

2006 CENTRAL PENNSYLVANIA **FIRE WEATHER FORECAST OPERATIONS PLAN**

[Released February 23, 2006]

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I. PENNSYLVANIA FIRE WEATHER PLAN

The Pennsylvania Fire Weather plan provides a guide for the DCNR Bureau of Forestry, Allegheny National Forest and for the NWS offices providing meteorological support for fire weather in Pennsylvania. Routine fire weather forecasts, spot weather forecasts for wildfires, pre-suppression forecasts, fire weather watches, red flag warnings, and on-site support cover the realm of information that federal, state and local agencies may request.

II. FORECAST AREA RESPONSIBILITY

The Fire Weather Forecast product (FWF) is prepared by the five NWS offices serving Pennsylvania (WFOs Cleveland, OH - CLE, Pittsburgh, PA - PBZ, Binghamton, NY - BGM, Mt. Holly, NJ - PHI, and State College, PA - CTP) for their respective county warning and forecast areas (see Appendix A for a list and Appendix G for a map). Additionally, all fire weather services for the designated Pennsylvania counties are provided by their servicing NWS office. WFO State College, as the state liaison office continues to be the NWS state-level representative with the DCNR Bureau of Forestry and Allegheny National Forest.

The format of the Fire Weather Forecast allows for a flexible (county/weather zone) header grouping coinciding with the county breakout/grouping of the Public Zone Weather Forecast Product (Ex: PHLZFPCTP) for the daily forecasts. Each weather county/zone is identified by its code and county name (i.e. PAZ003 - Crawford county).

III. COMMUNICATIONS

The current communication headers for the fire weather forecasts for PA are as follows:

FIRE WEATHER FORECAST

<u>OFFICE</u>	<u>9-letter ID</u>	<u>AWIPS</u>	<u>WMO</u>	<u>AREA</u>
WFO CLE -	CLEFWFCLE	FWFCLE	FNUS51 KCLE	Northwest PA
WFO PBZ -	PITFWFPIT	FWFPIT	FNUS51 KPBZ	Western PA
WFO BGM -	ALBFWFBGM	FWFBGM	FNUS51 KBGM	Northeast PA
WFO PHI -	PHLFWPHL	FWPHL	FNUS51 KPHI	Southeast PA
WFO CTP -	PHLFWFCTP	FWFCTP	FNUS51 KCTP	Central PA

FIRE WEATHER WATCH/ RED FLAG WARNING

<u>OFFICE</u>	<u>9-letter ID</u>	<u>AWIPS</u>	<u>WMO</u>	<u>AREA</u>
WFO CLE -	CLERFWCLE	RFWCLE	WWUS81 KCLE	Northwest PA
WFO PBZ -	PITRFWPIT	RFPIT	WWUS81 KPBZ	Western PA
WFO BGM -	ALBRFWBGM	RFWBGM	WWUS81 KBGM	Northeast PA
WFO PHI -	PHLRFWPHL	RFWPHL	WWUS81 KPHI	Southeast PA
WFO CTP -	PHLRFWCTP	RFWCTP	WWUS81 KCTP	Central PA

Access to each of the five fire weather forecasts covering portions of Pennsylvania is available through several sources:

1. Daily by 7 AM during the fire weather seasons on the following internet pages:

-NWS State College Internet homepage <http://www.weather.gov/statecollege>
-National Fire Weather Page <http://fire.boi.noaa.gov>

2. Transmitted on the NOAA weather wire system.

IV. FIRE SEASONS

The Pennsylvania fire weather forecast program is routinely activated in the Spring (March-May) and Fall (October-December) seasons. The exact dates for the beginning and ending of the seasons and hence the routine fire weather product are determined by the Bureau of Forestry in Harrisburg and the Allegheny National Forest in coordination with WFO CTP. WFO CTP then notifies the other supporting NWS offices. During drought episodes the fire weather seasons are often extended. Infrequent special requests for spot fire weather forecasts or the fire weather forecast product may also be made in the off-seasons.

V. FIRE WEATHER PRODUCT FORMAT

The seasonal fire weather forecast (FWF) products will be issued around 6 AM daily for a 36-hour period of detailed forecast information accompanied by a general extended forecast up to 7 days. An 8 to 14 day outlook of whether general temperature and precipitation trends will be above, at or below normal is appended to the end of the forecast product. The 36 hour forecast consists of three 12-hour periods (today, tonight, and tomorrow).

The fire weather product contains appropriately grouped weather zone/county forecasts based on the daily forecast parameters in each NWS office area of responsibility in PA (see appendix C). These weather zones/counties will likely be grouped together differently with each daily forecast. The zone identification code (i.e. PAZ034 - Bedford) will always be associated with its assigned county/zone. The symbol ">" means "through" so "033>036" includes the zones 033, 034, 035, and 036. Weather zones/counties in the fixed fire weather zones (WFO PHI) will remain the same on a daily basis.

