NATIONAL WEATHER SERVICE PITTSBURGH, PA

FIRE WEATHER OPERATING PLAN

Fifthteenth Edition – January 2023

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<u>FIRE WEATHER PROGRAM</u>

Operations Plan - Pittsburgh Weather Forecast Office Fire Weather Program Prepared by: David Shallenberger, WFO PBZ, Lead Meteorologist - Fire Weather Focal Point Colton Milcarek, WFO PBZ, Meteorologist - Alternate Fire Weather Focal Point

1.0 National Weather Service Fire Weather Policy

The National Weather Service will provide forecast, warning and consultation services for the prevention, suppression, and management of forest and rangeland fires primarily for Federal and State wildland management agencies.

2.0 Pittsburgh Weather Forecast Office Fire Weather Policy

The National Weather Service Weather Forecast Office (WFO) in Pittsburgh Pennsylvania began providing fire weather support in accordance with the National Weather Service Fire Weather Policy on February 1, 2000. This support is provided for the area described as the Pittsburgh County Warning Area (CWA). The support consists of daily fire weather forecasts during the fire season. Spot (non-routine) forecasts, fire weather watches and red flag warnings are provided on an as needed basis at any time throughout the year.

3.0 County Warning Areas {See attachments # 1 and 2 }

The WFO Pittsburgh CWA consists of:

- A) Southwestern Pennsylvania
- B) A Portion of Northwestern Pennsylvania
- C) East Central Ohio
- D) The Northern Panhandle of West Virginia
- E) A Portion of Northern West Virginia

4.0 Fire Weather Zones

Fire weather zones exist for each of the 36 counties within the Pittsburgh CWA.

5.0 Forestry Districts {See attachment #3 }
There are 8 Forestry Districts served by the Pittsburgh CWA. These districts were established by the state Forestry Departments based on general location. It is the responsibility of the various forestry districts to be familiar with the fire zones located in their district. The forestry districts in the Pittsburgh CWA are as follows:

In Pennsylvania:

District 4 District 6 District 8 District 14

In West Virginia:

District 1

In Ohio:

Chillicothe District Northern District

6.0 State Liaison Offices

The state liaison office is the NWS office that handles statewide fire weather coordination with the users for a given state. The state liaison offices for the Pittsburgh CWA are as follows:

Ohio/Pennsylvania- WFO Cleveland, OH 925 Keynote Circle Suite 314 Brooklyn Heights, OH 44131 (216) 416-2900

Ohio - WFO Wilmington, Ohio 1901 South State Route 134 Wilmington, OH 45177 (937) 383-0929

Pennsylvania- WFO State College, Pennsylvania 227 West Beaver Street, Suite 402 State College, PA 16801-4921 (814) 237-1152

> West Virginia - WFO Charleston, West Virginia 400 Parkway Road Charleston, WV 25309 (304) 746-019

7.0 Description of Area

The Pittsburgh CWA is located in the northeast portion of the continental United States with an area of about 19,000 square miles. The topography ranges from rolling hills with farmland over the south and west portions to mountains in the north and east. The Allegheny Mountains extend along the eastern boundary of the CWA with elevations as high as 4,000 feet in West Virginia. Considerable agricultural land lies in the rolling hills and mountain valleys. Hardwood forests provide the majority of the vegetative coverage in the higher elevations. The growing season averages about 166 days in length; extending from late April to mid October.

8.0 Fire Season

Forest fire supervisors from the Pennsylvania Bureau of Forestry and Allegheny National Forest requested that the daily Fire Weather Forecast (FWF) be issued year-round, citing less seasonality to wildfire activity and the usefulness of the product in all months of the year.

Therefore, the WFO at Pittsburgh will issue a daily fire weather forecast (PITFWFPBZ) for the Pittsburgh CWA during the entire year, even though the fire weather seasons are the months from March-May and October-December.

It is also encouraged to consider issuing a new (PITFWFPBZ) whenever a significant change to grids is made that will impact fire weather grids. This is especially important during the Spring and Fall Fire Weather Seasons.

9.0 Site Specific Weather Product (PITFWMPBZ) {See attachment #4}

A site specific weather forecast (PITFWMPBZ) will be issued twice daily and also whenever a zone forecast is routinely created or updated. Usually, the issuance times will be 0830 UTC and 1830 UTC. This product will be created by using the published forecast grids from GFE {Graphical Forecast Editor}. This forecast is created for 6 specific sites. {See attachment #4} for where each site is. This product is also used in the generation of the (NFDRS) National Fire Danger Rating System. Format for the product is:

FCST, Station, DATE, 13, WX, T, RH, L1, L2, WD, WS, TM, TN, HM, HN, P1, P2, WF

9.1 Information for the Site Specific Weather Product

The WIMMS fire weather site product from the Pittsburgh WFO will include the following information:

a. Extent of forecast - FCST.

