e. Commercial
  - f. Public
  - g. Other (**please specify**)
- 1.3 What best describes your geographical scope of use of NWS climate information?
  - a. Local (US)
  - b. State or regional area (US)
  - c. US only
  - d. North America
  - e. Global or a region outside North America
  - f. Other (**please specify**)



- 1.4 What best describes your area of responsibility as a user of NWS climate information?
- a. Forecasting
  - b. Emergency management
  - c. Research
  - d. Education
  - e. Media
  - f. Resource management
  - g. Agriculture
  - h. Transportation
  - i. Financial markets
  - j. Personal
  - k. Other **(please specify)**

## **Part 2: Climate Prediction Center (CPC) climate services**

- 2.1 Please check all types of CPC climate information that you use. You may check more than one type.
- a. Graphics
  - b. Data
  - c. Text discussions
  - d. Forecasts or Predictions
  - e. Monitoring
  - f. Expert assessment
  - g. Do not use **(Skip to Part 3)**
- 2.2 Which specific CPC climate products do you use? Please select all that apply.
- a. Extended range (6-10 day or 8-14 day forecasts) (Skip to 2.3.1)
  - b. Long range (Monthly or seasonal forecasts) (Skip to 2.4.1)
  - c. Hazards (US or Global) (Skip to 2.5.1)
  - d. ENSO (El Nino and La Nina) (Skip to 2.6.1)
  - e. Drought (Monitor or Outlook) (Skip to 2.7.1)
  - f. Other (Skip to 2.2.1)

### User specified CPC products

- 2.2.1 Please state CPC products you use that were not listed: Open text answer
- 2.2.2 How frequently do you use these CPC products?
- a. Infrequently, but I have used it.
  - b. Occasionally
  - c. Frequently
  - d. Very frequently, but not always
  - e. Nearly every time it is released
- 2.2.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with these CPC products?
- 2.2.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do these CPC products meet your needs for this type of climate information?



2.2.4b If you did not answer 8 or above to the last question, what do you need in these CPC products that is currently missing from CPC products? Open text answer

2.2.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate these CPC products'...

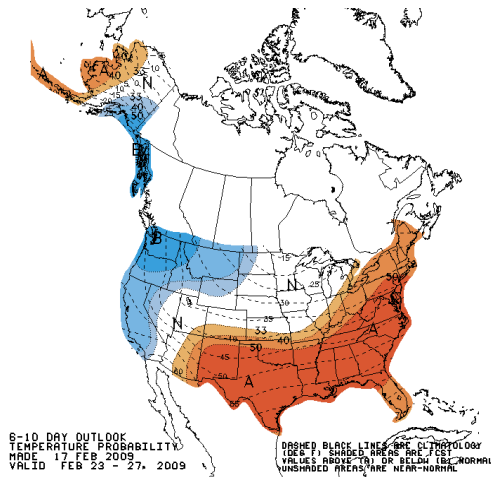
- a. Clarity
- b. Presentation
- c. Provided information

2.2.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in these CPC products?

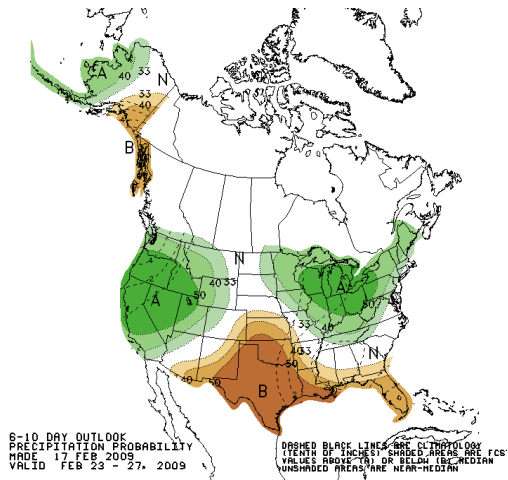
Extended range (6-10 day or 8-14 day forecasts)

2.3.1 Please select all individual Extended Range products that you use:

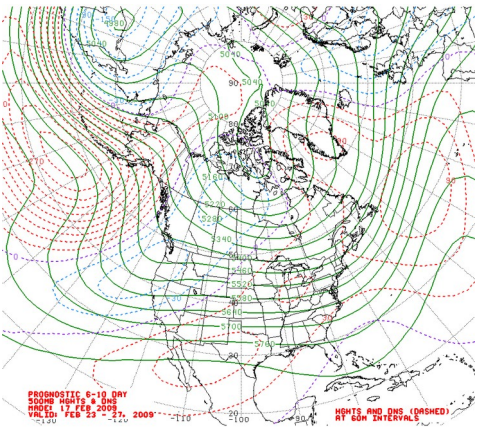
- a. 6-10 day forecasts
- b. 8-14 day forecasts



c. Temperature graphic (as shown above)



d. Precipitation graphic (as shown above)



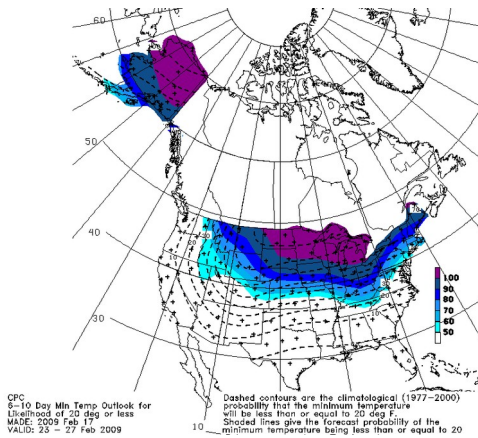
e. Official height graphic (as shown above)

PROGNOSTIC DISCUSSION FOR 6 TO 10 AND 8 TO 14 DAY OUTLOOKS  
 NWS CLIMATE PREDICTION CENTER CAMP SPRINGS, MD  
 300 PM EST TUE FEB 17 2009

6-10 DAY OUTLOOK FOR FEB 23 - 27 2009  
 TODAY'S ENSEMBLE MEAN FORECASTS ARE IN GOOD AGREEMENT ...

8-14 DAY OUTLOOK FOR FEB 25 - MAR 03, 2009 ...

f. Text discussion (as shown above)



g. Automated Wind chill or Heat index graphics (as shown above)

2.3.2 How frequently do you use an Extended Range (6-10 day or 8-14 day forecasts) product?

- a. Infrequently, but I have used it.
- b. Occasionally
- c. Frequently
- d. Very frequently, but not always
- e. Nearly every time it is released

2.3.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with Extended Range products?

2.3.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do Extended Range products meet your needs for this type of climate information?

2.3.4b If you did not answer 8 or above to the last question, what do you need in Extended Range forecast products that is currently missing from CPC products? Open text answer

2.3.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate Extended Range products...

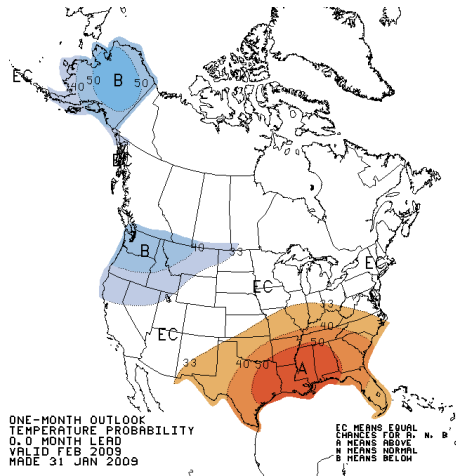
- a. Clarity
- b. Presentation
- c. Provided information

2.3.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in Extended Range products?

