

**SIMULATED EMERGENCY TEST**

# **“OPERATION GRID FAILURE”**

**18 Jan 2020**

**0800-1400 ET**

**SKYWARN INFORMATION**

FROM

# **BLACKSBURG SKYWARN**



3 January 2020, Josh Arritt, KF4YLM

A Virginia-wide Simulated Emergency Test is scheduled for Saturday, 18 Jan, 2020, from 8AM to 2PM Eastern Standard Time. Many public service agencies and ham radio organizations are registered to participate. This year's scenario gives a special role for weather spotters, and weather observation transmission via radio. Blacksburg SKYWARN(TM) intends to help facilitate severe weather observation technique practice for spotters and others who are interested, while practicing supporting those same partners with simulated weather forecasts relevant to the SET scenario.

FULL INFORMATION ABOUT THE SET, INCLUDING REGISTERED STATIONS AND MESSAGE FORMS IS AVAILABLE AT:

<http://w4ghs.org/gridfailure-home.html>

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**18 JAN 2020 SET "GRID FAILURE" SKYWARN INFO**

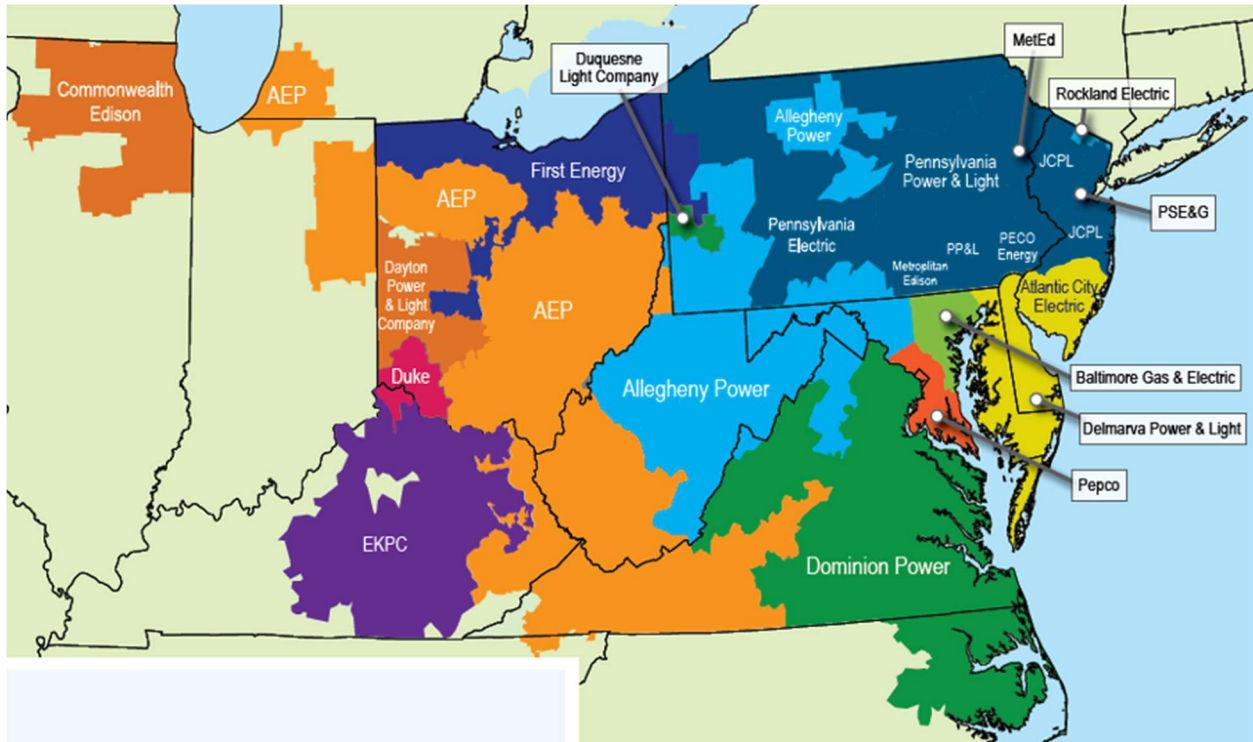
**SKYWARN AND THE 2020 SET**

Blacksburg National Weather Service Weather Forecast Office SKYWARN desk will be offering simulated forecast support for agencies in "Grid Failure", and will also be accepting simulated weather observations from operators and agencies for the event. A simulated "Active Spotter Net" will operate in a formal capacity to facilitate information ingest and dissemination from the Blacksburg Weather Forecast Office.