The following is an example of the FWF:

FIRE WEATHER FORECAST FOR CENTRAL PENNSYLVANIA
NATIONAL WEATHER SERVICE STATE COLLEGE PA
426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

.DISCUSSION...

HIGH PRESSURE WILL CONTINUE OVER THE STATE THROUGH TUESDAY.

PAZ004>006-010-011-091126-
WARREN-MCKEAN-POTTER-ELK-CAMERON-
INCLUDING THE CITY OF...BRADFORD
426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

	TODAY	TONIGHT	TUE
CLOUD COVER	PCLDY	MCLDY	CLOUDY
PRECIP TYPE	NONE	NONE	NONE
CHANCE PRECIP (%)	0	0	0
TEMP (24H TREND)	33 (+10)	15 (+6)	46
RH % (24H TREND)	0 (-55)		
20FTWND-VAL/AM(MPH)	W 5		SE 9
20FTWND-RDG/PM(MPH)	NW 4	SE 4	SE 9
PRECIP AMOUNT	0.00	0.00	0.00
PRECIP DURATION	0	0	0
PRECIP BEGIN			
PRECIP END	8 PM	8 AM	8 PM
HAINES INDEX	4		
LAL	1	N/A	N/A
MIXING HGT(FT-AGL)			
DISPERSION			
TRANSPORT WND (KTS)	N/A	N/A	N/A
VENT RATE (KT-FT)			

REMARKS...NONE.

.FORECAST FOR DAYS 3 THROUGH 7...

.WEDNESDAY...A SLIGHT CHANCE OF LIGHT FREEZING RAIN AND CHANCE OF RAIN SHOWERS THEN RAIN LIKELY UNTIL EARLY EVENING. LOWS AROUND 30. HIGHS IN THE MID 40S. SOUTH WINDS 10 TO 20 MPH.

.THURSDAY...RAIN LIKELY THEN SCATTERED RAIN SHOWERS OR SNOW SHOWERS

UNTIL EARLY EVENING. LOWS IN THE LOWER 30S. HIGHS IN THE MID 30S. WEST WINDS 10 TO 20 MPH.

.FRIDAY...MOSTLY CLOUDY WITH SCATTERED SNOW SHOWERS. LOWS AROUND 19.

HIGHS IN THE UPPER 20S. NORTHWEST WINDS 5 TO 15 MPH.
 .SATURDAY...MOSTLY CLOUDY WITH ISOLATED SNOW SHOWERS THEN PARTLY
 CLOUDY UNTIL EARLY EVENING. LOWS AROUND 19. HIGHS IN THE UPPER 20S.
 NORTHEAST WINDS 5 TO 10 MPH SHIFTING TO THE SOUTHEAST UNTIL EARLY
 EVENING.
 .SUNDAY...A 20 PERCENT CHANCE OF SNOW UNTIL EARLY EVENING. PARTLY
 CLOUDY. LOWS AROUND 19. HIGHS IN THE UPPER 20S. SOUTHEAST WINDS 5 TO
 10 MPH.

REMARKS...NONE.

\$\$

PAZ018-019-025>027-034>036-091126-
 NORTHERN CENTRE-SOUTHERN CENTRE-BLAIR-HUNTINGDON- MIFFLIN-
 BEDFORD-FULTON-FRANKLIN-
 INCLUDING THE CITIES OF...STATE COLLEGE...ALTOONA
 426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

	TODAY	TONIGHT	TUE
CLOUD COVER	PCLDY	PCLDY	MCLDY
PRECIP TYPE	NONE	NONE	NONE
CHANCE PRECIP (%)	0	0	0
TEMP (24H TREND)	40 (+13)	19 (+4)	44
RH % (24H TREND)	0 (-50)		
20FTWND-VAL/AM(MPH)	NW 6		SE 5
20FTWND-RDG/PM(MPH)	NW 5	S 1	SE 5
PRECIP AMOUNT	0.00	0.00	0.00
PRECIP DURATION	0	0	0
PRECIP BEGIN			
PRECIP END	8 PM		8 PM
HAINES INDEX	4		
LAL	1	N/A	N/A
MIXING HGT(FT-AGL)			
DISPERSION			
TRANSPORT WND (KTS)	N/A	N/A	N/A
VENT RATE (KT-FT)			

REMARKS...NONE.

.FORECAST FOR DAYS 3 THROUGH 7...

.WEDNESDAY...A SLIGHT CHANCE OF LIGHT FREEZING RAIN AND CHANCE OF RAIN SHOWERS THEN RAIN LIKELY UNTIL EARLY EVENING. LOWS IN THE LOWER

30S. HIGHS IN THE MID 40S. SOUTHEAST WINDS AROUND 10 MPH INCREASING TO 10 TO 15 MPH UNTIL EARLY EVENING.

.THURSDAY...RAIN LIKELY THEN SCATTERED RAIN SHOWERS OR SNOW SHOWERS

UNTIL EARLY EVENING. LOWS IN THE MID 30S. HIGHS IN THE UPPER 30S. WEST WINDS 10 TO 15 MPH.