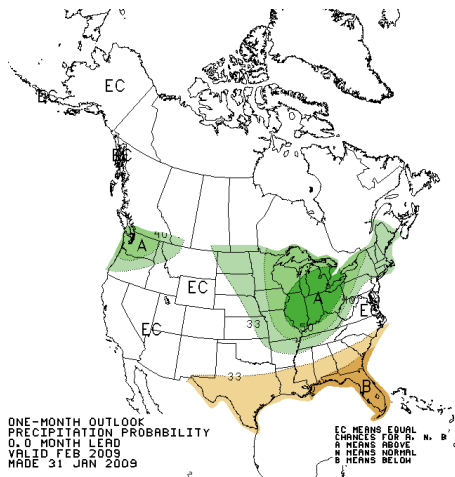


Long range (monthly and seasonal forecasts)

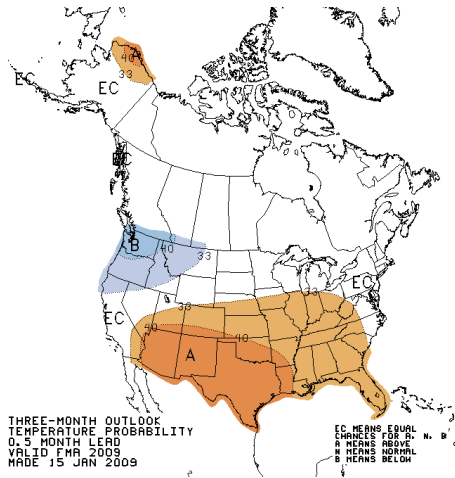
2.4.1 Please select all individual Long Range products that you use:



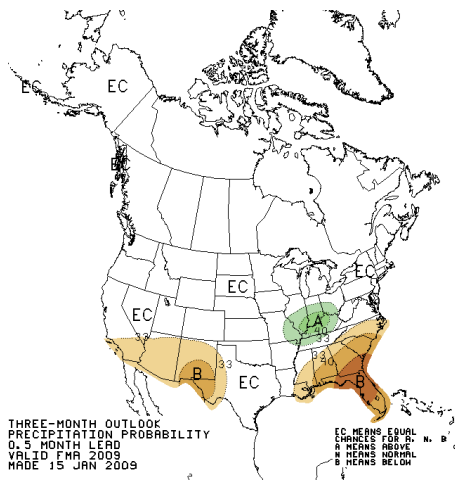
a. Monthly Temperature forecast (as shown above)



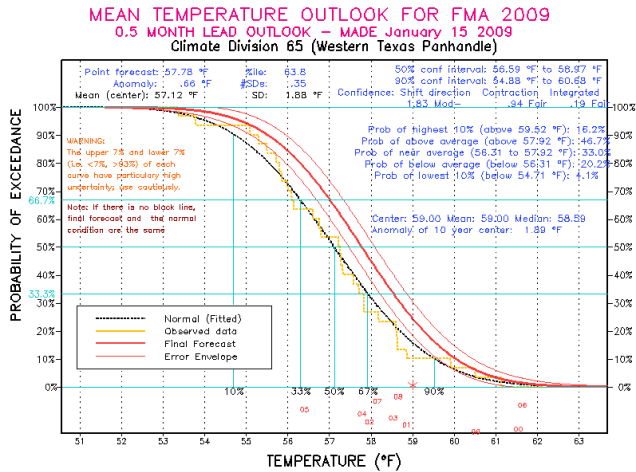
b. Monthly Precipitation forecast (as shown above)



c. Seasonal Temperature forecasts (as shown above)



d. Seasonal Precipitation forecasts (as shown above)



e. Seasonal Local Probability of Exceedence Information (as shown above)

2.4.2 How frequently do you use a Long Range (monthly or seasonal forecasts) product?

- a. Infrequently, but I have used it.
- b. Occasionally
- c. Frequently
- d. Very frequently, but not always
- e. Nearly every time it is released

2.4.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with Long Range products?

2.4.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do Long Range products meet your needs for this type of climate information?

2.4.4b If you did not answer 8 or above to the last question, what do you need in Long Range forecast products that is currently missing from CPC products? Open text answer

2.4.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate Long Range products...

- a. Clarity
- b. Presentation
- c. Provided information

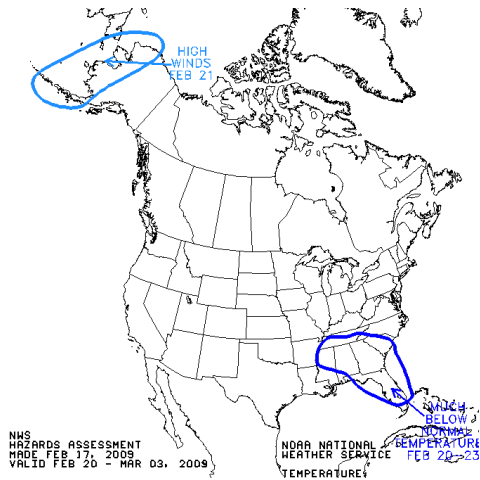
2.4.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in Long Range products?



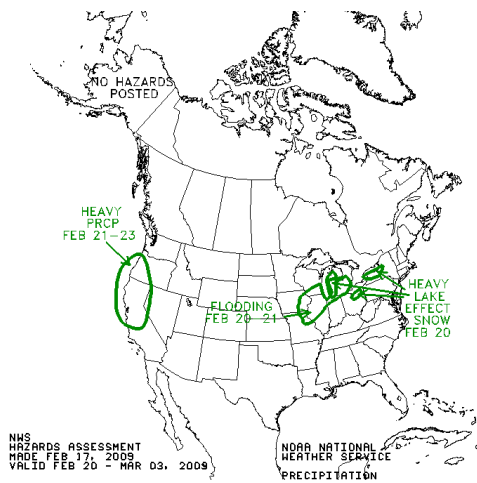


Hazards (US or Global)

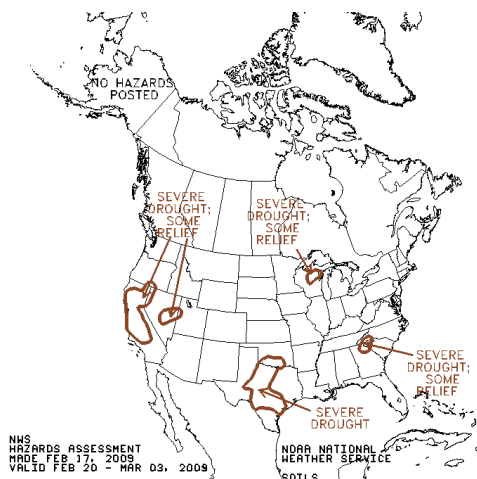
2.5.1 Please select all individual Hazards products that you use:



a. US temperature and wind hazards (as shown above)



b. US precipitation hazards (as shown above)



c. US drought and wildfire hazards (as shown above)

US HAZARDS ASSESSMENT  
 NWS CLIMATE PREDICTION CENTER CAMP SPRINGS MD  
 300 PM EST FEBRUARY 17 2009  
 SYNOPSIS: A STRONG AREA OF LOW PRESSURE IS EXPECTED TO MOVE ...

d. US hazards assessment text (as shown above)

**Global Tropics Hazards/Benefits Assessment - Climate Prediction Center - Issued: 2/17/2009**



Product issued once per week with no updates. Conditions are subject to change after issuance time and before next outlook.  
 Product targets broad scale conditions integrated over a 7 day period for US interests only. Please also consult your local responsible forecast agency.

