NWS Wakefield Briefing Web Page **Users** Guide

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Preface

This document attempts to provide a resource to help customers navigate through, and understand, <u>NWS Wakefield's Briefing Web Page</u>. The Briefing Web page was first developed about 10 years ago as an effort to merge data from a number of different NWS and NOAA sources into a "one-stop shop" of weather related information. The current version of the page also provides most mobile users the convenience of having our Briefing Web Page available when they are using a smartphone or tablet PC, either in the office, or in the field.

While I have done most of the development, a number of people inside and outside of NWS Wakefield have contributed ideas, suggestions for improvement, and programming solutions. The Briefing Web Page continues to be a work in progress. I will try to keep this page as up to date as possible. Your help, in the form of comments, suggestions, etc. is always welcome and appreciated.

I only ask that you take time to become familiar with our Briefing Web Page. This guide can help. Please feel free to contact me at any time relative to our Briefing Web Page.

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1 - Main Briefing Page

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The NWS Wakefield Briefing web page has a significantly different structure than most NWS web pages. The tabs across the top of the page (1) link to topic specific web pages. Below the tabs are links to radar and other ways to access routine forecasts (2). These will be discussed in section 1b. The main NWS Watch, Warning and Advisory (WWA) Map (3) is the same as our office main web page. Click anywhere on the map to obtain a 7 day forecast on land, and a 5 day forecast on the Bay/ocean. Below the WWA map is a listing of observations across our area of responsibility (4). Click on the location to obtain a 2 day listing of observations for that site (see section 1a). (5). "Click to **Enlarge**": Click on any of the 3 seasonally oriented thumbnail graphics to obtain a full size version of that graphic. During the winter season, the 5 day Graphical Tropical Weather Outlook shown to the left is replaced with our 3 day snowfall forecast graphic. In the spring, the Day 1 and 2 Severe Thunderstorm Outlooks accompany our 3 day rainfall forecast map.

Finally, to the right of the WWA map and observation listing, are links to

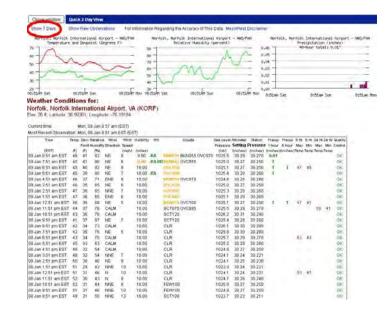
seasonally appropriate hazard outlook, and some of our text products/forecasts (6). Under *Regional Observations*, the Interactive Regional Map takes you to a map that is Mid Atlantic centric, containing the most recent surface observations from a variety of sources - airport observations (ASOS/AWOS), marine buoys, fire weather (RAWS) observation sites, and mesonet observations. This map can be panned and zoomed, and will update automatically.

This page is scheduled to refresh automatically every 5 minutes.

1a – Using the Interactive Observation Listing

VA	VMD/NC Weather R	loundup a	is of 6:00	PM ED	T Mon Sep '	14 2015	
Location	Sky & Wx	Tmp (°F)	DP (°F)	RH (%)	Wind (mph)	Pres (in)	Remarks
Ocean City, MD	SUNNY	74	48	39	W9	30.16R	
Salisbury, MD	SUNNY	74	48	39	W10	30.17R	
Cambridge, MD	SUNNY	77	46	33	W6	30.16R	
Accomack, VA	SUNNY	77	46	33	W9	30.19R	
Stafford, VA	SUNNY	N/A	N/A	N/A	SW3	30.21S	
Frederickbrg, VA	SUNNY	75	48	38	W8	30.17S	
Charlottesville, VA	SUNNY	75	47	36	SW7	30.19S	
Hanover, VA	SUNNY	73	47	39	NW8	30.21S	
Tappahanock, VA	SUNNY	76	40	26	W6	30.20R	
Saluda, VA	FAIR	74	48	40	CALM	30.19R	
Richmond, VA	SUNNY	75	46	35	SW10	30.20R	
Chesterfield, VA	FAIR	75	45	33	SW7	30.21S	
Petersburg, VA	SUNNY	75	52	43	W5	30.21S	
Fort Picket, VA	FAIR	74	45	35	W3	30.21R	
Farmville, VA	SUNNY	75	42	30	W3	30.20R	
Clarksville, VA	FAIR	73	46	38	SW3	30.21S	
South Hill, VA	SUNNY	72	51	47	S5	30.27S	
Emporia, VA	N/A	72	50	46	S3	30.23R	
US460-Wakefld, VA	SUNNY	77	45	32	W5	30.21R	
Williamsburg, VA	SUNNY	81	48	32	W8	30.21R	
Franklin, VA	SUNNY	74	47	38	W5	30.21R	
Norfolk, VA	SUNNY	76	43	30	VRB3	30.19S	
<u>Virginia Beach, VA</u>	SUNNY	80	45	28	CALM	30.19R	
Newport News, VA	SUNNY	76	47	35	NW9	30.20R	
Eizabeth City, NC	SUNNY	75	47	36	SW6	30.20S	
Currituck, NC	SUNNY	76	39	26	CALM	30.21R	
Edenton, NC	SUNNY	74	50	41	SW5	30.21S	
Roanoke Rapids, NC	FAIR	73	48	40	W7	30.21S	

The interactive observation table contains the latest hourly observations for most sites in our area of responsibility. The location names are hot linked to a 2 day listing of all observations for that location, along with a graphical display of temperatures/dew points, relative humidity, and precipitation (see below). A 7 day observation display for this location can be obtained by click on the "**Show 7 Days**" link (circled in red) at the top left of the 2 day display.





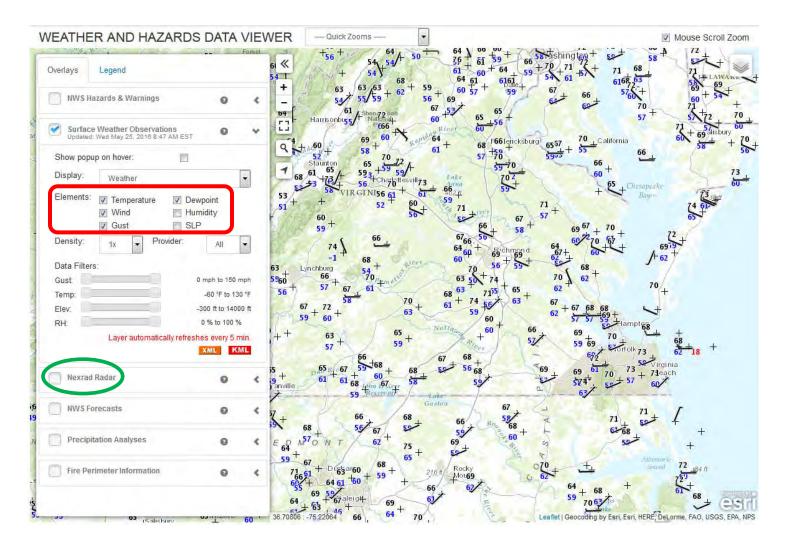
Norfolk, Norfolk International Airport, VA (KORF

Current time; Most Recent Observa				9 am (EST 1 am EST															
Time	Temp	Dev	Relative V	And Wind	Wind	Visibility	WX	Cloude	Sealave	Att meter	Station	Precip	Precip	Precip	6.10	6.19	24 19 2	24.14	Quality
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09 Jan 8:51 am EST	45	41	82	NE	в		RA	HANDON BRN055 OVC070		30.79	30.270	0.01							OK
09 Jan 7,61 am EST	45	41	86	NE	6	6.09	FLA BI	RIAND I OVC055	1025.0	30,27	30,250	- T.							OK
09 Jan 8:51 am EST	45	40	82	NE	9	10.00		2012-000	1025.1	30.27	30.250	T		1	47	45			QK
09 Jan 5:51 am EST	45	39	60	NE	7	10.00	BA	1353-040	1025.4	30.28	30,260	1							010
09 Jan 4:51 am EST	46	37	71	ENE	9	10.00		APPENDIO OVC070	1024.6	30.26	30.240								ÚIC.
09 Jan 3:51 am EST	45	35	65	NE	ő.	10.00		000000	1025.0	30.27	30 250								QK
09 Jan 2:51 am EST	47	30	65	NNE	7	10.00		12/10/10/22	1025.3	30,28	30.260								0K
09 Jan 1 51 am EST	47	36	65	ENE	6	10.00		OVERING .	1025.1	30.28	30.260								QK.
09 Jan 12 St am EST	46	3E	68	NE	5	10.00		PETELLI OVC100	10251	30.27	30,250	1.		1	47	41			Take.
08 Jan 11 51 pm EST	44	31	76	CALM		10.00		SCT075 OVC095	1025.5	30.29	30 270						58	41	0103
08 Jan 10 51 pm EST	43	36	76	CALM		10.00		SCT128	t026.2	30.31	30 280								0k
08 Jun 9.51 pm EST	41	37	87	NE	7	10.00		SCT120	1025.4	30.28	30.260								OK.
08 Jan 8:51 pm EST	42	34	73	CALM		10.00		CLR	1028.1	30.30	30.280								OK
08 Jan 7:51 pm EST	42	35	76	NE	5	10.00		CLR	1025.8	30.30	30.280								0k
09 Jan 6:51 pm EST	43	34	70	CALM		10.00		CLR	1025.7	30.29	30.270				57	43			ØK.
08 Jan 5:51 pm EST	45	33	63	CALM		10.00		CLR	1025.2	30.28	30.260								ök.
08 Jan 4:51 pm EST	48	32	54	CALM		10.00		CLR	1024.8	30.27	30 250								OK:
08 Jan 3 51 pm EST	48	32	54	NNE	7	10.00		CLR	10241	30.24	30 221								THE
68 Jan 2 51 pm EST	50	30	46	NE	9	10.00		CLR	10741	38.25	30 230								OIC.
08 Jan 1 51 pm EST	61	29	47	NNE	10	10.00		CLR	1023.9	30.24	30 221								ok:
08 Jan 12:51 pm EST	51	31	46	N	10	10.00		CLR	1024.1	30.24	30.221				53	47			OK.
09 Jan 11:51 am EST		30	43	N	8	10.00		CLR	1024.7	30.25	30.240								QK.
08 Jan 10:51 am EST		31	44	NNE	8	10.00		FEW100	1025.0	30.27	30.250								OK
08 Jan 9:51 am EST	51	35	46	NNE	10	10.00		FEW100	1024.8	30.27	30,250								0K
08 Jan 8:51 am EST	49	31	50	NNE	13	10.00		SCT100	1023.7	30.23	30.211								OR
08 Jan 7 51 am EST	47	36	63	NE	13	10.00		SCT100	1022.9	30.21	20.185								OK

The URL seen in your browser for the 7 day display contains "*num=168*" (red circled area). This denotes the number of hours of observations displayed (7 days=168 hours). Up to 30 days (720 hours) of observations can be obtained in this display. Simply change the number of hours you want to see, up to 720, and hit ENTER on your keyboard. The display will update accordingly. In addition, you can change the location you wish to view by using the

interactive listing, or by editing the "sid=XXXX" to the appropriate 4 letter identifier. An interactive list of airport identifiers in, and adjacent to, our area of responsibility, can be found in **Appendix C** or at: http://www.weather.gov/media/akg/miscNEWS/Airports.pdf.

1b – Using the Interactive Observation Map



Clicking on the *Interactive Regional Map* (from the **main Briefing Page**), *Land and Water (map)* (from the **Marine Weather page**) or *Mesonet Surface Observation Map* (from the **Maps and Models Page**), will get you to the map interface above. The default map is centered on the Mid Atlantic region. However, the user can move around, or zoom in/out, by using the arrows and +/-, or via your mouse.

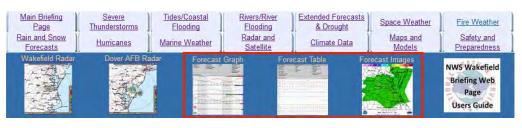
You can toggle on/off the weather variables circled in red, and add the latest radar image by clicking "Nexrad Radar" (circled in green). Additional display variables can be added, including forecasts and analyses, can be added to the display.

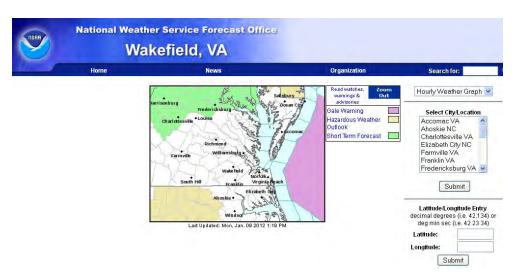
1c – Forecast Graph, Forecast Table and Forecast Images

Just below the various briefing page tabs are links to 3 additional ways to obtain specific forecast information in either a point form, or in map/image form.