.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 20S. HIGHS IN THE MID 30S. NORTHWEST WINDS 5 TO 10 MPH.

.SATURDAY...PARTLY CLOUDY. LOWS IN THE LOWER 20S. HIGHS IN THE UPPER 30S. NORTHWEST WINDS AROUND 5 MPH SHIFTING TO THE SOUTHEAST UNTIL EARLY EVENING.

.SUNDAY...A 20 PERCENT CHANCE OF RAIN OR SNOW UNTIL EARLY EVENING. PARTLY CLOUDY. LOWS IN THE LOWER 20S. HIGHS IN THE UPPER 30S. SOUTHEAST WINDS 5 TO 10 MPH.

REMARKS...NONE.

\$\$

.OUTLOOK FOR DAYS 8 THROUGH 14...

VALID MONDAY DECEMBER 15 THROUGH SUNDAY DECEMBER 21

TEMPERATURE... NEAR NORMAL.

PRECIPITATION... NEAR NORMAL.

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VI. FIRE WEATHER FORECAST FORMAT EXPLANATION

SYNOPSIS/DISCUSSION - brief description of weather features affecting forecast for next 36 hours.

...HEADLINE... (used if a Fire Weather Watch or Red Flag Warning is in effect).

CLOUD AMOUNT - forecast sky cover - descriptive phrase

CHANCE PRECIP (%) - Probability of precipitation (POP) in percent

PRECIP TYPE - if POP 30 percent or higher - then precipitation description

MAX/MIN TEMPS - forecast temperature (F) for daytime maximum and nighttime minimum

WIND DIRECTION - average direction from which the wind is blowing

WIND SPEED MPH - average wind speed in mph

PRECIP AMOUNT - potential precipitation amount range in inches

PRECIP DURATION - expected precipitation duration in continuous hours

LIGHTNING FREQ - lightning frequency in range of strikes

REL HUMIDITY % - forecast relative humidity in percent for daytime minimum and nighttime maximum

MIXING HEIGHT - height above the surface (feet) through which relatively vigorous mixing will take place due to convection.

CEILING HEIGHT - when forecast cloud deck is greater than 50 percent, the height of the ceiling is listed in feet

HAINES INDEX - a stability index determined by combining the stability and moisture content of the lower atmosphere into a single number that correlates very well with large fire growth. Calculated near noon (18Z) for daytime and near midnight (06Z) for nighttime. Haines Index potential for large fire growth: *(2 or 3 very low, 4 low, 5 moderate, 6 high)*.

TRANSPORT DIR - average transport wind direction from surface to top of mixed layer.

TRANSPORT SPEED - average transport wind speed in mph from surface to top of mixed layer.

DISPERSION INDEX - smoke dispersion index values

DISP DESCRIPTOR - smoke dispersion description in categories - expressed in terms of mixing heights and transport winds. (POOR, FAIR, GOOD, VERY GOOD).

VENTILATION - value of the mixing height multiplied by the transport wind speed

VII. SPOT AND PRE-SUPPRESSION FORECASTS

The spot and pre-suppression forecast is a site-specific, localized weather forecast including a forecast of wind, temperatures, humidity and any effects local topography will have on the weather. A spot forecast will normally cover a 12-hour period and is generally issued on request.

The agency requesting a spot fire weather forecast will call the appropriate forecast office with the warning responsibility for that county area (appendix A). The forecast staff will provide the information via fax or phone (Appendix E) for the particular area affected when duties allow. Higher priorities, such as severe weather, may delay the response until time permits.

Agencies within the State College (CTP) county warning area are encouraged to request a spot forecast via our web site at the following internet address:

<http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=ctp>

The use of **latitude and longitude** to describe the spot request location is also strongly encouraged.

The following information should be exchanged whenever a spot or pre-suppression forecast is requested:

THE REQUESTING AGENCY WILL PROVIDE THE FOLLOWING:
<ol style="list-style-type: none">1) The name of the agency2) Location (using latitude and longitude) and size of the fire3) Elevation/Geography/Topography4) Recent weather observations if any5) Any additional information that would help the forecaster
THE FORECASTER WILL PROVIDE:
<ol style="list-style-type: none">1) Time period for forecast (usually for 12 hours)2) Brief synopsis3) Relative humidity forecast (forecast min. value during the day and forecast max. value at night)4) 20 ft forecast wind direction and speed (state height of wind if other than 20 ft)5) Probability of precipitation6) Mesoscale features associated with thunderstorms/fronts7) Other weather phenomena deemed important by the forecaster

VIII. NON-ROUTINE FORECASTS

Although the Pennsylvania Bureau of Forestry and Allegheny National Forest are the main agencies using and requesting fire weather information, other federal, state and local agencies may also request non-routine fire weather (spot and pre-suppression)

forecasts anytime during the year. During times of high to extreme fire danger, the Bureau of Forestry may request updates to the fire weather forecast product as needed. An agency may request a revised forecast when there is a significant change from the previous forecast in wind, relative humidity or thunderstorm activity.