During the SET, Blacksburg SKYWARN Desk Operators will be synthesizing simulated forecasts specific to this event for dissemination during the Simulated Emergency Test.

The scenario in "Grid Failure" places the state 3-days-deep into a complete power grid failure on two major utility providers in the state, ahead of a brutally frigid arctic high pressure system's arrival. Forecasts prior to the "Grid Failure" prolonged power outage would already had given the area warning of the arrival of this arctic air mass.

Those same operators will accept simulated weather observations, preferably hourly. This would serve to support forecast operations as an impromptu mesonet.



**Mid-Atlantic US Power Utility Map, <http://www.virginiaplaces.org/energy/electricitytransmission.html>**

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**18 JAN 2020 SET "GRID FAILURE" SKYWARN INFO**

***SIMULATED FORECAST SUPPORT***

Forecast summaries of the Blacksburg CWA, intended for the entire SET-participating group will be offered at the top and bottom of the hour on HF and on the VHF Primary Repeater System. The forecast summaries will include expected hourly temperature, wind speeds, and wind chills for the geographically distinct regions of the Blacksburg CWA.

Agencies, EOCs, and shelters participating in the SET from outside the Blacksburg CWA who are in need of forecast support from the Blacksburg office are welcome to request custom forecast information for their area from the SKYWARN desk. That information will be sent as an ICS-213 message reply. Please include the county name for which that forecast should be synthesized. A reply '213 will be sent with that area's forecast for the next several hours.

***SIMULATED WEATHER OBSERVATIONS***

ALL SET PARTICIPANTS, including SKYWARN Spotters, EOCs, Agencies, shelters, and other stations are encouraged to send hourly weather observations. The observation will be requested with a specific format -- CALLSIGN; NAME; CITY OR COUNTY; TEMPERATURE; BRIEF SKY CONDITIONS. This format is identical to the format used for checkins during the Blacksburg SKYWARN Weekly Net. Efficiency of accurate information reception is key goal.

***SKYWARN NET FREQUENCIES***

Operators will focus on two "channels" during the event:

1.) an FM Voice channel (146.745 system + 145.130 system), operated as a formal net, focused on offering simulated CWA forecast support and accepting simulated observations., and;

2.) an HF Voice channel (3953kHz), operated at the top and bottom of the hour and occasionally between, focused on offering simulated forecast support for the entire state, as well as accepting simulated weather observations from outside the CWA.

The HF station may QSY from time to time to accept traffic at the VA state-wide net.

Blacksburg SKYWARN will initiate a formal Active Spotter Net for the County Warning Area on the Primary Linked Repeater System. This includes the following repeaters:

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*18 JAN 2020 SET "GRID FAILURE" SKYWARN INFO*

**BLACKSBURG SKYWARN PRIMARY LINKED REPEATER SYSTEM**

- > 146.745, K1GG/R, Poor Mtn, ROANOKE, T107.2
- > 146.970, KF4YLM/R, Warm Springs Mtn, COVINGTON, T91.5
- > 147.225, KF4YLM/R, Muddy Creek Mtn, LEWISBURG, T100.0
- > 145.410, N4VL/R, Poor Mt. ROANOKE, T103.5
- > 145.130, N4VL/R, Fisher's Peak, GALAX, T103.5
- > 444.600, N4VL/R, Peak's Knob, PULASKI, T103.5
- > 147.420, N4VL/L (Simplex Link), Big Walker Mtn, WYTHEVILLE, T103.5

Since the exercise contemplates a scenario where terrestrial internet service has been interrupted, no Echolink capabilities will be leveraged during the "Grid Failure" exercise. This means 147.105, K4LYL/R, in Bedford, will not be linked to the primary system. However, during the exercise, it may be used as a stand-alone repeater for simulated weather observations to be accepted by the SKYWARN Desk.

