



# WEATHER FUNDAMENTALS



# WEATHER THREATS TO YORK CO.

- Severe Storms (flooding , hail, tornadoes,etc)
- flooding
- Winter storms(ice, heavy snow, flooding,etc).
- Extreme heat/cold
- Hurricanes(minor risk)

# SEVERE STORMS

- Storms are classified as “**severe**” if they are predicted to produce:
- 1. tornados
- 2. Damaging winds with wind gusts  $\geq 58$  mph
- 3. and/or hail  $\geq 1$  in. in diameter



May  
12,  
2018





# ADVISORIES, WATCHES, AND WARNINGS

## Advisory

Advisories are informational statements. They are a "head's up" that you may want to take the weather into account when planning your day. Examples are Snow Advisories in the winter; they aren't dangerous, but they may make you change your travel plans.

## Watch

Watches are issued when conditions are favorable for a severe weather event. When a Watch is in effect for your area, you should begin preparing for any actions you may need to take should the severe weather event occur.

## Warning

Warnings are issued when a severe weather event is occurring or is imminent. If a Warning is issued for your area immediately take action. If it is a Flood Warning, get to higher ground. If it is a Tornado Warning, get to the lowest point in your home.



## Winter Weather Headlines

The National Weather Service issues watches, warnings and advisories for winter weather. Here's the criteria for these products in central and southeast Illinois:

### Watches

#### Winter Storm Watch:

Conditions favorable for a winter storm event, which is a threat to life or property.

#### Blizzard Watch:

Conditions favorable for a blizzard event (low visibility < ¼ mi. with winds at least 35 mph)

### Advisories

#### Winter Weather Advisory:

Issued for one or more of the following:

- Snow of 3-5" in 12 hrs
- Sleet < ½"
- Freezing rain with sleet/snow
- Blowing snow

#### Freezing Rain Advisory:

Ice accumulation < ¼"

### Warnings

#### Winter Storm Warning:

Heavy snow of 6" in 12 hrs or 8" in 24 hrs, or sleet of ½" or more

Ice Storm Warning: Ice accumulation ¼" or more

#### Blizzard Warning:

Blizzard conditions for at least 3 hours



NWSLincoln  
@NWSLincolnIL

National Weather Service – Lincoln, Illinois



# ADVISORIES, WATCHES, AND WARNINGS (CONT.)

## **Cookie Watch vs Cookie Warning**



Jeff OechSlein – meteorologist at WTOV9  
(Stuebenville, Ohio)

# HAZARDS WITH SEVERE STORMS- HOW TO MANAGE THEM

## Hazards

## Managing the Risks

Tornadoes



Seek immediate shelter from a tornado at the onset of a tornado watch  
**Best Shelters:** Storm shelter, basement, safe room, windowless rooms (get under sturdy furniture if possible)  
**Worst Shelters:** mobile homes, cars (NEVER try to outrun a tornado), highway underpass (acts as wind tunnel),

Flooding



- Get to higher ground if possible
- Be aware of areas prone to flash flooding (streams, canals, etc. )
- Avoid driving if possible, if not, turn around when seeing a flooded road
- Unplug electric appliances, turn off utilities at main switches if instructed
- If you have to leave your home, avoid walking through standing water

Power Outages



- Be prepared with canned food, water, flashlights, extra batteries, blankets, etc.
- Make sure phones are charged/have battery charging pack
- Keep refrigerator/freezer closed
- If people in your household rely on refrigerated medicines, have an alternative way to store them
- Check on neighbors
- If safe, go to alternate location for heating/cooling

Hail Damage



- If in a vehicle, slow down or stop, as roads may become slippery. Once stopped, turn your back to the window and cover yourself with a blanket if possible
- Stay indoors until the hail stops
- Make sure your car is in the garage/covered as well as any outdoor items that could receive damage

Damaging winds



- Fasten any outdoor items that could be damaged/cause injuries
- Seek shelter indoors (similar to tornadoes) and avoid windows
- If outside, seek shelter in a ditch/depression, laying facedown and covering your head



# SOURCES FOR SEVERE WEATHER

Current time (in UTC/GMT/Zulu): 15:04:01

Site Map Organization About Us Mobile Feedback Local Forecast by ZIP

## Storm Prediction Center

N O A A / National Weather Service

HOME | NEWS | SPC PRODUCTS | WEATHER INFO | FORECAST TOOLS | RESEARCH | OUTREACH | NWS/NCEP

Search SPC...

**An Enhanced Risk of Severe Thunderstorms is Forecast Today and/or Tonight**

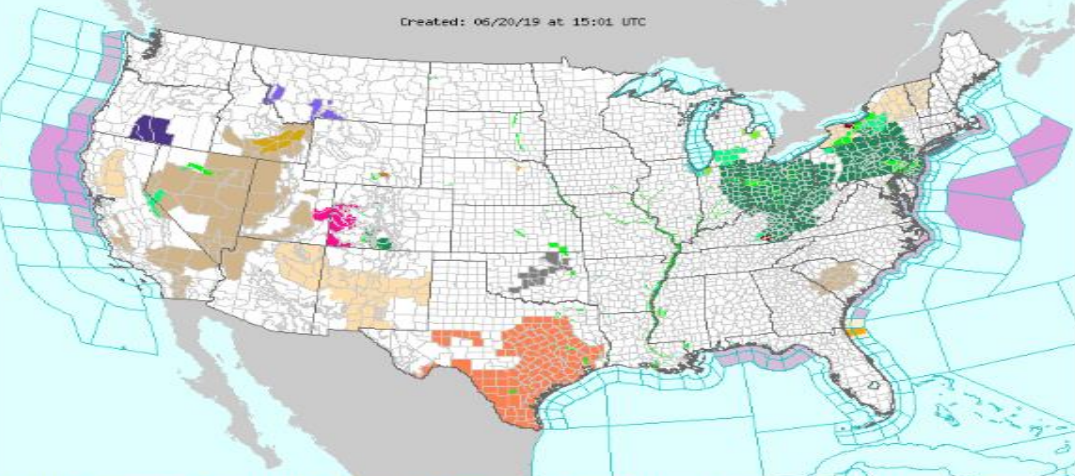
Swaths of damaging winds are most likely from southern Virginia to eastern Georgia this afternoon. The risk for very large hail with a few tornadoes exists across parts of the Mid-Missouri Valley this afternoon into early evening. Otherwise, scattered severe storms are expected across a broad portion of the central and northern Great Plains, and over the eastern states.

» For additional details, see the latest [Day 1 Convective Outlook](#).

» **Critical** fire weather conditions are forecast on Fri (06/21). See [details...](#)

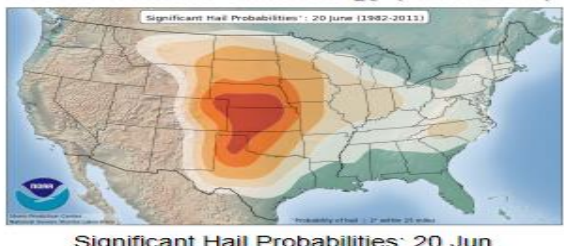
Overview | Conv. Outlook | Watches | MDs | Storm Reports | Mesoanalysis | Fire | Hazards

Created: 06/20/19 at 15:01 UTC



Hazard	Thu (06/20)	Fri (06/21)	Sat (06/22)	Sun (06/23)	Mon (06/24)	Tue (06/25)	Wed (06/26)	Thu (06/27)
Severe	Enhanced	Slight	Slight	No Area	No Area	No Area	No Area	No Area
Fire	Elevated	Critical	No Area	No Area	No Area	No Area	No Area	No Area

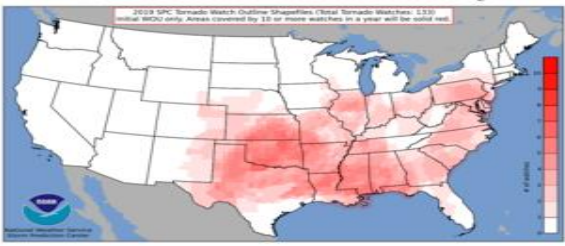
**Severe Weather Climatology (1982-2011)**



Significant Hail Probabilities: 20 Jun

More severe weather climatology data [here](#).