During periods of very high or extreme fire danger, a supplemental briefing may be scheduled by the Bureau of Forestry in advance with the appropriate forecast office. The predetermined briefing should provide updated information pertaining to the progress of frontal systems, thunderstorms, approaching rain or other rapidly changing weather features.

IX. FIRE WEATHER WATCHES AND RED FLAG WARNINGS

Fire Weather Watches and Red Flag Warnings are used to convey the possibility of severe fire weather to fire control agencies. NWS offices serving Pennsylvania began providing Fire Weather Watch and Red Flag Warning service as necessary to federal and state users in January 2000.

Red Flag events normally require the combination of very high to extreme fire danger and critical weather conditions (significantly increased winds and wind shifts, thunderstorm activity containing little or no rain, and significantly decreased humidity). The issuance of Red Flag events are based on the criteria of the users (state and federal) and require advance coordination.

The DCNR or Allegheny National Forest should notify the respective NWS forecast offices for areas where and when measured ten hour fuel moisture levels have dropped to 8 % or less.

Note: Meeting or exceeding the necessary criteria for Red Flag warnings due to lack of fuel moisture, low relative humidity, and strong winds is considered a rare event in Pennsylvania.

CRITERIA (must meet all 3)

1) Ten hour fuels must be at 15% moisture or less and are expected to remain at that level for 2 or more days...

2) Minimum relative humidity (RH) levels are expected to fall to 30% or lower...

and (not 'or')

3) The sustained 20-ft winds are expected to exceed 15 mph for at least 2 hours.

--FIRE WEATHER WATCH--

A Fire Weather Watch is used to advise of the possible development of a Red Flag event in the near future. Usually fire danger is in the very high to extreme category. A Fire Weather Watch will normally be issued 12 to 24 hours in advance of the expected onset of severe fire weather conditions. The watch will be issued via an RFW product (i.e. RFWCTP). The product will contain a headline and the basis for the watch issuance. Fire Weather Watch information will be included in the affected areas of the daily routine Fire Weather Forecast. A Fire Weather Watch will be canceled via an RFW if subsequent information indicates that the conditions are no longer expected to develop.

--RED FLAG WARNING--

A Red Flag Warning is issued to indicate the imminent danger of severe fire weather conditions with a relatively high probability of occurrence. Usually the fire danger is in the very high to extreme category. A Red Flag Warning will normally be issued for potential severe fire weather events in less than 12 hours. A Red Flag Warning may or may not be preceded by a Fire Weather Watch. The warning will be issued via an RFW product and contain a headline and basis for the warning issuance. Red Flag Warning information will be included in the affected areas of the daily routine Fire Weather Forecast. A Red Flag Warning will be canceled via an RFW if subsequent information indicates that the conditions are no longer expected to develop.

X. ON-SITE METEOROLOGICAL SUPPORT (ATMU)

Large wildfires may need an incident response. If the occasion should arise in Pennsylvania, then the state would request an AIR TRANSPORTABLE MOBILE UNIT (ATMU). This unit would be requested by the state or federal government through the U.S. Forest Service or NIFC. The local user agency requesting the on-site forecast service has the primary responsibility for transporting the ATMU and ATMU meteorologist to and from the incident.

XI. FIRE DANGER RATING/NOAA WEATHER RADIO - Optional program

This program is not active and remains inactive as of February 2006. However, for reference it is provided.

*Due to the non-meteorological parameters in forecasting fire danger ratings, the direct computation of fire categories (**high, very high, extreme**) will be calculated (in season) for counties by the Bureau of Forestry in Harrisburg. Should the fire danger category reach, change or fall below the above categories, then the program specialist with the Bureau of Forestry will call the appropriate forecast office(s) responsible for the counties. A call will be made daily (including Saturday and Sunday) during the late afternoon to each office affected when the criteria is reached or has changed. The Bureau of Forestry will cease calling when the fire danger category falls below **high**.*

For a category of HIGH (or greater) fire danger the Bureau of Forestry will relay fire danger information to the applicable NWS offices so that the information can be

*broadcast over NOAA Weather Radio. **The NOAA Weather Radio alarm shall NOT be used when relaying fire weather information.** Upon receipt of the fire danger information, the forecast office will broadcast the fire danger category along with a brief call-to-action statement on the NOAA weather radio (see appendix D).*

XII. REFERENCES

- * Software - CAE Fire 3.3 - RDF-based program with national format
Jeff Linton, WFO Columbia, SC - September 2000
- * NDS Directive 10-4 (10-401 to 405) - Fire Weather Service Program
- * NDS Directive 10-401; Sect 4 - Fire Weather Watch/Red Flag Warning Program

XIII. FIRE WEATHER PROGRAM CONTACTS

DCNR - PA BUREAU OF FORESTRY STATE CONTACTS

DCNR - PA BUREAU OF FORESTRY DISTRICT CONTACTS

ALLEGHENY NATIONAL FOREST (ANF) CONTACTS (Northwest PA CTP/PBZ)

