

ROCKY MOUNTAIN AREA FIRE WEATHER ANNUAL OPERATING PLAN

(ADDENDUM)

2006



Kansas
Southern and Eastern Nebraska

ROCKY MOUNTAIN AREA FIRE WEATHER ANNUAL OPERATING PLAN
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Rocky Mountain Area Interagency Fire Weather Operating Plan (Addendum) – 2006

I. INTRODUCTION

This document is an addendum to the Interagency Fire Weather Annual Operating Plan (AOP) for the Rocky Mountain Geographic Area. The purpose of this addendum is to integrate National Weather Service Fire Weather Services from various offices in Kansas and Nebraska. The AOP provides specific procedural and policy information about the responsibilities of both NWS offices and land management offices regarding meteorological services provided to the fire management community in the Rocky Mountain Area, as contained within the umbrella of the National Agreement. References will include:

- National Weather Service Directives NWSI 10-4: Fire Weather Services
- Interagency Agreement for Meteorological Services (National MOA or National Agreement)
- Rocky Mountain Area and National Mobilization Guides

II. SIGNIFICANT CHANGES SINCE LAST YEAR

A. New Fire Weather Program for Kansas, Southwest Nebraska and Eastern Nebraska

III. SERVICE AREA AND ORGANIZATIONAL DIRECTORY

A. Fire weather services in the Rocky Mountain Area are provided by the NWS forecast offices, RMA Predictive Services, and States listed below

Goodland, KS	Dodge City, KS	Topeka, KS	Wichita, KS
Hastings, NE	Omaha, NE	RMCC, Lakewood, CO	

ROCKY MOUNTAIN AREA PREDICTIVE SERVICES, 2850 Youngfield St,
 Lakewood, CO 80215
 FAX Number: (303) 445-4319
 Web Site Address: <http://www.blm.gov/colorado/rmafwx/index.html>

Name	Position	Phone	E-Mail
Tim Mathewson	Meteorologist / Program Manager	(303) 445-4309	tim_mathewson@co.BLM.gov
Russ Mann	Meteorologist / Asst. Manager	(303) 445-4308	russ_mann@co.BLM.gov
Marco Perea	Fire Intelligence Coordinator	(303) 445-4303	marco_perea@co.blm.gov
Main Coordination Center Number		(303) 445-4300	

GOODLAND WEATHER SERVICE FORECAST OFFICE, 920 Armory Road,
 Goodland, Kansas 67735-9273
 FAX Number: (785) 899-3501
 Web Site Address: <http://www.crh.noaa.gov/gld>
 Service Backup Office: WFO Boulder

Name	Position	Phone	E-mail
Fred Stasser	Fire Weather Focal Point	(785) 899-2360	fredrick.stasser@noaa.gov
Scott Mentzer	Meteorologist-In-Charge	(785) 899-2360	scott.mentzer@noaa.gov

DODGE CITY WEATHER SERVICE FORECAST OFFICE
104 Airport Rd, Dodge City, KS 67801
FAX Number: (620) 227-2288
Web Site Address: <http://www.crh.noaa.gov/ddc>
Backup Office: WFO Goodland

Name	Position	Phone	E-Mail
Matt Gerard	Fire Weather Focal Point	(620) 225-7140	matt.gerard@noaa.gov
Larry Ruthi	Metereologist-In-Charge	(620) 225-7140	larry.ruthi@noaa.gov

WICHITA WEATHER SERVICE FORECAST OFFICE
2142 S Tyler, Wichita, Kansas 67209
FAX Number: (316) 945-9553
Web Site Address: <http://www.weather.gov/wichita>
Backup Office: WFO Topeka

Name	Position	Phone	E-Mail
Mary-Beth Schreck	Fire Weather Focal Point	(316) 945-3687	marybeth.schreck@noaa.gov
Andy Kleinsasser	Asst. Fire Weather Focal Point	(316) 945-3687	andy.kleinsasser@noaa.gov
Richard Elder	Metereologist-In-Charge	(316) 945-3687	richard.elder@noaa.gov

TOPEKA WEATHER SERVICE FORECAST OFFICE, 1116 NE. Strait Ave., Topeka, Kansas
66616-1698
FAX Number: (785) 232-3632
Web Site Address: <http://www.crh.noaa.gov/top>
Backup Office: WFO Wichita

Name	Position	Phone	E-Mail
Kris Craven	Fire Weather Focal Point	(785) 232-1493	Kris.Craven@noaa.gov
George Phillips	Assistant Fire Weather Focal Point	(785) 232-1493	George.Phillips@noaa.gov
Curt Holderbach	Metereologist-In-Charge	(785) 232-1493	Curtis.Holderbach@noaa.gov

HASTINGS WEATHER SERVICE FORECAST OFFICE
6365 OSBORNE DRIVE WEST HASTINGS, NE 68901-9163
FAX Number: (402) 462-2746
Web Site Address: <http://www.crh.noaa.gov/gid>
Primary Backup Office: WFO Omaha/Valley (OAX)
Secondary Backup Office: WFO North Platte (LBF)

Name	Position	Phone	E-Mail
Julia Berg	Fire Weather Focal Point	(402) 462-2127	julia.berg@noaa.gov
Kurt Buffalo	Assistant Fire Weather Focal Point	(402) 462-2127	kurt.buffalo@noaa.gov
Corey King	Assistant Fire Weather Focal Point	(402) 462-2127	corey.king@noaa.gov

OMAHA WEATHER SERVICE FORECAST OFFICE, 6707 N. 288th St., Valley, Nebraska
68064-9443
FAX Number: (402) 359-5368
Web Site Address: <http://www.crh.noaa.gov/oax>
Backup Office: WFO Hastings

Name	Position	Phone	E-Mail
Scott Dergan	Fire Weather Focal Point	(402) 359-2394	scott.dergan@noaa.gov
Steve Schurr	Metereologist-In-Charge	(402) 359-2394	steven.schurr@noaa.gov

IV. NATIONAL WEATHER SERVICE SERVICES AND RESPONSIBILITIES

A. **Basic Services** – The following constitute the current operational Fire Weather Planning Forecast products provided by NWS offices in the RMA. Significant changes to these forecast services or deployment of new operational forecast products and services will be coordinated through Rocky Mountain Area Predictive Services (Reference NWSI 10-403) and local users within the County Warning Forecast Area (CWFA) of the NWS office that would like to make the change. Any non-operational forecast products will be clearly labeled as “Experimental” or “Prototype”. Basic meteorological services include:

1. **Fire Weather Planning Forecasts (FWF)**

Most, but not all, NWS offices serving the Rocky Mountain Area issue routine Fire Weather Planning Forecasts. The FWF is a zone-type product used by land management personnel primarily for input in decision-making related to pre-suppression and other planning (NWSI 10-401) Unless otherwise noted, the format of the FWF will conform to NWSI 10-401.