**Week 1 Outlook – Valid: February 17 - 23, 2009**



1. An increased chance for above-average rainfall for the Maritime Continent and South Pacific Convergence Zone (SPCZ). The consolidation of the La Nina signal is expected to result in enhanced rainfall in this region. **Confidence: High**
2. An increased chance for tropical cyclogenesis to the northwest of Australia across the Indian Ocean. With active convection, favorable low-level winds, and areas of weak vertical wind shear, the environment is expected to be favorable for tropical cyclone development. **Confidence: Moderate**
3. An increased chance for below-average rainfall for the central Pacific Ocean. Below average sea surface temperatures (SST) associated with La Nina is expected to contribute to dry conditions in this area. **Confidence: High**
4. An increased chance for above-average rainfall for eastern equatorial South America. Enhanced rainfall is expected in this region due to background La Nina conditions and anomalous low-level convergence. **Confidence: Moderate**

**TEXT ITEM:** Tropical cyclone development will remain a threat for waters northeast of Australia as the SPCZ becomes active. Confidence is low at the current time.

**\*\* ACTIVE TROPICAL CYCLONES:**

Southwest Pacific Ocean, Tropical Cyclone Inria (23 IS, 163 SE) → Consult updates from the Joint Typhoon Warning Center

**Please note:** Confidence estimates are subjective in nature and are not based on an objective scheme. The estimates are given to provide additional information to the user.

e. Global tropics benefits/hazards assessment graphic and text (as shown above)



2.5.2 How frequently do you use a Hazards (US or Global) product?

- a. Infrequently, but I have used it.
- b. Occasionally
- c. Frequently
- d. Very frequently, but not always
- e. Nearly every time it is released

2.5.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with Hazards product?

2.5.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do Hazards products meet your needs for this type of climate information?

2.5.4b If you did not answer 8 or above to the last question, what do you need in Hazards products that is currently missing from CPC products? Open text answer

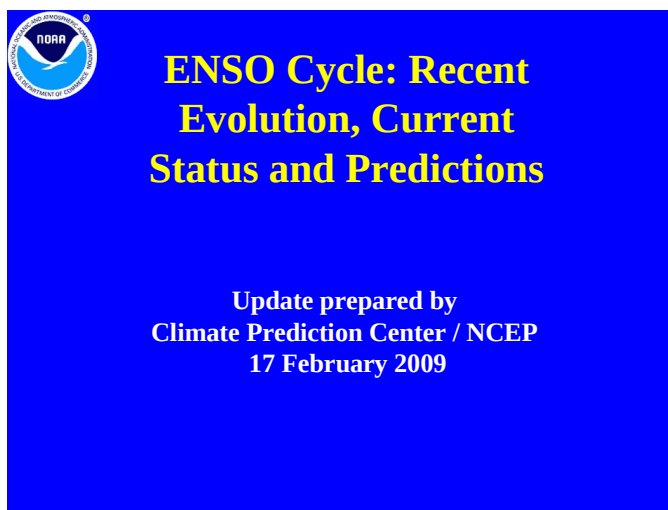
2.5.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate Hazards products...

- a. Clarity
- b. Presentation
- c. Provided information

2.5.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in Hazards products?

### ENSO

2.6.1 Please select all individual ENSO products that you use:



- a. Weekly Update (as shown above)



## EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by  
CLIMATE PREDICTION CENTER/NCEP  
5 February 2009

b. Monthly ENSO discussion (as shown above)

2.6.2 How frequently do you use an ENSO product?

- a. Infrequently, but I have used it.
- b. Occasionally
- c. Frequently
- d. Very frequently, but not always
- e. Nearly every time it is released

2.6.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with ENSO products?

2.6.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do ENSO products meet your needs for this type of climate information?

2.6.4b If you did not answer 8 or above to the last question, what do you need in ENSO products that is currently missing from CPC products? Open text answer

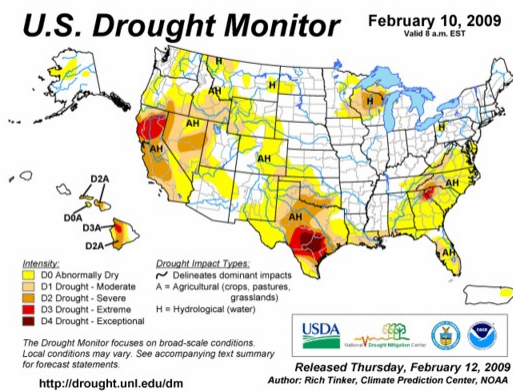
2.6.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate ENSO products...

- a. Clarity
- b. Presentation
- c. Provided information

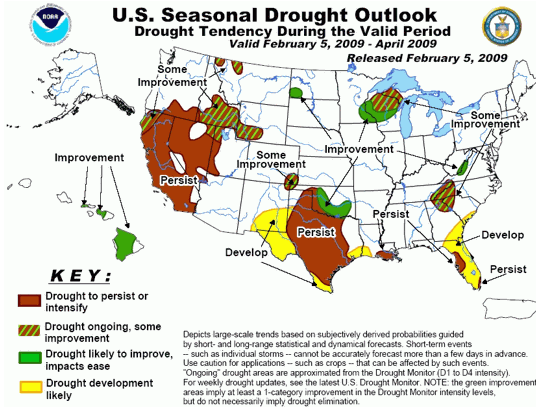
2.6.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in ENSO products?

### Drought (Monitor or Outlook)

2.7.1 Please select all individual Drought products that you use:



a. Monitor graphic (as shown above)



b. Outlook graphic (as shown above)

**Latest Seasonal Assessment** - The drought over the southern Great Plains has expanded westward in recent weeks ...

c. Drought assessment text (as shown above)

2.7.2 How frequently do you use a Drought product?

- a. Infrequently, but I have used it.
- b. Occasionally
- c. Frequently
- d. Very frequently, but not always
- e. Nearly every time it is released

2.7.3 Using a 1 to 10 scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied overall are you with Drought products?

2.7.4a Using a 1 to 10 scale where 1 means Poor and 10 means Excellent, how well do Drought products meet your needs for this type of climate information?

2.7.4b If you did not answer 8 or above to the last question, what do you need in Drought products that is currently missing from CPC products? Open text answer

2.7.5 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate Drought products...

- a. Clarity
- b. Presentation
- c. Provided information

2.7.6 Using a 1 to 10 scale, where 1 means Not Likely and 10 means Very Likely, how likely are you to make or change a decision based on the information in Drought products?