NATIONAL WEATHER SERVICE FIELD OFFICES RESPONSIBLE FOR PROVIDING PENNSYLVANIA FIRE WEATHER FORECASTS

NWS REGIONAL OFFICES

EASTERN REGION HEADQUARTERS

NWS NATIONAL PROGRAM LEADER

NWS HEADQUARTERS

GEOGRAPHIC COORDINATION CENTERS (GACC) FIRE WEATHER METEOROLOGISTS

National Interagency Fire Center

Eastern Area

APPENDIX A

**PENNSYLVANIA FIRE WEATHER FORECAST RESPONSIBILITY
by National Weather Service County Warning and Forecast Area - January 2006**

NWS OFFICE- WFO Binghamton, NY (BGM) - Northeast PA

<u>County/Zone</u>	<u>Zone Code</u>	<u>Metafire zone</u>
Bradford	PAZ038	6 - Upper Susquehanna
Susquehanna	PAZ039	6 - Upper Susquehanna
Wyoming	PAZ043	6 - Upper Susquehanna
Luzerne	PAZ047	1 - Pocono/E. Central Mtns
Lackawana	PAZ044	1 - Pocono/E. Central Mtns
Wayne	PAZ040	1 - Pocono/E. Central Mtns
Pike	PAZ048	1 - Pocono/E. Central Mtns

NWS OFFICE- WFO Mt. Holly, NJ (PHI) - Southeast PA

<u>County</u>	<u>Zone Code</u>	<u>Metafire zone</u>	<u>Fire Weather zone</u>
Monroe	PAZ055	1 - Pocono/E. Central Mtns	Southern Poconos
Carbon	PAZ054	1 - Pocono/E. Central Mtns	Southern Poconos
Northhampton	PAZ062	1 - Pocono/E. Central Mtns	Lehigh Valley
Lehigh	PAZ061	1 - Pocono/E. Central Mtns	Lehigh Valley
Berks	PAZ060	3 - Southeast Piedmont	Lehigh Valley
Chester	PAZ067	3 - Southeast Piedmont	Southeast Piedmont
Montgomery	PAZ068	3 - Southeast Piedmont	Southeast Piedmont
Bucks	PAZ069	3 - Southeast Piedmont	Southeast Piedmont
Delaware	PAZ070	3 - Southeast Piedmont	Southeast Piedmont
Philadelphia	PAZ071	3 - Southeast Piedmont	Southeast Piedmont

NWS OFFICE- WFO State College, PA (CTP) - Central PA

<u>County</u>	<u>Zone Code</u>	<u>Metafire zone</u>
Schuylkill	PAZ058	1 - Pocono Mountains
Dauphin	PAZ057	3 - Southeast Piedmont
Lebanon	PAZ059	3 - Southeast Piedmont
Lancaster	PAZ066	3 - Southeast Piedmont
Franklin	PAZ036	4 - Lower Susquehanna
Cumberland	PAZ063	4 - Lower Susquehanna
Adams	PAZ064	4 - Lower Susquehanna
York	PAZ065	4 - Lower Susquehanna
Mifflin	PAZ027	5- Middle Susquehanna
Juniata	PAZ028	5- Middle Susquehanna
North Lycoming	PAZ041	5- Middle Susquehanna
South Lycoming	PAZ046	5- Middle Susquehanna
Union	PAZ049	5- Middle Susquehanna
Snyder	PAZ050	5- Middle Susquehanna

Montour	PAZ051	5- Middle Susquehanna
Northumberland	PAZ052	5- Middle Susquehanna
Columbia	PAZ053	5- Middle Susquehanna
Perry	PAZ056	5 - Middle Susquehanna
Sullivan	PAZ042	6 - Upper Susquehanna
Tioga	PAZ037	6 - Upper Susquehanna
Elk	PAZ010	7 - Central Mountains
Cameron	PAZ011	7 - Central Mountains
North Clinton	PAZ012	7 - Central Mountains
South Clinton	PAZ045	7 - Central Mountains
Clearfield	PAZ017	7 - Central Mountains
North Centre	PAZ018	7 - Central Mountains
South Centre	PAZ019	7 - Central Mountains
Cambria	PAZ024	8 - South Central Mountains
Blair	PAZ025	8 - South Central Mountains
Huntingdon	PAZ026	8 - South Central Mountains
Bedford	PAZ034	8 - South Central Mountains
Fulton	PAZ035	8 - South Central Mountains
Somerset	PAZ033	9 - Southwest Plateau
Warren	PAZ004	10 - Northwest Plateau
McKean	PAZ005	10 - Northwest Plateau
Potter	PAZ006	10 - Northwest Plateau