a) **Standard Issuance Times and Dates** –

Once daily, year around by 0800 hours local time.

b) **Issuance Outside Regular Times and Dates**- NWS offices will issue or update FWF’s for their fire weather zones outside regular times and dates when:

1) A Fire Weather Watch or a Red Flag Warning is issued or updated, 2) The current forecast does not depict the NWS forecaster’s vision of current or predicted weather conditions, or 3) A significant typographical/format error is detected. *Note: The NWS office will notify the local dispatch offices when the FWF is updated.*

c) **Access** – Forecasts are transmitted automatically through the NWS AWIPS computer system and made available within minutes via WIMS, the Rocky Mountain Area Predictive Services web site, and the web sites of the various NWS offices that serve the Rocky Mountain Area. **These web site addresses can be found under section III, Service Area and Organizational Directory.**

d) **Content and Format** – The FWF will conform to the “narrative” or “tabular” format, per NWSI 10-401. Forecasts will focus on the following 36 hours, with general extended outlooks in both

cases out to at least 5 days and no more than 10 days.

Each FWF will begin with pertinent headlines and a non-technical weather discussion. Six-hour increments or greater will be used for forecast weather elements for the periods out to 36 hours. The extended forecast periods beyond 36 hours will contain the most significant weather within each 12 hour (in the case of a night period) or 24 hour period. Headlines are required for Red Flag Warnings and Fire Weather Watches, but may be included for other significant situations including air stagnation, record heat, severe weather potential, significant weather pattern changes, etc.

Forecasts for the 36 hours will contain the following elements for each zone or zone grouping, listed in the order they will appear. Some of the elements are optional and will be included in the FWF based on user needs.

1. Headline(s) as appropriate
2. Sky/weather
3. Temperature (24 hour trends optional)
4. Humidity (24 hour trends optional)
5. Wind - 20 foot RAWs standard (slope/valley)
6. Wind – Ridgetop (as appropriate)

7. Lightning Activity Level (LAL)
8. Haines Index
9. Mixing Level
10. Transport Winds
11. Ventilation (kt-ft) and Ventilation/Dispersion Category
13. Extended outlook to at least day 5 (or at end of product)

Format examples and descriptions of forecast parameters can be found in the appendices.

2. Site-specific (Spot) Forecasts

- a) **Criteria** - Spot forecasts are site-specific forecast products issued for wildfires, prescribed burns, aerial spraying, HAZMAT incidents, search and rescue etc., and are available upon request at any time of day, week or season. WFO's will provide site-specific (spot) forecast services upon request of any qualified user agency to support land management activities associated with wildland fire (including prescribed burning). Providing non-federal, non-wildfire spots will be restricted to purposes directly related to personnel, equipment, fuels reduction projects (prescribed burns or spraying) for public safety, or interagency protection agreements providing such involvement).

A spot forecast will be assigned high priority by the receiving NWS office. Normally, a request should be provided to the requestor in less than 60 minutes of the receipt of the request. During heavy spot loads 60 minutes may be exceeded.

Site-specific forecasts are considered one-time requests, and are not routinely updated. However, spot forecasts should be updated when representative observations are available to the forecaster and he/she deems the current forecast does not adequately represent current or expected weather conditions. Land management personnel may contact the appropriate WFO for a spot update if forecast conditions appear unrepresentative of the actual weather conditions.

Spot forecasts will not be updated for changes within the third period of the forecast, because at this point spot forecasts will be 24 hours old, or nearly so, and a new spot forecast request should be submitted.

Priority for the update of spot forecasts is as follows:

- Wildfires
- Prescribed burns or Wildland Fire Use (WFU)
- Spot forecasts for non-critical operations, aerial spraying, etc

Site-specific forecasts for Wildfires managed for resource benefit (those fires with little or no suppression efforts).

Initially, spot forecasts will be issued under the same guidelines as spot forecasts for a declared wildfire. The requesting agency should provide the local NWS office with an idea of how long the fire is expected to burn, and what weather conditions are critical to the prescription. With the initial spot forecast request, the requesting agency should set up a schedule for providing fire line weather observations to the NWS and requesting follow-on spot forecasts for the duration of the fire. The requesting agency is encouraged to also request more detailed long-range weather forecasts to aid in the planning and control efforts. Be sure to discuss these needs with the fire weather forecaster.

The spot forecast will be corrected when a significant typographical/format error is detected. Corrections should be delivered to users in the same manner as the original spot forecast when possible.

Spot forecast requests and updates will be responded to according to the instructions of the requesting agency. Web

based spot forecast requests (from NWS web sites) are preferred, and will generally result in more efficient and timely feedback.

The WFO will contact the local user by phone whenever the spot forecast is updated.

b) **Content and Format** – Spot forecasts will contain the required minimum elements, unless otherwise specified upon request:

1. **Headline** (required when Red Flag Warning / Fire Weather Watch)
2. **Discussion**
3. **Sky/weather** (including chance of rain)
4. **Temperature**
5. **Relative humidity**
6. **20 foot winds**

Optional elements (including transport winds, mixing depth, smoke dispersal, LAL, Haines index, etc.) may be included upon request.

The valid time will be determined at the time of the request. Most spots contain three periods, usually “TODAY”, “TONIGHT”, and “NEXT DAY”, e.g., “TODAY”, “TONIGHT”, and “THURSDAY”.

c) **Procedures** – Internet-based NWS Spot is the standards for requesting and retrieving spot forecasts and should be used when available. They are accessible via web sites of the various NWS offices that serve the Rocky Mountain Area. **Links to the web based spot program can be found under Section IV-D, individual forecast office information.** In times when internet access is hindered or not possible, spot forecasts may be requested and disseminated via phone or fax using the backup spot forecast request form found in the appendices. In most cases, spot forecasts should be available in less than 60 minutes from the time the appropriate NWS office receives the request. The NWS should be contacted if a spot forecast is not available within this time frame.

The requesting agency will provide information about the location, topography, fuel type(s), elevation(s), size, ignition time, contact name(s), and telephone number(s) of the responsible land management personnel.

d) **Weather Observations-** Quality representative weather observation(s) at, or within close proximity of the project should be made available to the responsible WFO along with the request

for a spot forecast(s). At the beginning of a project, a nearby RAWS site may be used for the initial spot request if it is at a similar elevation, aspect, and sheltering, and has been shown to be very representative of the actual project. The requesting agency should provide the fire weather meteorologist with as many observations from the project as possible to help provide detail in the spot forecasts which will aid in fire behavior predictions. The best observations to send are those that show the maximum temperature, minimum humidity, and character of the winds from the previous afternoon. Additionally, a morning observation depicting the humidity recovery and downslope/downvalley wind is recommended. **Failing to provide on-site complete observations, may result in a less accurate forecast.**

However, there are special circumstances where fire personnel are unable to provide an on-site weather observation. Land Agencies should communicate to the responsible WFO when on-site weather observations are not possible.