ZONE (for zone) or FCST (for a point)

- b. Station Identification Number Station.
- c. Forecast Date DATE. (yymmdd)
- d. Forecast Time 13. (usually 18Z)
- e. Weather Code WX.
- f. Temperature for time "d" T. (degrees F)
- g. Relative Humidity for time "d" RH. (percent)
- h. Lightning Activity Level (LAL) **\Display** L1&L2. {see attachment #7} (period 1 [19Z-04Z], period 2 [04Z-04Z])
- i. Wind Direction for time "d" WD. (16 point compass)
- j. Wind Speed for time "d" WS. (MPH)
- k. 24 Hour Maximum Temp Forecast TM. (degrees F)
- 1. 24 Hour Minimum Temp Forecast TN. (degrees F)
- m. 24 Hour Maximum RH Forecast HM. (percent)
- n. 24 Hour Minimum RH Forecast HN. (percent)
- o. Hours of Precipitation P1&P2.

(period 1 [18Z-10Z], period 2 [10Z-18Z])

p. Wet Flag - WF. {"Y" or "N"} ("Y" - only used when fuels are saturated or snow covered, therefore rarely used)

10.0 Daily Fire Weather Forecast Product (PITFWFPBZ) {See attachment # 4}

The daily fire weather forecast product will be issued by the Pittsburgh CWA for each of the 36 counties within the CWA.

The fire weather forecast will cover specific conditions for a 36 hour period and consist of three 12-hour periods (today, tonight, and tomorrow). The product will also contain a 3-7 day extended forecast issued by WFO Pittsburgh and an 8-14 day outlook issued by the Climate Prediction Center (CPC) for the region. A brief synopsis of the weather as it pertains to the CWA will precede the forecast.

10.1 Information Included in the Daily Fire Weather Product

The fire weather forecast product will be issued between 3 AM and 5 AM daily for a 36-hour period of detailed forecast information. This will consist of three 12-hour periods (today, tonight and the next day). An extended 3 to 7 day forecast for the area followed by a general wind speed forecast for the same period and an 8 to 14 day outlook will also be included. The outlook will be a departure from normal based on CPC's prediction for the region. The daily forecast will also include a headline in the event of a Fire Weather Watch or Red Flag Warning. The fire weather product from the Pittsburgh WFO will include the following information:

- a) A headline {optional, but required if a Fire Weather Watch or Red Flag Warning are in effect.} (HEADLINE)
- b) A brief synopsis of the current weather pattern. (DISCUSSION)
- c) Cloud Amount. (CLOUD COVER)
- d) Chance of Precipitation in percent. (CHANCE PRECIP (%))
- e) Precipitation Type. (PRECIP TYPE)
- f) Daytime maximum and nighttime minimum temperature in degrees F and 24 hour change. (TEMP (24H TREND))
- g) Daytime minimum and nighttime maximum relative humidity in percent and 24 hour change. (RH %

(24H TREND))

- h) Valley wind direction in 8-point compass and wind speed in miles per hour. (20FTWND VAL/AM(MPH)
- i) Ridge wind direction in 8-point compass and wind speed in miles per hour. (20FTWND RDG/PM(MPH)
- j) Precipitation amount in range. (PRECIP AMOUNT)
- k) Precipitation duration in continuous hours. (PRECIP DURATION)
- 1) Beginning time of precipitation. (PRECIP BEGIN)
- m) Ending time of precipitation. (PRECIP END)
- n) Afternoon mixing height in meters. (M-AGL/MSL)
- o) Afternoon mixing height in feet. (FT-AGL/MSL)
- p) Transport Wind in miles per hour and 8-point compass. (TRANSPORT WND (MPH)) q) Ventilation rate. The mixing height multiplied by the transport wind speed. {MIXING HEIGHT x TRANSPORT SPEED} (VENT RATE (MPH-FT))
- r) Morning dispersion potential in category. (DISPERSION) {see attachment # 6)
- s) The Lightning Activity Level in categories. (LAL) {see attachment # 7)
- t) Haines Index potential for large fire growth in categories. (HAINES INDEX) {see attachment # 5} This forecast and other Hydro-meteorological information will be available on the Pittsburgh Weather Internet site at: www.erh.noaa.gov/pbz

10.2 Creating Fire Weather GRIDS in AWIPS

The Fire Weather girds should be updated with each significant change in the forecast. This is needed to maintain grid consistency. After you finish populating all of the public parameters, turn off ISC transmission.