**2019 Tornado Watch Summary**



**Did You Know?**

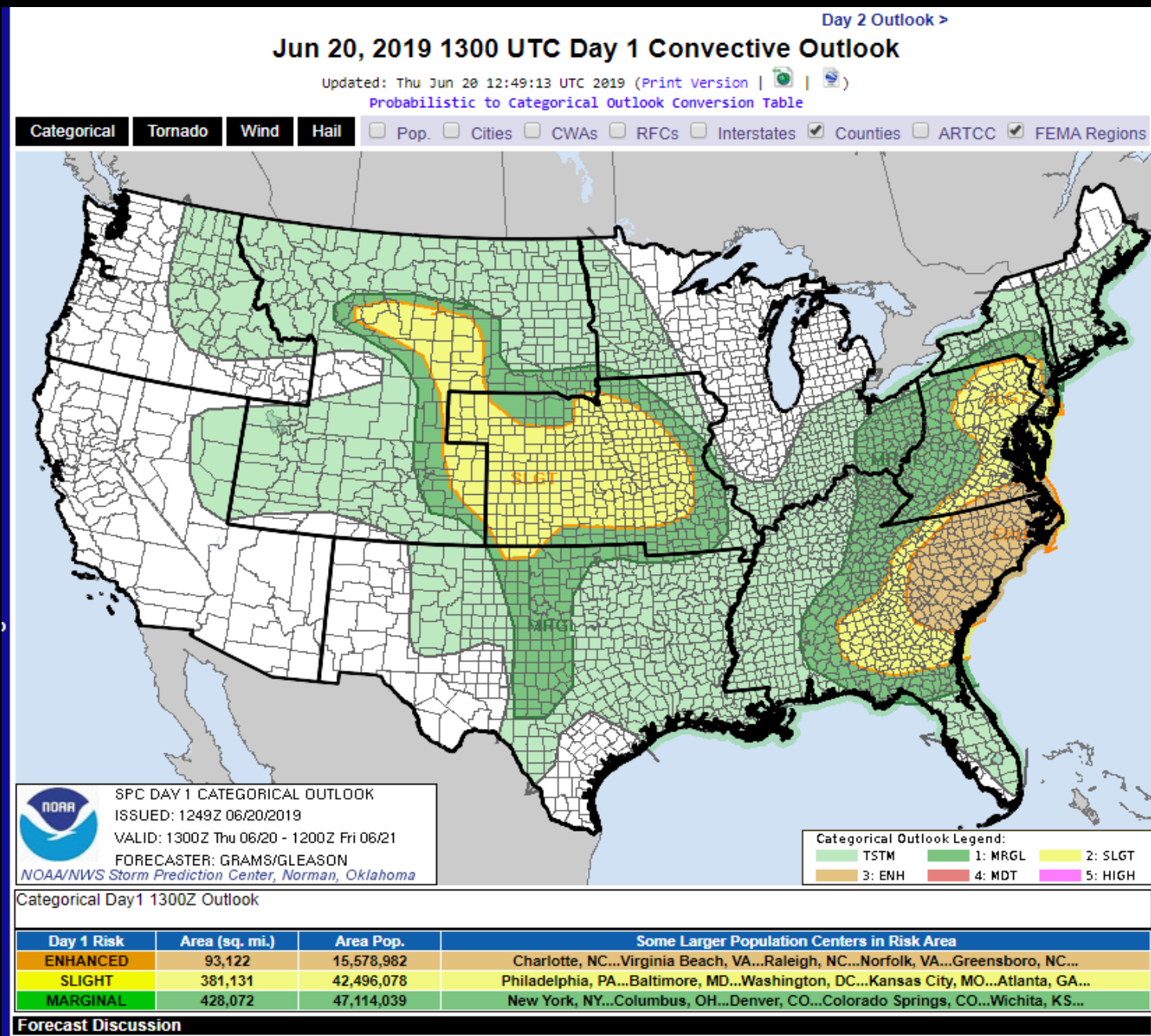
**What's a Watch?**

What's a Watch?

Storm Prediction's Center-  
<https://www.spc.noaa.gov/>









Convective  
outlook tab





# UNDERSTANDING CONVECTIVE OUTLOOK CATEGORIES

## Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
					

Local forecast by "City, ST" or ZIP code

[Location Help](#)

### Severe Weather and Heavy Rain Shifts Into East

A strong and organized storm system will progress from the Ohio and Tennessee Valleys into the East. Expect severe weather with damaging winds across the Mid-Atlantic and Southeast, while the excessive rain risk moves from the Ohio Valley into the Northeast. Also, heat builds in parts of Texas and a cold storm system will carve into the northern Rockies for possible higher elevation snowfall. [Read More >](#)



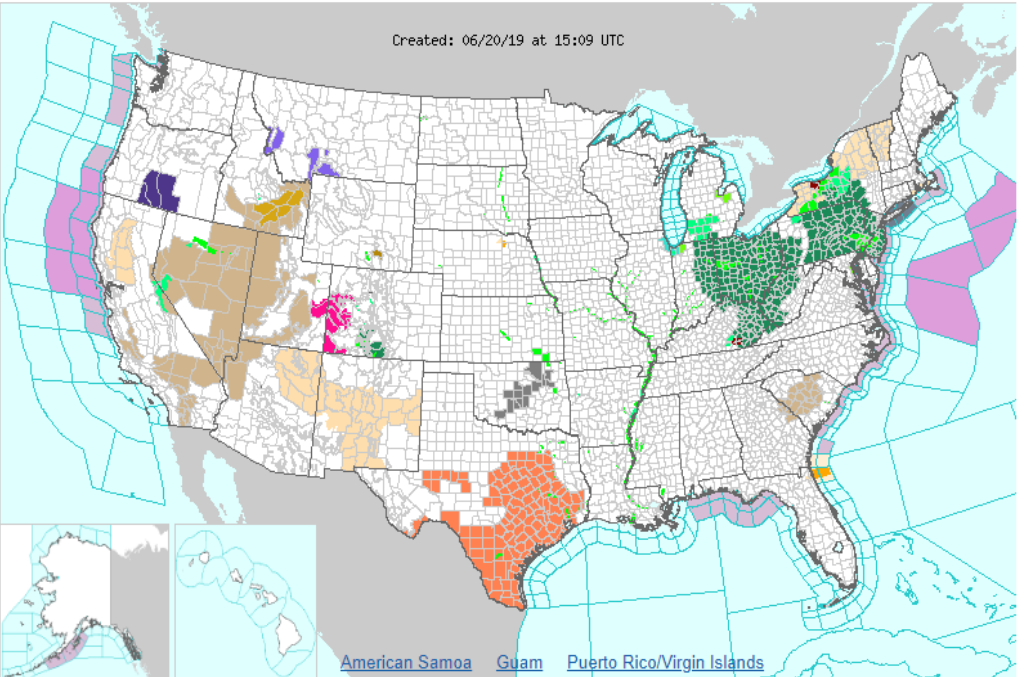
### Customize Your Weather.gov

City, ST

Enter Your City, ST or ZIP Code

☐ Remember Me

[Privacy Policy](#)



Click on the map above for detailed alerts or

Warnings By State

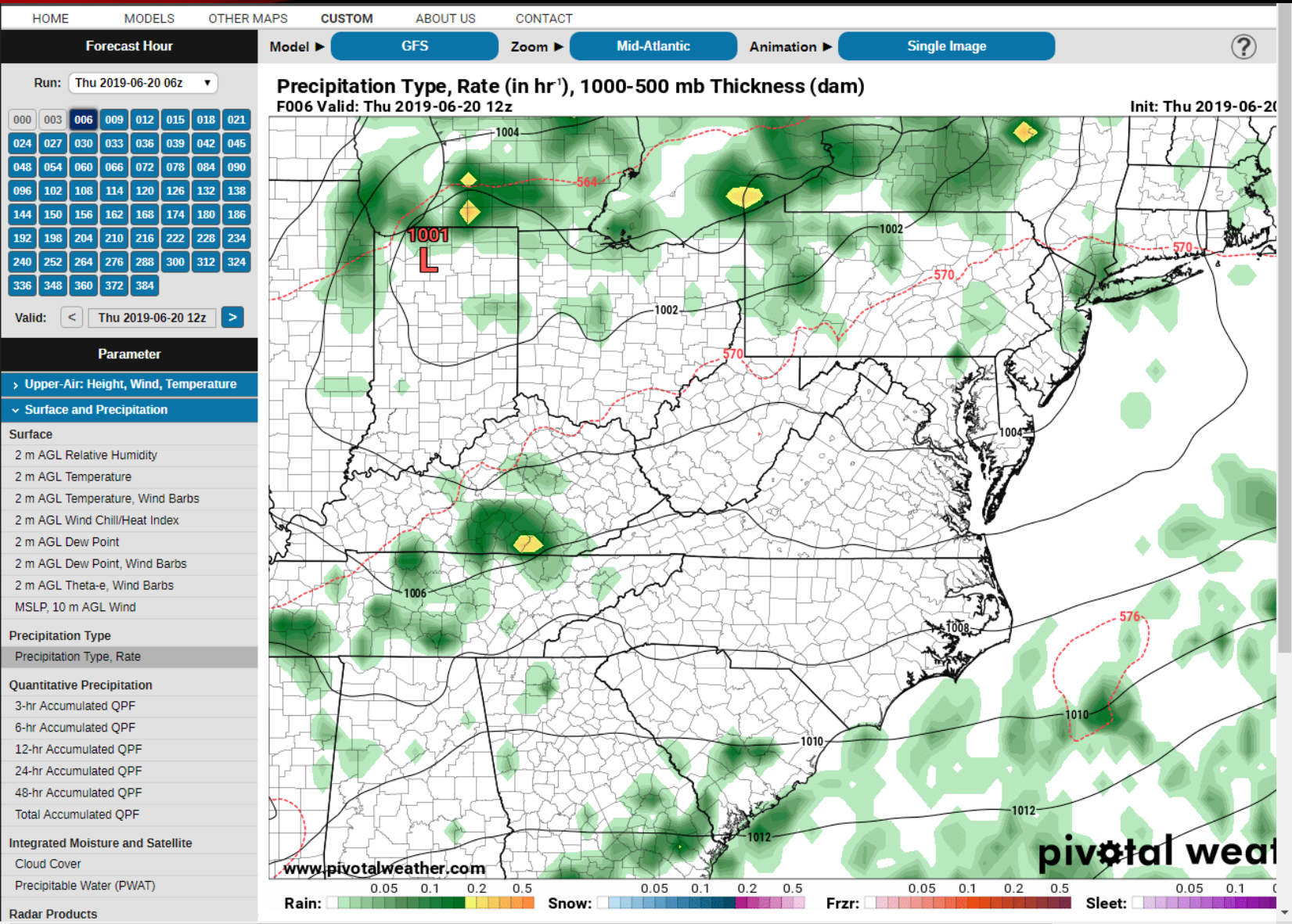
Go

[Public Alerts in XML/CAP v1.1 and ATOM Formats](#)