- e) **Spot Forecast Feedback** – Timely feedback on forecast performance (both positive and negative) is requested, and should be given whenever possible by the requesting agency.
3. **Red Flag Program** - The Red Flag program is a means by which the weather forecaster informs the land management agencies of the combination of dry fuels and critical weather conditions that support extreme fire behavior. Identification of Red Flag events is a primary responsibility of the forecaster producing the Fire Weather Planning Forecasts.

A **Red Flag Warning** informs agencies of the imminent or actual occurrence of Red Flag conditions. A Red Flag Warning will be issued when there is high confidence that Red Flag criteria will be met within the next 24 hours, or when those criteria are already being met or exceeded. A warning may be issued for all, or portions of a fire weather zone or region.

A **Fire Weather Watch** alerts agencies to the high potential for development of a Red Flag event in the 12-72 hours. **A watch may only be issued (or continued) in the first 12-hour time period for dry thunderstorm events.** The watch may be issued for all, or portions of a fire weather zone or region.

- a) **Criteria** – The criteria for issuing of Fire Weather Watches and Red Flag Warnings in the Rocky Mountain Area are a combination of weather and fuels conditions (as determined by fire management) for any 3 hours or more in a 12 hour period.

These criteria are defined as the following:

1. Fuel characteristics are favorable for large fire growth as determined by fire management using the Red Flag Fuels Support Page

http://www.blm.gov/colorado/rmafwx/fuel_status/public/index.php

Note: It is the responsibility of Land Agencies to maintain and update the Red Flag Fuels Support Page. The fuel condition within the support page will default to “Yes” if the assigned FMO or Fuel Specialist fails to update the fuel condition within a 7-Day period.

2. Weather Criteria Includes:

NWS Goodland and Dodge City Fire Weather Zones:

RH 15% or less- AND- Sustained 25 mph or greater or wind gusts 25 mph or greater.

Or

Dry Thunderstorms (15% or greater coverage, constituting an LAL 6)

NWS Wichita Fire Weather Zones:

RH 20% or less- AND- Sustained winds of 20 mph or gusts 25 mph or greater.

Or

Dry Thunderstorms (15% or greater coverage, constituting an LAL 6)

NWS Topeka Fire Weather Zones:

RH 20% or less- AND- Sustained winds of 20 mph or gusts 25 mph or greater

Or

Dry Thunderstorms (15% or greater coverage, constituting an LAL 6)

NWS Hastings and Omaha Fire Weather Zones:

RH 20% or less- AND- Wind gusts 25 mph or greater

Or

Dry Thunderstorms (15% or greater coverage,
constituting an LAL 6)

3. **Issuing Fire Weather Watches and Red Flag Warning**

A fire weather watch or red flag warning will be issued when fuel characteristics are “**Yes**” as determined and relayed by land agencies using the fuel status web page, and the weather criteria is met.

Additional Red Flag Factors:

In addition to the basic criteria above, a combination of other elements may result in Red Flag conditions. Haines Index of 5 or 6, wind shifts associated with cold frontal passages, first significant lightning (wet or dry, 15% coverage of thunderstorms or more) event after an extended hot and dry period, and poor RH recovery.

Note: The decision to issue a Fire Weather Watch or Red Flag Warning can be difficult and complicated at times. Coordination with neighboring NWS offices and Land Agencies will play a vital role in the final decision.

- b) **Product Format and Contents** – An RFW product will be issued whenever a Fire Weather Watch or Red Flag Warning is issued, updated, extended, or canceled. The RFW message will include:
 - 1. A standard UGC header coding, as mandated within the NWSI 10-401, including the fire weather zone number and expiration time
 - 2. A headline, as mandated within NWSI 10-401.
 - 3. A short, but detailed discussion on the causes and nature of event, including weather element values.

- c) **Procedures and Access** - When Fire Weather Watches and Red Flag Warnings are issued, they will be headlined in spot forecasts, the general Fire Weather Planning Forecast (FWF) and appropriate zone sections within the FWF. The headline will be in the same descriptive format as on the RFW product itself. The FWF will be updated if a Fire Weather Watch or Red Flag

Warning is issued, canceled, or expires. Red Flag Warnings and Fire Weather Watches will remain in effect through the expiration time noted in the forecast, or until canceled or extended.

Red Flag Warnings and Fire Weather Watches are available within minutes of issuance via WIMS, the Rocky Mountain Area Predictive Services page and the web sites of the various NWS offices that serve the Rocky Mountain Area. These links can be found in the office directory (Section III) of this document.

- d) **Notification** – When a Fire Weather Watch or Red Flag Warning is issued or updated (non-routine), NWS offices will verbally notify affected zone dispatch centers that fall under the watch or warning area. Also, the NWS will verbally notify the Rocky Mountain Area Coordination Center at (303)445-4300.

- 4. **Participation in Interagency Groups** - NWS offices and land management providing service within the Rocky Mountain Area should provide representation at the regional AOP meeting held annually. Proxy representation is acceptable. NWS offices should host at least one meeting each year with local fire management units, or visit local fire management units once per year.

B. **Special Services** – Special meteorological services include mobile unit and other on-site meteorological services, participation in user agency training activities, weather observer training, and weather observation station visits requested by user agencies, as time and office staffing permits. The services are usually provided away from the office or on overtime. As stated in the Interagency Agreement for Meteorological Services among the Interagency Wildland Fire Agencies and the National Weather Service, the user agencies will pay overtime, travel, and per diem costs for these special services.

C. **Forecaster Training** - The NWS recognizes the need for specialized training in fire weather meteorology for forecasters. All NWS meteorologist producing fire weather products will have met the requirements set forth in NWSI 10-405.

D. **Individual Forecast Office Information**

1. **Western Kansas and Extreme Southwest Nebraska – Goodland, KS**

Unless otherwise mentioned, it is to be assumed that services provided by NWS Goodland for units in western Kansas and extreme southwest Nebraska will follow the regional policies and procedures set forth in the Kansas-Nebraska Fire Weather AOP.

General Information

The National Weather Service in Goodland, KS is responsible for providing Fire Weather support for western Kansas and extreme southwest Nebraska. The area of responsibility covers Fire Weather Planning Forecast zones 001 through 004, 013 through 016, 027 through 029 and 041 and 042 in western Kansas. The area of responsibility also covers zones 079 through 081 in extreme southwest Nebraska. The Goodland office is staffed with 9 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts.

2006 Changes:

This is the first year of a fire weather program across Kansas.