Point Forecast: 7 Miles VV Snow Hill MD 30 19N 75:52W

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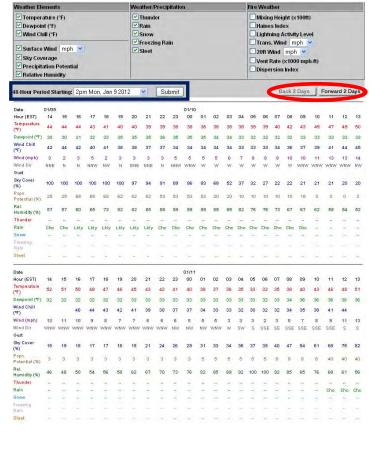
Last Update: 1:14 pm EST Ja

Forecast Graph and Forecast Table

Click on either the Forecast Graph or Forecast Table links and you get a map interface that looks very similar to the map on the main briefing page. Examples below show the forecast in graph form (below left) and tabular form (below right). This is a 2 day forecast, but, by using the

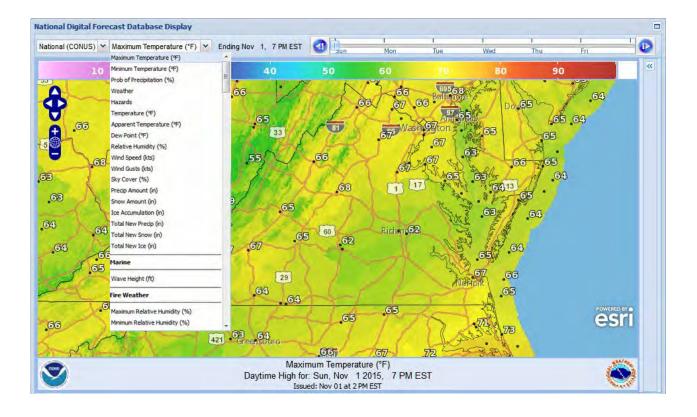
interface, forecasts out to 7 days can be retrieved.

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Both the hourly graph and hourly table have the same user interface. All of the weather elements at the top can be toggled on/off to those of most concern to you. To move the forecast period forward (backward) in 2 day increments, click the *"Forward 2 days"* (Back 2 Days) buttons below the parameter selection area. You can also start the 2 days forecast from a desired day/time by using the *"48 Hour Period Starting:"* drop-down menu, selecting the desired date/time, and clicking *"Submit"*.



Forecast Images

Click on the **Forecast Images** link, and you will see the interface above. The various weather elements are listed in the drop down menu, with maximum temperature being the default parameter. The slider bar to the right of the weather element selection menu allows you to advance the graphic on an hourly, 6 hourly or daily basis, depending upon the weather element chosen.

These maps have roam, zoom and pan capabilities, allowing the user to go anywhere in the U.S. to obtain forecasts in map view perspective.

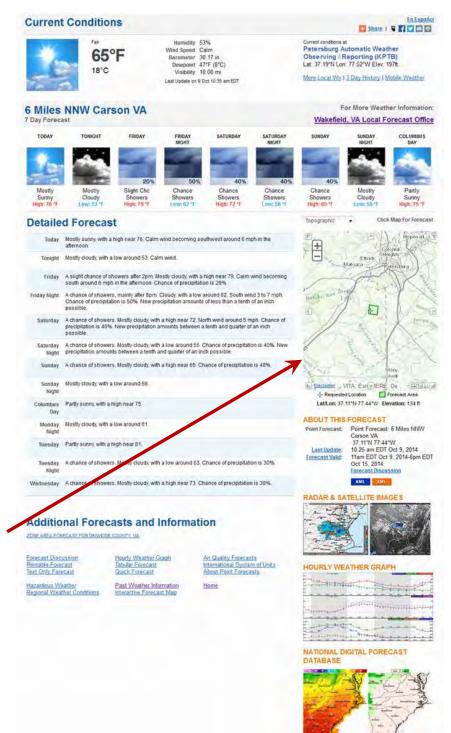
1d – The Point and Click Forecast

The *point and click forecast* can be

obtained for any land based point simply by clicking on the desired location within the main briefing web page map (labeled 3 on the Main Briefing Page description graphic). The forecast page you get looks like the image to the right. The forecast information is pretty self-explanatory, and you can get the forecast images by going to the bottom left, and there are links to the forecast graph (Hourly Weather Graph) and forecast table (Tabular Forecast) at the bottom right.

On the right hand side of the page are links to NWS Wakefield radar, satellite imagery, and current observations. However, the 3 day history is different and less thorough than the links discussed previously.

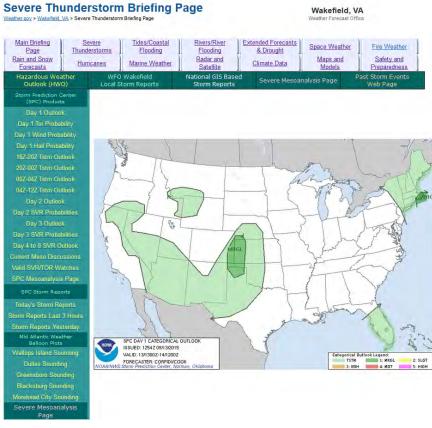
One feature that you might find useful is the map under the Detailed Point Forecast header to the right of the 7 day forecast. This map utilizes an interface that that allows you to pan and zoom anywhere in the U.S. using your mouse, or the legend at the top left of the map. Thus, you can get a 7 day forecast for any location in the U.S. simply by navigating to the location you want, and clicking on the map. *This includes bays, sounds and nearshore marine areas!!!*



For mariners, getting a point forecast direct from the main briefing page map is a 2 step process. First, click on the marine location desired, which will give you the coastal waters text forecast for the appropriate zone. To get a point specific forecast, go to the map, and click on the specific marine location of interest.

2 – The Severe Thunderstorms Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.



The Storm Prediction Center (SPC) in Norman, OK has responsibility for issuing outlooks, and watches for severe thunderstorms and tornadoes across the lower 48. An overview of SPC and its products is available at: http://www.spc.noaa.gov/misc/about.htm I. Our severe weather briefing page is designed to provide most of SPC's outlook

products, as well as the latest mesoscale discussions and valid watches. SPC's outlooks are issued at various times during the day, but only the day 1 and day 2 outlooks are issued multiple times per day. Day 1 (current day) outlook products are issued at approximately 1am-2 am, 8am-9am, 1130am-1230pm, 3pm-4pm and 8pm-9pm every day. Day 2 (tomorrow) outlooks are issued daily at 2 am, and 1230pm-130pm. The Day 3 and days 4-8 outlooks are issued once per day

before 6 am.

The days 1-3 outlooks contain both deterministic (categorical) forecasts, and probabilistic forecasts. The

Day 1 Outlook Probability	TORN	WIND	HATL
2%	MRGL	Not Used	Not Used
5%	SLGT	MRGL	MRGL
10%	ENH	Not Used	Not Used
10% with Significant Severe	ENH	Not Used	Not Used
15%	ENH	SLGT	SLGT
15% with Significant Severe	ИОТ	SLGT	SLGT
30%	MDT	ENH	ENH
30% with Significant Severe	HIGH	ENH	ENH
45%	HIGH	ENH	ENH
45% with Significant Severe	HIGH	Ирт	MDT
60%	HIGH	нот	HDT
60% with Significant Severe	HIGH	HIGH	нот

probability corresponding to the various severe thunderstorm categories is provided in the graphics below.

Day 3	Combined						
Outlook Probability	TOR, WIND, HAIL						
5%	MRGL						
15%	SLGT						
15% with Significant Severe	SLGT						
30%	ENH						
30% with Significant Severe	ENH						
45%	ENH						
45% with Significant Severe	MDT						

Day 2 Outlook Probability	Combined TOR, WIND, HAIL
5%	MRGL
15%	SLGT
15% with Significant Severe	SLGT
30%	ENH
30% with Significant Severe	ENH
45%	ENH
45% with Significant Severe	MDT
60%	MDT
60% with Significant Severe	HIGH

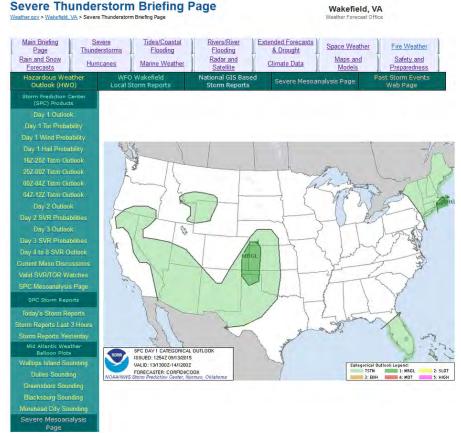
Below the day 1 outlook

product links are links to **4 hour probabilistic thunderstorm forecasts**, which are issued multiple times per day. Please note that the first 00Z-04Z Tstm Outlook is issued in the 8am to 9am time frame, and the first 04Z-12Z Tstm Outlook is issued between 1230am and 130am.

Below the links to SPC's outlook and watch products are links to national storm report maps, as well as the most recent weather balloon (radiosonde) observations for Wallops Island, VA, Dulles, VA, Greensboro, NC, Blacksburg, VA and Morehead City, NC. SPC has created a <u>radiosonde/Skew-T help</u> <u>page</u> for anyone interested in learning how to interpret these observations and the parameters derived from analysis of the data.

For those of you interested in digging a little deeper into the science/meteorology behind severe thunderstorms/tornadoes, there are a couple of links worth investigating. The SPC Mesoanalysis Page link offers the ability for the user to look at severe weather parameters at a number of regional sectors across the lower 48. We have also created a local Severe Mesoanalysis Page that provides a mouseover based display of the SPC severe weather parameters for a mid Atlantic centered

regional sector. Additional information on this page can be found in Appendix B of this guide

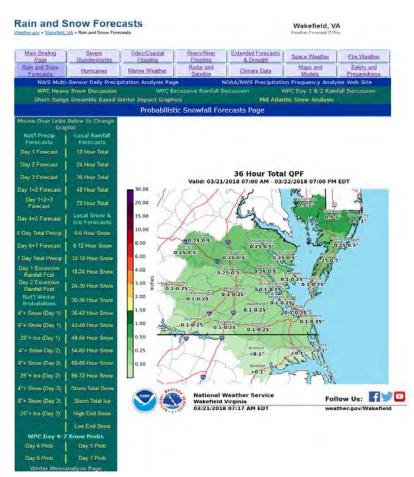


(or on the next page if you are viewing the Severe Thunderstorm page users guide).

Finally, a link to **WFO Wakefield's Past Storm Events Page**, which contains reviews of significant winter weather, severe thunderstorm and tropical storm/hurricane events going back more than 10 years, has been added to the links above the graphic display.

3 – The Rain and Snow Forecasts Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.



Our Rain and Snow Forecasts page can be utilized in much the same way as the Severe Thunderstorms page. At left is the winter version of this page. *Between April and mid-November, only the left column of the links table (i.e. rainfall forecasts) will be seen.*

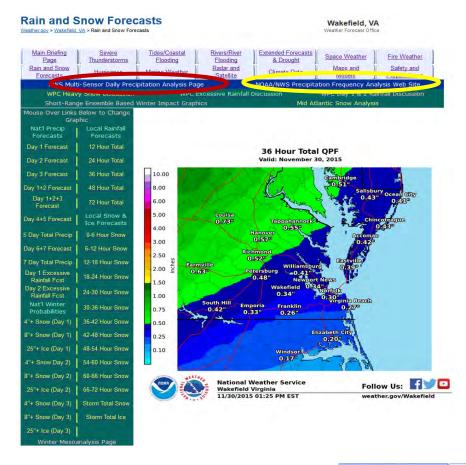
There are 2 types of precip forecasts on this page. The first type are forecasts generated here at NWS Wakefield. Second are the Weather Prediction Center (WPC) national forecasts of precipitation, snow or ice. The snow/ice probability thresholds used are defined as follows: SLGT - 10% to 40% chance of occurrence within the outlined area. **MODERATE (MDT)** - 40% to 70% chance of occurrence within the outlined area. HIGH -70% chance or greater of occurrence within the outlined area. Associated WPC discussions are linked above the graphics display. The timeframes for the various graphics are fairly self-explanatory, and are labeled on both our local and WPC

precipitation forecasts. However, there is an important difference between our locally produced rain and snow forecasts.

The **12 through 72 hour rainfall forecasts are running totals** through the 72 hour period. The **0-6 hour through 66-72 hour snowfall forecasts are individual 6 hour accumulations**. From a snowfall perspective, this gives the user an idea of not only when the wintry precipitation will begin, but in what time the heaviest snow is expected. Snowfall and ice accumulation totals for the entire storm can be found in the Storm Total Ice, and Storm Total Snow links. In addition, *High End* (10% chance amounts will be higher) and *Low End* Snowfall (90% chance amounts will be higher) maps have been added from our <u>Snow Probabilities Web Site</u>.

The <u>Winter Mesoanalysis Page</u> link (bottom of the precip graphics table) will take you to a page with SPC winter weather parameters overlaid on the same regional section as the Severe Mesoanalysis Page discussed in the Severe Thunderstorms tab discussion (see Appendix A of this document, or the last 2 pages of the Rain and Snow Forecasts Page Users Guide).