- |                             |                                |                         |                           |
|-----------------------------|--------------------------------|-------------------------|---------------------------|
| Severe Thunderstorm Warning | Red Flag Warning               | Small Craft Advisory    | High Wind Watch           |
| Flash Flood Warning         | Winter Weather Advisory        | Hazardous Seas Warning  | Fire Weather Watch        |
| Special Marine Warning      | Heat Advisory                  | Lake Wind Advisory      | Special Weather Statement |
| High Wind Warning           | Flood Advisory                 | Wind Advisory           | Marine Weather Statement  |
| Flood Warning               | Lakeshore Flood Advisory       | Frost Advisory          | Air Quality Alert         |
| Flash Flood Watch           | Coastal Flood Advisory         | Rip Current Statement   |                           |
| Gale Warning                | Dense Fog Advisory             | Beach Hazards Statement |                           |
| Freeze Warning              | Small Craft Advisory For Winds | Flood Watch             |                           |

The National Weather Service - <https://www.weather.gov/>





<https://www.pivotalweather.com>

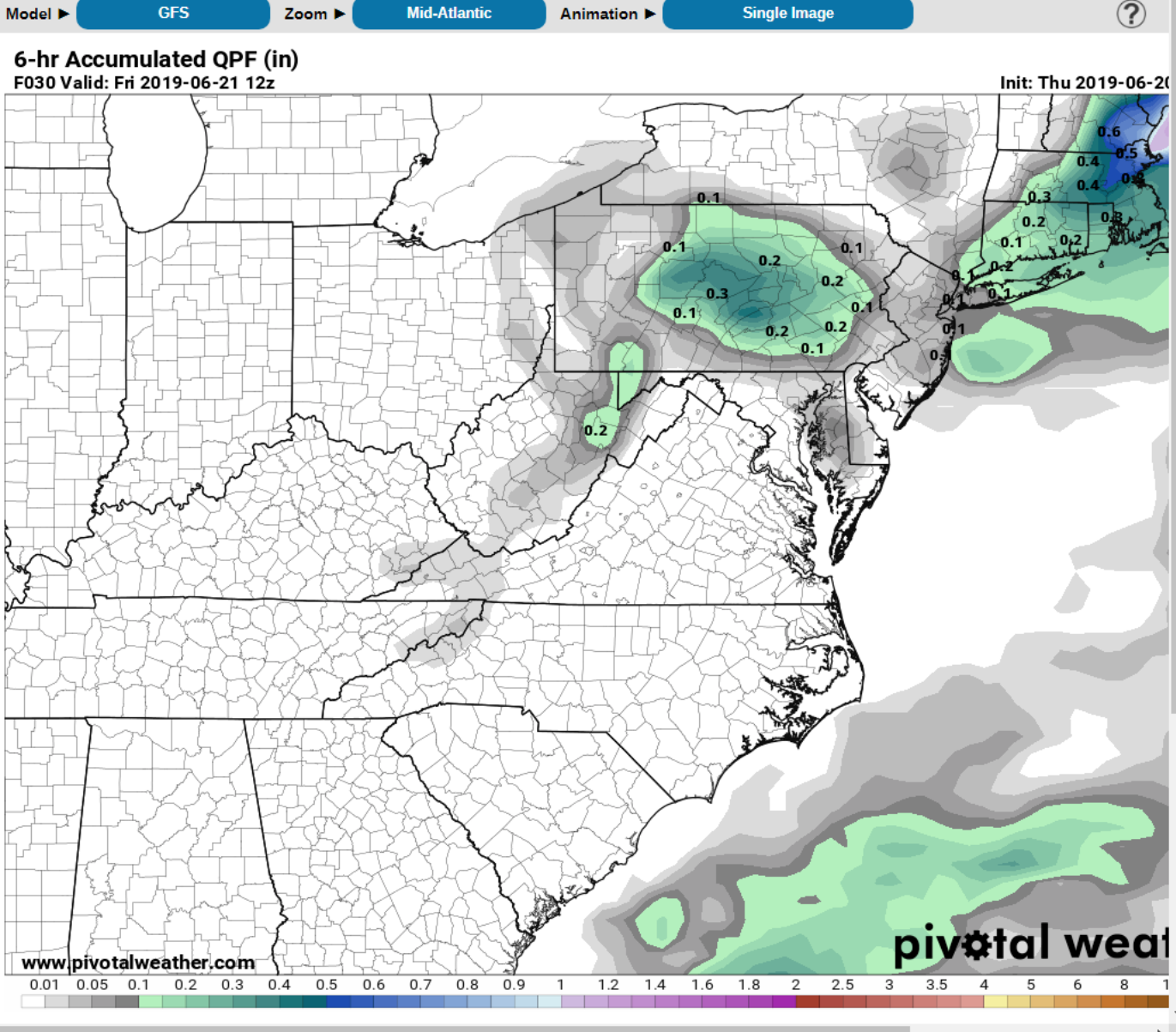
Forecast Hour

Run: Thu 2019-06-20 06z

000	003	006	009	012	015	018	021
024	027	030	033	036	039	042	045
048	054	060	066	072	078	084	090
096	102	108	114	120	126	132	138
144	150	156	162	168	174	180	186
192	198	204	210	216	222	228	234
240	252	264	276	288	300	312	324
336	348	360	372	384			

Valid: < Fri 2019-06-21 12z >

- Parameter
- > Upper-Air: Height, Wind, Temperature
  - > Surface and Precipitation
    - Surface
      - 2 m AGL Relative Humidity
      - 2 m AGL Temperature
      - 2 m AGL Temperature, Wind Barbs
      - 2 m AGL Wind Chill/Heat Index
      - 2 m AGL Dew Point
      - 2 m AGL Dew Point, Wind Barbs
      - 2 m AGL Theta-e, Wind Barbs
      - MSLP, 10 m AGL Wind
    - Precipitation Type
      - Precipitation Type, Rate
    - Quantitative Precipitation
      - 3-hr Accumulated QPF
      - 6-hr Accumulated QPF
      - 12-hr Accumulated QPF
      - 24-hr Accumulated QPF
      - 48-hr Accumulated QPF
      - Total Accumulated QPF
    - Integrated Moisture and Satellite
      - Cloud Cover
      - Precipitable Water (PWAT)
    - Radar Products

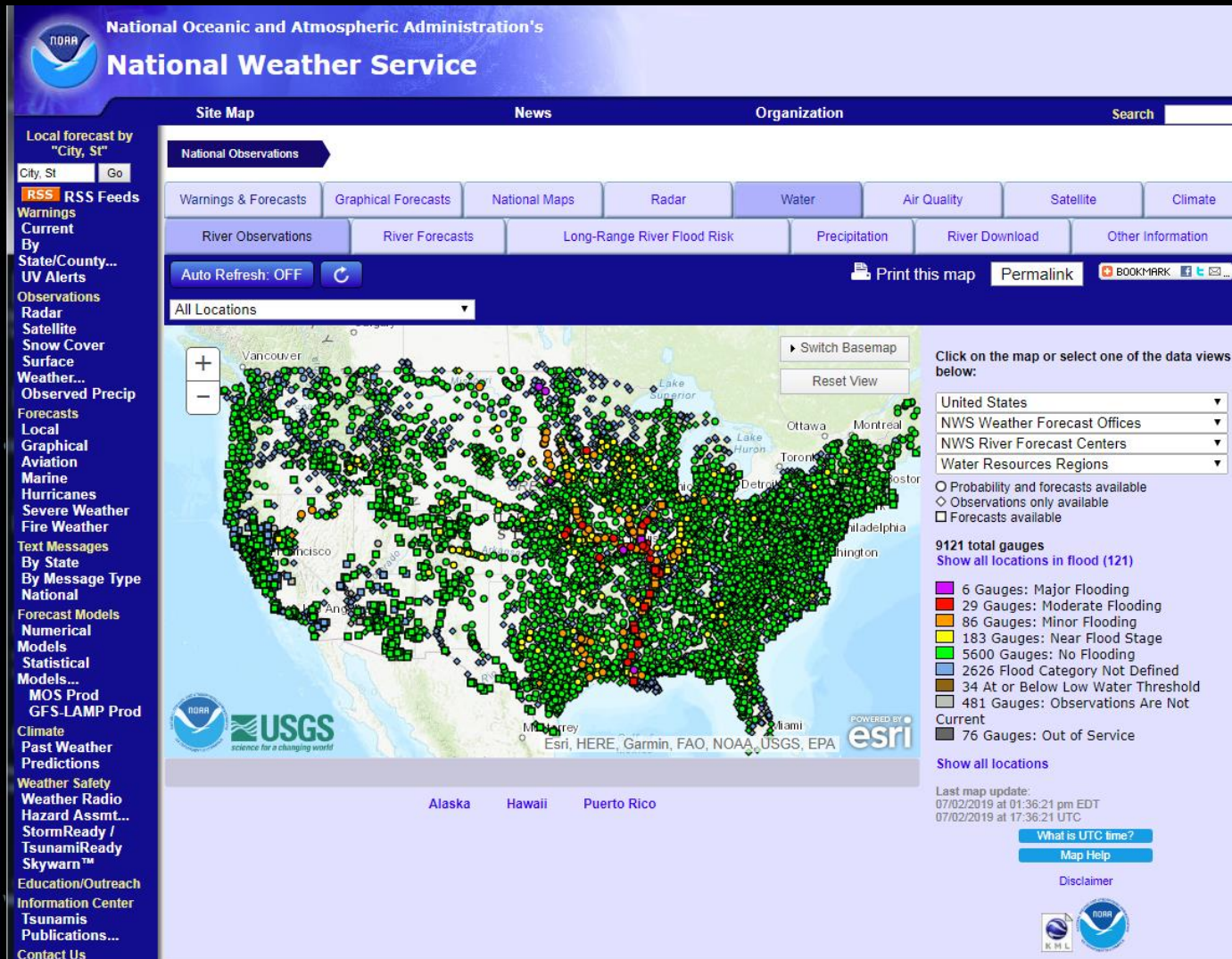


QPF

UTC time: UTC-4 for PA local time  
Valid 12Z, for PA  
 $12-4 = 8 \text{ am}$



# RIVER AND CREEK DATA (FLOODING)



<https://water.weather.gov/ahps/>

# WINTER WEATHER

- A winter storm is an event in which the main types of precipitation are snow, sleet or freezing rain.
- Deaths with these storms typically occur indirectly from the storm, and include;
  - car accidents
  - heart attacks from shoveling snow
  - hypothermia from exposure to cold