Fire Weather Planning Forecasts (FWF)

The Goodland office will issue routine Fire Weather Planning Forecasts (FWF) for its zones by 0700 during the prescribed burn and wildfire season outlined in this AOP. Due to a lack of fuels, local fire weather planners and a limited amount of state and federal lands, the FWF will be issued only once a day. Forecasts will be updated as appropriate. Twice daily FWF's will be issued if requested by the RMA Predictive Services during critical fire weather situations.

Spot Forecasts

The Goodland office will issue a spot weather forecast upon request from all local, state and federal land management agencies in support of wildfires and prescribed burns within the office's county warning area (CWA). Spot forecasts are requested and retrieved using the following web address:

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

When internet or computer capabilities are not available, fax or phone will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

NWS Goodland issues Red Flag Warnings and Fire Weather Watches as appropriate for fire weather zones within its fire weather service area.

Smoke Management Forecasts (SMF)

Not currently issued.

NFDRS Forecasts

Not currently issued.

IMET Services

The Goodland office does not have a trained IMET.

Training

Fire Meteorologists are available for training requests.

Additional Information

The Goodland office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, Spot Forecasts and other fire weather related sites. A clickable map is provided to obtain a narrative FWF. Simply click on the map within the region of interest. To go directly to the Goodland fire weather web site, use the following url:

<http://www.crh.noaa.gov/gld/?n=/firewx/index.php>

BACK-UP

The primary service backup for NWS Goodland is NWS Dodge City (phone number 620-227-3700) and the secondary backup is NWS Pueblo (Please See Service Area and Organizational Directory). The servicing NWS office will notify their local dispatch centers and RMACC when the office is in or plans to be in backup mode. To receive a spot from a backup office, customers should access the web based spot program of the office that is providing the backup service.

2. Southwest Kansas – Dodge City, KS

Unless otherwise mentioned, it is to be assumed that services provided by NWS Dodge City for units in southwest Kansas will follow the regional policies and procedures set forth in the Rocky Mountain Area Fire Weather AOP.

General Information

The National Weather Service in Dodge City, KS is responsible for providing Fire Weather support for southwest Kansas. The area of responsibility covers Fire Weather Planning Forecast zones 030, 031, 043-046, 061-066, 074-081, 084-090. The Dodge City office is staffed with 13 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts. A Fire Weather Forecaster will be on duty 24 hours a day...seven days a week year round.

2006 Changes:

None

Fire Weather Planning Forecasts (FWF)

The fire weather planning forecast (FWF) will be issued by 0600 year round.

Spot Forecasts

The Dodge City office will prepare spot weather forecasts for prescribed burns and wildfires upon request for locations within the office's county warning area (CWA). The primary means of requesting and disseminating spot forecasts is the NWSSpot Internet-based spot request and reply program. During your follow-up telephone call to ensure receipt, tell the forecaster that your reply is for a wildfire. If you have not received your spot after 60 minutes, call the WFO to check on the status of your spot or to determine if there has been a communications system failure. The NWS strongly encourages land agencies to use the "REMARKS" section within NWSSpot to provide feedback with all follow-up spot requests. NWSSpot for Dodge City can be accessed at:

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

When internet or computer capabilities are not available, fax, phone or telefax will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

Red Flag Warnings and Fire Weather Watches will be issued as required for Kansas narrative zones 030, 031, 043-046, 061-066, 074-081, 084-090 after coordination and collaboration with customers and adjacent NWS offices.

Smoke Management Forecasts (SMF)

Not currently issued.

NFDRS Forecasts

Not currently issued.

IMET Services

Not currently issued

IMET Services

The Dodge City office does not have a trained IMET.

Training

The fire weather program leader or assistant fire weather program leader may be available to handle fire weather training requests from southwest Kansas customers. Training requests outside the area will be handled on a case-by-case basis. Refer all

training requests or technical support questions to the fire weather program leader or assistant.

Additional Information

The Dodge City office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, Spot Forecasts, Public Fire Danger Statements, RAWs observations, the annual operating plan, and other fire weather related sites. A clickable map is provided to obtain a narrative FWF. Simply click on the map within the region of interest. To go directly to the Dodge City fire weather web site, use the following url:

<http://www.crh.noaa.gov/ddc/?n=firewx>

BACK-UP

The primary service backup for NWS Dodge City is NWS Goodland and the secondary backup is NWS Wichita (Please See Service Area and Organizational Directory). The servicing NWS office will notify their local dispatch centers and RMACC when the office is in or plans to be in backup mode. To receive a spot from a backup office, customers should access the web based spot program of the office that is providing the backup service.

3. Central and Southeast Kansas – Wichita, KS

Unless otherwise mentioned, it is to be assumed that services provided by NWS Wichita for units in central and south central Kansas will follow the regional policies and procedures set forth in the Rocky Mountain Area Fire Weather AOP.

General Information

The National Weather Service in Wichita, KS is responsible for providing Fire Weather support for central and southeast Kansas. The area of responsibility covers Fire Weather Planning Forecast zones 32,33, 47-53, 67-72, 82-83, 91-96, and 98-100. The Wichita office is staffed with 16 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts. A Fire Weather Forecaster will be on duty 24 hours a day...seven days a week year round.

2006 Changes

None

Fire Weather Planning Forecasts (FWF)

The fire weather planning forecast (FWF) will be issued by 0600 daily year round.

Spot Forecasts

The Wichita office will prepare spot weather forecasts for prescribed burns and wildfires upon request for locations within the office's county warning area (CWA). The primary means of requesting and disseminating spot forecasts is the NWSSpot Internet-based spot request and reply program. During your follow-up telephone call to ensure receipt, tell the forecaster that your reply is for a wildfire. If you have not received your spot after 60 minutes, call the WFO to check on the status of your spot or to determine if there has been a communications system failure. The NWS strongly encourages land agencies to use the "REMARKS" section within NWSSpot to provide feedback with all follow-up spot requests. NWSSpot for Wichita can be accessed at:

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

When internet or computer capabilities are not available, fax, phone or telefax will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

Red Flag Warnings and Fire Weather Watches will be issued as required for Kansas narrative zones 32,33, 47-53, 67-72, 82-83, 91-96, and 98-100 after coordination and collaboration with customers and adjacent NWS offices.

Training

The fire weather program leader or assistant fire weather program leader may be available to handle fire weather training requests from central/southeast Kansas customers. Training requests outside the area will be handled on case-by-case bases. Refer all training requests or technical support questions to the fire weather program leader or assistant.

Additional Information

The Wichita office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, Spot Forecasts, Public Fire Danger Statements, RAWs observations, the annual operating plan, and other fire weather related sites. To go directly to the Wichita fire weather web site, use the following URL:

<http://www.weather.gov/ict/?n=firewx>

Back-up

The primary service backup for NWS Wichita is NWS Topeka and the secondary backup is NWS Dodge City (Please See Service Area and Organizational Directory). The servicing NWS office will notify their local dispatch centers and RMACC when the office is in or plans to be in backup mode. To receive a spot from a backup

office, customers should access the web based spot program of the office that is providing the backup service.