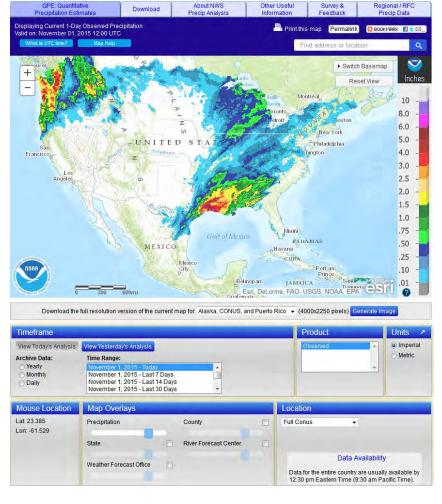
Two additional links above the graphics display provide some very useful information. These are discussed on the next page.



The links to the *NWS Multi-Sensor Daily Precipitation Analysis Page* (highlighted by the red oval), and the *NOAA/NWS Precipitation Frequency Analysis Web Site* (highlighted by the yellow oval), provide very useful information about past precipitation, and the frequency of precipitation events of certain magnitudes, respectively.

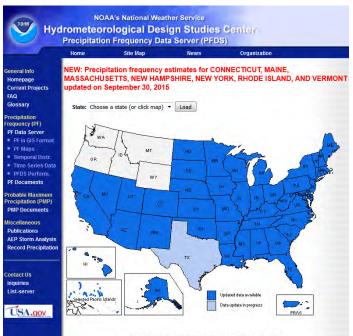
Daily Precipitation Analysis

The default map display shows precipitation across the U.S. in the last 24 hours, with the national data being available by 1 pm each day. This graphic is derived from a combination of rain gauge measurements and radar based rainfall. The display can be changed to any state by selecting the state from the menu under **Location** located below the map. In addition, different products (departure from normal, percent of normal) can be obtained by selecting a different time frame (last 7 days to water year to date) under **Timeframe**.



Precipitation Frequency Analysis

A precipitation frequency analysis can provide useful information to planners at the state or local level. The



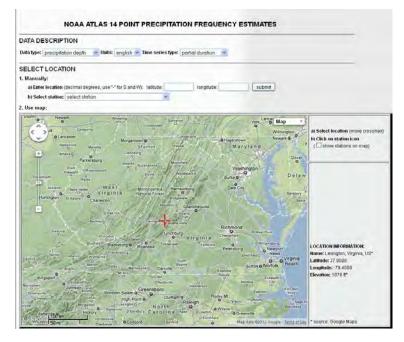
Precipitation Frequency Data Server (PFDS)

To obtain a precipitation frequency analysis for a given location, simply drag the red cross to the desired location, and the map will automatically recenter to that location, and a *precipitation frequency analysis will appear below the map* in a

table similar to the one below:

analysis shows the return period/interval (in years) for a given amount of precipitation for durations ranging from 5 minutes to 60 days. Click on the Precipitation Frequency Analysis link, and the page to the left appears in a new window.

Click on any state highlighted in blue, and the new map looks like this:



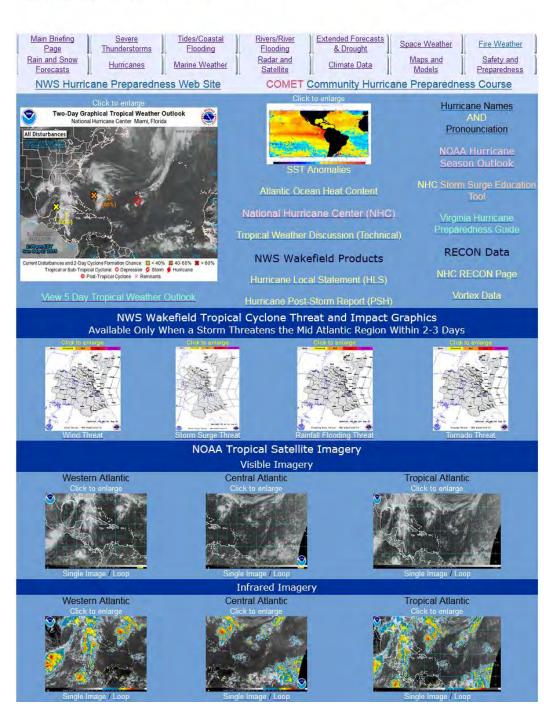
_	PD	S-based pr	ecipitation fi			A 187 2 18 21		als (in inche	s)'	
Duration	1	2	5	10 Aver	age technenc	50	100	200	500	1000
5 min	0.396	0.468 (0.422.0.524)	0,540	0.611	0.587	0.719	0.807	0.852	0.929	0.988
10-min	0.637 (0.570.0.705)	0.748 (0.675-0.833)	0,865	0.977 (8 877-1 89)	1.09 (0.979-1.22)	1.19 (1.05-1.32)	1.28 (1 14-1 43)	1.37 () 21-1 52)	1.47 (1.2941.64)	1.56
15-min	0.790	0.941 (0.848-1.05)	1.09 (0.887.1.22)	1.24 (1 11 (.38)	1,39 (1.244.59)	1.51 (1.34.1.88)	1.62 (1.44 1.80)	1.70 (1.52-1.82)	1.85 (1.62.2.00)	1,95 (1.70.2.17
20-min	1.08 (0.975-1.21)	1.30 (1.17-1.45)	1.55 (1.40-1.73)	1.79 (1.51-1.99)	(1 54-2 29)	2.27 (2.03-2.53)	2.48 (2.20-2.75)	2.69 (7.37-2.98)	2.94 (2.58-3.76)	3.16 (2.75-3.52
60 min	1.35 (1.22.1.51)	1.63 (1.47.4.61)	1.99 (1.89.2.22)	2.33 (2.09.2.80)	2.74 (2.45.3.04)	3.08 (2.75.3.42)	3.42 (3.03-3.80)	3.77 (3.32.4.18)	1.22 (3.70.4.70)	4.62
2-hi	1.60 (1.44.4.79)	1.93 (1.74-2.15)	2.30 (215-267)	2.84 (2.543.15)	3.40 (3.02-3.77)	3.88 (3.43.4.31)	4.37 (3.65-4.85)	4.89 (4.28.5.43)	5.61 (485.6.22)	8.23 (5.35.8 m)
3 fir	1.72	2.07 (1,85-2,53)	2,59 (2,30,2,89)	3.06 (2.75.3.43)	3,69 (3.27.4,12)	4.24 (3.74.4.73)	4.92 (4 21 5,37)	5,42 (4,71 8 D4)	6.28 (5.58.6.89)	7.03
6-hr	2.07 (1.85(2.33)	2.48 (2.21-2.60)	3.09 (274-3.48)	3.68 (3.25-4.15)	.4,46 (3.93-5.02)	5.17 (4 53-5 79)	5.91 (6.13-6.61)	6.70 (578-7.49)	7.83 (6.65-8.75)	8.85 (7 44-0.88
12-hr	2.45	2.93 (2.01-3.34)	3,67 (3.254.30)	4.41	5.40 (4.724.11)	6.30 (5.47-2.12)	7.27 (6-25-0 10)	0,33 (7.09-9.36)	9,86 (030-01.1)	11.3 (9:30-12:0
24-hi	2.84 (2603.13)	3.45 (3.17-3.80)	4.44 (4.07.4.90)	5.28 (4 62-5 62)	6.52 (5 56.7 16)	7.57 (6.81.8.32)	8.72 (7 78.0.58)	9,99 (8 8341 D)	(1.9 (10.3-(3-0)	13.4 (11 5.14 8
2-day	3.29 13.02-3.63)	3,99 (3),854,40)	5.11 (4)(8)(6)(53)	6.05 (5.5246.66)	7.44	8,62 (7.75-5.47)	9.90 (0.04-10:3)	11.3 (103912.5)	13.4 111 7-14.81	15.1
3-day	3.49 (3.20-3.84)	4.23 (3.88-4.65)	5.39 (4.95-5.93)	6.37 (5.82-6.93)	7.78 (7.07.4.53)	8.98 (8.11-0.85)	10.3 (9.2041-3)	11.7 (10.4-12.8)	13.8 (121-15.2)	15.6
4-day	3.69	4.46 (4.11-4.91)	5.60 (5.226.20)	6.68 (6.12-7.72)	8,13 (2:40-0:90)	9.34 (0.46-10.2)	10.7 (9:57-41.7)	12.1	14.2 (125-15,6]	16.0
7-day	1.29 (3.95.4.63)	5.16 (4.78.5.54)	6.47 (536.7 07)	7.55 (6.94-8.23)	9.09 (8.31.9.91)	10.4 (5.42-11 3)	11.7 (10.6.12.8)	13.2 (11 8-14 4)	15.3 (13646.8)	17.0
10-day	4,90 [4:55-5:33]	5.88 (5.4645.39)	7.28	8.41 (7.76-5.11)	10.0 (9.20-10.8)	11.3 (10.4-12.3)	12.7 (11.5-1338)	14.2 (12.845.4)	16.2 (14.5-17.7)	17.9
20 day	6.63 (6.19.7.13)	7.91 (7:38.50)	9.58 (8.92 10.3)	10.9 (101.11.7)	12.8 (11 8:13 7)	11.2 (13.1.15.3)	15.8 (14.5.17.0)	17.3 (15 8.18 7)	19.5 (17.7-21.1)	21.2 (191.25.0
30-day	8,22 (7.72-0.70)	9,76 (9.16-10,4)	11.6 (10.9-12,4)	13.1 (12.244.0)	15.0 (14.0-16,0)	16.6 (15.447.7)	19.1 (16:0-19.3)	19,6 (10,1-21,0)	21.7 1199/2200	23.3
45-day	10.3 (3.67.10.3)	12.1 (11.4 12.9)	14.3 (13.4.15.2)	10.0 (15.0 17.0)	18,2 (12,1,19,4)	20.0 (18.7 21.2)	21.7 (20.2-23,1)	23.5 (21.8 25.0)	.25.9 (23.8 27.6)	27,7
60-day	12.2	14.4 (13)5-15(3)	16.9 (15:3417.8)	18.6	21.0	22.8 (21.5-24.2)	24.6	26,4 (24)6-29.0)	20.7	30.4 (20.1-32.4

Heate refer to NUAA Abay 14 occurrent for more information

4 – The Hurricanes Page

WFO Wakefield Tropical Weather Page Weather.ov > Wakefield, VA > WFO Wakefield Tropical Weather Page

Wakefield, VA



The information available on the Hurricanes tab is fairly self explanatory. The *Graphical Tropical Weather Outlook* is issued daily by the National Hurricane Center **at approximately 2 AM, 8 AM, 2 PM, and 8 PM EDT** during the June 1st to November 30th Atlantic Hurricane Season.

The **RECON data** are only available when active storm or storms are within range of the <u>Hurricane Hunter aircraft</u> in either the Atlantic or eastern Pacific basins.

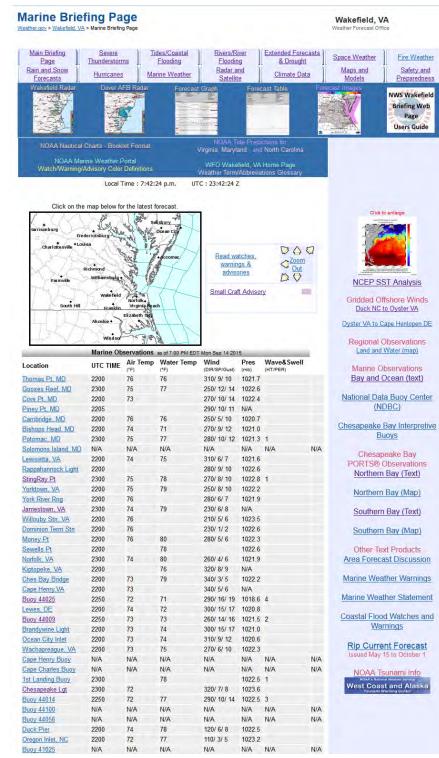
The **NWS Wakefield Products** – Hurricane Local Statement (HLS) and Post-Storm Report (PSH) - are available only when a tropical storm/hurricane is approaching and/or has affected the region.

The **Tropical Cyclone Impact Graphics** are available once a tropical storm or hurricane **WATCH** is issued for some portion of the NWS Wakefield forecast area. These graphics are subsequently produced every 6 to 12 hours until all watches and/or warnings have been discontinued.

All of the satellite imagery on this page are real-time.

The **"Click to Enlarge" feature** allows you to click on an image or link, except those denoted by a **red X**, and get a full size image without navigating away from this page.

5 – The Marine Weather Page



The products and web pages linked in the right column of this page provide information from a number of sources. Under *Regional Observations*, the Land and Water (Map) takes you to the same map described at the end of page 4, and repeated later in this section. The remaining links in the right column are self-explanatory. The remainder of the Marine Weather page is laid out nearly identical to the main Briefing Web Page. A detailed explanation of the links can be found in pages 3-7. One notable exception is the Marine Observations listing. This listing starts with observations on or near the Chesapeake Bay. Starting at Buoy 44025 is a listing of marine observations on or near the Atlantic Coastal Waters. Clicking on the location will take you to the National Data Buoy Center (NDBC) observation page for that location. There are 2 additional links on the Marine page that are not on the main Briefing Page.

The link to NOAA Charts – Booklet Format, takes you to the NOAA Booklet Nautical Chart web page. NOAA Nautical charts in "booklet" format can be downloaded as a PDF from this site for any Atlantic location.