NWS OFFICE- WFO Pittsburgh, PA (PBZ) - Southwest PA

<u>County</u>	<u>Zone Code</u>	<u>Metafire zone</u>
Lawrence	PAZ013	9 - Southwest Plateau
Butler	PAZ014	9 - Southwest Plateau
Beaver	PAZ020	9 - Southwest Plateau
Allegheny	PAZ021	9 - Southwest Plateau
Armstrong	PAZ022	9 - Southwest Plateau
Indiana	PAZ023	9 - Southwest Plateau
Washington	PAZ029	9 - Southwest Plateau
Westmoreland	PAZ030	9 - Southwest Plateau
Greene	PAZ031	9 - Southwest Plateau
Fayette	PAZ032	9 - Southwest Plateau
Mercer	PAZ007	10 - Northwest Plateau
Venango	PAZ008	10 - Northwest Plateau
Forest	PAZ009	10 - Northwest Plateau
Clarion	PAZ015	10 - Northwest Plateau
Jefferson	PAZ016	10 - Northwest Plateau

NWS OFFICE- WFO Cleveland, OH (CLE) - Northwest PA

<u>County</u>	<u>Zone Code</u>	<u>Metafire zone</u>
Erie Lakeshore	PAZ001	10 - Northwest Plateau
South Erie	PAZ002	10 - Northwest Plateau
Crawford	PAZ003	10 - Northwest Plateau

APPENDIX B

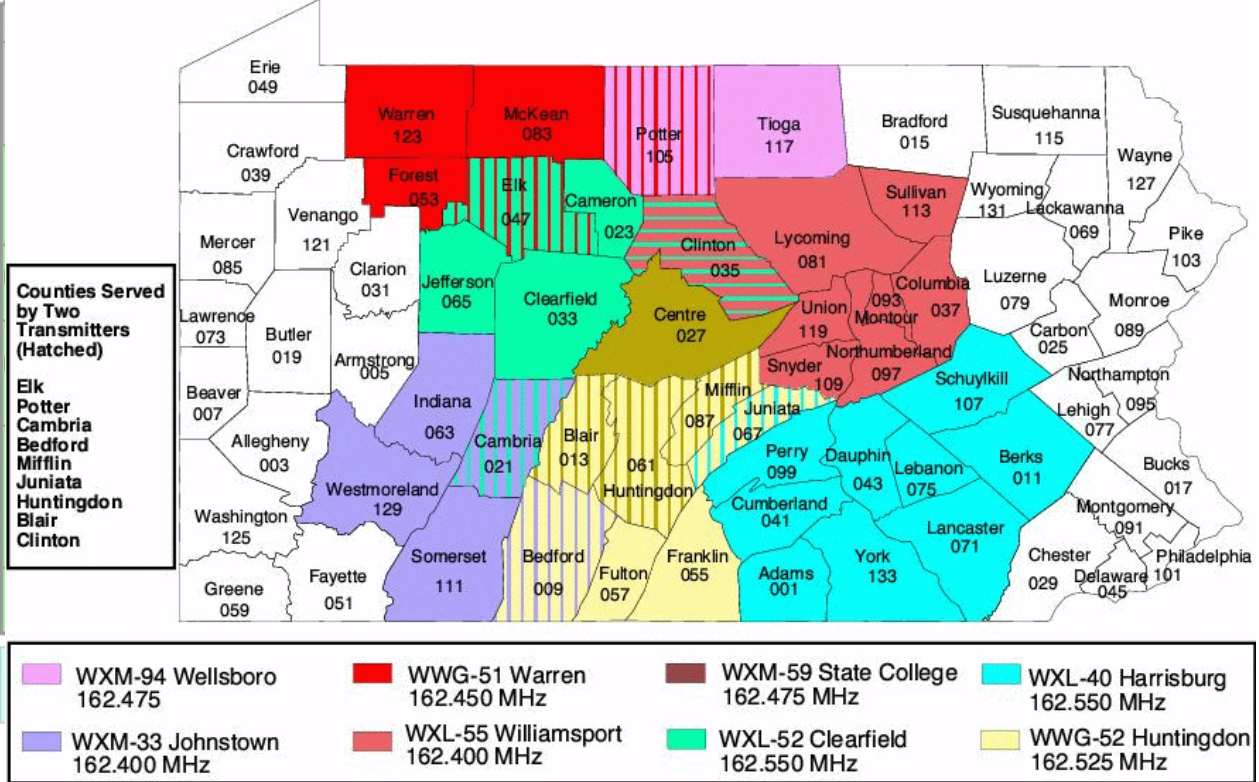
**NATIONAL WEATHER SERVICE FIRE WEATHER FORECAST
RESPONSIBILITY BY COUNTY FOR PENNSYLVANIA**