### **Overall evaluation of Climate Prediction Center (CPC) climate services**

2.8.1 Accuracy is defined as the frequency that information is correct, and reliability is defined as correctly stating the likelihood of something occurring. Using a 1 to 10 scale, when 1 means Inaccurate and Unreliable and 10 means Very Accurate and Completely Reliable, please rate CPC climate information?

2.8.2 On a 1-10 scale where 1 means Poor and 10 means Excellent, how well does CPC meet your climate services needs?

2.8.3 To help us develop our decision support capabilities, please tell us what decisions you make based on CPC products? (open-ended question)

2.8.4 Do you contact CPC staff if you need additional climate information or help with CPC products and services?

- a. Yes
- b. No

2.8.5 This is the end of the first section for CPC Climate Services. Would you like to continue to the remaining CPC Climate Services questions?

- a. Yes
- b. No **(Skip to Part 3)**

### **OPTIONAL questions on CPC climate services**

2.9 What do you see as the most important area of climate prediction research?

- a. Climate-weather interaction
- b. Weekly and seasonal climate variability
- c. Climate change and associated changes in climate and weather variability
- d. Global warming impacts
- e. Global impacts of tropical variability, such as El Nino and La Nina
- f. Extreme weather event prediction
- g. Water or other resource sustainability
- h. Sea-level change and coastal inundation
- i. Ecosystem sustainability
- j. Tropical storm and hurricane prediction

### **Forecast presentation (categories and classes)**

2.10 NWS 3-Month Outlooks use an Equal Chance (EC) forecast category to define the forecast case when there is no basis for altering the odds from historical frequencies. Please select the best approach for explaining this category from the list below.

- a. Equal Chances (EC)
- b. Indeterminate Forecast
- c. Use past data records for your specific needs
- d. Other (please specify)



2.11 NWS 3-Month Outlooks are 3 class probabilistic outlooks. The classes are defined by 1971-2000 climatological tercile limits using the following: Below Normal, Near Normal and Above Normal. Use of the word “Normal” in this context is (1) technically incorrect: Normal implies Normal Distribution features and properties; and, (2) leads to misinterpretation that Near Normal is the most frequently occurring class.

Which of the following names for tercile classes would you give Temperature classes?

- a. Feeling Associations: Cool, Neutral, Warm
- b. Computations: Lower Tercile, Middle Tercile, Upper Tercile
- c. Statistic in the middle Tercile: Below Median\*, Near Median, Above Median
- d. Climate Variable Measurement Scale: Less than 50 degrees F, Between 50 degrees F and 65 degrees F, Greater than 65 degrees F
- e. Other, please specify

\*Median is a middle value in the climate records: half of the records (50%) were greater than the value of Median and half of the records (50%) were less than this value

Which of the following names for tercile classes would you give Precipitation classes?

- a. Feeling Associations; Dry, Neutral, Wet
- b. Computations: Lower Tercile, Middle Tercile, Upper Tercile
- c. Statistic in the middle Tercile: Below Median, Near Median, Above Median
- d. Climate Variable Measurement Scale: Less than 2”, Between 2” and 7”, and Greater than 7”
- e. Other, please specify

#### Current or future Climate Prediction Center (CPC) climate products

##### Data and Models

2.12 Do you use or have an interest in datasets used by CPC?

- a. Yes
- b. No

2.13 If so, please state which datasets. Open text answer

2.14 Would a Model Test Facility that provides users with the Climate Forecast System (CFS) Model, the related datasets, documentation, and technical support be useful to you?

- a. Yes
- b. No

##### **Probabilistic Products (Hazards)**

2.15 A statement can be made when the probability of an unlikely extreme event exceeds the event's observed climatological frequency. Would information about the probability of various extreme weather or climate events, given the current climate state, be useful to you?

- a. Yes
- b. No





2.16 For this question, an extreme event is defined as an event that has occurred less than 5% of the time in the observed climate of recent decades. Using a 1-10 scale where 1 means Not Likely and 10 means Very Likely, please rate the likelihood that you would use a prediction that an extreme event is expected to occur in a stated period with the following probability:

- a. 5%
- b. 10%
- c. 20%
- d. 50%

Conveying the certainty of forecasts

2.17 Expert assessment products from CPC generally contain a subjective statement of the likelihood of occurrence of climate events but do not state a numerical probability of occurrence. Would a percentage probability of occurrence for various climate events make climate assessment products more useful to you?

- a. Yes
- b. No

2.18 Please list any CPC products for which percentage probabilities are not currently provided, but for which you feel probabilities would be useful. Open text answer

Verification

2.19 On a 1-10 scale where 1 means Not Likely and 10 means Very Likely, how likely is it that information on the accuracy of climate predictions would help you make or change a decision?

2.20 A new Forecast Evaluation Tool is being developed for evaluation of forecasts against the corresponding observations covering the forecast period.

Would you use a web page designed to allow you to make measures of forecast accuracy for your choice of time periods and regions?

- a. Yes
- b. No

Automated products

2.21 It is possible to provide more climate information that is not directly created by a forecaster but is automatically generated from dynamical model output. On a 1-10 point scale where 1 means Not Likely and 10 means Very Likely, how likely are you to use an automated product?

2.22 On a 1-10 scale where 1 means Not Likely and 10 means Very Likely, how likely are you to use an automated product, if a forecaster checked the product for accuracy?

2.23 Do you have any additional comments? Open text answer





### Part 3: NWS local climate data products

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

## Observed Weather Reports

**1. Product »**

- Daily Climate Report (CLI)
- Preliminary Monthly Climate Data (CF6)
- Record Event Report (RER)
- Monthly Weather Summary (CLM)
- Regional Summary (RTP)

Storm Event Database (SPC)  
Storm Data (NCDC)

**2. Location »**

- Reagan National
- Baltimore
- Dulles
- Charlottesville
- Martinsburg
- Hagerstown
- MD Science Center

**3. Timeframe »**

- Most Recent
- Archived Data:

- January 2009
- December 2008
- November 2008
- October 2008
- September 2008
- August 2008

**4. View »**

**Go**

**Product Description:**

PRELIMINARY CLIMATOLOGY DATA (CF6) - updated frequently:  
Daily weather statistics for the month, including temperatures, precipitation, degree days, wind and sky cover. In addition, monthly statistics such as average temperatures and departures from normal, degree days, and rainfall are also included. This product is available for up to 5 years.