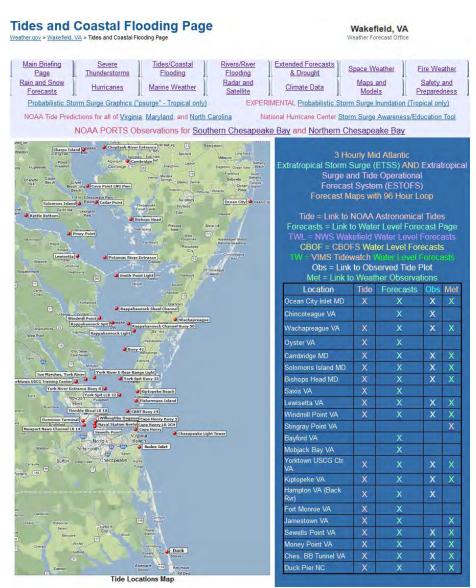
In addition, the link to **Text/Graphical**

NOAA Tide Predictions takes you to the NOAA Tides and Currents tide prediction page for the state you choose (VA, MD or NC). Click on the location of interest to obtain a 2 day text and graphic display of astronomical tide times and heights (in MLLW) for that location.

6 – The Tides and Coastal Flooding Page

The tides and coastal flooding page was created in an effort to consolidate information on tides, coastal flooding, and coastal flooding forecasts. Astronomical tide forecasts and observations (including weather observations at tide gages) are available from NOAA's National Ocean Service (NOS). Water level/coastal flooding forecasts are generated from both the NWS and NOS. These forecasts for sites in the NWS Wakefield area of responsibility can be obtained from the table on the right side of the Tides and Coastal Flooding page. Column header definitions are provided below.

Tide – The astronomical tide prediction from the <u>NOS Tides and</u> <u>Currents web site</u>. NOAA astronomical tide predictions for all locations in <u>Virginia</u>, <u>Maryland</u> and <u>North Carolina</u> can be obtained via the links above the map and table.



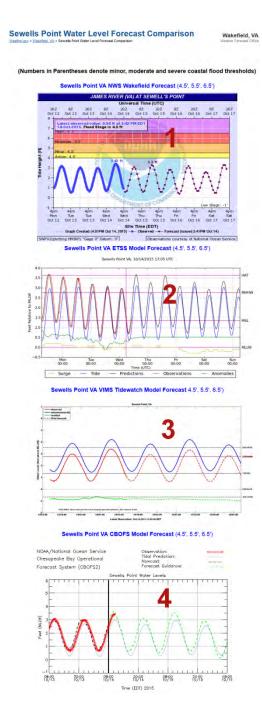
Forecasts – The forecasts column links to location specific web pages containing the following water level graphs: *Top Left* – Total Water Level (TWL) forecast produced by NWS Wakefield (new in December 2013); *Top Right* - NWS Extra-Tropical Storm Surge (<u>ETSS</u>) forecast; *Bottom Left* – <u>VIMS</u> <u>Tidewatch</u> forecasts; *Bottom Right* – the Chesapeake Bay Operational Forecast System (<u>CBOFS</u>) forecast from NOS. Note: *Some locations (e.g. Bishops Head, MD and Duck, NC) only have 2 or 3 of the 4 types of forecasts/forecast guidance available.*

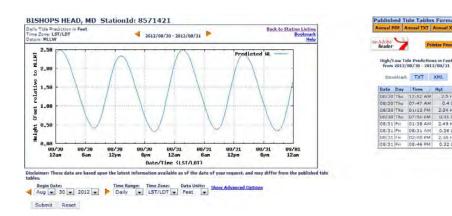
Obs – Water level observations for highlighted sites from the <u>NOS Tides and Currents web site</u>.

Met – Meteorological observations (wind, pressure, air temperature and/or water temperature) for highlighted sites from the <u>NOS Tides and Currents web site</u>.

Below are examples of the column headers described above.

Bishops Head, MD Tide Example:





Predictions in Fee /30 - 2012/08/31

12:52 AM 07:47 AM 01:13 PM 07:56 PM

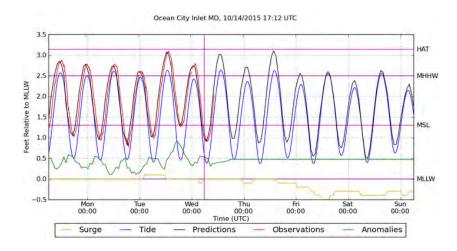
01:38 AM 08:31 AM

08:46 PM 0.321

At Left: Example of Coastal Flood Forecast page for Sewells Point, VA.

From Top:

- 1). NWS Wakefield Total Water Level (TWL) forecast
- 2). ETSS forecast from MDL (not available at every site)
- 3). VIMS Tidewatch forecast (not available at every site)
- 4). CBOFS forecast (not available at every site)

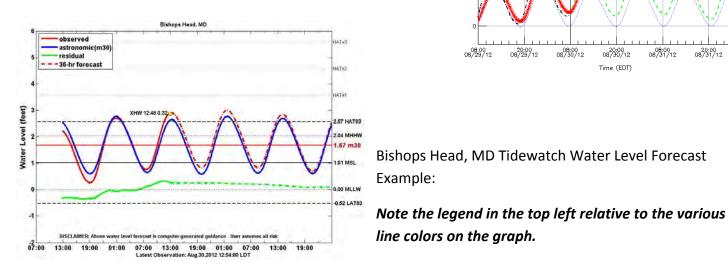


Ocean City Inlet, MD ETSS Water Level Forecast Example:

Note the legend at the top relative to the various line colors on the graph.

Bishops Head, MD CBOFS Water Level Forecast Example:

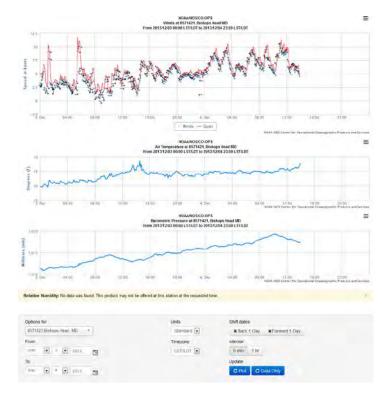
Note the legend at the top relative to the various line colors on the graph





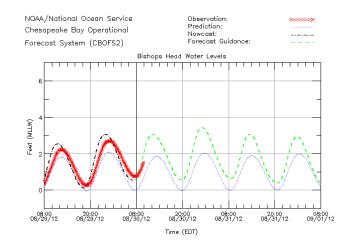
Ocean City Observed Water Level Example:

Note the legend below graph relative to the various line colors on the graph.



At Right: Bishops Head Meteorological observations Example:

Note the legend below graphs relative to the various line colors on the graphs.



--Water Levels (above MLLW)-Yorktown USCG Center 1.5 ft, Rising Kiptopeke Beach 2.0 ft, Rising Bay Bridge Tunnel 2.1 ft, Steady Sewells Point 1.9 ft. Rising Money Point 2.0 ft, Rising -----Winds------Spd Dir Gusts Spd Dir Gusts 14 Yorktown USCG Center York Riv E-R Rnge Lt 13 kn SW 10 kn SW 16 8 Willoughby Degauss. 11 Dom. Term Pier 11 Kiptopeke Beach 8 kn SSW *** kn *** *** 11 kn SW Bay Bridge Tunnel 9 kn SW 13 10 kn SSW Cape Henry 14 South Craney Island 7 kn SSW 11 Money Point 10 kn SSW 14 ----Air and Water Temperature------Air Water Air Water 60 °F *** °F York Riv E-R Rnge Lt 58 °F Yorktown USCG Center 50 °F Kiptopeke Beach 50 °F Willoughby Degauss. 56 °F 49 °F 57 °F Bay Bridge Tunnel Dom. Term Pier 11 Cape Henry Sewells Point 51 °F 62 °F 49 °F Money Point Cape Henry Wave 63 °F 54 °F --Barometric Pressure--York Riv E-R Rnge Lt 1028 mb Falling Yorktown USCG Center 1028 mb Falling Bay Bridge Tunnel Willoughby Degauss. Dom. Term Pier 11 *** mb 1029 mb Falling 1029 mb Falling 1030 mb Falling Sewells Point Cape Henry 1028 mb Falling South Craney Island 1029 mb Falling Money Point 1029 mb Falling -----Salinity/Specific Gravity----Station Salin. S.G. Station Yorktown USCG Center 15.8 psu 1.013 Bay Bridge Tunnel Salin. S.G. 21.4 psu 1.017 Sewells Point 14.1 psu 1.012 Money Point 12.6 psu 1.010 -----Currents (F)lood, (S)lack, (E)bb, towards °T-----Spd Dir Dir Spd ***°T York Spit LBB 22 0.8 kn (F), 344.0°T Thimble Shoal LB 18 *** kn (), *** kn (), ***°T Naval Sta Norf. LB 7 0.7 kn (F), 222.0°T Dominion Terminal *** kn (), *** kn (), *** N (), *** kn (), ***°T Cape Henry LB 2CH ----Waves-_____ _____ SigHt PkDir PkPer Station SigHt PkDir PkPer Station Cape Henry Wave 2.5 ft 111°T 11 s

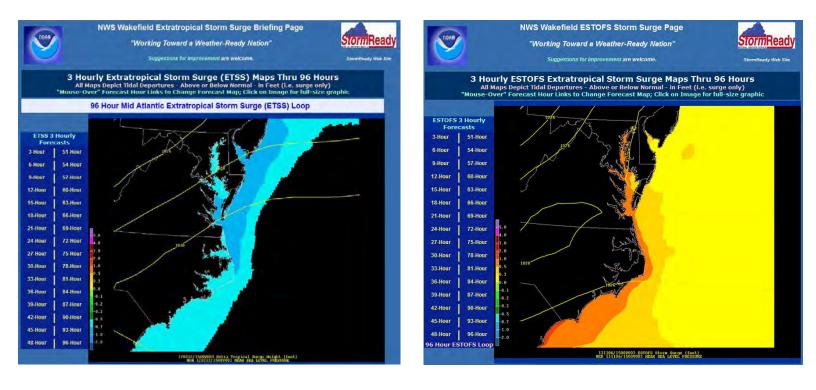
Southern Chesapeake Bay PORTS, NOAA/NOS 2012-03-12 12:01 EDT

NOAA PORTS Observations Link

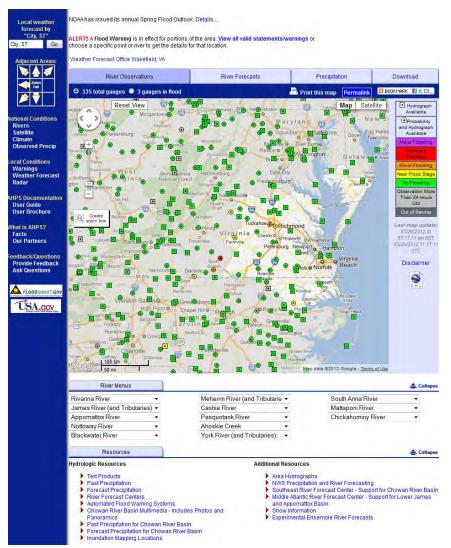
Just above the map and table are links to text based observations from the *NOAA Chesapeake Bay PORTS* <u>North</u> and <u>South</u> web sites (see image at left).

3 Hourly Mid Atlantic Extratropical Storm Surge (ETSS) AND Extratropical Surge and Tide Operational Forecast System (ESTOFS) Forecast Maps with 96 Hour Loop Finally, a separate page has been created which provides maps of the *Extra-Tropical Storm Surge* (ETSS) and *Extratropical Surge and Tide Operational Forecast System* (ESTOFS) forecasts out to 96 hours using a mid-Atlantic are map

projection (see map below). A link to a loop of these forecast maps is also provided on these pages.



7 – The Rivers/River Flooding Page

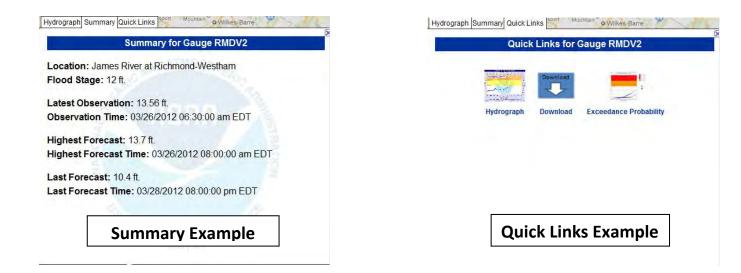


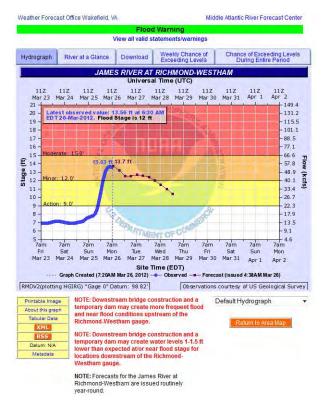
The Rivers and River Flooding tab takes you to the NWS Wakefield Advanced Hydrologic Prediction Service (AHPS) web page. The AHPS page has been upgraded to take advantage of a Google[®] map interface. Since NWS Wakefield is the State Liaison Office for Virginia, our AHPS view has been expanded to cover virtually every river and tide gauge in the Commonwealth. There are several types of gauges on this map. Some gauges provide observations and forecasts, while others are observation only. Still others are called "contingency" gauges. At contingency gauge points, observations are available continuously, but forecasts are only available when the river is forecast to reach or exceed the "Near Flood Stage" level at that location (see legend to the right of the map). The color of all gauge points on this map is dictated by the river level

relative to its flood status. The legend for this status is provided to the right of the map. For example, and river gauge experiencing **Moderate Flooding** would be colored in **red**. A gauge location **below** the "Near Flood Stage" level (i.e. "No Flooding") is colored green.