[https://www.google.com/search?q=pa+ice+storm&rlz=1C1GCEU\\_enUS849US849&source=lnms&tbm=isch&sa=X&ved=0ahUKEwiGrfjqvjiAhVyU98KHSP0D9cQ\\_AUIECgB&biw=1463&bih=1164#imgc=NGuju7Rs9J7WIM:](https://www.google.com/search?q=pa+ice+storm&rlz=1C1GCEU_enUS849US849&source=lnms&tbm=isch&sa=X&ved=0ahUKEwiGrfjqvjiAhVyU98KHSP0D9cQ_AUIECgB&biw=1463&bih=1164#imgc=NGuju7Rs9J7WIM:)



# Hazards

# Managing the Risks

Extreme cold/hypothermia



- Try and stay out of the cold as much as possible
- Make sure car/bag has extra warm clothes/blankets in the case of an emergency
- Always make sure extremities/ears are covered when in extreme cold
- Watch for early warning signs (shivering, feeling cold, stumbling/mumbling)

Slippery Conditions



- Have salt on hand to spread on sidewalks/driveways to avoid ice related injuries
- Walk slowly and with caution
- Stay away from outside surfaces if ice is suspected

Traffic Jams/Accidents



- Avoid driving if possible
- If not, drive slowly and be cautious for black ice at night
- Increase following distance to 5-6 seconds
- Don't stop if you can avoid it, especially going up hills

Snow Cleaning Activities leading to injuries



- Don't overstrain yourself, shovel a little at a time
- Invest in a snow blower
- If you feel incapable of shoveling your driveway/sidewalks, make sure you know someone who can do it for you

Power Outages



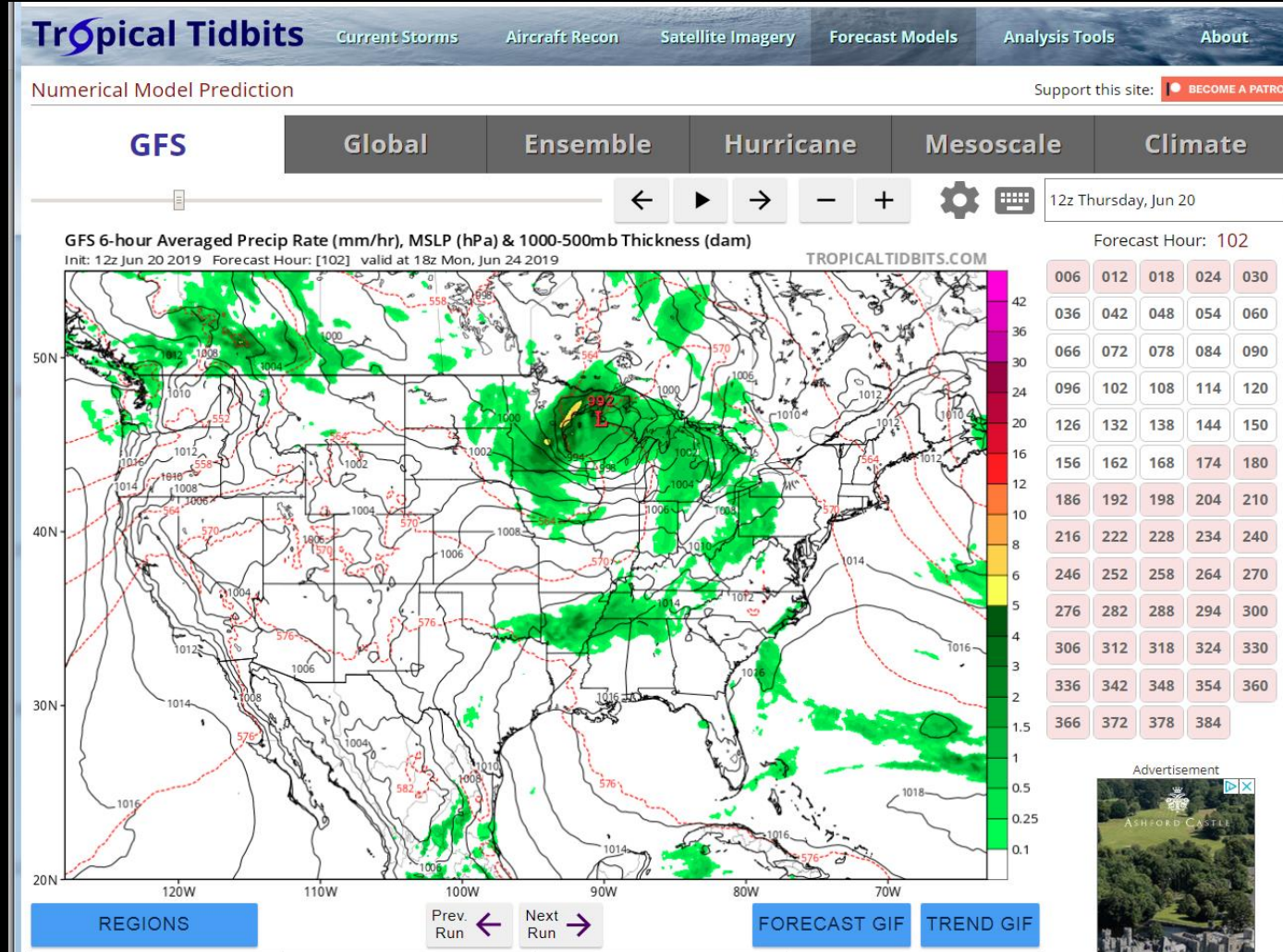
- Keep flashlights, extra batteries, canned food, water, etc. in a spot you know
- Make sure to have extra blankets/ warm clothes
- Make sure phones are charged/have a charging pack
- If possible, go somewhere that has heat
- Keep refrigerator/freezer shut
- Ice accumulation of 1/4 inch increases likelihood of power outage