4. **North Central, Northeast and East Central Kansas – Topeka, KS**

Unless otherwise mentioned, it is to be assumed that services provided by NWS Topeka for units in north central, northeast and east central Kansas will follow the regional policies and procedures set forth in the Rocky Mountain Area Fire Weather AOP.

General Information

The National Weather Service in Topeka, KS is responsible for providing Fire Weather support for northeast and east central Kansas. The area of responsibility covers Fire Weather Planning Forecast zones KSZ008-012, 020-024, 26, 034-040, 054-056, 058 and 059. The Topeka office is staffed with 13 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts. A Fire Weather Forecaster will be on duty 24 hours a day, seven days a week year round.

Fire Weather Planning Forecasts (FWF)

The fire weather planning forecast (FWF) will be issued by 0600 during the designated fire season.

Spot Forecasts

The Topeka office will prepare spot weather forecasts for prescribed burns and wildfires upon request for locations within the office's county warning area (CWA). The primary means of requesting and disseminating spot forecasts is the NWSSpot Internet-based spot request and reply program. During your follow-up telephone call to ensure receipt, tell the forecaster if your reply is for a wildfire. If you have not received your spot after 60 minutes, call the WFO to check on the status of your spot or to determine if there has been a communications system failure. The NWS strongly encourages land agencies to use the "REMARKS" section within NWSSpot to provide feedback with all follow-up spot requests. NWSSpot for Topeka can be accessed at:

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

When internet or computer capabilities are not available, fax, or phone will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

Red Flag Warnings and Fire Weather Watches will be issued as required for Kansas narrative zones KSZ008-012, 020-024, 26, 034-040, 054-056, 058 and 059 after coordination and collaboration with customers and adjacent NWS offices.

Training

The fire weather program leader or assistant fire weather program leader may be available to handle fire weather training requests from north central, northeast and east central Kansas customers. Training requests outside the area will be handled on case-by-case basis. Refer all training requests or technical support questions to the fire weather program leader or assistant.

Additional Information

The Topeka office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, Spot Forecasts, the annual operating plan, and other fire weather related sites. To go directly to the Topeka fire weather web site, use the following url:

<http://www.crh.noaa.gov/top/?n=fire>

BACK-UP

The primary service backup for NWS Topeka is NWS Wichita, and the secondary backup is NWS Pleasant Hill, MO (Please See Service Area and Organizational Directory). The servicing NWS office will notify their local dispatch centers and RMACC when the office is in or plans to be in backup mode. To receive a spot from a backup office, customers should access the web based spot program of the office that is providing the backup service.

5. Central and South Central Nebraska and North Central Kansas – Hastings, NE

Unless otherwise mentioned, it is to be assumed that services provided by NWS Hastings for units in central and south central Nebraska and north central Kansas will follow the regional policies and procedures set forth in the Rocky Mountain Area Fire Weather AOP.

General Information

The National Weather Service in Hastings, NE, is responsible for providing Fire Weather support for central and south central Nebraska and north central Kansas. The area of responsibility covers Fire Weather Planning Forecast for six zones in north central Kansas (zones 5 through 7 and 17 through 19) and 24 counties in central and south central Nebraska (zones 39 through 41, 46 through 49, 60 through 64, 72 through 77 and 82 through 87.)

The Hastings office is staffed with 13 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts. A Fire Weather Forecaster will be on duty 24 hours a day...seven days a week year round.

2006 Changes:

None

Fire Weather Planning Forecasts (FWF)

The fire weather planning forecast (FWF) will be issued by 0600 year-round.

Smoke Management Forecasts (SMF)

None

NFDRS Forecasts

None

Spot Forecasts

The Hastings office will prepare spot weather forecasts for prescribed burns and wildfires upon request for locations within the office's county warning area (CWA). The primary means of requesting and disseminating spot forecasts is the NWSSpot Internet-based spot request and reply program. During your follow-up telephone call to ensure receipt, tell the forecaster that your reply is for a wildfire. If you have not received your spot after 60 minutes, call the WFO to check on the status of your spot or to determine if there has been a communications system failure. The NWS strongly encourages land agencies to use the "REMARKS" section within NWSSpot to provide feedback with all follow-up spot requests. NWSSpot for Hastings can be accessed at:

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

When internet or computer capabilities are not available, fax, phone or telefax will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

Red Flag Warnings and Fire Weather Watches will be issued as required for Kansas fire weather zones 5 through 7 and 17 through 19, and Nebraska fire weather zones 39 through 41, 46 through 49, 60 through 64, 72 through 77, and 82 through 87 after coordination and collaboration with customers and adjacent NWS offices.

IMET Services

The Hastings office is not staffed with an IMET.

Training

The fire weather program leader or assistant fire weather program leaders may be available to handle fire weather training requests from central and south central Nebraska and north central Kansas customers. Training requests outside the area will be handled on case-by-case bases. Refer all training requests or technical support questions to the fire weather program leader or assistants.

Additional Information

The Hastings office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, Spot Forecasts, the annual operating plan, and

other fire weather related sites. A clickable map is provided to obtain a tabular FWF. Simply click on the map within the region of interest. To go directly to the Hastings fire weather web site, use the following url:

http://www.crh.noaa.gov/gid/Forecasts/Fire_Weather/index.php

BACK-UP

The primary service backup for NWS Hastings is NWS Omaha/Valley and the secondary backup is NWS North Platte. The servicing NWS office will notify their local dispatch centers and RMACC when the office is in, or plans to be in, backup mode. To receive a spot from a backup office, customers should access the web based spot program of the office that is providing the backup service.

6. Eastern Nebraska and Southwestern Iowa – Omaha, NE

Unless otherwise mentioned, it is to be assumed that services provided by NWS Omaha for units in eastern Nebraska and southwestern Iowa will follow the regional policies and procedures set forth in the Rocky Mountain Area Fire Weather AOP.

General Information

The National Weather Service in Omaha, NE is responsible for providing Fire Weather support for eastern Nebraska and southwestern Iowa. The area of responsibility covers Fire Weather Planning Forecast zones 11, 12, 15-18, 30-34, 42-45, 50-53, 65-68, 78, and 88-93 in Nebraska; and zones 43, 55, 56, 69, 79, 80, 90 and 91 in Iowa. The Omaha office is staffed with 14 meteorologists trained in fire weather forecasting. All fire weather forecasters are trained to produce all the routine fire weather products and spot forecasts. A Fire Weather Forecaster is on duty 24 hours a day...seven days a week year round.

2006 Changes:

None

Fire Weather Planning Forecasts (FWF)

The fire weather planning forecast (FWF) will be issued by 0700 during the designated fire season.