If you click on any gauge point, a large thumbnail of the gauge hydrograph will be displayed. In this case, the Richmond-Westham Gauge was selected. This gauge is both an observation and forecast point. Note the color of the hydrograph relative to the flood thresholds. In this case, the "Action" level refers to the "Near Flood Stage" level. Additional information can be obtained by clicking the "*Summary*" and "*Quick Links*" tab, or by clicking on the hydrograph (see next page).







Clicking on the station hydrograph from the pop-up window takes you to a page providing a larger version of the hydrograph (see image to left), as well as detailed station information, including historical high/low water levels, and flood impacts, for that location (see below).



Above the hydrograph plot are 3 other tabs containing useful information – *River at a Glance, Weekly Chance of Exceeding Levels,* and *Chance of Exceeding Levels During Entire Period*. The content on these tabs will be discussed on the next 2 pages.

18.2 CSX RAILROAD TRACKS FLOODED.

22

15 BEGIN MODERATE FLOODING. RESIDENCES NEAR GAGE THREATENED WITH SOME DRIVEWAYS UNDER ONE TO ONE AND A HALF FEET OF WATER.

MAJOR FLOODING BEGINS. DOWNSTREAM INDUSTRIES, SHOPS AND STREETS ALONG THE RIVERFRONT ARE FLOODED AT AND ABOVE THIS LEVEL.

- 13 APPROXIMATELY 20 ACRES OF LOWLAND FLOODED IN VICINITY OF GAGE
- 12 FLOOD STAGE. MINOR FLOODING ALONG BOTH BANKS...NO DAMAGE AT THIS LEVEL

 About This Location
 Collapse

 Latitude: 37.563056* N, Longitude: 77.547222* W, Horizontal Datum: NAD83WGS84
 River Stage
 Gauge Height
 Flood Stage
 Uses

 Reference Frame
 NWS stage
 0 ft
 12 ft
 Interpreting hydrographs and NWS

Notorence i runne			A REAL PROPERTY AND A REAL
NWS stage	0 ft	12 ft	Interpreting hydrographs and NWS watch, warnings, and forecasts, and inundation maps
Vertical Datum	Elevation (gauge height = 0)	Elevation (gauge height - flood stage)	Elevation information source
NAVD88	NVA	NA	Survey grade GPS equipment, FEMA flood plain maps, newer USGS topographic maps
NGVD 29	98.82 #	110.82 ft	Older USGS topographic maps, NGVD29 benchmarks
MSL	NIA	N/A	Older USGS topographic maps, MSL benchmarks
Other	N/A	N/A	

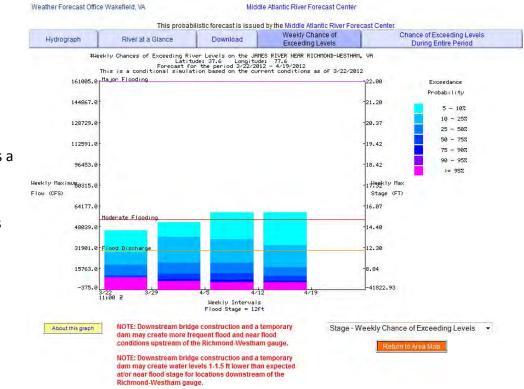
River at a Glance

Hydrograph	River at a G	lance	Download	Weekly Chance of Exceeding Levels	Chance of Exceeding Levels During Entire Period			
James River								
Select the points:	and		the information yo Availability of infor					
II AII								
at Lick Run		🔲 Sta	ge/Forecast Graph	n (Description)				
🔲 at Buchanan		🔲 Sta	ge/Forecast Text					
at Holcomb Rock	¢	E Flo	od Impacts					
at Bent Creek		Pro	babilistic Stage (C	escription)				
at Scottsville		Pro	babilistic Flow (Description)					
🔲 at Bremo Bluff		Pro	babilistic Volume	(Description)				
at Cartersville		🔲 Sta	ge Exceedance (C	escription)				
at Richmond-We	stham	E Flo	w Exceedance (De	escription)				
at Richmond Loo	:ks	Vol	ume Exceedance					
and Tributaries			ation Map					
near Providence	Foras	Record Crest History						
i near Providence	Forge		v Flow					
			v Water Impacts					
			v Water Records					
		XMI XMI						
-								
	Make my Ri	ver Page	Clear					

The River at a Glance

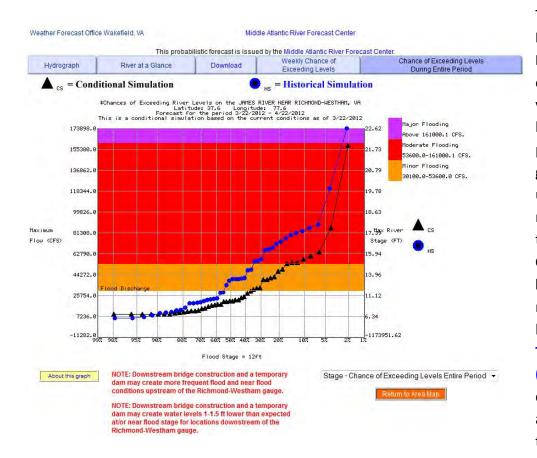
interface allows the user to select what points on the river he/she would like information, and then select what information he/she would like to view. Be aware that, when you click "*Make my River Page!*", the resulting page can be very long, depending upon the number of points and amount of data selected.

Weekly Chance of Exceeding Levels



The Weekly Chance of Exceeding Levels display is a probabilistic view of the weekly chance of reaching or exceeding certain levels within the next 4 weeks at that forecast point.

Chance of Exceeding Levels During the Entire Period

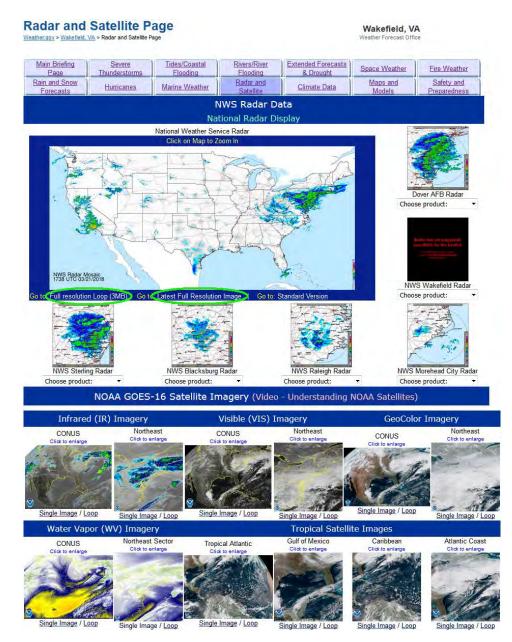


The Chance of Exceeding Levels During the Entire

Period graph shows chances of the river stage, flow, or volume going above various levels during the forecast period labeled above the graph. Similar plots are usually available for one or more of these variables at this forecast location. The **Conditional Simulation (CS)** line indicates chances of the river going above given levels based on current conditions. **The Historical Simulation** (HS) line indicates the chances of the river going

above given levels based on the total range of past levels.

8 – The Radar and Satellite Page



The Radar and Satellite Page provides access to local radar data from NWS Wakefield, and all surrounding radars. Click on each of the individual local radar images to obtain the latest base reflectivity image for that site. In addition, you can choose specific radar products for all of the 6 local radars by clicking on the "Choose product" drop-down menu.

In addition to the 6 local radars, the national **NWS Radar Mosaic** image at the top left of the page is also an image map. Clicking on this map will take you to the latest base reflectivity image for the radar closest to the point on the map you clicked.

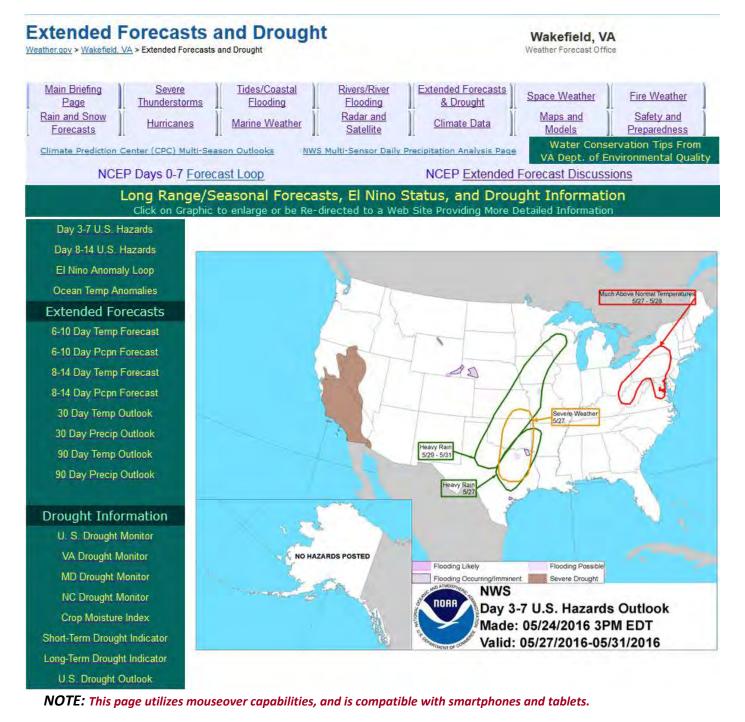
The **EXPERIMENTAL National Radar Display** link at the top of the page will take you to an interactive radar display discussed on the next page.

All satellite images are from GOES-16 There are 3 primary

types of satellite imagery available on this page – **Infrared (IR), Visible (VIS) and Water Vapor (WV)**. WV and IR imagery are available 24/7, while VIS imagery is only available during daylight hours. During the night, a gray scale IR image is substituted for VIS imagery. To obtain the latest imagery, or a loop of that imagery, click on the links below the image thumbnail. The satellite loops are HTML5 loops generates on the NOAA GOES-16 satellite imagery web site.

The **"Click to Enlarge" feature** allows you to click on an image or link, and get a full size image, without navigating away from this page. The radar image links **circled in green** also have the same functionality.

9 – The Extended Forecasts and Drought Page



The information provided in the Extended Forecasts and Drought tab is fairly self-explanatory. However, the update time for the various graphics varies. *Seasonal outlooks (winter, hurricane, etc.)* are added as appropriate. The graphics under *Drought Information* are **updated weekly on Thursdays**, while the *30 and 90 day outlooks* are issued the **third Friday of every month**. The *remaining graphics* are **updated daily by 4 pm**. The **Multi-Sensor Daily Precipitation Analysis Page** is described on page 11 of this Guide.

10 – The Climate Data Page

ТОНА	National	weather Wake				Office					
a la companya da serie da s	Home		Ne	ws		Organi	zation	Search for			
Local forecast by "City, St" City, St Go	local 3-month t	As part of its ongoing efforts to improve service to the public, The National Weather Service h local 3-month temperature outlook. Access the product for your area here. Please click here feedback survey.									
Current Hazards Virginia North Carolina	Observed Weather	Climate Locations	Clim Predi		Climate Resources	Local Data/Records	Astronomical	NOWData			
Maryland			Obse	erve	d Weathe	r Reports					
National Warnings Day 1 TSTM Outlook Hazardous Weather Day 2 TSTM Outlook Send a Storm Report Current Conditions Observations Satellite Images Rivers Rivers & Lakes AHPS	1. Product » 2. Location » 3. Timeframe »										
Radar Imagery Wakefield VA Radar Nationwide Forecasts Tabular Forecasts Public Forecasts Graphic Forecasts PDA Users	Detailed daily w days, wind, hun Precipitation dat	REPORT - issued eather statistics (hidity, sunrise/sun	usually fo iset, and i alendar ye	ecord te	emperature data water year totals	imperature, precipi for the following da , percent of norma	ay.				

There are a number of different products and datasets available on the NWS Wakefield Climate web page. This guide will discuss the **Observed Weather, Local Data/Records** and **NOWData** tabs you see to the left.

Observed Weather

In the Observed Weather section of the Climate data page, *Daily Climate and Preliminary Monthly Climate (CF6)* information is available for the last 5 years. The Preliminary Monthly Climate (CF6) data is a

comprehensive overview of daily weather data in both a tabular and text form (see graphics below). An *explanation of how to use the CF6 table* can be found at the link above the data.