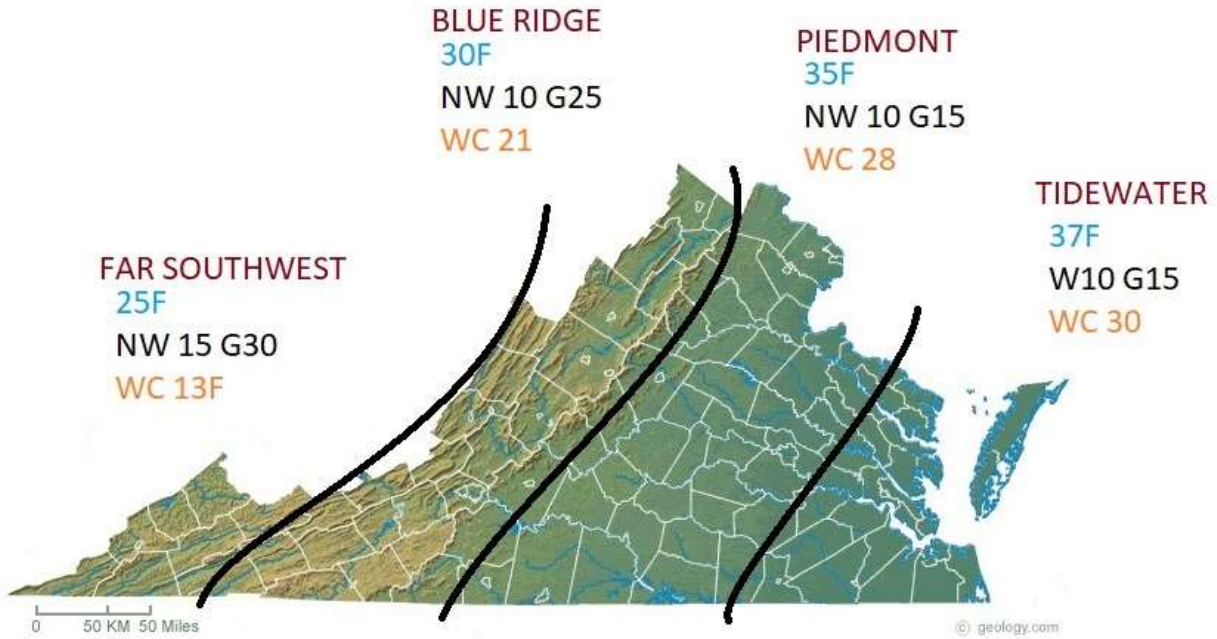
HF Operation at the SKYWARN Desk will focus on 75m, at 3953kHz, +/- . The HF channel will disseminate CWA forecasts, send custom requested forecasts occasionally solicit simulated observations. This operator may QSY often as the situation warrants, but will make an effort to return to this frequency at the top and bottom of the hour to relay forecast information on voice.

As of this writing, the Forecast Office station does not have 60m capability, nor does it have Winlink capability at the moment. Unless those capacities are made available in the intervening weeks to the 18<sup>th</sup>, all reports appearing in the Winlink platform or on the 60m operations *may* need to be relayed to the weather service by voice. Likewise, SKYWARN message to the Winlink network may need to be first relayed by voice. ***SKYWARN NET CONTROL MAY DESIGNATE SPECIFIC WINLINK AND 60M RELAY STATIONS DURING THE SET.*** These stations, once designated, will be responsible for assisting the handle of traffic in and out of the Forecast Office. These will likely be VHF/UHF voice stations within simplex range of the WFO.

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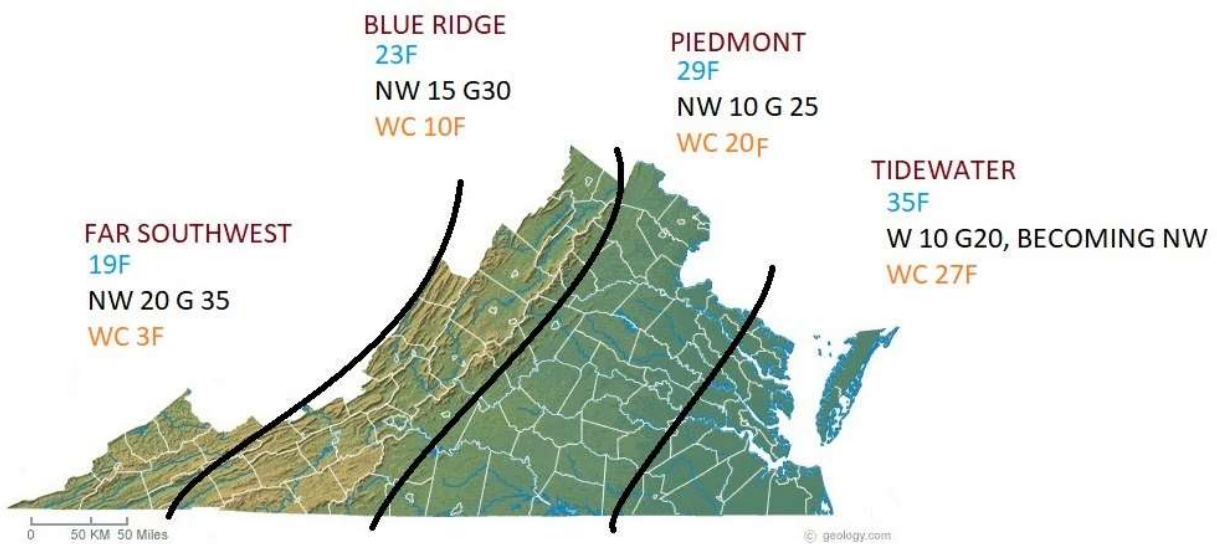
**SIMULATED FORECASTS**