Spot Forecasts

The Omaha office prepares spot weather forecasts for prescribed burns and wildfires upon request for locations within the office's county warning area (CWA). The primary means of requesting and disseminating spot forecasts is the NWSSpot Internet-based spot request and reply program. During your follow-up telephone call to ensure receipt, tell the forecaster that your reply is for a wildfire. If you have not received your spot after 60 minutes, call the WFO to check on the status of your spot or to determine if there has been a communications system failure. The NWS strongly encourages land agencies to use the "REMARKS" section within NWSSpot to provide feedback with all follow-up spot requests. NWSSpot for Omaha can be accessed at:

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

When internet or computer capabilities are not available, fax or phone will be used to request a spot forecast.

Red Flag Warnings / Fire Weather Watches

Red Flag Warnings are issued as required for Nebraska and Iowa Fire Weather Zones served by WFO Omaha after coordination and collaboration with customers and adjacent NWS offices.

GRASSLAND FIRE DANGER (RFD)

The Grassland Fire Danger Forecast is issued by 0700 and updated by 1200 throughout the year.

Smoke Management Forecasts (SMF)

N/A

NFDRS Forecasts

N/A

IMET Services

N/A

Training

The fire weather program leader may be available to handle fire weather training requests from customers served by WFO Omaha. Training requests outside the area will be handled on case-by-case basis. Refer all training requests or technical support questions to the fire weather program leader.

Additional Information

The Omaha office maintains a Fire Weather Page on its web site home page. This page contains links to the FWF, RFW, RFD, Spot Forecasts, the annual operating plan, and other fire weather related sites. A clickable map is provided to obtain a narrative FWF. Simply click on the map within the region of interest. To go directly to the Omaha fire weather web site, use the following url:

<http://www.crh.noaa.gov/oax/?n=oaxfirewx>

BACK-UP

Primary service backup for NWS Omaha is NWS Hastings and the secondary backup is NWS Sioux Falls. The servicing NWS office will notify their local dispatch centers and RMACC when the office is in or plans to be in backup mode. To receive a spot from a backup office, customers should access the web based spot program of the office that is providing the backup service.

V. EFFECTIVE DATES ON THE AOP

VII. APPENDICES

A. APPENDIX – FORECAST PARAMETER DEFINITIONS

1. General Parameters

Sky/weather – Cloud cover and weather. Weather could include rain, snow, showers, thunderstorms, etc. Cloud cover is as follows

Clear	10% or less cloud cover
Mostly Clear/Mostly Sunny	10% - 30% cloud cover
Partly cloudy/Partly Sunny	40% - 60% cloud cover
Mostly Cloudy	70% - 80% cloud cover
Cloudy/Overcast	90% or greater cloud cover

Temperature and 24 hour trend – Dry bulb temperature extreme, either daytime or nighttime, and trend of extreme from previous 24 hours.

Humidity and 24 hour trend – Relative humidity extreme, either daytime or nighttime, and trend of extreme from previous 24 hours.

Wind - 20 foot RAWs standard – Surface wind speed and direction as altered by local terrain and surface roughness and measured per instrumentation and siting standards set by NWCG for the RAWs program and NFDRS.

Ridgetop winds – Synoptic scale wind speed and direction representative of wind conditions at or just above mean ridgetop level.

Chance of Rain – Probability of occurrence of 0.01” or greater liquid equivalent precipitation. In the case of convective cells, this will pertain to the areal coverage of cells producing rainfall.

Haines Index – A numerical means to indicate the potential for existing large wildfires to experience extreme fire behavior (i.e. crowning, spotting, and rapid rates of spread). The Index combines both the instability and dryness of the air by examining the lapse rate between two pressure levels in the atmosphere and the dryness at the lower level. For most of the Rocky Mountain Area, the levels used are 700 mb (about 10,000 ft) and 500 mb (about 18,000 ft). The drier and more unstable the atmosphere, the higher the Haines Index and the potential for extreme fuel driven fire behavior. Haines Index values vary

from 2 to 6 and classifications are shown below:

<u>HAINES INDEX</u>	<u>POTENTIAL FOR LARGE FIRE GROWTH</u>
2 or 3	Very Low
4	Low
5	Moderate
6	High

(Haines Index does **not** include the effects of wind on fire spread.)

APPENDIX A - FORECAST PARAMETER DEFINITIONS (Dispersion and Ventilation)

2. Dispersion/Ventilation

Basic ventilation information is used by some states within the Rocky Mountain Area in considering the potential for smoke impacts from wildland fires. The following are terms and definitions necessary to understanding ventilation data and values:

Mixing height or mixing depth: The height to which relatively vigorous mixing occurs due to heating. Units are in feet above ground level (AGL), with ground level being the elevation above mean sea level (MSL) of the upper-air site.

Transport winds: A measure of the average rate of the horizontal transport of air within the mixing layer (as defined above). Units are in mph. An average wind direction (the direction from which the wind is blowing) is provided.

Smoke Dispersion: As used in smoke management forecasts, the ability of the atmosphere to rid itself of smoke. Dispersion is a combination of vertical mixing and horizontal transport. These two components are independent of one another. Vertical mixing is a function of atmospheric stability. A stable airmass is characterized by poor vertical mixing; an unstable airmass is characterized by good vertical mixing. Horizontal transport is a function of wind speed: the stronger the wind the better the horizontal transport. (see mixing height and transport wind).

Smoke Dispersion will be forecast using one of the following terms:

VERY POOR- very high air pollution potential
POOR- moderate to high air pollution potential
FAIR- marginal air pollution potential
GOOD- moderate to low air pollution potential
VERY GOOD- low air pollution potential
EXCELLENT- very low air pollution potential

Dispersion is related and often interchanged with the term “VENTILATION”. The ventilation index is a product of mixing height TIMES the transport wind and is measured in knot-feet.

APPENDIX A – FORECAST PARAMETER DEFINITIONS (LAL)

3. Lightning Activity Level (LAL)

LIGHTNING ACTIVITY LEVEL GUIDE FOR FIRE WEATHER OBSERVERS					
			Individual storm cell cloud to ground lightning discharges		
LAL	Cloud and Storm Development	Areal Coverage	Counts¹cg/5 min	Counts¹cg/15 min	Average¹cg/min
1	No thunderstorms	None	----	----	----
2	Cumulus clouds are common but only a few reach the towering stage. A single thunderstorm must be confirmed in the rating area. The clouds mostly produce virga but light rain will occasionally reach ground. Lightning is very infrequent.	<15 %	1-5	1-8	<1
3	Cumulus clouds are common. Swelling and towering cumulus cover less than 2/10 of the sky. Thunderstorms are few, but 2 to 3 occur within the observation area. Light to moderate rain will reach the ground, and lightning is infrequent.	15-24 %	6-10	9-15	1-2
4	Swelling cumulus and towering cumulus cover 2-3/10 of the sky. Thunderstorms are scattered but more than three must occur within the observation area. Moderate rain is commonly produced, and lightning is frequent.	25-50 %	11-15	16-25	2-3
5	Towering cumulus and thunderstorms are numerous. They cover more than 3/10 and occasionally obscure the sky. Rain is moderate to heavy, and lightning is frequent and intense.	>50 %	>15	>25	>3
6	Dry lightning outbreak. (LAL of 3 or greater with majority of storms producing little or no rainfall.)	>15 %	----	----	----

¹ Cloud-to-ground lightning discharges

B. APPENDIX B- NWS FORECAST EXAMPLES

1. Fire Weather Planning Forecast Tabular Format Example

000
FNUS53 KGLD 121143
FWFGLD

FIRE WEATHER PLANNING FORECAST
NATIONAL WEATHER SERVICE GOODLAND KS
543 AM MDT TUE SEP 12 2006

.DISCUSSION...