- 1) Click on >**Populate**
- 2) Select > ChooseProcedures_FireWx A window appears with 5 tools selected. These are the default procedures. Just use them.
- 3) Click on > Run/Dismiss The smart tools are running. Default model for Haines Index is NAM12. MixHgt and Transwind is default to NAM12/Previous. If you choose "Current" and the model is currently coming in, you will get blank grids. The NBM has been added to this list. It contains the most recent update.
- 4) Inspect Grids
- 5) Save grids
- 6) Click on > Products
- 7) Click on > Publish to Official A window appears
- 8) Click on >**Publish** The window will disappear when it is complete.

10.3 Generating Fire Weather Products

After you finish publishing all of the parameters (Public and Fire Weather)...

- 1) Click on>Products
- 2) Select>Formatter Launcher A window appears. From this window... 3) Select>Products
- 4) Click on>6 FWF
- 5) Click on the cog wheel (Run Formatter) icon to start the program. After the product is created...
- 6) Quality Control the FWF
- 7) Click on>Save File button
- 8) Click on **Transmit** button

10.4 Fire Weather Discussion in the Area Forecast Discussion

During the Spring or Fall fire seasons, it is encouraged to include an in depth fire weather discussion in the Area Forecast Discussion when critical or near critical fire weather values are anticipated.

- 1) Open the Forematter Launcher
- 2) Select AFD
- 3) Under optional topics, check the Fire Weather option

10.5 How to Manually Obtain the Haines Index

- 1) Call up a sounding or forecast sounding on BUFKIT or AWIPS
- 2) The Haines Index is the summation of 2 values A= and B=
- 3) To get the >A= value, subtract the 850mb Temp from the 950mb Temp
- 4) If answer is 3 deg C or less, make A=1. If answer is 4-7 deg C, make A=2 If answer is 8 deg C or more, make A=3.
- 5) To get the >B= value, find the 850mb Temp Dewpoint Depression
- 6) If the Dewpoint Depression is 5 deg C or less, make B=1. If depression is 6-9 deg C, make B=2. If depression is 10 deg C or greater, make B=3.
- 7) Add values >A= and >B=...This gives the Haines Index.

11.0 Spot (non-routine) Forecasts

The spot forecast is a site-specific, localized weather forecast available for wildfire, prescribed burns, SARs, and HAZMAT support. This forecast will include wind, temperature, humidity, and smoke dispersion (mixing height/mixing winds) forecasts. It will normally cover a 12 to 36 hour period and will be issued upon request by the agency overseeing the wildfire or other incidents. Spot forecasts will only be issued at the request of federal and state agencies.

11.1 Requesting the Issuance of a Spot Forecast (and during backup operations)

Agency will provide the following information:

- 1) Agency Name
- 2) Location and Size of the wildfire or other incident {Latitude and Longitude}
- 3) Elevation, Geography and Topography
- 4) Recent weather observation (optional)
- 5) Any additional information that would help the forecaster

There are 2 ways to make a request for a spot forecast.

- 1. Make a request through the national NWS SPOT internet program (MUCH PREFERRED).
- a) Agency will access the NWS SPOT internet site via a link from the Pittsburgh internet site.
- b) After accessing the NWS SPOT web site, the agency will complete the request form providing all available information for the spot forecast request.
- c) After submitting the request, a product named STQPBZ will alarm at the WFO PBZ office.
- d) After receiving the alarm, the forecaster will create a spot forecast then go to the internet site and enter it. The program will also create a PITFWSPBZ and issue that.
- e) The agency can then obtain the spot forecast from the same internet site.
- 2. Make a request by calling or faxing the request directly to our office.
- b) Forecaster will request a spot forecast through the SPOT request page then issue it through AWIPS
- c) The agency can obtain it through the internet or by providing an appropriate phone number or e-mail address.

Backup Operations:

During backup operations, even if the backup is expected to only last a short period of time and there is no anticipated need to edit grids for the office you're backing up, the only way that we receive fire weather

spot forecast notifications for other offices is if we're logged into GFE as the other office. Therefore, you **must** start GFE as the other office.