Roof collapse



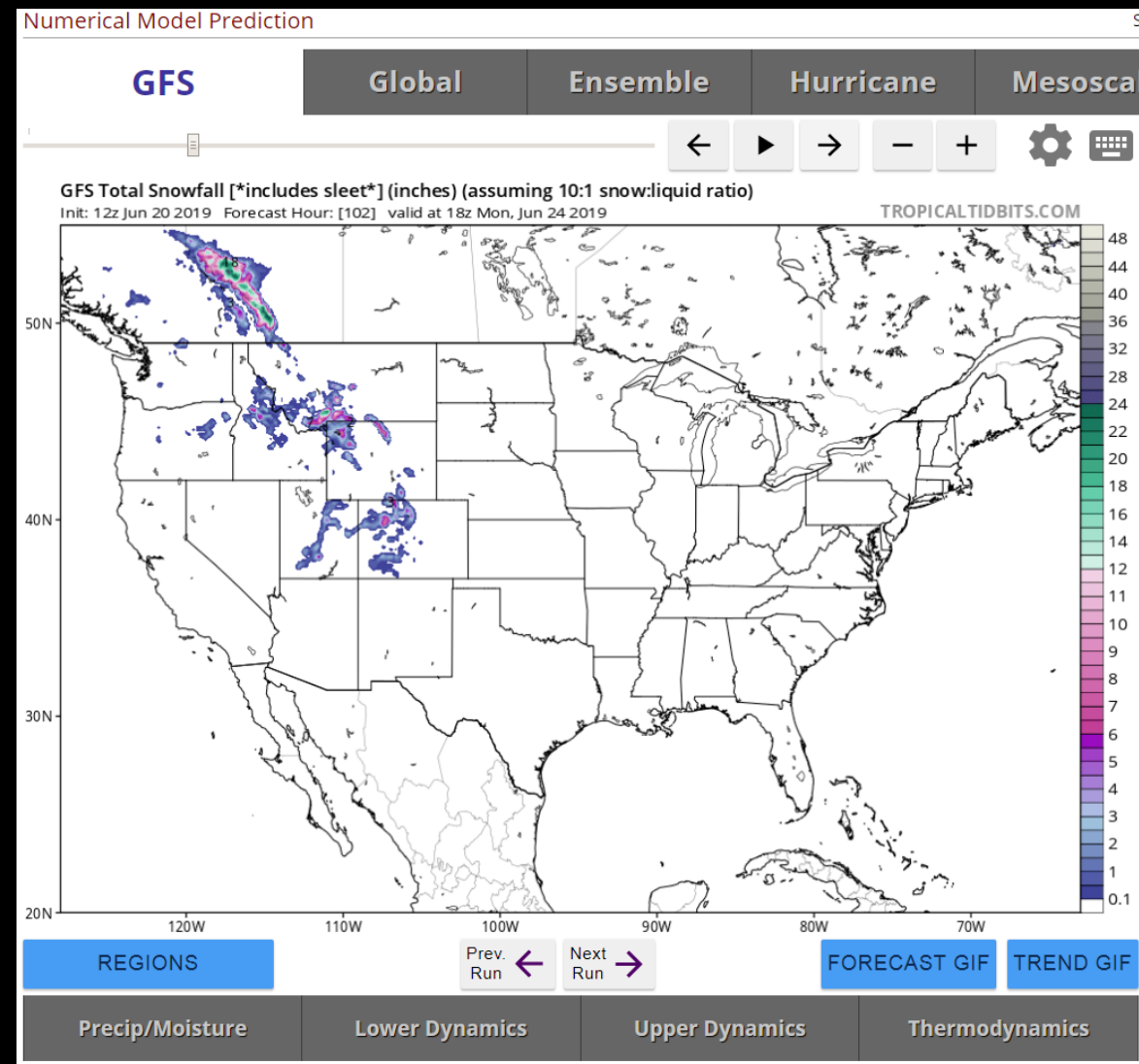
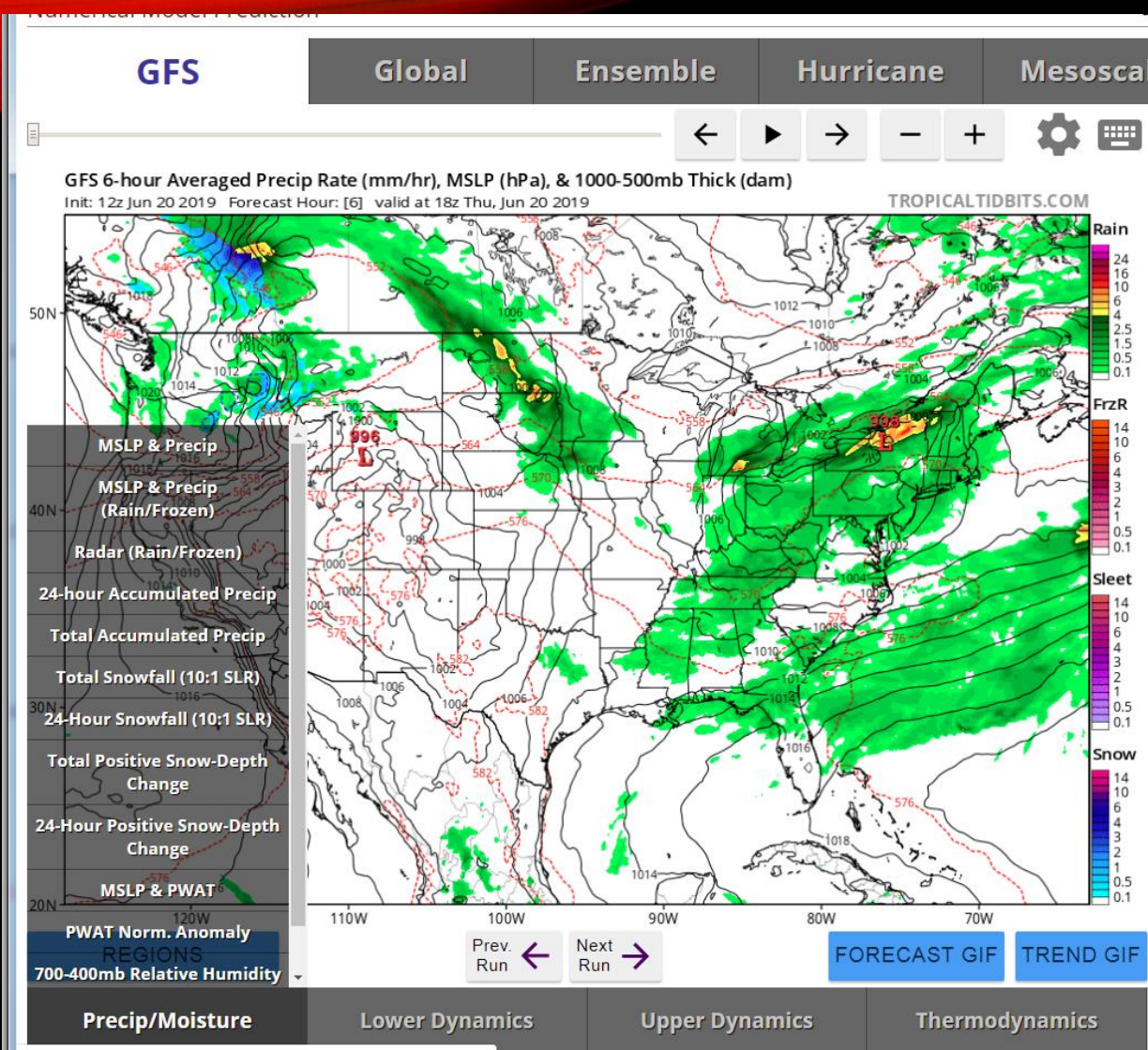
- Keep an eye of your roof during a storm, if it is starting to pile up try to knock some snow off to prevent a collapse (roofs can typically hold 4 feet)
- Snow weight can vary based on SLR
- Make sure snow from prior storms is cleared off

# SOURCES FOR WINTER STORMS



<https://www.tropicaltidbits.com>





Valid 18Z, for Pa:  $18 - 4 = 14$  and  
 $14 - 12 = 2$  PM

! Low visibility, difficult travel threaten the central U.S. following the worst of a deadly spring blizzard. Track the storm.



RADAR & MAPS

NEWS

VIDEO

SEVERE WEATHER

MORE

Search location, zip...



United States > York, PA 76°F


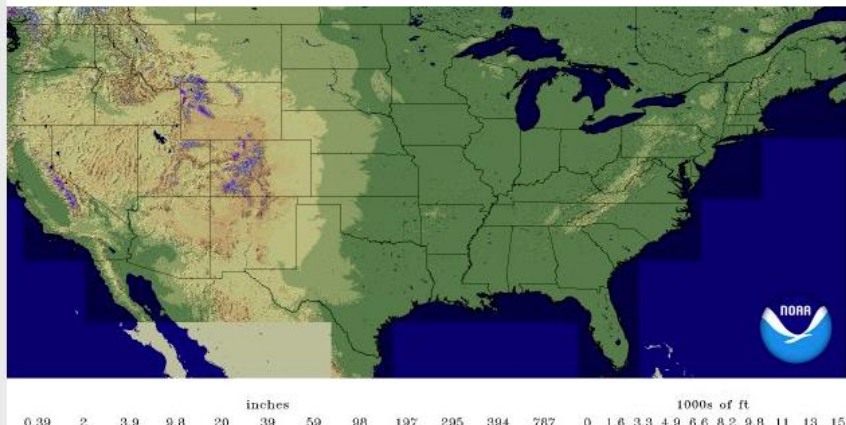
Allergies: Low

### Today's Forecasted Snowfall Amounts



[SNOW & ICE MAPS >](#)

### National Weather Service Current Snow Depth Map



**STRENGTH TECHNOLOGY CAPABILITY**

Get more power and towing capacity  
in the Most Capable Heavy-Duty  
Pickup Truck Ever<sup>2</sup>

[BUILD & PRICE](#) [SEARCH INVENTORY](#)

Legal

### Travel Weather

**TODAY & TONIGHT**

TOMORROW



48 Hour Precipitation Forecast

**SNOW** ICE RAIN

Accuweather Winter  
Weather -  
<https://www.accuweather.com/en/us/winter-weather>



## Winter Weather

Weather.gov > Baltimore/Washington > Winter Weather

## Baltimore/Washington

Weather Forecast Office

[Current Hazards](#)

[Current Conditions](#)

[Radar](#)

[Forecasts](#)

[Rivers and Lakes](#)

[Climate and Past Weather](#)

[Local Programs](#)

[Probabilistic Snowfall Forecasts](#)

[6-hr Snowfall Forecasts](#)

[Ice Accumulation Forecasts](#)

[6-hr Ice Accum Forecasts](#)

[Other Snow/Ice Information](#)

[Days 3-7 Winter Storm Threat](#)

[Long-Range Forecast](#)

[Quick Page Navigation](#)

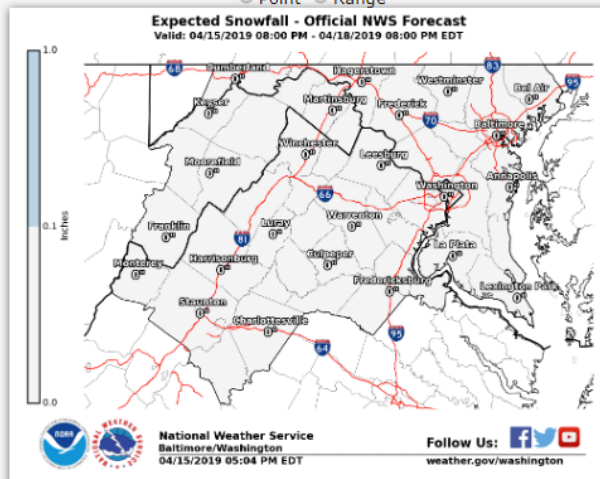
### Snow Amount Potential

**Experimental** - [Leave feedback](#)

04/15/2019 0800PM to 04/18/2019 0800PM

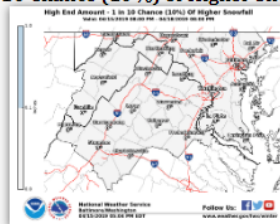
#### Expected Snowfall - Official NWS Forecast

☐ Point ☒ Range



[What's this?](#)

#### High End Amount 1 in 10 Chance (10%) of Higher Snowfall



[What's this?](#)

#### Low End Amount 9 in 10 Chance (90%) of Higher Snowfall



[What's this?](#)

The purpose of these experimental probabilistic snowfall products is to provide customers and partners a range of snowfall possibilities, in complement to existing NWS deterministic snowfall graphics, to better communicate forecast uncertainties during winter weather events. For more information visit this project's Product/Service Description Document, and please provide us your feedback here.