# "GRID FAILURE" Simulated Forecast Map



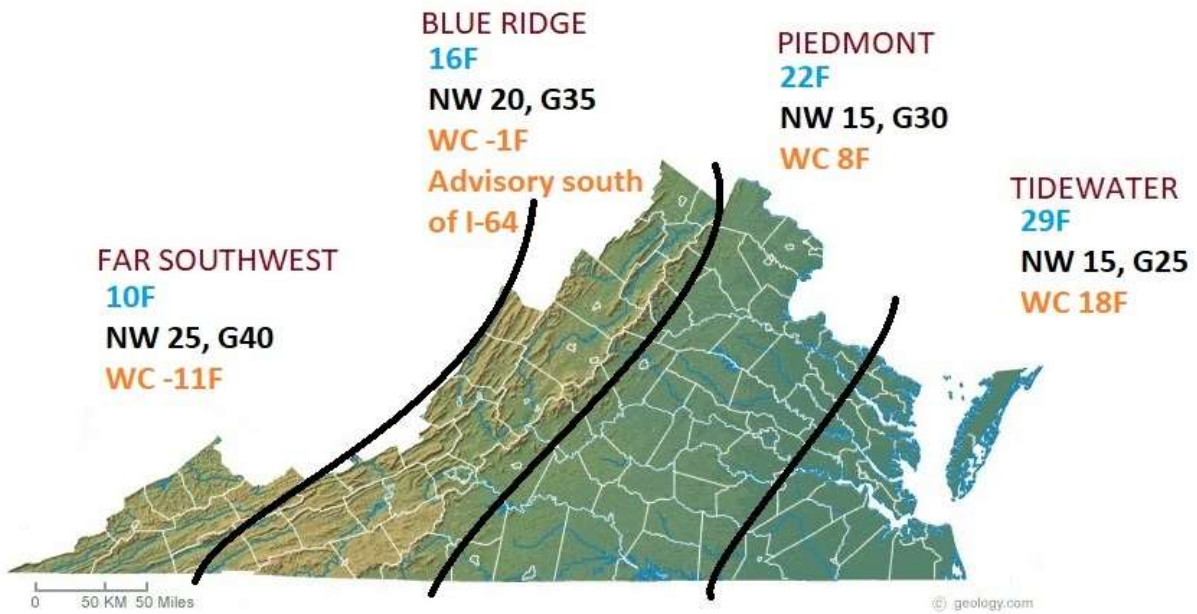
**Valid 18 Jan 2020, 1300z (0800 EST)**

# "GRID FAILURE" Simulated Forecast Map



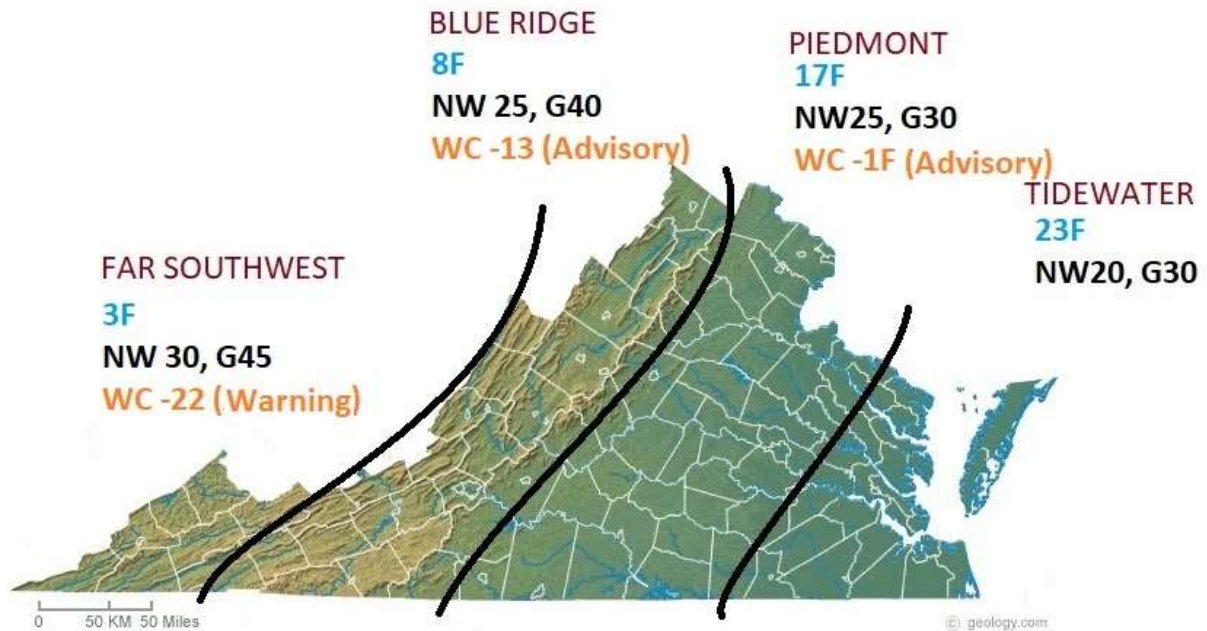