DRY AND WARMER WEATHER CAN BE EXPECTED FOR EASTERN COLORADO OVER THE NEXT COUPLE OF DAYS. HIGH PRESSURE WILL BE OVER THE REGION.

COZ252-122345-
YUMA-
543 AM MDT TUE SEP 12 2006

	TODAY	TONIGHT	WED
CLOUD COVER	PCLDY	MCLEAR	MCLEAR
PRECIP TYPE	NONE	NONE	NONE
CHANCE PRECIP (%)	0	0	0
TEMP	77	48	84
RH %	33	79	29
20FTWND (MPH)	LGT/VAR	LGT/VAR	SW 3-7
PRECIP AMOUNT	0.00	0.00	0.00
MIXING HGT(FT-AGL)	8929		7412
TRANSPORT WND (MPH)	NW 9		SW 7
SMOKE DISPERSAL	EXCELLENT		GOOD
LAL	1	1	1
HAINES INDEX	4(LOW)	4(LOW)	5(MOD)

REMARKS...

.....SUPPLEMENTAL WIND DATA (MPH).....

MDT	9 AM	12 PM	3 PM	6 PM
WIND	W-3	NW-3	NW-3	NNW-4

.FORECAST FOR DAYS 3 THROUGH 7...

.THURSDAY...MOSTLY CLEAR. LOWS IN THE LOWER 50S. HIGHS IN THE MID 80S. SOUTH WINDS 5 TO 15 MPH.

.FRIDAY...PARTLY CLOUDY WITH A 20 PERCENT CHANCE OF SHOWERS AND THUNDERSTORMS. LOWS IN THE UPPER 50S. HIGHS IN THE MID 80S. SOUTHEAST WINDS 10 TO 20 MPH.

.SATURDAY...PARTLY CLOUDY WITH A 20 PERCENT CHANCE OF SHOWERS AND THUNDERSTORMS. LOWS IN THE MID 50S. HIGHS IN THE MID 80S. SOUTH WINDS 10 TO 20 MPH.

.SATURDAY NIGHT THROUGH MONDAY...PARTLY CLOUDY. LOWS AROUND 50. HIGHS IN THE LOWER 70S. SOUTH WINDS 10 TO 20 MPH.

B. APPENDIX B – NWS FORECAST EXAMPLES

2. Spot Forecast

FORECAST:

IF CONDITIONS BECOME UNREPRESENTATIVE,
CONTACT THE NATIONAL WEATHER SERVICE.

DISCUSSION...AN UPPER DISTURBANCE WILL MOVE ACROSS THE FOUR CORNERS
AREA LATER TODAY BRINGING CLOUDS AND A CHANCE OF PRECIPITATION...AND
SHOULD HELP LOW LEVEL INSTABILITY SOMEWHAT. ANOTHER DISTURBANCE WILL
APPROACH FROM THE NORTHWEST LATE FRIDAY.

FOR TODAY

WEATHER.....MOSTLY CLOUDY. SCATTERED RAIN OR SNOW
SHOWERS.
20-FT WINDS.....VARIABLE LESS THAN 5 MPH UNTIL 1100...THEN
SOUTH 5-7 MPH.
MIXING HEIGHT.....BELOW 500 FT AGL UNTIL 1000...THEN RISING TO
3500 AGL 1300 TO 1630.
TRANSPORT WINDS.....VARIABLE 5 MPH OR LESS UNTIL 1000...THEN
SOUTHEAST 12 MPH...BECOMING SOUTH BY 1600.
SMOKE DISPERSAL.....POOR UNTIL 1000...THEN BECOMING LOW-END FAIR.
(REACHING 42,000 KT-FT BETWEEN 1300-1630)

FOR TONIGHT

WEATHER.....MOSTLY CLOUDY. SCATTERED SHOWERS UNTIL 2300.
20-FT WINDS.....SOUTHWEST 5-7 MPH BECOMING NORTHWEST 5 MPH
AFTER MIDNIGHT.
MIXING HEIGHT.....LOWERING BELOW 500 FT AGL BY 2000.
TRANSPORT WINDS.....SOUTH 12 MPH UNTIL 2000 BECOMING
NORTHWEST 5 MPH AFTER MIDNIGHT.
SMOKE DISPERSAL.....POOR.

FOR FRIDAY

WEATHER.....MOSTLY CLOUDY IN THE MORNING...THEN BECOMING
PARTLY CLOUDY (50%).
20-FT WINDS.....NORTHWEST TO WEST 5-8 MPH AFTER 1200.
MIXING HEIGHT.....BELOW 1000 FT AGL UNTIL 1200...THEN RISING
TO 2500 FT AGL.
TRANSPORT WINDS.....NORTHWEST 11 MPH AFTER 1200.
SMOKE DISPERSAL.....POOR (27,500 KT-FT)

B. APPENDIX B- NWS FORECAST EXAMPLES

3. Red Flag Warning / Fire Weather Watch

RFWDEN
COZ034>

RED FLAG WARNING
NATIONAL WEATHER SERVICE DENVER CO
1020 AM MDT MON APR 15 2001

...RED FLAG WARNING ISSUED FOR COLORADO FOOTHILLS AND SOUTHERN
PARK COUNTY, FIRE ZONES 214,215 AND 216, TODAY FROM 1030 THROUGH
2000 TODAY FOR STRONG WESTERLY WINDS AND LOW HUMIDITIES...

THE NATIONAL WEATHER SERVICE IN DENVER COLORADO...IN COORDINATION
WITH THE LAND MANAGEMENT AGENCIES HAS UPGRADED THE FIRE WEATHER
WATCH FOR COLORADO FIRE ZONES 214...215 AND 216 TO A RED FLAG WARNING.
THIS WARNING WILL BE IN EFFECT TODAY FROM 1030 TO 2000.