Select Other Date	f the Preliminary Monthly Clinate Data (F6) 1 Product	PRELIMINARY LOCAL CLIM	ATOLOGICAL DATA (US FORM: F-	6) , PAGE 2 SALISBURY MD
These data are preliminary and have not m	ndergone final quality control by the National Climatic Data		MONTH:	FEBRUARY
	subject to revision. Final and certified climate data can be accessed		YEAR:	2012
	subject to revision. Final and certified cliniate data can be accessed		LATITUDE	: 38 20 N
at the NCDC - http://www.ncdc.noaa.gov.			LONGITUD	E: 75 30 W
WFO Monthly/Daily Climate Data		[TEMPERATURE DATA]	[PRECIPITATION DATA]	SYMBOLS USED IN COLUMN 16
000		AVERAGE MONTHLY: 42.9	TOTAL FOR MONTH: 0.44	1 = FOG OR MIST
CXU351 KAKQ 071010	1	DPTR FM NORMAL: 6.9	DPTR FM NORMAL: -0.27	2 = FOG REDUCING VISIBILITY
CF6SBY	1	HIGHEST: 68 ON 1	GRTST 24HR 0.33 ON 1- 2	TO 1/4 MILE OR LESS
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS	FORM: F-6)	LOWEST: 24 ON 6		3 = THUNDER
			SNOW, ICE PELLETS, HAIL	4 = ICE PELLETS
	STATION: SALISBURY MD MONTH: FEBRUARY		TOTAL MONTH: 0.0 INCH	5 = HAIL
	YEAR: 2012		GRTST 24HR 0.0	6 = FREEZING RAIN OR DRIZZLE
	LATITUDE: 38 20 N		GRTST DEPTH: 0	7 = DUSTSTORM OR SANDSTORM:
	LONGITUDE: 75 30 W			VSBY 1/2 MILE OR LESS
TEMPERATURE IN F: : PCPN: SNOW:	WIND :SUNSHINE: SKY :PK WND			8 = SMOKE OR HAZE
	WIND SUNDRINES SKI SKEWND	[NO. OF DAYS WITH]	[WEATHER - DAYS WITH]	9 = BLOWING SNOW
1 2 3 4 5 6Å 6B 7 8 9	10 11 12 13 14 15 16 17 18			X = TORNADO
12 2	AVG MX 2MIN	MAX 32 OR BELOW: O	0.01 INCH OR MORE: 3	
DY MAX MIN AVG DEF HDD CDD WTR SNW DPTH		MAX 90 OR ABOVE: 0	0.10 INCH OR MORE: 2	
		MIN 32 OR BELOW: 4	0.50 INCH OR MORE: 0	
1 68 50 59 23 6 0 T 0.0 0	9.3 20 240 M M 2 26 240	MIN O OR BELOW: O	1.00 INCH OR MORE: 0	
	5.8 17 320 M M 7 18 26 330			
		[HDD (BASE 65)]		
		TOTAL THIS MO. 132	CLEAR (SCALE 0-3) 3	
	1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DPTR FM NORMAL -42	PTCLDY (SCALE 4-7) 3	
6 50 24 37 1 28 0 0.00 0.0 0		TOTAL FM JUL 1 2032	CLOUDY (SCALE 8-10) 0	
	34.7 M 22	DPTR FM NORMAL -683		
AV 53.0 32.8		[CDD (BASE 65)]		
		TOTAL THIS MO. 0		
viewe]	DPTR FM NORMAL 0	[PRESSURE DATA]	
NOTES: # LAST OF SEVERAL OCCURRENCES		TOTAL FM JAN 1 0	HIGHEST SLP M ON M	
	1	DPTR FM NORMAL 0	LOWEST SLP 29.95 ON 2	
COLUMN 17 PEAK WIND IN M.P.H.				
		[REMARKS]		

Local Data/Records

At right, is a screen capture of the Local Data/Records tab. There is considerable local data available on this page, and we make every effort to keep the records and normals documents up-to-date.

NOWData

The NOWData tab allows the user to access some additional climate related data not available through the **Observed Weather** or **Local Data/Records** tabs. The NOWData interface is depicted in the screen capture below. Most of the locations for which data are available are Cooperative observers, who provide daily max/min temperature and precipitation data to the NWS.



Network

Observed Weather	Climate Locations	Climate Prediction	Climate Resource	Local s Data/Recon	ds Astronomical	NOWData
	NOW	Data - NO	AA Onli	ne Weath	er Data	
Product » Daily data for a r Daily almanac Monthly avgs/tot Monthly occurre Monthly extremes Daily extremes Daily/monthly no Record extremes First/last dates	nonth Nor Rich Val als Elize nces Ash rs Car Cro rmals Emp Farr	tolk Area inmond Area aboth City C, NC land, VA mo Bluff, VA mo Bluff, VA p Pickett, VA zier, VA poria 1 Whw, VA nwille 2 N, VA	 00000000 × 	ariable » Max Temperature Min Temperature Avg Temperature Precipitation Snow fall Snow Depth Heating Degree Da Cooling Degree Da Growing Degree D	ys	5. View »
Product Descript MONTHLY AVERAC appropriate, for the product is available average of the year years of data are a National Climatic Dat	SES/TOTALS selected varia for the currer rs 1971 throug vailable from t	able for each month ht year, the previou gh 2000. Additional	h of the year is year, or an stations and	This	- NCDC Map - Common q - Submit a quest Pavend by NO 44, Regional C	uestions - tion/comment

11 – The Space Weather Page

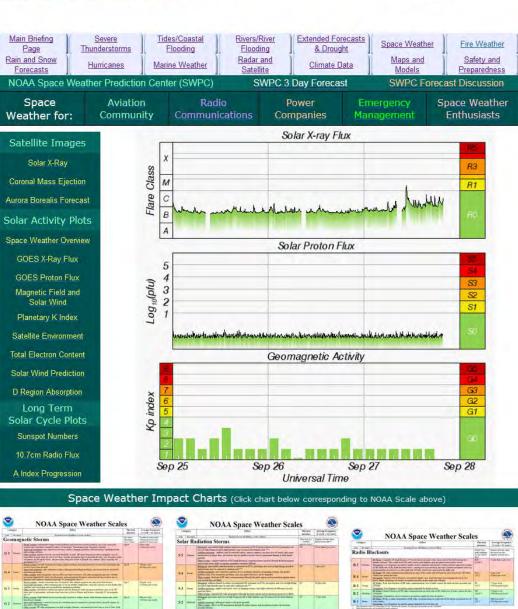
Wakefield, VA

Weather Forecast Offi



Weather.gov > Wakefield, VA > Space Weather Briefing Web Page

Geomagnetic Storm Impacts



Solar Radiation Storm Impacts

quick overview of solar activity, and the potential impacts of solar storms. **NOAA's Space Weather** Prediction Center (SWPC) is responsible for monitoring space weather conditions, and issuing warnings and advisories for significant solar activity. Of greatest importance on this page is the table associated with Space Weather **Overview**. The impacts related to corresponding to the activity level (G1-5, S1-5 or R1-5) can be found by clicking the appropriate table under **Space Weather Impact** Charts. The SWPC also issues periodic discussions during solar events. Those discussions are available at the link above the SWPC images and graphs. Links to

The Space Weather Page

was created to provide a

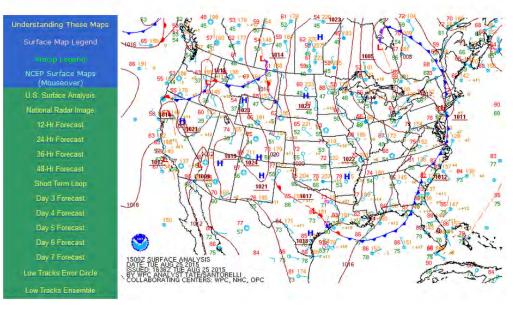
SWPC web pages for various space weather user groups are provided above the SWPC graphics.

Radio Blackouts Impact Scale

12 – The Maps and Models Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.

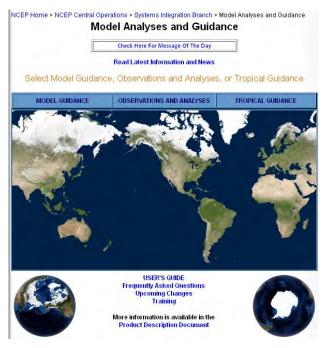




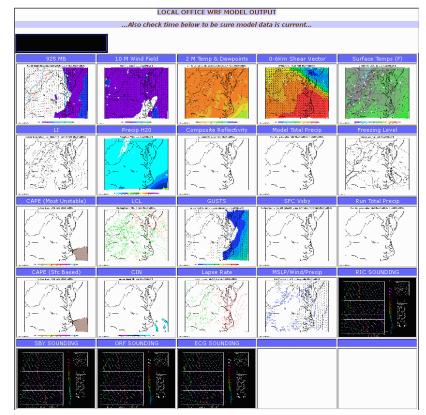
The Maps and Models tab provides additional resources for analyzing current conditions, forecast models, and forecast surface maps through day 7. The links are fairly self explanatory, so a detailed explanation is not necessary. The Mesonet Surface Observation Map link takes you to the same map discussed in Section 1b of the main guide (and on the last page, if you are viewing the Maps and Models page specific users guide).

The Forecast Model portion of the page now contains links taking you directly to that model output, mostly via the **NCEP Model Guidance Page**.

The links for **GFS Ens Spaghetti** and **GFS Ens Mean** represent the "spaghetti" plots and ensemble mean plots from the GFE ensemble forecasts. The **NAEFS** links to the **North American Ensemble Forecast System** output.



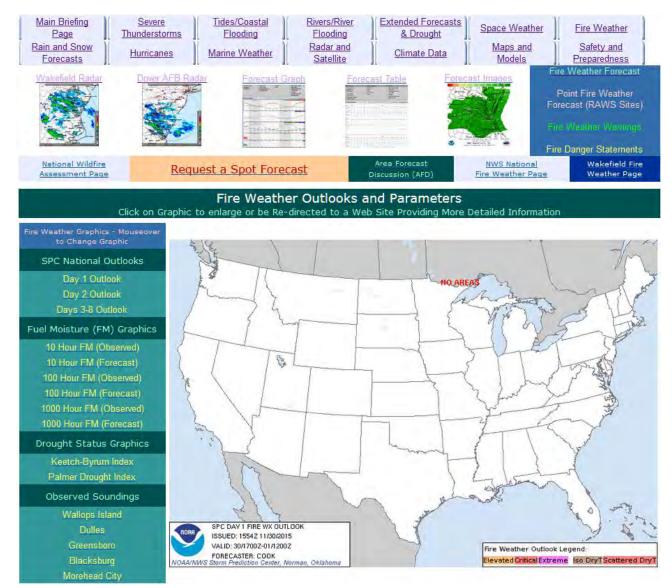
At left is a screen capture of the NCEP Model and Analysis website interface. This <u>NCEP Model and</u> <u>Analysis Page</u> also has a <u>detailed User's Guide</u>. The **WFO Wakefield Local WRF Model** is run twice daily, providing forecast output of a number of variables through 24 hours from the model start time. The image at right is a screen capture of our local WRF model page.



Finally, the **Hi-Res Rapid Refresh (HRRR) Model** is run hourly, and provides output out to 15 hours from the model forecast start time. A partial screen capture of the HRRR model page is provided below.

Iodel: HRRR primary			*	Doma	in: F	ull	*	Dat	e: 21	Feb 201	12-14Z	*						
										Valid	Time							
			Tue	Tue	Tue	Tue	Tue	Tue	Tue	Tue	Tue	Tue	Wed	Wed	Wed	Wed	Wed	Wed
			14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05
	AII	Loop								Fore	ecast							
	times	Loop	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
all fields			00	01	02	03	04	05	06	07	08	09	10		12	13	_14_	_15
1 km agl reflectivity	1	1	00	01	02	03	_04_	05	06	07	08	09	10		_12	13	_14_	_15
composite reflectivity	1	1	00	01	_02_	03	_04_	_05_	06	07	_08_	09	_10_		12	_13_	_14_	_15
ensemble comp reflectivity	1	1	00	01	02	03	_04_	_05_	06	_07_	_08_	09	_10_		_12	_13_	_14_	_15
max 1 km agl reflectivity	1	1		01	02	03	_04_	05	06	_07_	08	09	_10_		_12	_13_	_14	_15
surface CAPE	1	1	00	01	02	03	_04_	05	06	07	08	09	10	_11_	12	13	14	15
surface CIN	1	1	00	01	02	03	_04_	05	06	07	08	09	_10_		12	13	_14_	_15
mixed CAPE	1	1	00	01	02	03	_04_	05	06	07	08	09	10	_11_	12	13	14	_15
most unstable CAPE	1	1	00	01	_02_	03	_04_	_05_	06	_07_	_08_	09	_10_	11	_12	_13_	14	_15
most unstable layer CAPE	1	1	00	01	02	03	_04_	05	06	07	08	09	10	_11_	12	13	14	15
best LI	1	1	00	01	02	03	_04_	_05	06	_07_	_08	09	_10	11	_12	_13_	14	_15
LCL	1	1	00	01	02	03	_04_	05	06	07	08	09	10	_11_	12	13	14	_15
0-1 km shear	1	1	00	01	02	03	_04_	05	06	07	08	09	_10_	_11_	_12	13	14	_15
0-6 km shear	1	1	00	01	_02_	03	_04_	05	06	07	08	09	10		12	13	_14_	_15
D-1 km helicity, storm motion	1	1	00	01	_02_	03	_04_	05	06	07	08	09	10		12	13	_14_	_15
0-3 km helicity, storm motion	1	1	00	01	02	03	_04_	05	06	07	08	09	10		12	13	_14_	_15
2-5 km updraft helicity	1	1	00	01	02	03	_04_	_05_	06	_07_	_08_	09	_10_		_12_	_13_	_14_	_15
1-6 km updraft helicity	1	1	00	_01_	02	03	_04_	05	06	_07_	08	09	_10_	_11_	_12_	13	_14_	_15
2-5 km max updraft helicity	1	1		01	02	03	_04_	05	06	07	08	09	10		12	13	_14_	_15
1-6 km max updraft helicity	1	1		01	02	03	_04_	05	06	07	08	09	10	_11_	12	13	_14_	_15
ensemble updraft helicity	1	1	00	01	02	03	_04_	_05_	06	07	08	09	10	_11_	_12	13	_14	_15
convective activity 1	1	1	00	01	02	03	_04_	_05_	06	_07_	_08_	09	10	_11_	_12	_13_	_14_	_15
convective activity 2	1	1	00	01	02	03	_04_	_05	06	07	08	09	_10_	11	12	_13_	14	15
convective activity 3	1	1	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

13 – The Fire Weather Page



NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.