- 3.1 Look at the example above, which shows the NWS Local Climate Data Products available under the “Observed Weather” tab. Do you use any of these products?
- Yes (Continue to 3.2.1)
  - No (go to Part 4)

### CLI

CLI

http://www.weather.gov/climate/getclimate.php?fo=cli

CLIMATE REPORT  
NATIONAL WEATHER SERVICE BALTIMORE MD/WASHINGTON DC  
12:48 AM EST FRI JAN 30 2009

.....  
...THE WASHINGTON NATIONAL DC CLIMATE SUMMARY FOR JANUARY 29 2009...  
CLIMATE NORMAL PERIOD 1971 TO 2000  
CLIMATE RECORD PERIOD 1871 TO 2009

WEATHER ITEM	OBSERVED TIME	RECORD YEAR	NORMAL DEPARTURE	LAST YEAR
	VALUE (UNIT)	VALUE	FROM NORMAL	YEAR
<b>TEMPERATURE (F)</b>				
YESTERDAY				
MINIMUM	38 300 PM	76 1975	43 -8	84
MAXIMUM	27 759 AM	2 1873	27 0	83
AVERAGE	33	33	-2	44
<b>PRECIPITATION (IN)</b>				
YESTERDAY	0.00	1.02 1912	0.10 -0.10	0.09
MONTH TO DATE	2.68		3.01 -0.33	1.36
SINCE DEC 1	3.65		6.06 -2.41	3.65
SINCE JAN 1	2.68		3.01 -0.33	1.36
<b>SNOWFALL (IN)</b>				
YESTERDAY	0.0		0.2 -0.2	
MONTH TO DATE	1.9		3.8 -1.9	
SINCE DEC 1	1.9		8.0 -6.1	
SNOW DEPTH	2			
<b>DEGREE DAYS HEATING</b>				
YESTERDAY	32		29 3	21
MONTH TO DATE	941		859 102	722
SINCE DEC 1	1720		1636 86	1455
SINCE JAN 1	2490		2342 148	1970
<b>COOLING</b>				
YESTERDAY	0		0 0	0
MONTH TO DATE	0		0 0	0
SINCE DEC 1	0		0 0	0
SINCE JAN 1	0		0 0	0



3.2.1 During the last 12 months, please indicate the frequency with which you have used **Daily Climate Report (CLI)**.

- a. Have not used it, but intend to use in the future
- b. Infrequently, but I have used it.
- c. Occasionally
- d. Frequently
- e. Do not use (**skip to 3.3.1**)

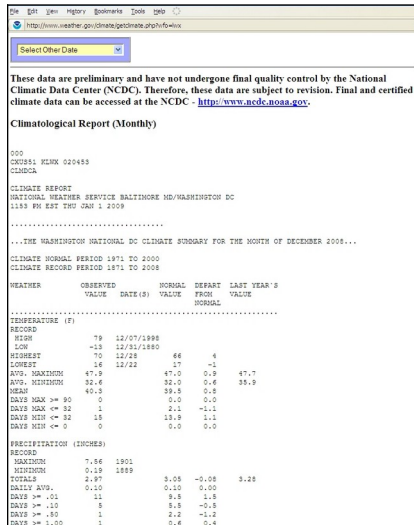
3.2.2 What are your primary reasons for accessing the **Daily Climate Report (CLI)**? A sample is shown above.

- a. Casual browsing
- b. Distributing to others
- c. Decision-making
- d. Research
- e. Other (please specify)

3.2.3 Please think about the **Daily Climate Report (CLI)** that. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **CLI** on the following:

- a. Clarity
- b. Timeliness
- c. Organization of information
- d. Meets my needs

**CLM**



3.3.1 During the last 12 months, please indicate the frequency with which you have used **Monthly Weather Summary (CLM)**.

- a. Have not used it, but intend to use in the future
- b. Infrequently, but I have used it.
- c. Occasionally
- d. Frequently
- e. Do not use (**skip to 3.4.1**)



3.3.2 What are your primary reasons for accessing the **Monthly Weather Summary (CLM)**?

- a. Casual browsing
- b. Distributing to others
- c. Decision-making
- d. Research
- e. Other (please specify)

3.3.3 Please think about the **Monthly Weather Summary (CLM)**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **CLM** on the following:

- a. Clarity
- b. Timeliness
- c. Organization of information
- d. Meets my needs

**CF-6**

File Edit View History Bookmarks Tools Help

http://www.weather.gov/climate/getclimate.php?wfo=wfo

Select Other Date **Explanation of the Preliminary Monthly Climate Data (F6)** Product

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.

**WFO Monthly/Daily Climate Data**

000  
CXUSS1 KLMX 300620  
CF6DCA  
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (NS FORM: F-6)

STATION: WASHINGTON NATIONAL DC  
MONTH: JANUARY  
YEAR: 2009  
LATITUDE: 38 50 N  
LONGITUDE: 77 2 W

TEMPERATURE IN F: :PCPN: SNOW: WIND :SUNSHINE: SKY :PR WND  
-----  
1 2 3 4 5 6A 6B 7 8 9 10 11 12 13 14 15 16 17 18  
12Z AVG MK 2MIN  
DY MAX MIN AVG DEP HDD CDD WTR SNW DPTH SFD SFD DIR MIN PSBL S-S WK SPD DR  
-----

1	34	23	29	-7	36	0	0.00	0.0	0	9.6	20	300	M	M	3		31	330
2	43	30	37	1	28	0	0.00	0.0	0	10.6	18	190	M	M	8		24	200
3	47	31	39	3	26	0	0.00	0.0	0	7.2	16	350	M	M	1		21	350
4	45	27	36	1	29	0	0.00	0.0	0	3.7	10	160	M	M	7		12	200
5	51	37	44	9	21	0	T	0.0	0	7.0	18	330	M	M	9		22	350
6	41	32	37	2	28	0	0.52	T	0	7.5	13	70	M	M	10 14		15	70
7	42	33	38	3	27	0	1.26	0.0	0	4.2	18	330	M	M	10 1		22	330
8	42	30	36	1	29	0	T	T	0	12.2	25	300	M	M	5		37	250
9	39	27	33	-2	32	0	0.00	0.0	0	7.9	21	320	M	M	3		28	320
10	40	32	36	1	29	0	0.14	T	0	5.9	13	50	M	M	9 14		16	90
11	40	28	34	-1	31	0	0.10	0.0	0	10.0	23	330	M	M	8 1		30	330
12	40	27	34	-1	31	0	0.00	0.0	0	7.1	16	300	M	M	6		23	250
13	39	29	34	-1	31	0	0.00	0.0	0	6.1	28	300	M	M	7		37	300
14	35	22	29	-6	36	0	0.00	0.0	0	10.0	28	330	M	M	7		37	310
15	29	17	23	-11	42	0	T	T	0	12.7	33	320	M	M	4		43	330
16	18	11	15	-19	50	0	0.00	0.0	0	12.5	25	300	M	M	1		33	320
17	27	8	18	-16	47	0	0.00	0.0	0	8.4	17	170	M	M	5		21	180
18	37	26	32	-2	33	0	0.00	0.0	0	8.2	20	190	M	M	9		23	200
19	36	24	30	-4	35	0	T	T	0	6.3	18	360	M	M	8 8		22	320
20	30	18	25	-9	40	0	0.00	0.0	0	12.4	22	320	M	M	7		28	350
21	34	18	26	-9	39	0	0.00	0.0	0	8.2	20	310	M	M	2		28	300

3.4.1 During the last 12 months, please indicate the frequency with which you have used **Monthly Climate Data (CF-6)**.

- a. Have not used it, but intend to use in the future
- b. Infrequently, but I have used it.
- c. Occasionally
- d. Frequently
- e. Do not use (**skip to 3.5.1**)