<u>COUNTY</u>	<u>NWS OFFICE</u>
ADAMS	CTP
ALLEGHENY	PBZ
ARMSTRONG	PBZ
BEAVER	PBZ
BEDFORD	CTP
BERKS	PHI
BLAIR	CTP
BRADFORD	BGM
BUCKS	PHI
BUTLER	PBZ
CAMBRIA	CTP
CAMERON	CTP
CARBON	PHI
CENTRE	CTP
CHESTER	PHI
CLARION	PBZ
CLEARFIELD	CTP
CLINTON	CTP
COLUMBIA	CTP
CRAWFORD	CLE
CUMBERLAND	CTP
DAUPHIN	CTP
DELAWARE	PHI
ELK	CTP
ERIE	CLE
FAYETTE	PBZ
FOREST	PBZ
FRANKLIN	CTP
FULTON	CTP
GREENE	PBZ
HUNTINGDON	CTP
INDIANA	PBZ
JEFFERSON	PBZ
JUNIATA	CTP
LACKAWANNA	BGM
LANCASTER	CTP
LAWRENCE	PBZ

LEBANON	CTP
LEHIGH	PHI
LUZERNE	BGM
LYCOMING	CTP
MCKEAN	CTP
MERCER	PBZ
MIFFLIN	CTP
MONROE	PHI
MONTGOMERY	PHI
MONTOUR	CTP
NORTHAMPTON	PHI
NORTHUMBERLAND	CTP
PERRY	CTP
PHILADELPHIA	PHI
PIKE	BGM
POTTER	CTP
SCHUYLKILL	CTP
SNYDER	CTP
SOMERSET	CTP
SULLIVAN	CTP
SUSQUEHANNA	BGM
TIOGA	CTP
UNION	CTP
VENANGO	PBZ
WARREN	CTP
WAYNE	BGM
WASHINGTON	PBZ
WESTMORELAND	PBZ
WYOMING	BGM
YORK	CTP

**WFO Fire Weather Forecast
Responsibility For Pennsylvania**

**National Weather Service State College, PA
NOAA Weather Radio Counties - October 2000**
For EAS digital code and warning alarm



APPENDIX C

FIRE WEATHER FORECAST (FWF) FORMAT EXAMPLE

FIRE WEATHER FORECAST FOR CENTRAL PENNSYLVANIA
NATIONAL WEATHER SERVICE STATE COLLEGE PA
426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

.DISCUSSION...

HIGH PRESSURE WILL CONTINUE OVER THE STATE THROUGH TUESDAY.

PAZ004>006-010-011-091126-
WARREN-MCKEAN-POTTER-ELK-CAMERON-
INCLUDING THE CITY OF...BRADFORD
426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

	TODAY	TONIGHT	TUE
CLOUD COVER	PCLDY	MCLDY	CLOUDY
PRECIP TYPE	NONE	NONE	NONE
CHANCE PRECIP (%)	0	0	0
TEMP (24H TREND)	33 (+10)	15 (+6)	46
RH % (24H TREND)	0 (-55)		
20FTWND-VAL/AM(MPH)	W 5		SE 9
20FTWND-RDG/PM(MPH)	NW 4	SE 4	SE 9
PRECIP AMOUNT	0.00	0.00	0.00
PRECIP DURATION	0	0	0
PRECIP BEGIN			
PRECIP END	8 PM	8 AM	8 PM
HAINES INDEX	4		
LAL	1	N/A	N/A
MIXING HGT(FT-AGL)			
DISPERSION			
TRANSPORT WND (KTS)	N/A	N/A	N/A
VENT RATE (KT-FT)			

REMARKS...NONE.

.FORECAST FOR DAYS 3 THROUGH 7...

.WEDNESDAY...A SLIGHT CHANCE OF LIGHT FREEZING RAIN AND CHANCE OF RAIN SHOWERS THEN RAIN LIKELY UNTIL EARLY EVENING. LOWS AROUND 30. HIGHS IN THE MID 40S. SOUTH WINDS 10 TO 20 MPH.
 .THURSDAY...RAIN LIKELY THEN SCATTERED RAIN SHOWERS OR SNOW SHOWERS UNTIL EARLY EVENING. LOWS IN THE LOWER 30S. HIGHS IN THE MID 30S. WEST WINDS 10 TO 20 MPH.
 .FRIDAY...MOSTLY CLOUDY WITH SCATTERED SNOW SHOWERS. LOWS AROUND 19. HIGHS IN THE UPPER 20S. NORTHWEST WINDS 5 TO 15 MPH.
 .SATURDAY...MOSTLY CLOUDY WITH ISOLATED SNOW SHOWERS THEN PARTLY CLOUDY UNTIL EARLY EVENING. LOWS AROUND 19. HIGHS IN THE UPPER 20S. NORTHEAST WINDS 5 TO 10 MPH SHIFTING TO THE SOUTHEAST UNTIL EARLY EVENING.
 .SUNDAY...A 20 PERCENT CHANCE OF SNOW UNTIL EARLY EVENING. PARTLY CLOUDY. LOWS AROUND 19. HIGHS IN THE UPPER 20S. SOUTHEAST WINDS 5 TO 10 MPH.

REMARKS...NONE.

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PAZ018-019-025>027-034>036-091126-
 NORTHERN CENTRE-SOUTHERN CENTRE-BLAIR-HUNTINGDON- MIFFLIN-
 BEDFORD-FULTON-FRANKLIN-
 INCLUDING THE CITIES OF...STATE COLLEGE...ALTOONA
 426 AM EST MON DEC 8 2003

.RED FLAG...NONE.