VERY DRY CONDITIONS CONTINUE ALONG THE FRONT RANGE FOOTHILLS.
WARM TEMPERATURES AND LOW RELATIVE HUMIDITY LEVELS ARE EXPECTED AGAIN
THIS AFTERNOON...ALONG WITH INCREASING WINDS FROM AN APPROACHING UPPER
LEVEL WEATHER DISTURBANCE.

SUSTAINED WINDS OF 15 TO 30 MPH WILL OCCUR TODAY...WITH GUSTS TO 40
MPH. RELATIVE HUMIDITY READINGS ARE EXPECTED TO DROP TO AS LOW AS
10 PERCENT.

THE COMBINATION OF WARM TEMPERATURES...LOW RELATIVE HUMIDITIES...
LOW FUEL MOISTURES AND GUSTY WINDS PRESENT OPTIMUM CONDITIONS
FOR RAPID FIRE GROWTH. ANY FIRE THAT STARTS TODAY COULD QUICKLY
DEVELOP INTO A LARGE WILDFIRE.

PLEASE ADVISE THE APPROPRIATE OFFICIALS OR FIRE CREWS IN THE FIELD
OF THIS RED FLAG WARNING.

C. APPENDIX C– Backup Spot Request Form

SPOT FORECAST REQUEST FORM

Required Elements in Italics

Fax to Appropriate NWS Office

<p style="text-align: center;">PROJECT NAME</p> <p>Project Name: <input style="width: 150px;" type="text"/></p> <p> <input type="radio"/> Wildfire <input type="radio"/> WFU <input type="radio"/> Prescribed Fire </p> <p>Ignition Time: <input style="width: 50px;" type="text"/> <input type="radio"/> MDT <input type="radio"/> MST (AST)</p> <p>Date: <input style="width: 50px;" type="text"/></p>	<p style="text-align: center;">REQUESTING AGENCY</p> <p>Requesting Agency: <input style="width: 150px;" type="text"/></p> <p>Phone Number: <input style="width: 100px;" type="text"/></p> <p>FAX Number: <input style="width: 100px;" type="text"/></p> <p>Contact Person: <input style="width: 150px;" type="text"/></p>
--	--

<p style="text-align: center;">LOCATION</p> <p>Legal (T/R): <input style="width: 150px;" type="text"/> <input type="radio"/> NM Elevation: <input style="width: 40px;" type="text"/> ^{Top} <input style="width: 40px;" type="text"/> ^{Bottom}</p> <p> <small>Either Legal OR Lat/Lon Required</small> Lat: <input style="width: 80px;" type="text"/> <input type="radio"/> AZ Drainage: <input style="width: 100px;" type="text"/> </p> <p>Lon: <input style="width: 80px;" type="text"/> Aspect: <input style="width: 50px;" type="text"/></p> <p>7.5' Quad: <input style="width: 100px;" type="text"/> Size: <input style="width: 40px;" type="text"/> (Acres)</p>	<p style="text-align: center;">FUEL</p> <p>Type: <input style="width: 80px;" type="text"/></p> <p> <input type="radio"/> Sheltering <input type="radio"/> Full <input type="radio"/> Partial <input type="radio"/> Unsheltered </p>
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OBSERVATIONS *(Required unless wildfire)*

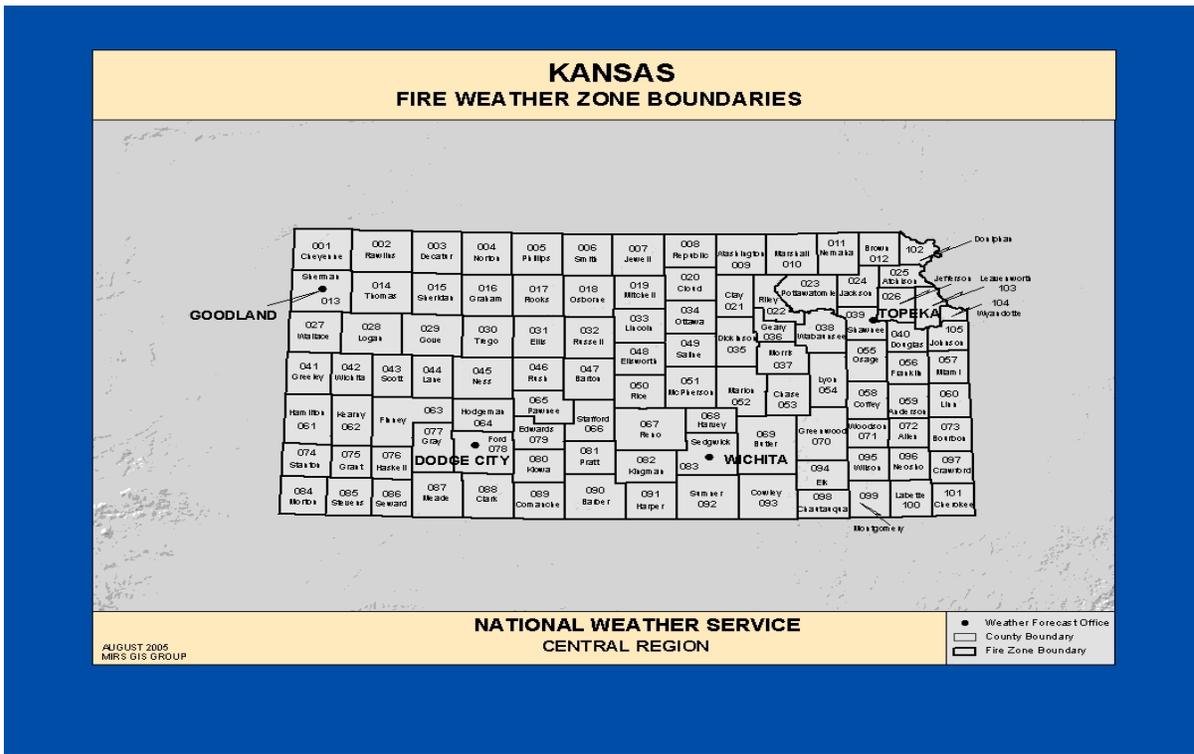
Place	Elev	Time	Wind	Temp	Wetbulb	RH	Dewpt.	Sky/Weather

<p style="text-align: center;">PRIMARY FORECAST ELEMENTS</p> <p>TDA TNT TMR (Today, Tonight, Tomorrow)</p> <p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Clouds / Weather <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Chance of Wetting Rain <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Temperature <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Relative Humidity <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 20 Foot Wind </p>	<p style="text-align: center;">REMARKS</p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>
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Additional Remarks, Comments or Feedback on Previous Forecast(s):

D. APPENDIX D– Kansas and Nebraska Fire Weather Zones

1. Kansas Fire Weather Zones



APPENDIX D– Kansas and Nebraska Fire Weather Zones

2. Nebraska Fire Weather Zones