The Fire Weather Briefing Page is designed to allow customers with fire and fire suppression related interests to access fire weather information and forecasts from national and local sources. The links to the **Forecast Graph**, **Forecast Table**, and **Forecast Images** are described on pages 6 and 7 of the main users guide, and after this page (if you are looking at the fire weather page users guide). Also, to the left of these links are links to our **text fire weather forecast**, **RAWS point Fire Weather Forecast**, and **Fire Weather Warning** and **Danger Statements**.

Forestry and forestry management professionals can request a spot (or location specific) fire weather forecast via the link above the fire weather graphics. The requests are received at forecaster workstations and forecasts are usually generated within 15-20 minutes of the spot forecast request.

14 – The Safety and Preparedness Page

	Preparedn				Wakefield, VA Weather Forecast Office	
Main EM/Briefing Page Rain and Snow Forecasts	Severe Thunderstorms Hurricanes	Tides/Coastal Flooding Marine Weather	Rivers/River Flooding Radar and Satellite	Extended Forecasts & Drought Climate Data	Space Weather	Fire Weather Safety and Preparedness
Thunderstorm	, Tornado and Li	ghtning Safety	Winter We	ather Safety	NOAA Wea	other Radio
Tstms. Tornadoes and Lightning	Lightning Safety When Thunder Go Indoorat	Eamily Lightning Safety Backgo	Winter Storms	Winter Safety Web Site	NOAA Weather Radio	Regional Weather Radio Map
	Hurricane	e Safety and Pre	paredness		Floodin	g Safety
Hurricanes and Tropical Storms Tropical Cyclores	Tropical Cyclone Elocding President State State Control of the State State Control of the State State State Control of the State Sta	Hurricane Preparedness	VA Hurricane Evacuation Guide	VA Hurricane History	Floods and Flood Safety	Turn Around Don't Drown
Heat Safety		Mis	cellaneous Safe	ty and Preparedr	ness	
Heat Wave	Owlie SKYWARN (For Kids) STORMS AHEAD	StormReady Brochure	Tsunami Safety Web site	Tsunami - The Great Waves	Tsunami Warning Center West Coast and Alaska None Reng Cont	Storm Spotters Guide
		Ad	ditional Resou	rces		
NVVS Office & Internet Sties	NOAA Cloud Chan	Past Events Web Page	Locally Produced Climate Info Climate Info	NWS Wakefield Warning Criteria	USGS Earl	hquake Info

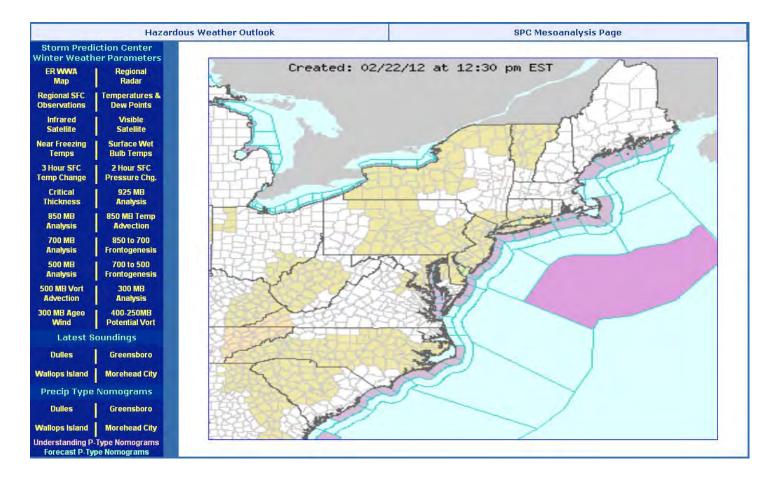
The Safety and Preparedness Page contains natural hazard brochures, fact sheets, and other safety and preparedness materials. Many of the brochures are prepared jointly by NOAA, FEMA and the American Red Cross. Some materials, such as VA Hurricane History, NWS Offices and Internet Sites, and the Regional Weather Radio Map, are locally prepared and periodically updated. Under Additional Resources are links to NWS Wakefield's Past Events Web Page, which contains descriptions of many of the significant weather events affecting Virginia since 1995; and a link to Locally Produced Climate Info. The information on the Locally Produced Climate Info page is all produced at NWS Wakefield, and an effort is made to keep the data and information on this page as up-to-date as possible. Links to USGS earthquake info, and the Alaska Tsunami Warning Center (which serves the U.S. East Coast), are provided.

In addition, at the top left of this page are links to the **ReadyVirginia**, **ReadyNC**, **Ready.gov** and **Maryland Emergency Management** preparedness web sites.

Appendix A – The Winter Mesoanalysis Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.

The Severe Thunderstorm Mesoanalysis page is designed to provide a real-time picture of thunderstorm and/or severe thunderstorm potential. The graphics on this page are mostly from the SPC Mesoanalysis Page (linked above the graphics), utilizing the Mid Atlantic sector. Although many of the parameters are well known to meteorologists, others require some explanation (see descriptions below graphic).



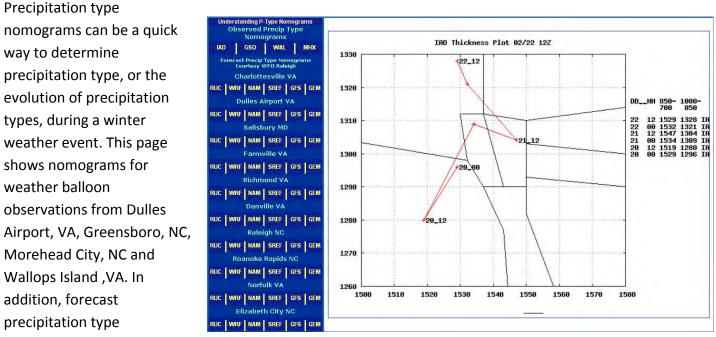
Frontogenesis – The generation or intensification of a front. It occurs when warm air converges onto colder air, and the horizontal temperature gradient amplifies by at least an order of magnitude.

Advection – Transport of an atmospheric property by the wind. Most often used to describe increases or decreases in temperature or moisture.

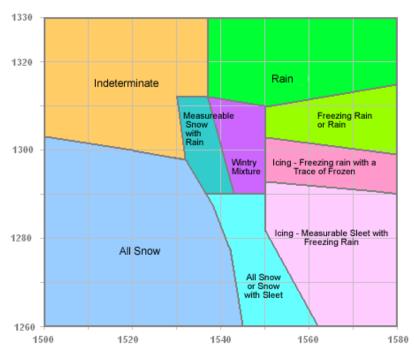
Potential Vort (Potential Vorticity) – This plays an important role in the generation of vorticity (cyclonic turning in the atmosphere) in cyclogenesis, especially along the polar front. It is also very useful in tracing intrusions of stratospheric air deep into the troposphere in the vicinity of jet streaks.

Appendix A1 – The Precip Type Nomogram Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.



nomograms for about a dozen locations in and around the NWS Wakefield area of responsibility are available for the following models – RUC (Rapid Update Cycle); WRF (Weather Research and Forecast); NAM; SREF (Short-Range Ensemble); GFS; and GEM (Canadian). These nomograms are all available courtesy of WFO Raleigh ,NC.



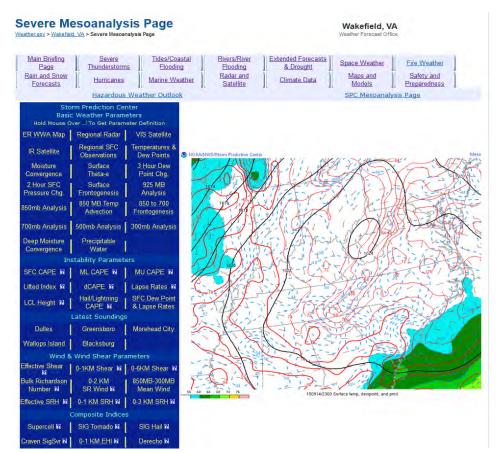
P-Type Categories

The image at left is a legend for understanding precip type nomograms.

Appendix B – The Severe Thunderstorm Mesoanalysis Page

NOTE: This page utilizes mouseover capabilities, and is compatible with smartphones and tablets.

The <u>Severe Thunderstorm Mesoanalysis</u> page is designed to provide a real-time picture of thunderstorm and/or severe thunderstorm potential. The graphics on this page are mostly from the SPC Mesoanalysis Page (linked above the graphics), utilizing the Mid Atlantic sector. Although many of the parameters are well known to meteorologists, others require some explanation. For those viewing this page from a PC/laptop, hold your mouse over the symbol for an explanation of that parameter. These explanations are also provided below.



Frontogenesis - the generation or intensification of a front. It occurs when warm air converges onto colder air, and the horizontal temperature gradient amplifies by at least an order of magnitude.

Theta-e – Equivalent Potential Temperature - The

temperature a parcel of air would have if a) it was lifted until it became saturated, b) all water vapor was condensed out, and c) it was returned adiabatically (i.e., without transfer of heat or mass) to a pressure of 1000 millibars. Theta-e, which typically is

expressed in degrees Kelvin, is directly related to the amount of heat present in an air parcel. Thus, it is useful in diagnosing atmospheric instability.

Precipitable Water – Measure of the depth of liquid water at the surface that would result after precipitating all of the water vapor in a vertical column over a given location, usually extending from the surface to 300 mb.

SFC CAPE – Surface CAPE is the Convective Available Potential Energy based lifting a surface parcel, and the convective inhibition for the same parcel. Areas of high CAPE (1000+ j/kg) and minimal convective inhibition (i.e. an unstable airmass) are associated with an increased threat for surface-based thunderstorms.

ML CAPE – MLCAPE (Mixed Layer Convective Available Potential Energy) is a measure of instability in the troposphere. This value represents the mean potential energy conditions available to parcels of air located in the lowest 100mb when lifted to the level of free convection (LFC). No parcel entrainment is considered. The CAPE and CIN calculations use the virtual temperature correction.

MU CAPE – MUCAPE (Most Unstable Convective Available Potential Energy) is a measure of instability in the troposphere. This value represents the total amount of potential energy available to the most unstable parcel of air found within the lowest 300mb of the atmosphere while being lifted to its level of free convection (LFC). No parcel entrainment is considered. The CAPE and CIN calculations use the virtual temperature correction.

Lifted Index – SBLI (Surface Based Lifted Index) is a comparison between the temperature of a surface based parcel lifted to 500mb (approx. 20,000 ft) and the environmental temperature at 500MB. Negative values of SBLI denote an unstable atmosphere; the more negative, the more unstable. These fields are meant to identify areas of surface-based CAPE and minimal convective inhibition, which suggests some threat for surface-based thunderstorms.

dCAPE – The DCAPE (Downdraft CAPE) can be used to estimate the potential strength of rain-cooled downdrafts within thunderstorm convection, and is similar to CAPE. Larger DCAPE values are associated with potentially stronger downdrafts.

Lapse Rates – Lapse rates are shown in terms of temperature change (in degrees Celsius) per kilometer in height. Values less than 5.5-6.0 degrees C/km (moist adiabatic) represent stable conditions, while values near 9.5 degrees C/km (dry adiabatic) are considered absolutely unstable. In between these two values, lapse rates are considered conditionally unstable. Conditional instability means that if enough moisture is present, lifted air parcels could have a negative LI (lifted index) and/or positive CAPE.

LCL Height – The LCL (Lifting Condensation Level) is the level at which a parcel becomes saturated. It is a reasonable estimate of cloud base height when parcels experience forced ascent. The height difference between this parameter and the LFC is important when determining convective initiation. The smaller the difference between the LCL and the LFC, the more likely thunderstorms develop. The LFC-LCL difference is similar to CIN (convective inhibition).

Lightning/Hail CAPE – This image depicts CAPE in the layer from -10 C to -30 C, and the freezing level height (in meters). Large CAPE (values greater than 400-500) in the layer from -10 C to -30 C favors rapid hail growth and significant lightning activity. Freezing level heights less than 3500 meters suggest a greater probability of hail reaching the surface prior to melting.