**Valid 18 Jan 2020, 1400z (0900 EST)**

# "GRID FAILURE" Simulated Forecast Map



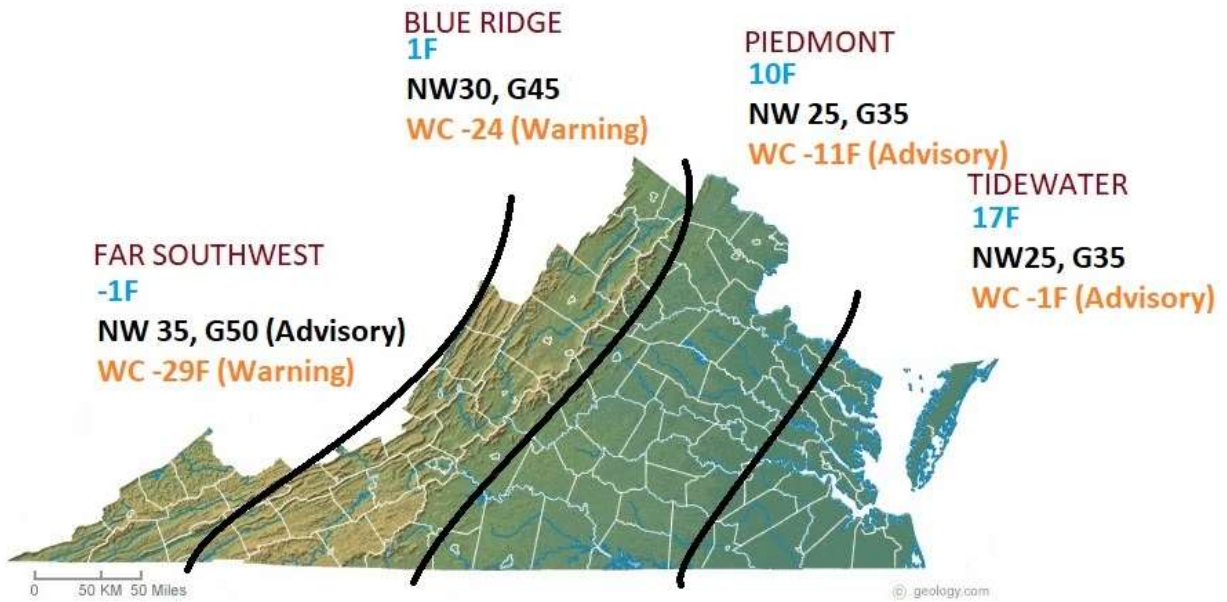
Valid 18 Jan 2020, 1500z (1000 EST)