For instructions to initiate backup, please see the Backup Manual Section 1.4

11.2 Spot Forecast Product {See attachment # 8}

The duty forecaster will provide the following information in the spot forecast product:

- a) Time period for the forecast (12-36 hours)
- b) A brief synopsis...including any warnings or watches in effect.
- c) Sky/Weather
- d) Temperature forecast (maximum T for the day, minimum T at night)
- e) Relative humidity forecast (minimum RH for the day, maximum RH at night) f) 20 foot forecast wind direction and speed (indicate height if <u>not</u> the 20 foot wind) g) Probability of precipitation
- h) Any other weather phenomena deemed important by the duty forecaster including any warnings, watches or advisories in effect for the area.
- i) For the first 12 hours...a matrix is available giving two hour increments of sky cover, weather type/coverage, temperature, RH, 20 foot sustained wind, and 20 foot wind gust.

11.3 Generating a Spot Forecast Product

In GFE:

- 1) Click on>Products
- 2) Select>Formatter Launcher A window appears. From this window... 3) Select>Products
- 4) Select>NEW Spot Forecast weather.gov
- 5) Click on the cog wheel (Run Formatter) icon to start the program. After the product is created...
- 6) Quality Control the SPOT
- 7) Send the product. The product name in AWIPS is called FWS

In the event that AWIPS is not functioning properly, there's not another way of issuing the spot forecast manually due to the recent transition to the national spot webpage. The best way to provide service for the spot request is to call or e-mail the requesting agency and give them the forecast.

12.0 Fire Danger Ratings {See attachment # 10}

Due to the non-meteorological parameters involved in forecasting fire danger ratings, the direct computation of fire categories will be calculated in season by the Bureau of Forestry. When a category of HIGH, VERY HIGH, or EXTREME is calculated, the Bureau of Forestry will notify the Pittsburgh WFO. The Pittsburgh WFO will broadcast this rating in the form of a brief call-to-action statement over the NOAA weather radio servicing the affected climatic districts. The Bureau of Forestry will continue to notify the Pittsburgh WFO daily during the late afternoon of the current rating until the fire danger falls below the high category.

13.0 Fire Weather Watches and Red Flag Warnings (PITRFWPBZ) {See attachment 9}

Specific conditions (all 3) must be met for a Fire Weather Watch and/or a Red Flag Warning to be issued. These conditions are as follows:

<u>PA</u>

- 1) 10 hour fuel moisture of 10% or less
- 2) Minimum RH levels are expected to fall to 30% or lower
- 3) Surface winds sustained or frequently gusting at or above 20 mph for 2 or more hours

WV

1) 10 hour fuel moisture of 8% or less

- 2) Minimum RH levels are expected to fall to 25% or lower
- 3) Sustained wind speed at or above 20mph

OH

At Least 2 consecutive hours of:

- 1) 10 hour fuel moisture of 8% or less
- 2) Minimum RH levels are expected to fall to 25% or lower
- 3) Surface Wind Speeds (sustained or gusts) at or above 15mph

After discussing with the affected forestry district(s) concerning low fuel moisture that meets the criteria mentioned above **and** if the humidity/wind criteria mentioned above will be met, the Pittsburgh WFO will issue a FIRE WEATHER WATCH or RED FLAG WARNING.

If a Fire Weather Watch or Red Flag Warning is issued, the Pittsburgh WFO will include a HEADLINE in the daily fire weather forecast, as well as any spot forecasts issued during the event.

A "FIRE WEATHER WATCH" is issued to alert the user to the possible development of a Red Flag event in the near future. This will generally 24-48 hours in advance of the onset of Red Flag conditions. This product should be upgraded to a RED FLAG WARNING or expired and consideration of whether a SPECIAL WEATHER STATEMENT is needed.

A "RED FLAG WARNING" is issued to warn the user of an impending or on-going Red Flag event. A Red Flag Warning will be issued immediately when Red Flag conditions are occurring or for impending Red Flag conditions when there is a high degree of confidence that conditions will develop within the next 4 hours. This product should be expired when criteria is no longer met.

A "SPECIAL WEATHER STATEMENT" may be issued to address marginal fire weather conditions where near critical conditions are highlighted when 2 of 3 parameters are met. Those being low relative humidity, low fuel moisture, and elevated sustained or gusty winds. This course of action is highly recommended to be coordinated with local partners and state forest supervisors.

14.0 NOAA Weather Radio

The NOAA (National Oceanic and Atmospheric Administration) weather radio continually broadcasts weather and related information over a special broadcast band. This band is available on specially designed radios equipped to pick up the frequencies assigned to this band. Maps of the areas covered by the PBZ CWA radios are included.