[Back to top](#)

### Percent Chance That Snow Amounts Will Be Greater Than...

**Experimental** - [Leave feedback](#)

04/15/2019 0800PM to 04/18/2019 0800PM

[What's this?](#)

Hover over thumbnails below to view larger image.

[>=0.1"](#)

[>=1"](#)

[>=2"](#)

[>=4"](#)

[>=6"](#)

[>=8"](#)

[>=12"](#)

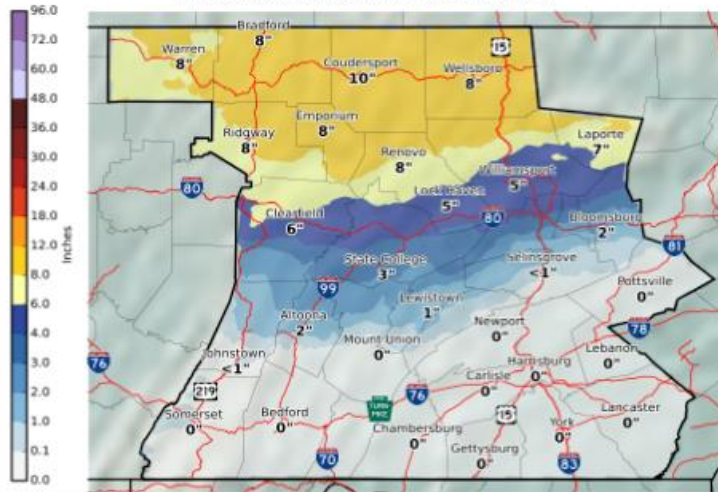
[>=18"](#)

<https://www.weather.gov/lwx/winter>

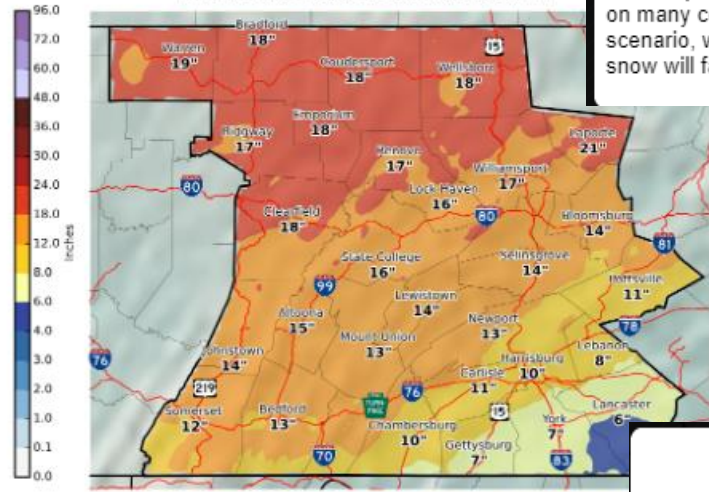
# UNDERSTANDING HIGH AND LOW END FORECASTS

## Snowfall Range of Possibilities: Saturday – Sunday

**Low End Amount - 9 in 10 Chance (90%) Of Higher Snowfall**  
Valid: 01/19/2019 07:00 AM - 01/20/2019 07:00 PM



**High End Amount - 1 in 10 Chance (10%) Of Higher Snowfall**  
Valid: 01/19/2019 07:00 AM - 01/20/2019 07:00 PM



### High End Amount – Only a 1 in 10 Chance (10%) of Higher Snowfall

This map depicts a reasonable upper-end snowfall amount for the time period shown on the graphic, based on many computer model simulations of possible snowfall totals. This higher amount is an unlikely scenario, with only a 1 in 10, or 10% chance that more snow will fall, and a 9 in 10, or 90% chance that less snow will fall. This number can help serve as an upper-end scenario for planning purposes.

- ✓ These maps show the low-end and high-end snowfall probabilities
- ✓ A southward shift in the track of the storm would bring heavier snowfall amounts farther south (high-end amounts), while a northward shift would bring more snow and less snow farther north (low-end amounts).

### Low End Amount – 9 in 10 Chance (90%) of Higher Snowfall

This map depicts a reasonable lower-end snowfall amount for the time period shown on the graphic, based on many computer model simulations of possible snowfall totals. This lower amount is an unlikely scenario with a 9 in 10, or 90% chance that more snow will fall, and only a 1 in 10, or 10% chance that less snow will fall. This number can help serve as a lower-end scenario for planning purposes.



# EXTREME HEAT/COLD

- Extreme temperatures can have serious effect on health, especially groups such as child, elderly, those with heat/cold intolerances, etc.
- Extreme **heat** is classified as a period (typically 2-3 days) with high heat and humidity with temperatures typically above 90 degrees. In extreme heat, evaporation is slowed and the body must work extra hard to maintain a normal temperature.
- Extreme **cold** varies, but is typically classified as near freezing temperatures for those unaccustomed to winter weather, Whereas places like North Dakota don't issue a warning until temperatures fall to -35.

# HEAT EXTREMES

- Heat extremes can lead to dehydration, heat exhaustion, heat cramps, and stroke.
- Look out for warning signs that heat is causing damage to health, including:
  - faintness
  - dizziness
  - extreme tiredness
  - fever
  - headache
  - intense thirst
  - vomiting
  - numbness/tingling
- NEVER leave anyone unattended in a hot car. If it is 80 degrees out, a car can reach 110 degrees in 20 minutes, leaving children and others to be susceptible to heat stroke.





# COLD EXTREMES

- Exposure to cold extremes can lead to things such as hypothermia and frostbite, as well as respiratory infections and cardiac failure.
- Look for the warning signs that extreme cold is affecting health, including:
  - Shivering
  - Lethargy
  - Slowed heart rate
  - Disorientation
  - lack of responsiveness



# TIPS AND COOLING CENTERS FOR EXTREME HEAT

- When dealing with extreme heat, there are some helpful tips that can help prevent illness:
  - Abstain from outdoor activities
  - If outside, wear light colored/light weight clothing and stay under shade as much as possible
  - Drink plenty of water and avoid alcoholic/caffeinated beverages
  - Keep rooms well ventilated, open windows if you don't have access to AC
  - Check on neighbors
  - Seek immediate help if you feel any of the warning signs of heat related illnesses
- The county offers cooling centers in the case of extreme heat for those who don't have access to resources to cool down. For example, the heat wave last year caused for the following centers to open (listed on next page)



# COOLING CENTERS

- Crispus Attucks Association, 605 South Duke Street, York, PA 17401-3111 Hours: Monday-Friday, 9 a.m. – 4 p.m. 717-848-3610
- Delta Area Senior Center, Inc, 5 Pendyrus Street – Suite 1, Delta, PA 17314 Hours: Monday-Friday, 7 a.m. – 2 p.m. 717-456-5753
- Dillsburg Senior Activity Center, Inc., 1 North Second Street. Dillsburg, PA 17019 Hours: Monday-Friday, 8 a.m. – 3 p.m. 717-432-2216
- Golden Connections Community Center, Inc., 20-C Gotham Place, Red Lion, PA 17356 Hours: Monday-Friday, 8:30 a.m. – 2:30 p.m. 717-244-7229
- Goldsboro Church of God, 103 West Broadway Street, Etters, PA 17319 Weekend hours: 9 a.m. – 4 p.m. 724-630-4956
- Heritage Senior Center, Inc., 3700-4 Davidsburg Road, Dover, PA 17315 Hours: Monday-Friday, 8 a.m. – 3 p.m. 717-292-7471
- Northeastern Senior Community Center, 131 Center Street Otterbein United Methodist Church, Mount Wolf, PA 17347 Hours: Monday-Friday, 8 a.m. – 2 p.m. 717-266-1400
- Red Land Senior Center, Inc., 736 Wyndamere Road, Lewisberry, PA 17339 Hours: Monday-Friday, 8:30 a.m. – 3 p.m. 717-938-4649
- September House, 1251 West King Street, York, PA 17404 Hours: Monday-Friday, 8 a.m. – 4 p.m. 717-848-4417
- South Central York County Senior Center, Inc, 150 East Main Street, New Freedom, PA 17349-9750 Hours: Monday-Friday, 8 a.m. – 3 p.m. 717-235-6060
- Stewartstown Senior Center, Inc., 26 S. Main Street, Stewartstown, PA 17363 Hours: Monday-Friday, 8:30 a.m. – 3 p.m. 717-993-3488
- Susquehanna Area Senior Center, Inc., 2427 Craley Road, Wrightsville, PA 17368 Hours: Monday-Friday, 8 a.m. – 2:30 p.m. 717-244-0340
- White Rose Senior Center, Inc., 27 South Broad Street, York, PA 17403 Hours: Monday-Friday, 8 a.m. – 4 p.m. 717-843-9704
- Windy Hill on the Campus, 1472 Roth's Church Road, Suite 103, Spring Grove, PA 17362 Hours: Monday-Friday, 8:30 a.m. – 2:30 p.m. 717-225-0733
- Yorktown Senior Center, Inc., 509 Pacific Avenue, York, PA 17404 Hours: Monday-Friday, 8 a.m. – 3 p.m. 717-854-0693

# TIPS AND HEATING CENTERS FOR EXTREME COLD

- When dealing with extreme cold, there are some helpful tips that can help prevent illness:
  - Abstain from going outside
  - If outside, make sure to be wearing proper cold-weather gear (layers, hats, gloves, etc.)
  - Keep extra blankets in car in case of emergency
  - Use safe indoor heating resources such as adequately vented fireplaces and stoves. DO Not use charcoal indoors, as well as gasoline or diesel generators.
  - If you do not have access to heat, make sure to go to a friend's/emergency shelter if necessary.