3.4.2 What are your primary reasons for accessing the **Preliminary Monthly Climate Data (CF-6)**?

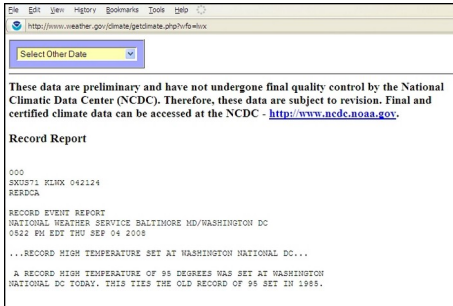
- a. Casual browsing
- b. Distributing to others
- c. Decision-making
- d. Research
- e. Other (please specify)



3.4.3 Please think about the **Preliminary Monthly Climate Data (CF-6)**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **CF-6** on the following:

- a. Clarity
- b. Timeliness
- c. Organization of information
- d. Meets my needs

## RER



3.5.1 During the last 12 months, please indicate the frequency with which you have used **Record Event Report (RER)**.

- a. Have not used it, but intend to use in the future
- b. Infrequently, but I have used it.
- c. Occasionally
- d. Frequently
- e. Do not use (**skip to 3.6.1**)

3.5.2 What are your primary reasons for accessing the **Record Event Report (RER)**.

- a. Casual browsing
- b. Distributing to others
- c. Decision-making
- d. Research
- e. Other (please specify)

3.5.3 Please think about the **Record Event Report (RER)**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **RER** on the following:

- a. Clarity
- b. Timeliness
- c. Organization of information
- d. Meets my needs



## RTP

File Edit View History Bookmarks Tools Help

http://www.weather.gov/climate/getclimate.php?fo=hex

accessed at the NCDC - <http://www.ncdc.noaa.gov>.

**Regional Max/Min Temp and Precipitation Table**

000  
ASUS61 KLMX 301409  
REFIX  
DC2001-NV2009>055-501>804-MD2001-003>007-009>011-013-014-016>018-501-502-302009-

PRECIPITATION AND TEMPERATURE SUMMARY  
NATIONAL WEATHER SERVICE BALTIMORE MD/WASHINGTON DC  
809 AM EST FRI JAN 30 2009

...HYDROLOGIC AND CLIMATE DATA ENDING AT 8AM THIS FRIDAY MORNING...

LOCATION	PRECIP (INCHES)	SNOW FALL	SNOW DEPTH	MAX TEMP	MIN TEMP	7-SAM 7-SAM	WTHR
SOUTH CENTRAL PENNSYLVANIA (POTOMAC WATERSHED)...							
FAYETTEVILLE SHE	0.00						
MCCONNELLSBURG	0.00						
EASTERN WEST VIRGINIA PANHANDLE...							
MARTINSBURG	0.00		40	20	25		PARTLY CLD
MARTINSBURG APT	0.00		35	21	23		
WEST VIRGINIA POTOMAC HIGHLANDS...							
KEYSER	0.00	0.0	2	37	21	27	CLOUDY
HEADVILLE	0.00						
MOOREFIELD	0.00		43	18	26		PARTLY CLD
MOUNT STORM	M	1.5	5	28	16	20	LT SNOW
LOST RIVER	0.00		0	41	16	26	
ROONEY	0.00		1	40	22	30	
BAVARD	0.03	1.2	9	28	19	22	LT SNOW
PETERSBURG	0.00		46	25	31		
SUGAR GROVE	0.00		46	17	22		CLEAR

3.6.1 During the last 12 months, please indicate the frequency with which you have used **Regional Summary (RTP)**.

- Have not used it, but intend to use in the future
- Infrequently, but I have used it.
- Occasionally
- Frequently
- Do not use (**skip to 3.7**)

3.6.2 What are your primary reasons for accessing the **Regional Summary (RTP)**.

- Casual browsing
- Distributing to others
- Decision-making
- Research
- Other (please specify)

3.6.3 Please think about the **Regional Summary (RTP)**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **RTP** on the following:

- Clarity
- Timeliness
- Organization of information
- Meets my needs

3.7. Please comment on how you think the NWS can improve its **climate data services** to better serve your needs. (**open-ended response**)



### NOWData

Observed Weather	Climate Locations	Climate Prediction	Climate Resources	Local Data/Records	Astronomical	NOWData
<b>NOWData - NOAA Online Weather Data</b>						
<b>1. Product »</b>	<b>2. Location »</b>	<b>3. Variable »</b>	<b>4. Year »</b>	<b>5. View »</b>		
<input type="radio"/> Daily data for a month <input type="radio"/> Daily almanac <input checked="" type="radio"/> Monthly avgs/totals <input type="radio"/> Monthly occurrences <input type="radio"/> Monthly extremes <input type="radio"/> Daily extremes <input type="radio"/> Daily/monthly normals <input type="radio"/> Record extremes <input type="radio"/> First/last dates	Baltimore Area Washington Area Sterling-Dulles Area Martinsburg E Wv, WV Moorefield 1 Sse, WV Romney 1 Sw, WV Wardensville Rm, WV Charlottesville, VA Dale Enterprise, VA Luray 5 E, VA	<input checked="" type="radio"/> Max Temperature <input type="radio"/> Min Temperature <input type="radio"/> Avg Temperature <input type="radio"/> Precipitation <input type="radio"/> Snow fall <input type="radio"/> Snow Depth <input type="radio"/> Heating Degree Days <input type="radio"/> Cooling Degree Days <input type="radio"/> Growing Degree Days	<input checked="" type="radio"/> Current year <input type="radio"/> Last year <input type="radio"/> 1971-2000	<input type="button" value="Go"/>		
<b>Product Description:</b>						
MONTHLY AVERAGES/TOTALS - calculates averages or totals, as appropriate, for the selected variable for each month of the year. This product is available for the current year, the previous year, or an average of the years 1971 through 2000. Additional stations and years of data are available from the Regional Climate Centers and the National Climatic Data Center.				- NCDC Map Services - - Common questions - - Submit a question/comment -		
Powered by  NOAA Regional Climate Centers						
The Applied Climate Information System (ACIS) is a joint project of the Regional Climate Centers, the National Climatic Data Center and the National Weather Service. Official data and data for additional locations and years are available from the Regional Climate Centers and the National Climatic Data Center.						