{See attachments # 12 through 20 }

Following are the PBZ CWA NOAA weather radios and their assigned frequencies. <u>Location Station</u> Frequency

- a) Pittsburgh, Pa KIH-35 162.550
- b) Parker, Pa WWG-53 162.425
- c) Bridgeport, Oh WWF-35 162.525
- d) High Hill, Oh WXJ-47 162.475
- e) Backbone Mountain, WvKXI-73 162.450
- f) Morgantown, WvKWN-35 162.475
- g) Gregg Knob, Wv KWN-36 162.500
- h) Punxsutawney, Pa KZZ-42 162.500
- i) New Philadelphia, Oh WNG-735 162.425

15.0 On-Site Meteorological Support

Large wildfires may require an incident response. If the occasion should arise in the Pittsburgh CWA, then the appropriate state would request an All Hazards Meteorological Response System (AMRS). This unit would

be requested by the state or federal government through the U.S. Forest Service or the National Interagency Fire Center (NIFC) in Boise, Idaho . The local user agency requesting the on-site forecast service has the primary responsibility (administrative, financial, etc.) for transporting the AMRS and Incident Meteorologist to and from the incident.

16.0 Department of Forestry Contacts

PENNSYLVANIA DEPARTMENT of CONSERVATION and NATURAL RESOURCES State Office:

Mike Kern [mikern@pa.gov] 400 Market Street P.O. Box 8552 Harrisburg, PA 17105-8552

Desk: (717) 783-7957 Cell: (717) 877-8972

District # 4: Forbes P.O. Box 519, 1291 Rte 30E Laughlintown, PA 15655 (724) 238-1200

District # 6: Gallitzin 155 Hillcrest Drive P.O. Box 506 Ebensburg , PA 15931-0506 (814) 472-1862

District # 8: Kittanning 158 South Second Avenue Clarion, PA 16214 (814) 226-1901

District # 14: Cornplanter 323 North State Street North Warren, PA 16365 (814) 723-0262

ALLEGHENY NATIONAL FOREST

Northwest Pa Office: John Fry [jfry@pa.gov] Allegheny National Forest HC-2, Box 130 Marienville, PA 16239 (304) 704-9196

OHIO DEPARTMENT of NATURAL RESOURCES

Ohio Division of Forestry: Chillicothe District

Greg Guess (cell) 614-296-4511

345 Allen Avenue Chillicothe, OH 45601 (740) 285-5585

WAYNE NATIONAL FOREST

Southeast OH Office: Ryan Sundberg [ryan.sundberg@usda.gov]

13700 U.S. Highway 33 Nelsonville, OH 45764

(740) 517-5206 - Cell (740) 753-0101 - Office 24 Hour on Call Duty Officer (740) 753-0911

WEST VIRGINIA DIVISION of FORESTRY

State Office: Jeremy Jones

West Virginia Division of Forestry

Guthrie Center

1900 Kanawha Boulevard East Charleston, WV 25305-0180

(304) 352-4877 Office; (304) 552-4221 Cell

MONONGAHELA NATIONAL FOREST

Northern WV Office: Bobby Iser Monongahela National Forest

200 Sycamore Street Elkins, WV 26241

(304) 636-1800 Office (228) 223-7090

17.0 National Weather Service Contacts

Pittsburgh WFO: David Shallenberger; FWFP IMET [david.shallenberger@noaa.gov]

Colton Milcarek; AFWFP IMET - T [colton.milcarek@noaa.gov]

Jeff Craven; MIC

Fred McMullen; WCM

192 Shafer Road

Moon Township, PA 15108

(412) 262-1882

State College WFO: Bill Gartner; FWFP [william.gartner@noaa.gov]

John Banghoff; AFWFP [john.banghoff@noaa.gov]

Ashley Evans; MIC

Jonathan Guseman; WCM

328 Innovation Blvd, Suite 330

State College, PA 16803

(814) 231-2408

Cleveland WFO: Douglas Kahn; FWFP [douglas.kahn@noaa.gov]

Gary Garnet; MIC Freddie Zeigler; WCM 5301 West Hanger Road Federal Facilities Building Cleveland, OH 44135 (216) 265-2380

Wilmington WFO: John J. Franks; FWFP - IMET [john.j.franks@noaa.gov]

Tom Johnstone; MIC Brandon Peloquin; WCM

1901 South State Route 134 Wilmington, OH 45177

(937) 383-0929

Charleston WFO: Simone Lewis; FWFP [simone.lewis@noaa.gov]