# "GRID FAILURE" Simulated Forecast Map



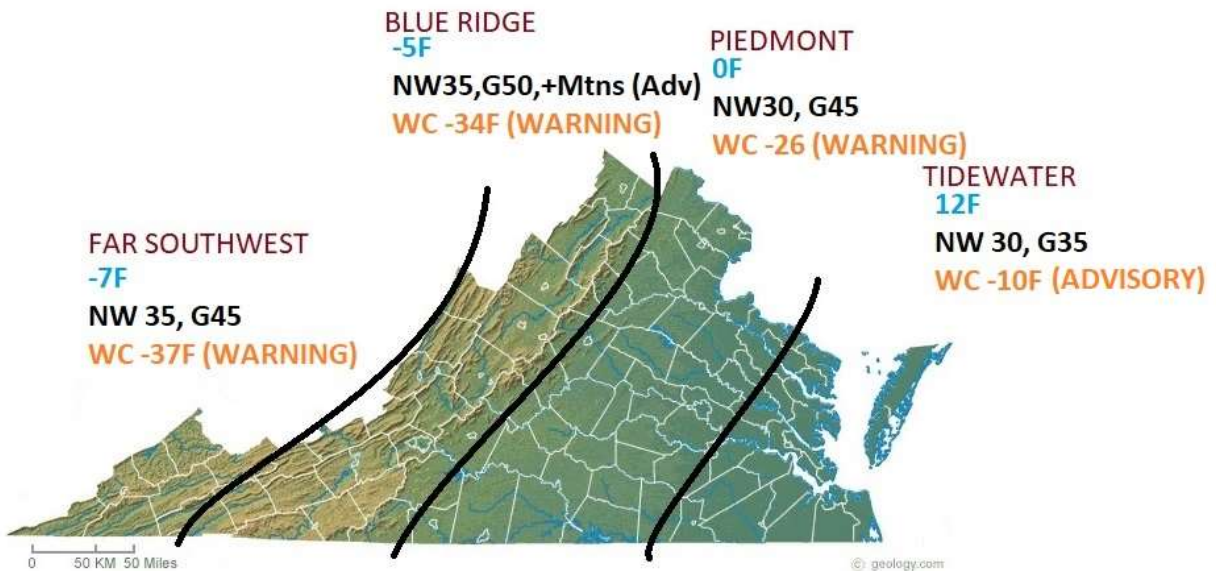
Valid 18 Jan 2020, 1600z (1100 EST)

# "GRID FAILURE" Simulated Forecast Map



Valid 18 Jan 2020, 1700z (1200 EST)

# "GRID FAILURE" Simulated Forecast Map



Valid 18 Jan 2020, 1800z (1300 EST)

**SUGGESTED SIMULATED WEATHER OBSERVATION**

*Please observe the net observation transmission format: CALLSIGN (phonetically), NAME, CITY/COUNTY, TEMPERATURE, and BRIEF SKY CONDITIONS'*

*Please also observe Simualted Emergency Test procedures by indicating often that your traffic is a drill / test message.*

**(SLOWLY)**

*"THIS IS KILO FOXTROT FOUR YANKEE LIMA MIKE. MY NAME IS JOSH. I AM LOCATED IN NEW CASTLE, CRAIG COUNTY, VIRGINIA.*

**THIS IS A DRILL, THIS IS A TEST MESSAGE**

*THE TEMPERATURE IS TWENTY FIVE – TWO, FIVE – DEGREES. WINDS ARE OUT OF THE NORTH WEST, ESTIMATED AT TWENTY – TWO ZERO – MILES PER HOUR.*

**THIS IS A DRILL, THIS IS A TEST MESSAGE"**

**SUGGESTED SIMULATED FORECAST SUPPORT REQUEST MESSAGE**

*When requesting custom forecasts, include the location (generally, an entire county will suffice), the intended recipient (EC, EOC, Shelter Director, etc), the forecast HOUR (future), and a reply callsign or Winlink address.*