Effective Shear – The bulk vector difference from the effective inflow base upward to 50% of the equilibrium level height for the most unstable parcel in the lowest 300 mb. This parameter is similar to the 0-6 km bulk shear, though it accounts for storm depth (effective inflow base to EL) and is designed to identify both surface-based and elevated supercell environments. Supercells become more probable as the effective bulk shear vector increases in magnitude from 25-40 kt and greater.

0-1KM Shear – Surface-1-km Vertical Shear is the difference between the surface wind and the wind at 1km above ground level. These data are plotted as vectors with shear magnitudes contoured. 0-1km shear magnitudes greater than 15-20 knots tend to favor supercell tornadoes.

0-6KM Shear – The Boundary Layer through 6km above ground level shear vector denotes the change in wind throughout this height. Thunderstorms tend to become more organized and persistent as vertical shear increases. Supercells are commonly associated with vertical shear values of at least 35-40 knots through this depth.

Bulk Richardson Number – The BRN is meant to estimate the balance between vertical shear and buoyancy, with low BRN values suggestive of vertical shear that is too strong relative to the buoyancy, and large BRN values are suggestive of multicell clusters. Intermediate BRN values favor sustained supercells. BRN values in the range of 10-45 (dimensionless) have been associated with supercells via numerical simulations.

0-2KM SR Wind – Low-Level SR (Storm Relative) winds (0-2km) are meant to represent low-level storm inflow. The majority of sustained supercells have 0-2km storm inflow values of 15-20 knots or greater.

Effective SRH – Effective SRH (Storm Relative Helicity) is based on threshold values of lifted parcel CAPE (100 J/kg) and CIN (-250 J/kg). These parcel constraints are meant to confine the SRH layer calculation to the part of a sounding where lifted parcels are buoyant, but not strongly capped. Effective SRH discriminates the best between significant tornadic and nontornadic supercells.

0-1 KM SRH – SRH (Storm Relative Helicity) is a measure of the potential for cyclonic updraft rotation in right-moving supercells, and is calculated for the lowest 1-km and 3-km layers above ground level. There is no clear threshold value for SRH when forecasting supercells, since the formation of supercells appears to be related more strongly to the deeper layer vertical shear. However, larger values of 0-3km SRH (greater than 250 m²/s²) and 0-1km SRH (greater than 100 m²/s²) do suggest an increased threat of tornadoes with supercells. For SRH, larger values are generally better, but there are no clear boundaries between non-tornadic and significant tornadic supercells.

0-3 KM SRH – SRH (Storm Relative Helicity) is a measure of the potential for cyclonic updraft rotation in right-moving supercells, and is calculated for the lowest 1-km and 3-km layers above ground level. There is no clear threshold value for SRH when forecasting supercells, since the formation of supercells appears to be related more strongly to the deeper layer vertical shear. However, larger values of 0-3km SRH (greater than 250 m²/s²) and 0-1km SRH (greater than 100 m²/s²) do suggest an increased threat of tornadoes with supercells. For SRH, larger values are generally better, but there are no clear boundaries between non-tornadic and significant tornadic supercells

Supercell Composite Parameter (SCP) – A multiple ingredient, composite index that includes effective storm-relative helicity (ESRH, based on Bunkers right supercell motion), most unstable parcel CAPE (muCAPE), and effective bulk wind difference (EBWD). Each ingredient is normalized to supercell threshold values, and larger values of SCP denote greater overlap in the three supercell ingredients. Only positive values of SCP are displayed, which correspond to environments favoring right-moving (cyclonic) supercells.

SIG Tornado Composite Parameter (STP) – A multiple ingredient, composite index that includes 0-6 km bulk wind difference (6BWD), 0-1 km storm-relative helicity (SRH1), surface parcel CAPE (sbCAPE), surface parcel CIN (sbCIN), and surface parcel LCL height (sbLCL). This version of STP uses fixed layer calculations of vertical shear, and the surface lifted parcels, as an alternative to the effective layer version of STP. A majority of significant tornadoes (F2 or greater damage) have been associated with STP values greater than 1, while most non-tornadic supercells have been associated with values less than 1.

SIG Hail Composite Parameter – The Significant Hail Parameter (SHIP) was developed using a large database of surface-modified, observed severe hail proximity soundings. It is based on 5 parameters, and is meant to delineate between SIG (2 in. diameter or greater) and NON-SIG (<2in. diameter) hail environments. Developed in the same vein as the STP and SCP parameters, values of SHIP greater than 1.00 indicate a favorable environment for SIG hail. Values greater than 4 are considered very high. In practice, maximum contour values of 1.5-2.0 or higher will typically be present when SIG hail is going to be reported.

Craven SIG Svr Composite Parameter – The simple product of 100mb MLCAPE and 0-6km magnitude of the vector difference accounts for the compensation between instability and shear magnitude. Using a database of about 60,000 soundings, the majority of significant severe events (2+ inch hail, 65+ knot winds, F2+ tornadoes) occur when the product exceeds 20,000 m3/s3. Units are scaled to the nearest 1000 on the web plot.

0-1KM EHI – The basic premise behind the EHI (Energy-Helicity Index) is that storm rotation should be maximized when CAPE is large and SRH is large. 0-1km EHI values greater than 1-2 have been associated with significant tornadoes in supercells.

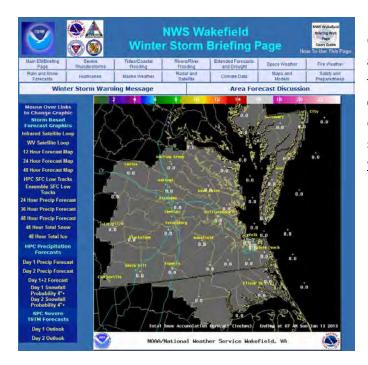
Derecho Composite – The DCP was developed to identify environments considered favorable for cold pool driven wind events through 4 mechanisms: 1) Cold pool production [DCAPE], 2) Ability to sustain strong storms along the leading edge of a gust front [MUCAPE], 3) Organization potential for any ensuing convection [0-6 km shear], and 4) 0-6 km mean wind. This index is formulated as follows:

DCP = (DCAPE/980)*(MUCAPE/2000)*(0-6 km shear/20 kt)*(0-6 km mean wind/16 kt).

Appendix C – Comprehensive Airport Observation List

Airport Locations in and around WFO Wakefield						
Location	Site ID	Location	Site ID			
DOVER DE	KDOV	<u>CLARKSVILLE</u>	KW63			
GEORGETOWN DE	KGED	SOUTH HILL	KAVC			
EASTON MD	KESN	LUNENBURG	KW31			
OCEAN CITY MD	KOXB	FORT PICKETT	KBKT			
SALISBURY MD	KSBY	CREWE	KW81			
PATUXENT RIVER NAS MD	KNHK	LAWRENCEVILLE	KLVL			
ACCOMACK	KMFV	NEW KENT/QUINTON	KW96			
WALLOPS ISLAND	KWAL	WILLIAMSBURG	KJGG			
TANGIER ISLAND	KTGI	HAMPTON (LANGLEY AFB)	KLFI			
STAFFORD	KRMN	NEWPORT NEWS	KPHF			
FREDERICKSBURG	KEZF	WAKEFIELD	KAKQ			
GORDONSVILLE	KGVE	FRANKLIN	KFKN			
<u>CHARLOTTESVILLE</u>	KCHO	<u>SUFFOLK</u>	KSFQ			
LOUISA	KLKU	HAMPTON ROADS AIRPORT	KPVG			
LAKE ANNA	K7W4	NAS NORFOLK	KNGU			
HANOVER	KOFP	NORFOLK	KORF			
<u>TAPPAHANNOCK</u>	KXSA	<u>CHESAPEAKE</u>	КСРК			
SALUDA	KW75	CHESAPEAKE (Fentress Field)	KNFE			
RICHMOND	KRIC	VIRGINIA BEACH (NAS OCEANA)	KNTU			
WEST POINT	KFYJ	ELIZABETH CITY	KECG			
<u>CHESTERFIELD</u>	KFCI	CURRITUCK	KONX			
<u>PETERSBURG</u>	KPTB	MANTEO	KEDE			
FARMVILLE	KFVX	AHOSKIE	KASJ			
<u>LYNCHBURG</u>	KLYH	EDENTON	KEDE			
DANVILLE	KDAN	ROANOKE RAPIDS	KIXA			
SOUTH BOSTON	KW78					
CHASE CITY	KCXE					

Appendix D – Winter Storm, Thunderstorm and Tropical Storm/Hurricane Situational Awareness (SA) Pages



The <u>winter weather</u> and <u>thunderstorm</u> pages are static pages meant to compliment the more comprehensive and detailed information available on the <u>Briefing Web Page</u>. The data shown on this page come from the <u>Rain and</u> <u>Snow Forecasts</u> page, the <u>Severe Thunderstorms</u> page, the <u>Satellite and Radar</u> page, and the <u>Maps</u> <u>and Models</u> page.



Obtaining overall (or big picture) situational awareness (SA) about an impending hurricane/tropical storm, severe thunderstorm, or winter weather event can be a difficult task, even using the <u>Briefing Web Page</u>. To simplify the process of obtaining that big picture situational awareness, storm specific (for tropical events), <u>thunderstorm</u>, and <u>winter</u> <u>weather</u> situational awareness web pages were developed.



The storm specific hurricane/tropical storm pages are available only for those storms potentially making landfall on the U.S. East/Gulf coasts, or those getting widespread news coverage. Much of the information under "…Forecast Graphics" is obtained from the <u>National Hurricane Center</u>. The precipitation and severe thunderstorm graphics come from the <u>Weather Prediction Center (WPC)</u>, and the <u>Storm</u> <u>Prediction Center (SPC)</u>.

The URL for these pages is:

http://weather.gov/akq/Stormname (first letter of storm name is capitalized. E.G., the URL for Erika (2015) would end with *Erika*).

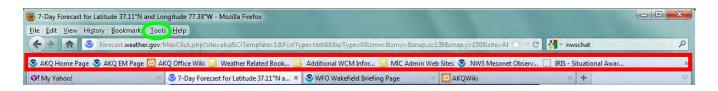
Appendix E – A Daily Briefing to Enhance Situational Awareness

Trying to decide what is or is not important weather-wise on a given day may seem difficult. However, NWS Wakefield's Briefing Page is designed to simplify the task, and allow you the flexibility to create your personal daily briefing. Creating your own daily briefing will enhance situational awareness in benign and hazardous weather situations. *And, it generally takes less than 5 minutes.* Below are a couple of ways to use our Briefing Page to generate your daily briefing.

Tabbed Browsing

Web browsers, including those on most tablet PCs, have the ability to open multiple web pages as "home pages" whenever the browser starts. I call this tabbed browsing. You can easily leverage this capability to create an overall informational briefing, part of which includes weather. Below are examples of a browser with multiple tabs (pages) open in both Firefox and Internet Explorer.

Firefox



Simply click on the + to add a tab to this suite of pages. Note that I also like to have the bookmarks toolbar displayed (*highlighted in red*), which makes it easy to bring up web sites I most frequently visit. To make these pages your "homes pages", click Tools (*circled in green*), then select Options. The following window appears:

Click Use Current Pages (*circled in blue*), then click OK.

The same process for Internet Explorer will be described on the next page.

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Simply click on the blank tab to the right of the "populated" ones to add a tab to this suite of pages. To make these pages your "homes pages", click Tools (*circled in green*), then select Internet Options. The following window appears:

Click Use Current (*circled in blue*), then click Apply, then OK.

So What Pages Should I Use as Home Pages?

The answer to that question is personal preference. However, if we concentrate on weather, the simplest briefing would be having one tab be the 7 Day point forecast for a location near you, then have the main

Briefing Web Page in another tab. Thus, if necessary, you get additional information on forecast rain or snow amounts, coastal flooding (if applicable), severe thunderstorms, etc. This is how I have the example tabs set up.

On the next page are a few options for a more robust, but efficient, weather briefing.

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Coastal Location with Precipitation and/or Tidal Flooding Concerns

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In this example, the Rain and Snow Forecasts page has been added, with the last tab being the Extratropical storm surge display for the location closest to the used (in this case Cambridge MD).

Inland Location with Precipitation and/or Severe Weather Concerns

7-Day Forecast for Latitude 3	7.09°N and Longitude 77.66°W - Mozilla Firefox	
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In this example, the Severe Thunderstorms page has replaced the Extratropical storm surge display. Now the user can quickly determine precipitation amounts, as well as the severe weather potential over the next 2 days (if thunderstorms are anticipated in the 7 day point forecast).

Inland Location with Precipitation, Severe Weather, and/or River Flooding Concerns



In this example, a 5th tab (the Rivers/River Flooding tab) has been added. In addition to precipitation and severe weather, the user can now quickly assess any river flooding potential for the gauging point(s) closest to their location, or in their area of concern.

One Final Request

Please take time to become familiar with NWS Wakefield's Briefing Page. There is a lot of information on this page, both local and national, current and past. Much time has been spent to create a resource that can make any NWS customer a smarter, more informed user of weather information, without having to be a meteorologist.