Jamie Casto Biellinski; MIC Tony Edwards; WCM

400 Parkway Road Charleston, WV 25309 (304) 746-0189

Sterling WFO: Brian LaSorsa; FWPL [brian.lasorsa@noaa.gov]

James Lee; MIC

Christopher Strong; WCM

44087 Weather Service Road

Sterling, VA 20166 (703) 996-2201

Eastern Region: John Guiney; FWPM [John.Guiney@noaa.gov]

Airport Corporate Center 630 Johnson Avenue Bohemia, NY 11716 (631) 244-0124

NIFC at Boise ID: National Interagency Fire Center

National Program Manager Dr. Nick Nauslar (208) 387-5451

3833 S. Development Ave James Wallmann (USFS)(BLM) (208) 387-5449

Boise, ID 83705-5354 Fax: (208) 387-5663

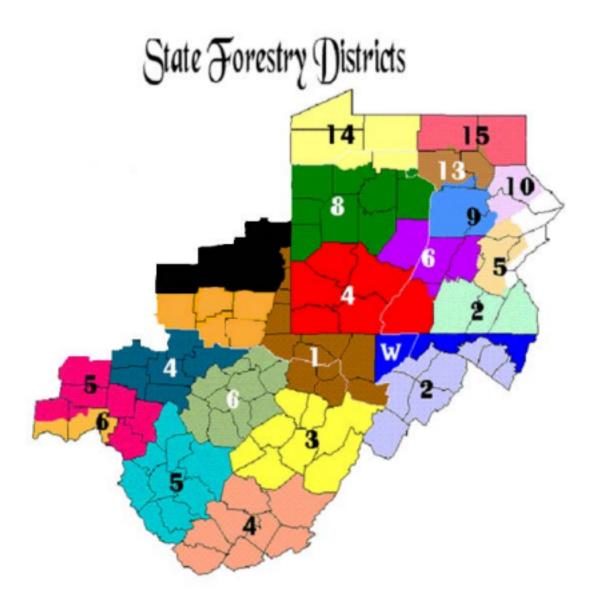
Eastern Area Coordination Center: https://gacc.nifc.gov/eacc/