	TODAY	TONIGHT	TUE
CLOUD COVER	PCLDY	PCLDY	MCLDY
PRECIP TYPE	NONE	NONE	NONE
CHANCE PRECIP (%)	0	0	0
TEMP (24H TREND)	40 (+13)	19 (+4)	44
RH % (24H TREND)	0 (-50)		

20FTWND-VAL/AM(MPH)	NW 6		SE 5
20FTWND-RDG/PM(MPH)	NW 5	S 1	SE 5
PRECIP AMOUNT	0.00	0.00	0.00
PRECIP DURATION	0	0	0
PRECIP BEGIN			
PRECIP END	8 PM		8 PM
HAINES INDEX	4		
LAL	1	N/A	N/A
MIXING HGT(FT-AGL)			
DISPERSION			
TRANSPORT WND (KTS)	N/A	N/A	N/A
VENT RATE (KT-FT)			

REMARKS...NONE.

.FORECAST FOR DAYS 3 THROUGH 7...

.WEDNESDAY...A SLIGHT CHANCE OF LIGHT FREEZING RAIN AND CHANCE OF RAIN SHOWERS THEN RAIN LIKELY UNTIL EARLY EVENING. LOWS IN THE LOWER

30S. HIGHS IN THE MID 40S. SOUTHEAST WINDS AROUND 10 MPH INCREASING TO 10 TO 15 MPH UNTIL EARLY EVENING.

.THURSDAY...RAIN LIKELY THEN SCATTERED RAIN SHOWERS OR SNOW SHOWERS UNTIL EARLY EVENING. LOWS IN THE MID 30S. HIGHS IN THE UPPER 30S. WEST WINDS 10 TO 15 MPH.

.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 20S. HIGHS IN THE MID 30S. NORTHWEST WINDS 5 TO 10 MPH.

.SATURDAY...PARTLY CLOUDY. LOWS IN THE LOWER 20S. HIGHS IN THE UPPER 30S. NORTHWEST WINDS AROUND 5 MPH SHIFTING TO THE SOUTHEAST UNTIL EARLY EVENING.

.SUNDAY...A 20 PERCENT CHANCE OF RAIN OR SNOW UNTIL EARLY EVENING.

PARTLY CLOUDY. LOWS IN THE LOWER 20S. HIGHS IN THE UPPER 30S. SOUTHEAST WINDS 5 TO 10 MPH.

REMARKS...NONE.

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.OUTLOOK FOR DAYS 8 THROUGH 14...

VALID MONDAY DECEMBER 15 THROUGH SUNDAY DECEMBER 21

TEMPERATURE... NEAR NORMAL.
PRECIPITATION... NEAR NORMAL.

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APPENDIX D

NOAA WEATHER RADIO SCRIPT FOR FIRE DANGER

The following is a Wildfire Danger statement issued by the Pennsylvania Bureau of Forestry in Harrisburg, PA...

FOR.....(date)

THE WILDFIRE DANGER IS(high, very high, extreme)

FOR THE (geographic area).....OF PENNSYLVANIA.

Choose one or more of the following action items for broadcast....

1. Check with your local forestry office or fire department to see if burning bans are in effect - before you start a wildfire!
2. Don't burn trash - recycle it - keep our earth green!
3. Be sure campfires are out and cold to the touch before leaving campsites.
4. Compost leaves and grass clippings - burning also contributes to our pollution.
5. Be sure to report all wildfires immediately.

APPENDIX E
SPOT FIRE WEATHER FORECAST FORM

SPOT AND PRESUPPRESSION FIRE WEATHER FORECAST

REQUESTING AGENCY WILL FURNISH:

NAME OF AGENCY:	LOCATION AND SIZE OF FIRE:	TIME:	DATE:
ELEVATION/GEOGRAPHY/TOPOGRAPHY			

RECENT WEATHER OBSERVATION:

PLACE	ELEVATION	OB TIME	20 FT. WIND	TEMP DEG F	RELATIVE HUMIDITY	REMARKS

ADDITIONAL INFORMATION:

FIRE WEATHER FORECASTER WILL FURNISH:

TIME PERIOD (USUALLY 12 HRS)	
<p>FORECAST AND OUTLOOK: (SHOULD INCLUDE: BRIEF SYNOPSIS.....RH FORECAST (MIN DURING DAY AND MAX VALUE AT NIGHT).....20 FT. FORECAST WIND DIRECTION AND SPEED.....PROBABILITY OF PRECIPITATION.....MESOSCALE FEATURES (THUNDERSTORMS AND FRONTS).....OTHER WEATHER PHENOMENA.....)</p>	

OPTIONAL INFORMATION:

TRANSPORT WINDS (5000 FT, 10000 FT)	INVERSION(YES/NO)
NAME OF FORECASTER:	

oprns/d1firewx