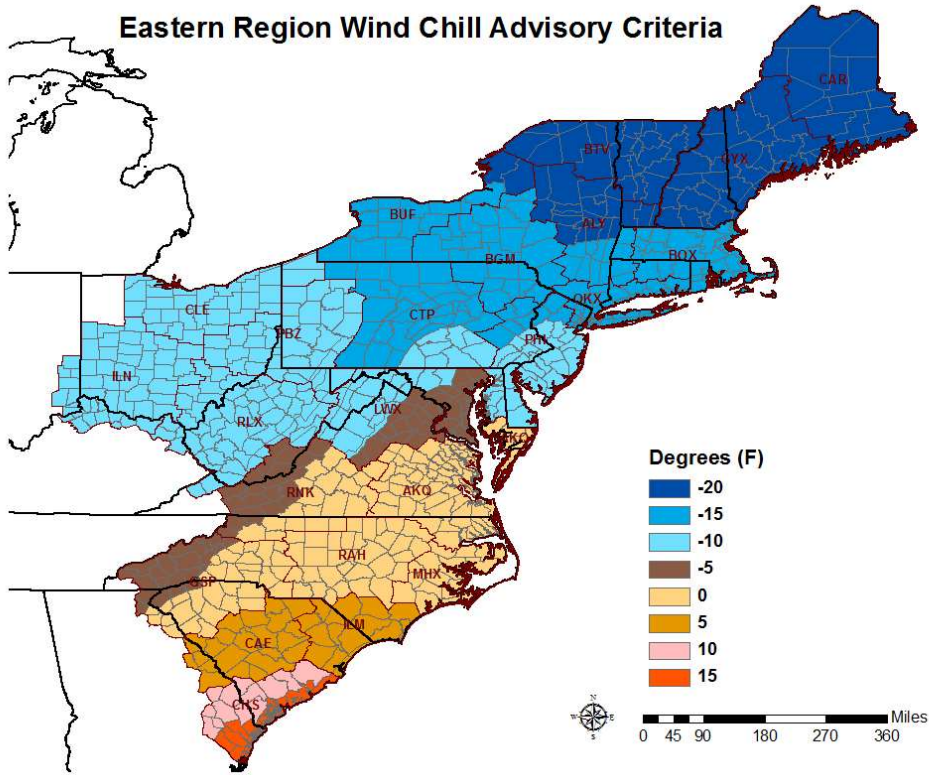
**THIS IS A DRILL, THIS IS A TEST MESSAGE**

*CRAIG COUNTY EMERGENCY COORDINATOR REQUESTS FORECAST FOR THE 10 A-M HOUR. PLEASE REPLY VIA KF4YLM.*

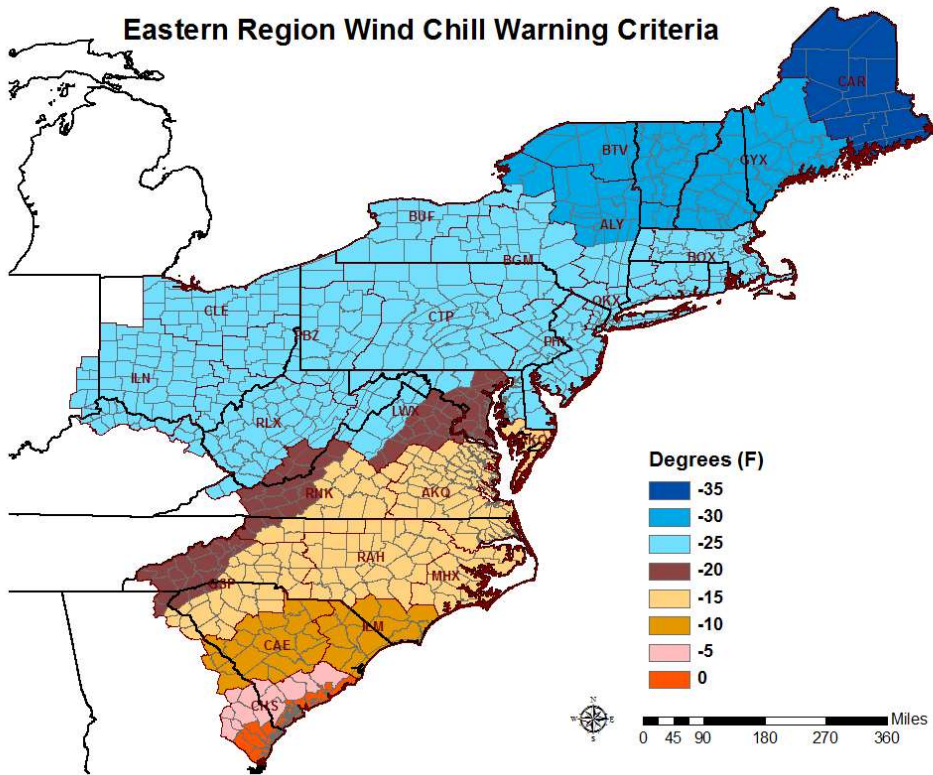
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### Eastern Region Wind Chill Advisory Criteria



### Eastern Region Wind Chill Warning Criteria



**Simulated Weather for Saturday, January 18, 2020  
Operation Grid Failure.**

**THIS IS A DRILL, THIS IS A TEST**

**Dangerously Cold Temperatures and Wind Chills Saturday  
will Bring an Abrupt End to Early January Warmth**

An unusually strong cold front will sweep through the area Saturday. In the wake of this powerful front, northwest winds at 25 to 45 MPH with gusts to 55 MPH in the higher elevations will cause temperatures to plummet rapidly and bring down trees and power lines.