Milwaukee, WI 53202

Interagency Fire Weather Program Leader/Meteorologist - Stephen Marien

(stephen marien@nps.gov) 402-250-7844 cell





DAILY FIRE WEATHER PRODUCT (example for one county along with outlook)

```
FIRE WEATHER PLANNING FORECAST
NATIONAL WEATHER SERVICE PITTSBURGH PA
330 AM EDT MON MAR 10 2008
.DISCUSSION...
A LOW PRESSURE SYSTEM WILL CROSS TODAY BRINGING A CHANCE FOR RAIN AND SNOW SHOWERS. WEAK HIGH
PRESSURE WILL SLIDE TO THE SOUTH OF THE REGION ON TUESDAY...WITH A SERIES OF LOWS THEN AFFECTING THE
REGION THROUGH FRIDAY.
PAZ021-102130-
ALLEGHENY
INCLUDING THE CITIES OF ... PITTSBURGH METRO AREA
330 AM EDT MON MAR 10 2008
TODAY TONIGHT TUE
CLOUD COVER MCLDY MCLDY PCLDY
CHANCE PRECIP (%) 30 20 0
PRECIP TYPE SHOWERS SHOWERS NONE
TEMP (24H TREND) 40 (+9) 25 (+7) 41
RH % (24H TREND) 49 (+1) 79 (-14) 43
20FTWND-VAL/AM(MPH) LGT/VAR LGT/VAR
20FTWND-RDG/PM(MPH) SW 5 LGT/VAR SW 7
PRECIP AMOUNT 0.07 0.03 0.00
PRECIP DURATION 2 1
PRECIP BEGIN 6 AM CONTINUING
PRECIP END CONTINUING 12 AM
MIXING HGT (M-AGL/MSL) 1140 1170
MIXING HGT (FT-AGL/MSL) 3750 3830
TRANSPORT WND (MPH) SW 10 W 15
VENT RATE (MPH-FT) 37500 57450
DISPERSION 5 5
LAL 1 1 1
HAINES INDEX 3 3 3
REMARKS...NONE.
.FORECAST FOR DAYS 3 THROUGH 7...
.WEDNESDAY...MOSTLY CLOUDY. LOWS IN THE LOWER 30S. HIGHS IN THE MID 40S.
WEST WINDS 5 TO 10 MPH.
.THURSDAY...MOSTLY CLOUDY WITH CHANCE OF RAIN SHOWERS AND SNOW SHOWERS. LOWS IN THE LOWER 30S. HIGHS
IN THE MID 50S. SOUTH WINDS 5 TO 10 MPH.
.FRIDAY...MOSTLY CLOUDY WITH CHANCE OF RAIN SHOWERS. LOWS IN THE UPPER 30S. HIGHS IN THE LOWER 50S.
SOUTHWEST WINDS 5 TO 10 MPH.
.SATURDAY...CLOUDY WITH CHANCE OF RAIN SHOWERS. LOWS IN THE MID 30S. HIGHS IN THE
MID 40S. NORTHWEST WINDS 10 TO 15 MPH.
.SUNDAY...MOSTLY CLOUDY. CHANCE OF RAIN SHOWERS. LOWS IN THE UPPER 20S. HIGHS IN THE MID 40S. WEST
WINDS 10 TO 15 MPH.
.OUTLOOK 8 TO 14 DAYS...
TEMPERATURES BELOW NORMAL. PRECIPITATION ABOVE NORMAL.
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WIMS Fire Weather Site Forecast {PITFWMPBZ} FCST,361002,050809,13,2,81,55,,,SW,05,,81,65,97,55,0,0,N Sites for the Site Specific Forecasts:

Allegheny National Forest at Marienville Forest County PA – ANFP1 361002
Quarry Trail, Westmoreland County PA – QTRP1 361291
Kingwood Preston County WV – KGWW2 460901
Tomlinson Run State Park Tomlinson Run Hancock County WV – TMRW2 460101
Monongahela National Forest at Beard Knob (DAVIS) Tucker County – BDKW2 462601
Moraine State Park, Butler County PA – 360191
Blue Rock, OH Muskingum County - 336001

Attachment # 4

Haines Index Categories (for potential fire growth)

3 or less - Very Low

4 - Low

5 - Moderate

6 - High

Attachment # 5

DISPERSIONCATEGORIES Very Poor (1);

Poor (2); Fair (3); Good (4); Excellent (5)

Attachment # 6

LIGHTNINGACTIVITY LEVELS (LAL) 1. - No

Thunderstorms/Lightning

- 2. Few Thunderstorms/Few Lightning Strikes
- 3. Widely Scattered Thunderstorms/Scattered Lightning Strikes 4. Scattered Thunderstorms/Numerous Lightning Strikes 5. Widespread Thunderstorms/Frequent Lightning Strikes 6. Dry Lightning {LAL level 3 or higher with no precipitation}

SPOT WEATHER FORECAST EXAMPLE

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SPOT FORECAST FOR JB HOLLOW RX BURN...USDA FOREST SERVICE NATIONAL WEATHER SERVICE PITTSBURGH PA
328 AM EDT TUE MAR 11 2008
FORECAST IS BASED ON IGNITION TIME OF 1130 EDT ON MARCH 11. IF CONDITIONS BECOME
UNREPRESENTATIVE...CONTACT THE NATIONAL WEATHER SERVICE.
.DISCUSSION...
HIGH PRESSURE WILL BUILD ACROSS THE REGION TODAY FOR DRY CONDITIONS. A WEAK CANADIAN LOW PRESSURE SYSTEM
WILL CROSS THE GREAT LAKES BY WEDNESDAY...BRINGING SCATTERED SNOW SHOWERS.
.TODAY...
SKY/WEATHER.....PARTLY SUNNY (55-65 PERCENT).