3.8.1 The image above shows the National Weather Service NOWData, an online tool that allows users to access recent climate data and statistics. First, on a scale from 1 to 5 where 1 is Never and 5 is Very Often, please indicate how frequently you use this interface to access and download climate data from each of the products available through NOWData? Second, from the choices available below, please indicate your primary reason (s) for accessing climate data through NOWData. **Programming Note: Both questions to be asked within one table.**

#### NOWData Products

- a. Daily data for a month \_\_\_\_\_
- b. Daily almanac \_\_\_\_\_
- c. Monthly avgs/totals \_\_\_\_\_
- d. Monthly occurrences \_\_\_\_\_
- e. Monthly extremes \_\_\_\_\_
- f. Daily extremes \_\_\_\_\_
- g. Daily/monthly normals \_\_\_\_\_
- h. Record extremes \_\_\_\_\_
- i. First/last dates \_\_\_\_\_





### Primary Reasons for Accessing Climate Data

1. Casual browsing
2. Distributing to others
3. Decision-making
4. Research
6. Other (please specify)

3.8.2 Please think about the interface utilized to access the climate data through **NOWData**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the following:

- a. Easy to understand
- b. Easy to use
- c. Eye appealing
- d. Meets my needs

3.8.3 Please think about the climate data provided through **NOWData**. On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the following:

- a. Clarity
- b. Timeliness
- c. Organization of information
- d. Product selection
- e. Location selection
- f. Variable selection
- g. Length of data record
- h. Meets my needs

NOWData - NOAA Online Weather Data													
Washington Area (ThreadEx Station)													
Monthly Totals/Averages													
Precipitation (inches)													
Year: 2008													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2008	1.37	4.17	2.80	4.92	10.66	4.80	3.60	1.23	6.41	1.13	2.43	2.97	46.49
This station's record may include data from more than one, possibly incompatible, locations. It reflects the longest available record for the Washington Area.													
Official data and data for additional locations and years are available from the <a href="#">Regional Climate Centers</a> and the <a href="#">National Climatic Data Center</a> .													

3.8.4 Please think about the format in which the data accessed from **NOWData** is displayed (see image above). On a 10 point scale, where 1 means Poor and 10 means Excellent, please rate the **data display system** on the following:

- a. Clarity
- b. Organization of information
- c. Usefulness
- d. Meets my needs



3.8.5 Considering future improvements to the **NOWData** tool and information, using a 1 to 10 point scale where 1 means Not at all Useful and 10 means Very Useful, please rate the usefulness of the following:

- a. Navigational map interface
- b. Additional product and data types
- c. Multiple data formats (txt, csv, shp, kml, etc)
- d. More locations
- e. Longer period of data record
- f. More user-defined functions (time period selection, query-options, etc.)

3.8.6 Using a 1 to 10 scale, where 1 means Not Very Likely and 10 means Very Likely, how likely are you to make or change a decision based on information from **NOWdata** products?

3.8.7 If you did not answer 8 or above to the last question, what is missing from this tool that would help you to make or change a decision? (**Open-ended question**)

3.8.8 This is the end of the first section for Local Climate Data Products. Would you like to continue to the remaining Local Climate Data Products questions?

- a. Yes
- b. No (**Skip to Part 4**)

#### **OPTIONAL Questions regarding NWS Local Climate Data Products**

3.9 Using a 1 to 10 point scale where 1 means Not at all Useful and 10 means Very Useful, please rate the usefulness of receiving **climate data information** in the following formats (**Include option 11="Not familiar with this format"**):

- a. Text
- b. Graphics
- c. A combination of text and graphics
- d. Digital (numerical information that can be downloaded)
- e. NOAA Weather Radio All Hazards

3.10 Digital information can be provided for a number of different purposes. Using a 1 to 10 point scale where 1 means Not at all Useful and 10 means Very Useful, please rate the usefulness of the following (**Include option 11="Not familiar with this format"**):

- a. Numerical information using standards-based formats (e.g., XML, NetCDF)
- b. Information formatted geospatially for use with Geographic Information Systems (e.g. shapefiles)
- c. RSS (Real Simple Syndication)
- d. WAP (Wireless Application Protocol)
- e. Metadata information

3.11 Considering information in geospatial formats, using a 1 to 10 point scale where 1 means Not at all Useful and 10 means Very Useful, please rate the usefulness of the following (**Include option 11="Not familiar with this format"**):

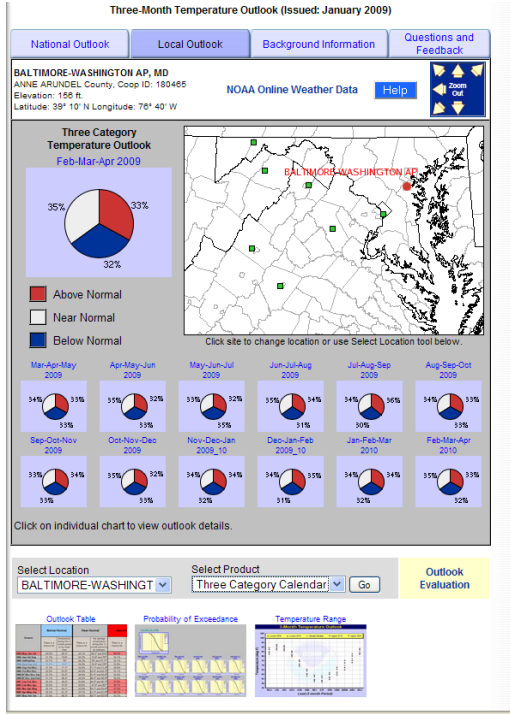
- a. Shapefile
- b. Worldfile
- c. KML/KMZ format
- d. GeoPDF
- e. Open Geospatial Consortium standards

3.12 Please comment on how you think the NWS can improve the overall climate data services program to better serve your needs. (**open-ended response**)





## Part 4: NWS Local 3-month Temperature Outlook



4.1 What is your primary reason for accessing **the NWS Local 3-Month Temperature Outlook**? A sample from the Washington D.C. area Outlook is shown above. If you do not use **NWS Local 3-Month Temperature Outlook**, please select "do not use". (select only one)

- Casual browsing
- Disseminating to others
- Decision-making
- Research
- I am not familiar with this product/Do Not Use (**Skip to end of survey**)
- Other (please specify)

4.2 Referring specifically to the **functionality** of the Local 3-Month Temperature Outlook, on a 10 point scale where 1 means Poor and 10 means Excellent please rate each of the following:

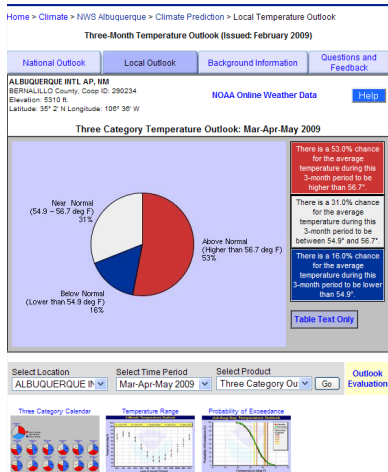
- Station identifiers are consistent from page to page
- All product components are present for all sites
- All labels seem correct (i.e., correct axis labels, captions/titles make sense, etc...)