- Temperatures in the 50s to lower 60s this past week will rapidly fall to near zero east of the Blue Ridge to 5 to 10 below zero in the mountains on Saturday into Saturday evening.
- Wind Chill values will be 10 to 25 degrees below zero.

**THIS IS A DRILL, THIS IS A TEST**

- This rapid fall in temperatures will cause water to quickly freeze on road creating icy driving conditions.
- Potentially record cold temperatures Saturday will continue into Sunday causing pipes to burst. Hypothermia and frostbite will be likely for those outside without proper protection. This forecast is on the fourth day of a power grid failure through more than 90% of the Commonwealth of Virginia. States that neighbor Virginia continue to have power. The reason for the grid failure is still unknown and the restoration of power is still unknown.

**THIS IS A DRILL, THIS IS A TEST**

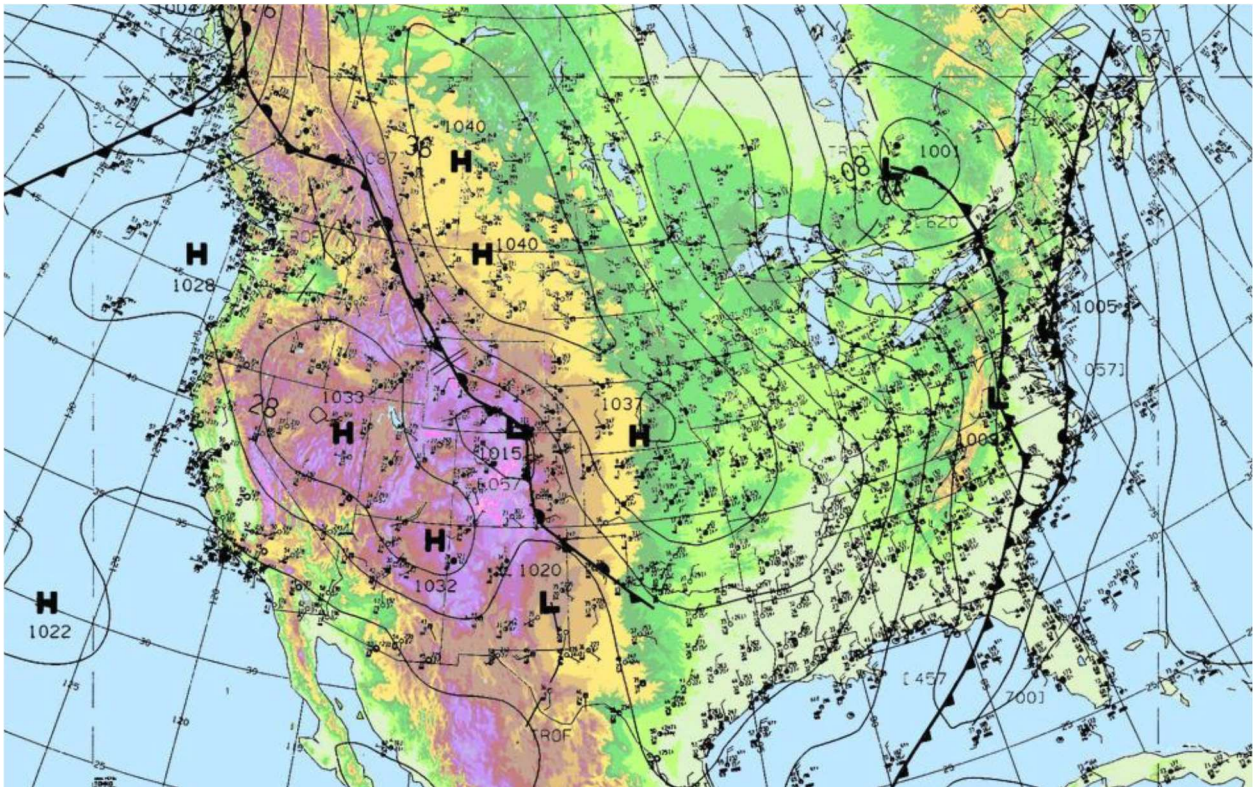
# SIMULATED WEATHER MAP

FOR

## OPERATION GRID FAILURE

SIMULATED EMERGENCY TEST, VIRGINIA, 18 JAN 2020

**THIS IS A DRILL, THIS IS A TEST**



**THIS IS A DRILL, THIS IS A TEST**

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