# EMERGENCY SHELTERS

## For single men:

York Rescue Mission – Transient Shelter

363 West Market Street

York, Pa 17401

(717) 845-7662

<http://www.yorkrescuemission.org>

YMCA Men's Emergency Shelter

310 West Philadelphia Street

York, Pa 17401

(717) 854-7291

<http://www.yorkcoymca.org>

Changing Lives Shelter – Hanover

136 Carlisle Street

Hanover, Pa 17331

(717) 633-6353

<http://www.hanoverareacouncilofchurches.org/shelter.html>

## For single women or women & children:

York Rescue Mission – Women & Children's Shelter

17 & 27 Jefferson Avenue

York, Pa 17401

(717) 845-5947

<http://www.yorkrescuemission.org>

Changing Lives Shelter – Hanover

136 Carlisle Street

Hanover, Pa 17331

(717) 633-6353

<http://www.hanoverareacouncilofchurches.org/shelter.html>

## For families with children:

Bell Family Shelter

852 East Market Street

York, Pa 17403

(717) 845-9536

<http://bellsocialization.com/services/using-supports/>

Changing Lives Shelter – Hanover

136 Carlisle Street

Hanover, Pa 17331

(717) 633-6353

<http://www.hanoverareacouncilofchurches.org/shelter.html>

- **Extreme Cold**

- Winter Car Seat Safety Tips from the AAP (AAP)
- Winter Safety Tips (AAP)
- Winter Safety Tips from the AAP (AAP)
- Extreme Temperature Exposure (AAP)
- Winter Storms and Extreme Cold (Federal Emergency Management Agency)
- Infographic: Avoid Spot Treat: Frostbite & Hypothermia (CDC)

- **Extreme Heat**

- Drought and Health (Centers for Disease Control and Prevention)
- Exertional Heat-related Illness, Heat Related Illnesses, Heat Tolerance (AAP)
- Extreme Heat (CDC)
- Extreme Heat Media Toolkit, Print Materials, Social Media and Widgets (CDC)
- Get Involved! – A Campaign Marketing Toolkit (safercar.gov)
- Heat Safety Social Media Content Shareable (FEMA)
- Heat Exhaustion and Heat Stroke (A Minute for Kids Audio) (AAP)

# SOURCES

Heatstroke Prevention (National Highway Traffic Safety Administration)

In and Around Cars (Safe Kids USA)

NHTSA Steps Up Efforts to Prevent Child Deaths in Hot Cars

Protecting Children from Extreme Heat: Information for Parents (AAP)

Refrigerated Food and Power Outages: When to Save and When to Throw Out (FoodSafety.gov)

Safety Tips from KidsAndCars.org (KidsandCars.org)

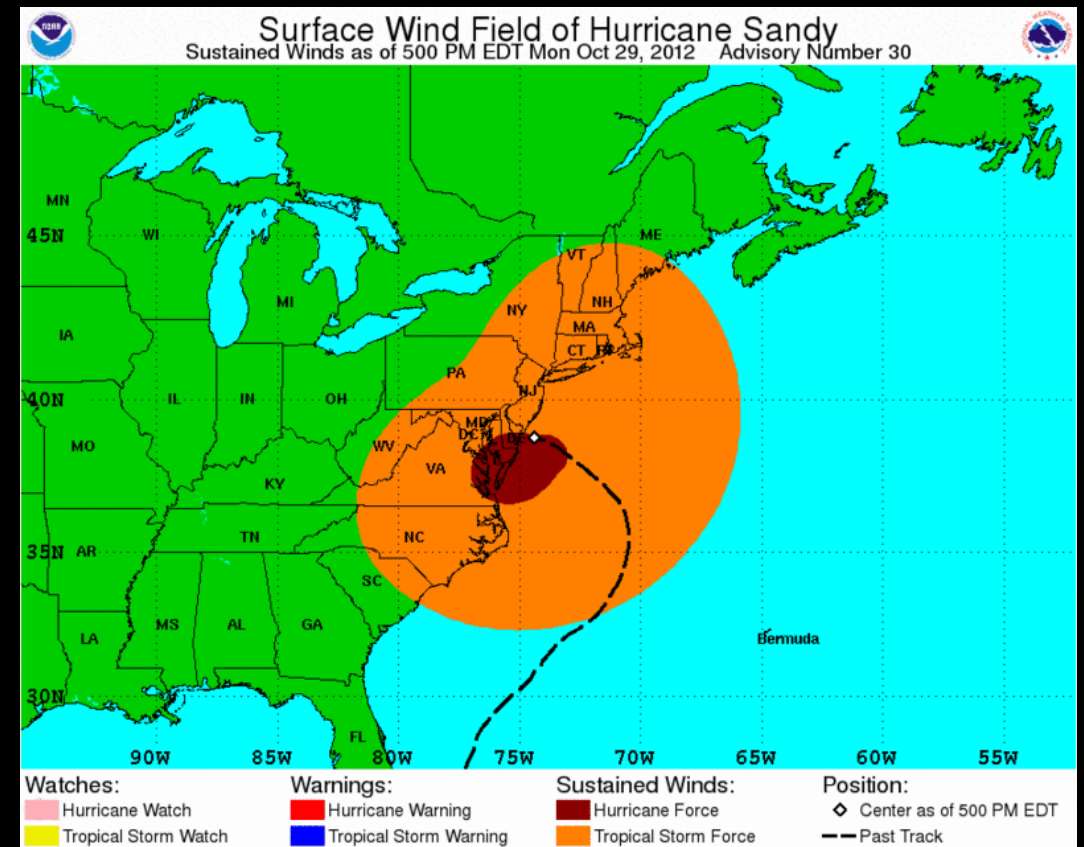
Summer Safety Tips (AAP, HealthyChildren.org)

Warning Signs and Symptoms of Heat-Related Illness (CDC)



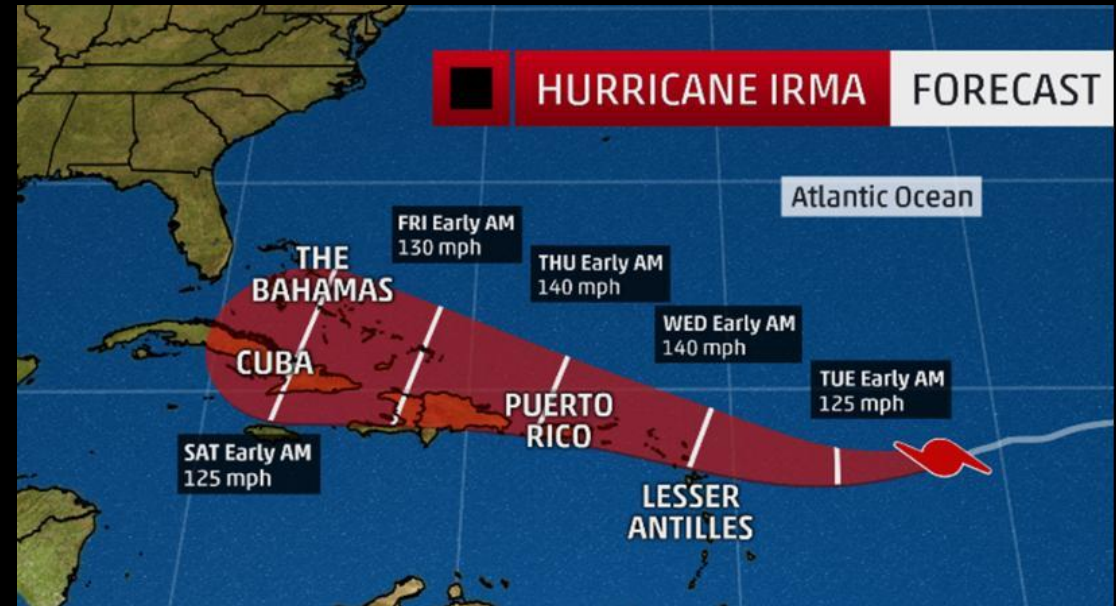
# HURRICANES

- Though Rare, hurricanes can hit this area. Typically, they are only a tropical storm if anything by the time they reach PA, and the biggest threats are wind damage and flooding.
- Hurricane season runs from June 1 - November 30, with the concentration of the worst storms in late August-October



# CONE OF UNCERTAINTY

- The cone of uncertainty is designed to show the probable track the center of a hurricane will take
- From the NWS...
  - The cone represents the probable track of the center of the tropical cyclone.
  - The size of the cone is drawn so that about two-thirds of the time, the center of the storm will remain in the cone.
  - The cone does not take the size of the storm into account.
  - A hurricane is not a point; impacts often occur well outside of the core.
  - The cone indicates the forecast up to five days out from the last recorded position of the storm.