4.3 Referring specifically to the **functionality of navigation** of the Local 3-Month Temperature Outlook, on a 10 point scale where 1 means Poor and 10 means Excellent please rate each of the following:

- Station search works correctly
- Clickable areas work correctly
- WFO CWA displayed correctly
- Ability to navigate all sites in all methods offered



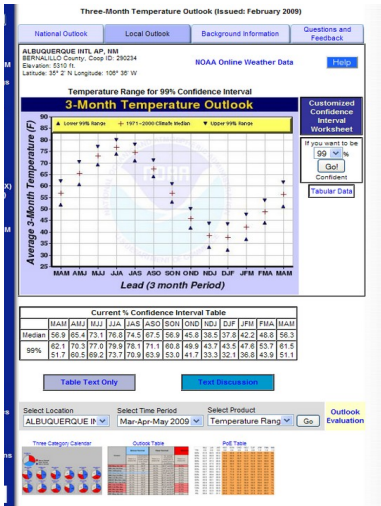
- 4.4 Referring specifically to **comprehension** of the Local 3-Month Temperature Outlook, on a 10 point scale where 1 means Poor and 10 means Excellent please rate each of the following:
- The product layout is clear and logical
  - The product content is understandable



- 4.5 The graphic above shows the Local 3-Month Temperature Outlook, presented as a pie chart. How frequently do you use the product in this format?
- Have not used it, but intend to use in the future
  - Infrequently, but I have used it.
  - Occasionally
  - Frequently, but not always
  - Nearly every time it is released
  - Do not use (**skip to 4.8**)

- 4.6 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Information and Content Characteristics:
- Completeness
  - Clarity
  - Usefulness
  - Clarity of terms and definitions
  - Text interpretations

- 4.7 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Display and Graphical Features:
- Tabs organization
  - Navigation functionality
  - Titles
  - Colors
  - Plot type



4.8 The graphic above shows the Local 3-Month Temperature Outlook, presented as Temperature Range for Selected Confidence Interval. How frequently do you use the product in this format?

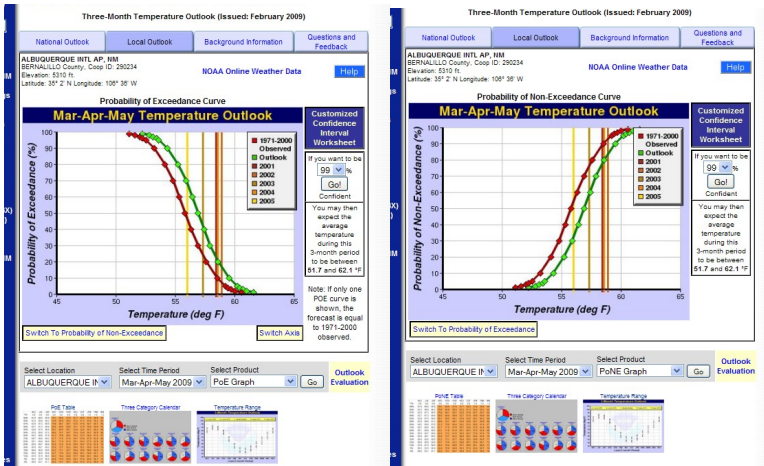
- a. Have not used it, but intend to use in the future
- b. Infrequently, but I have used it.
- c. Occasionally
- d. Frequently, but not always
- e. Nearly every time it is released
- f. Do not use (skip to 4.11)

4.9 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Information and Content Characteristics:

- a. Completeness
- b. Clarity
- c. Usefulness
- d. Clarity of terms and definitions
- e. Text interpretations

4.10 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Display and Graphical Features:

- a. Tabs organization
- b. Navigation functionality
- c. Titles
- d. Colors
- e. Plot type



4.11 The graphic above shows the Local 3-Month Temperature Outlook, presented as a Probability of Exceedance/Non-Exceedance Curve. How frequently do you use the product in this format?

- Have not used it, but intend to use in the future
- Infrequently, but I have used it.
- Occasionally
- Frequently, but not always
- Nearly every time it is released
- Do not use **(skip to 4.15)**

4.12 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Information and Content Characteristics:

- Completeness
- Clarity
- Usefulness
- Clarity of terms and definitions
- Text interpretations

4.13 Using a 10 point scale where 1 means Poor and 10 means Excellent, please rate the above graphic on the following Display and Graphical Features:

- Tabs organization
- Navigation functionality
- Titles
- Colors
- Plot type

4.14 Are there any comments you would like to provide NWS regarding the Information and Content characteristics and/or the Display and Graphical features of the Local 3-Month Temperature Outlook? (open-ended question)

4.15 This is the end of the first section for Local 3-Month Temperature Outlook. Would you like to continue to the remaining Local Outlook questions?

- Yes
- No **(Skip to 5.0)**



### **OPTIONAL questions related to NWS Local 3-Month Temperature Outlook**

4.16 NWS provides the Local 3-Month Temperature Outlook for about 1500 locations in the US and has the capability to produce this product for additional sites. If you have suggestions for more locations, please specify municipality and state.

4.17 If NWS offered a Local 3-Month Precipitation Outlook, similar to the above Local 3-Month Temperature Outlook, would you find it useful for your needs?

- a. Yes
- b. No

4.19 If NWS offered a local climate change product displaying rate of change in different climate variables, such as temperature, precipitation, etc., would you find this useful for your needs?

- a. Yes
- b. No

4.20 If NWS offered a 3-Month Outlook of El Nino/La Nina impacts on local climate variables, such as temperature, precipitation, storminess, tornado occurrence, etc., would you find this useful for your needs?

- a. Yes
- b. No

#### Overall evaluation of NWS local climate services

5.0.1 On a 1-10 scale where 1 means Poor and 10 means Excellent, how well do NWS local climate products meet your climate services needs?

5.0.2 To help us develop our decision support capabilities, please tell us what decisions you make based on NWS local products? (open-ended question)

5.0.3 Do you contact regional or local staff if you need additional climate information or help with NWS climate products and services?

- a. Yes
- b. No

---

### **ACSI Benchmarks**

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*Now, please think about your overall satisfaction with the NWS Climate Services program.*

5.1 First, please consider all of your experiences with the NWS Climate Services program. Using a 10 point scale on which 1 means very dissatisfied and 10 means very satisfied, how satisfied are you with the NWS Climate Services program?

5.2 Considering all of the expectations that we have discussed, to what extent has the NWS Climate Services program fallen short of, or exceeded your expectations? Using a 10 point scale on which 1 now means falls short of your expectations and 10 means exceeds your expectations, to what extent has the NWS Climate Services program fallen short of, or exceeded your expectations?



5.3 Forget the NWS Climate Services program for a moment. Now, imagine an ideal climate service program. How well do you think the NWS Climate Services program compares with that ideal climate services program you just imagined? Please use a 10 point scale on which 1 means not very close to the ideal, and 10 means very close to the ideal.

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### Desired Outcomes

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6.1 Have you ever formally contacted the National Weather Service to report a problem with regard to its climate products and services?

Yes

No **(skip to Q6.3)**

6.2 On a 10 point scale where 1 means poor and 10 means excellent, please rate the responsiveness of the NWS personnel to your problem.

6.3 Using a 10 point scale where 1 means not at all likely and 10 means very likely, how likely would you be to take action based on the climate information you receive from the National Weather Service?

6.4 Using a 10 point scale, on which 1 means not at all confident and 10 means very confident, how confident are you that the NWS Climate Services program will do a good job of assessing and forecasting the impacts of short-term climate variability, and emphasizing enhanced risks of weather-related extreme events in the future?

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### Concluding Questions

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7.1 Please provide any additional comments on how the NWS Climate Services program can improve its current services to help you achieve your mission. **(Open-ended response)**

7.2 What types of additional services could the NWS Climate Services program provide for you to help you achieve your mission? **(Open-ended response)**

You have reached the end of the survey. Please click on the "Finish" button below to submit your survey.

The staff of the National Weather Service thanks you for your time and thoughtful feedback. Your input will be of great assistance as the agency works to improve its services.