MAX TEMPERATURE.....AROUND 41.
MIN HUMIDITY......52 PERCENT.
WIND (20 FT)......LIGHT WINDS BECOMING SOUTHWEST 5 TO 6 MPH IN THE AFTERNOON.
MIXING HEIGHT.....2200-2800 FT AGL.
MIXING WINDS......WEST 12 TO 15 MPH.
.TONIGHT...
SKY/WEATHER......PARTLY CLOUDY (35-45 PERCENT) THEN BECOMING MOSTLY CLOUDY (60-70 PERCENT). SLIGHT
CHANCE OF SNOW SHOWERS EARLY IN THE MORNING. MIN TEMPERATURE.....AROUND 27.
MAX HUMIDITY......85 PERCENT.
  WIND (20 FT)......SOUTHWEST WINDS 5 TO 6 MPH EARLY IN THE EVENING BECOMING LIGHT...THEN BECOMING
                              SOUTHWEST 5 TO 6 MPH LATE IN THE EVENING.
MIXING HEIGHT.....1800-2400 FT AGL.
MIXING WINDS.......WEST 15 TO 24 MPH INCREASING TO 25 TO 26 MPH EARLY IN THE MORNING.
.WEDNESDAY...
SKY/WEATHER......MOSTLY CLOUDY (70-80 PERCENT).
MAX TEMPERATURE.....AROUND 45.
MIN HUMIDITY.....59 PERCENT.
WIND (20 FT).....WEST WINDS 7 TO 8 MPH.
MIXING HEIGHT.....2000-2900 FT AGL.
MIXING WINDS......WEST 23 TO 31 MPH DECREASING TO 15 TO 20 MPH EARLY IN THE AFTERNOON.
FORECASTER...30
REQUESTED BY...CAMERON CRISP
TYPE OF REQUEST...PRESCRIBED
.TAG 20080311.JBHOL.01/PBZ
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Attachment #8

RED FLAG WARNING AND FIRE WEATHER WATCH

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WWUS81 KPBZ 120419
RFWPBZ
RED FLAG WARNING
NATIONAL WEATHER SERVICE PITTSBURGH PA
1219 AM EDT WED MAR 12 2008
MDZ001-PAZ030-032-WVZ022-023-041-121230-
/O.NEW.KPBZ.FW.W.0001.080312T0600Z-080313T0000Z/
GARRETT-WESTMORELAND-FAYETTE-MONONGALIA-PRESTON-TUCKER
1219 AM EDT WED MAR 12 2008
... RED FLAG WARNING IN EFFECT UNTIL 8 PM EDT THIS EVENING...
THE NATIONAL WEATHER SERVICE IN PITTSBURGH HAS ISSUED A RED FLAG
WARNING...WHICH IS IN EFFECT UNTIL 8 PM EDT THIS EVENING.
MINIMUM RELATIVE HUMIDITIES WILL FALL TO AROUND 25 PERCENT BY THIS
AFTERNOON...AND WINDS WILL INCREASE TO 20 TO 30 MPH.
A RED FLAG WARNING MEANS THAT CRITICAL FIRE WEATHER CONDITIONS ARE
EITHER OCCURRING NOW...OR WILL SHORTLY. A COMBINATION OF STRONG
WINDS...LOW RELATIVE HUMIDITY...AND WARM TEMPERATURES WILL CREATE
EXPLOSIVE FIRE GROWTH POTENTIAL.
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WWUS81 KPBZ 120423
FIRE WEATHER WATCH
NATIONAL WEATHER SERVICE PITTSBURGH PA
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1223 AM EDT WED MAR 12 2008 MDZ001-PAZ030-032-WVZ023-041-121230-/O.NEW.KPBZ.FW.A.0001.080313T1800Z-080315T0000Z/ GARRETT-WESTMORELAND-FAYETTE-PRESTON-TUCKER 1223 AM EDT WED MAR 12 2008 ...FIRE WEATHER WATCH IN EFFECT FROM THURSDAY AFTERNOON THROUGH FRIDAY EVENING... THE NATIONAL WEATHER SERVICE IN PITTSBURGH HAS ISSUED A FIRE WEATHER WATCH...WHICH IS IN EFFECT FROM THURSDAY AFTERNOON THROUGH FRIDAY EVENING. DRY HIGH PRESSURE WILL SLOWLY MOVE EAST OF THE REGION BY LATE IN THE WEEK. AS LOW PRESSURE APPROACHES...WINDS WILL INCREASE TO 20 TO 30 MPH THURSDAY AFTERNOON THROUGH FRIDAY. IN ADDITION...MINIMUM RELATIVE HUMIDITIES WILL LOWER TO AROUND 25 PERCENT...WITH LIMITED RECOVERY THURSDAY NIGHT. A FIRE WEATHER WATCH MEANS THAT CRITICAL FIRE WEATHER CONDITIONS ARE FORECAST TO OCCUR. LISTEN FOR LATER FORECASTS AND POSSIBLE RED FLAG WARNINGS.

Attachment # 9

WILDFIRE DANGER STATEMENT Here is a

Wildfire Danger Statement issued by the [State] Bureau of Forestry in [City, State]. For [Day Month Date Year] the wildfire danger is [High, Very High, or Extreme] for the [Geographic area of danger] of [State].

Open burning of any type is considered extremely dangerous at this time. Contact your local fire authorities before doing any type of open burning. Be very careful of heat and sparks while operating any equipment or smoking in wildland areas.

Note: Information within [BRACKETS] and in BLUE will change with each new or updated issuance.