Forecast Period (hours)	Average NHC Forecast Track Error (miles)
12	9.1
24	26.3
36	42.0
48	56.9
72	73.8
96	109.7
120	221.7



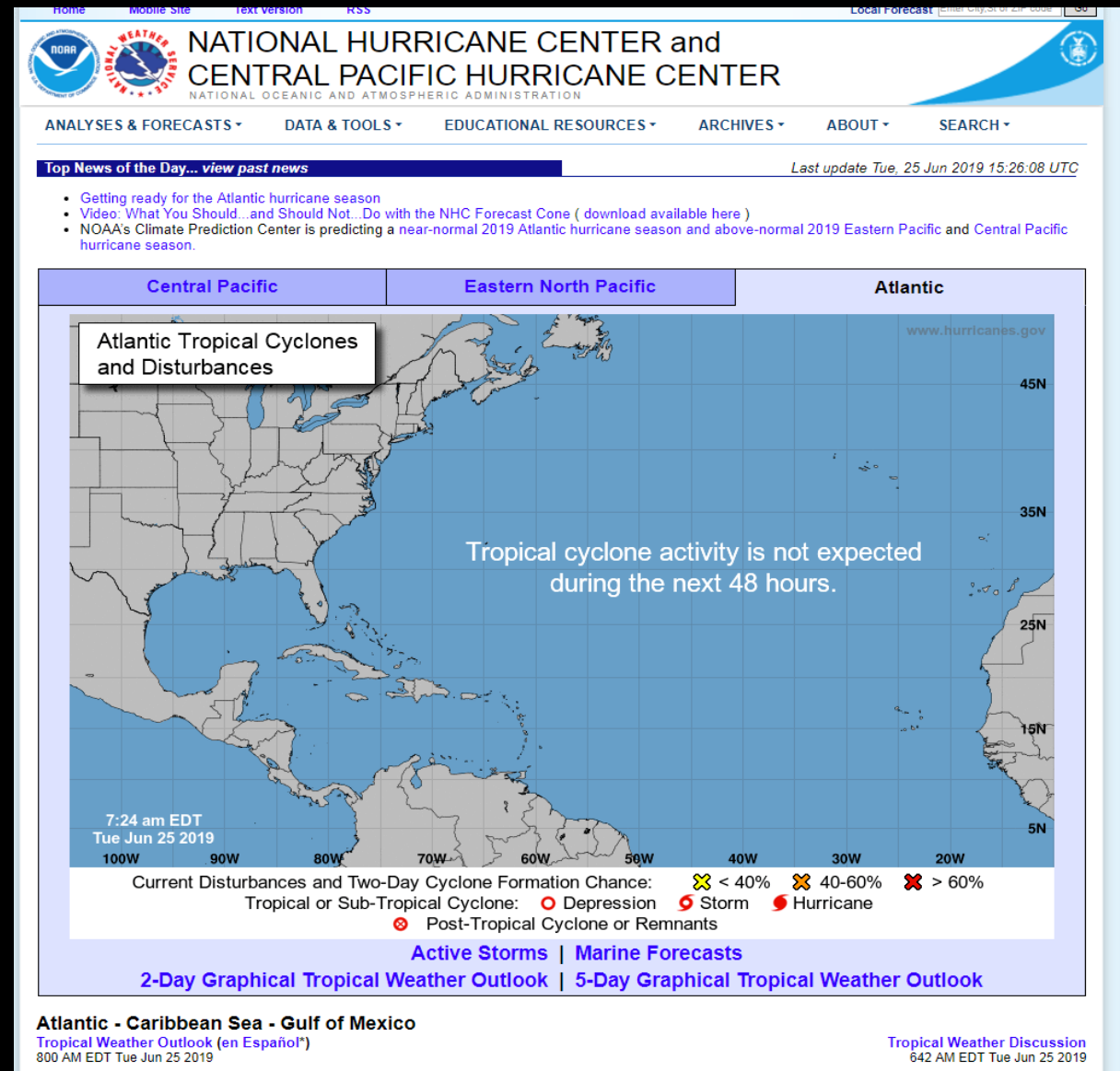
# HURRICANE WINDS

Tropical storm	39–73 mph, 63–118 km/h
Tropical depression	≤38 mph, ≤62 km/h

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 kt 119-153 km/h	<b>Very dangerous winds will produce some damage:</b> Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 kt 154-177 km/h	<b>Extremely dangerous winds will cause extensive damage:</b> Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 kt 178-208 km/h	<b>Devastating damage will occur:</b> Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 kt 209-251 km/h	<b>Catastrophic damage will occur:</b> Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 kt or higher 252 km/h or higher	<b>Catastrophic damage will occur:</b> A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

# SOURCES

- National Hurricane Center  
(<https://www.nhc.noaa.gov/>)



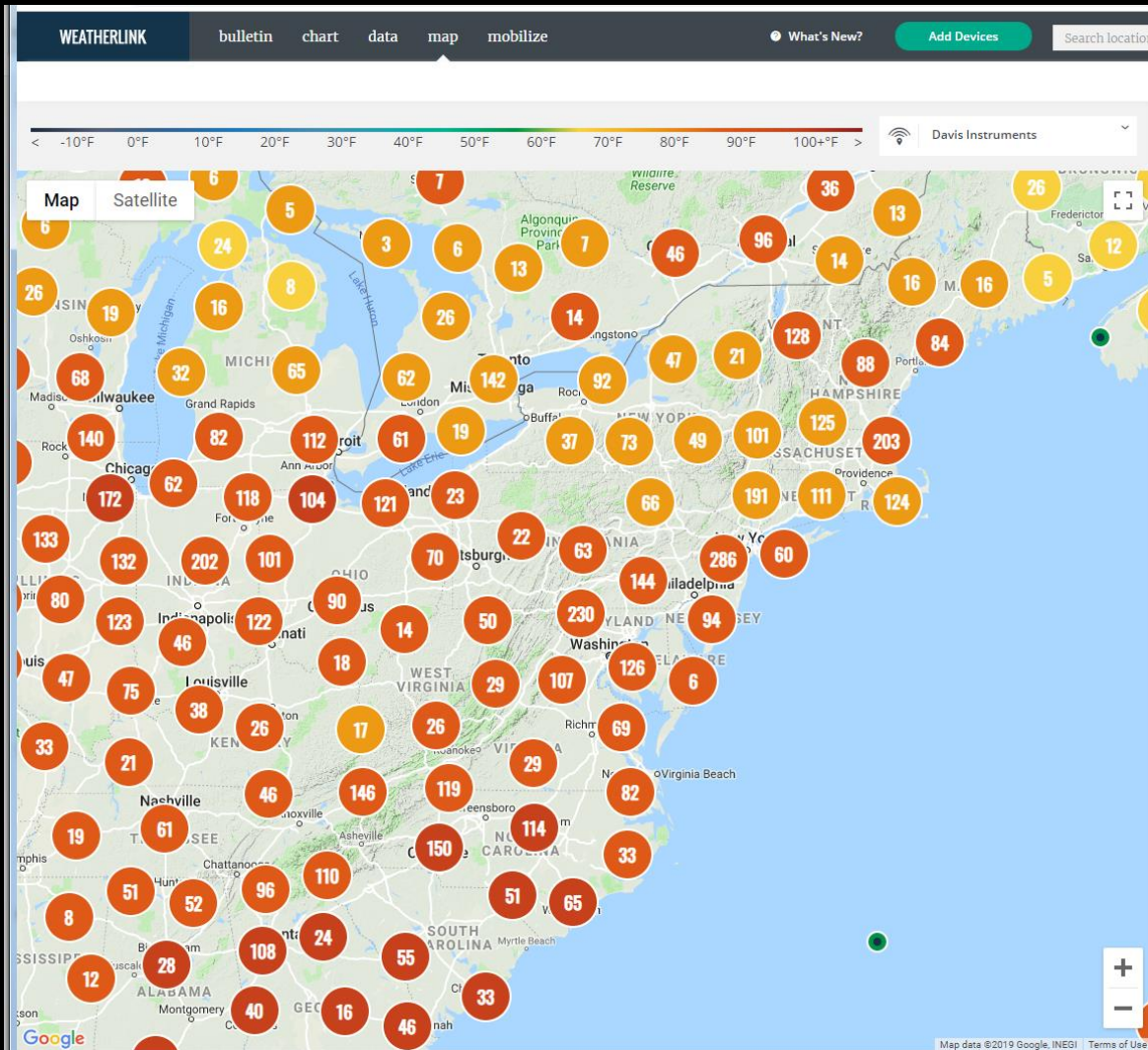


# The Weather Channel

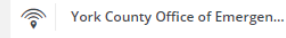
## THE WEATHER CHANNEL APP: PROS AND CONS

Pros	Cons
Accurate daily highs and lows	Constantly changing precipitation forecasts
Radar feature with multiple features	Inaccurate warnings
Video tab that includes weather news from all over as well as an easy way to learn quick facts	
free	

# OEM WEATHER STATION



<https://www.weatherlink.com/map>



Satellite

### Nearby Stations

Temperature:	88 °F
Humidity:	55 %
Wind:	3 mph WNW 293 °
Barometer:	29.85 in Hg Falling Slowly
Daily Rain:	0.00 in



An abstract graphic at the top of the slide featuring a series of overlapping, wavy bands in shades of orange, red, yellow, and green, set against a black background.

# ANY QUESTIONS?

Feel free to contact me!  
[laurasilver@Comcast.net](mailto:laurasilver@Comcast.net)

# THANK YOU!