FIRE WEATHER

FLORIDA

OPERATING PLAN

OPERATING PLAN
FIRE WEATHER SERVICES IN FLORIDA

NATIONAL WEATHER SERVICE
AUGUST 2006

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I. INTRODUCTION AND GENERAL PROGRAM INFORMATION

DESPITE AN ONGOING INFLUX OF NEW RESIDENTS AND ASSOCIATED LAND DEVELOPMENT, FLORIDA IS STILL A STATE COMPOSED OF VAST TRACKS OF FORESTS AND UNDERDEVELOPED LAND. THE STATE HAS APPROXIMATELY 16.5 MILLION ACRES OF FORESTS AND ANOTHER 6.3 MILLION ACRES OF PASTURE AND RANGELANDS. PRESERVES, PARKS, REFUGES AND OTHER LANDS ARE ALSO FOUND THROUGHOUT THE STATE FROM THE PANHANDLE TO THE FLORIDA KEYS. MANAGEMENT OF THESE LANDS AND RESOURCES IS VITAL TO THE ECONOMY OF THE STATE AND THE PRESERVATION OF THE HEALTH AND ECOLOGICAL BALANCE OF THE ENVIRONMENT.

WITH A GOAL OF PROTECTING LIFE, PROPERTY AND ECONOMIC INTERESTS, LAND MANAGEMENT AGENCIES ARE CONCERNED WITH THE CONTROL OF WILDFIRE, AS WELL AS THE USE OF FIRE AS A WILDERNESS MANAGEMENT TOOL. CRITICAL TO THIS MISSION IS ACCESS TO TIMELY AND ACCURATE WEATHER INFORMATION IN DECISION MAKING FOR WILDFIRE PREVENTION, FIRE CONTROL, PRESCRIBED BURNING, AND SMOKE MANAGEMENT.

THE OBJECTIVE OF THIS OPERATION PLAN IS TO OUTLINE NATIONAL WEATHER SERVICE METEOROLOGICAL SUPPORT AVAILABLE TO FEDERAL, STATE, AND OTHER LAND MANAGEMENT AGENCIES WITHIN FLORIDA. AMONG THESE SERVICES ARE DAILY PLANNING FORECASTS, SPOT FORECASTS, NFDRS POINT FORECASTS, ON-SITE METEOROLOGICAL SUPPORT, AND PARTICIPATION IN USER AGENCY TRAINING ACTIVITIES AS OUTLINED IN THE INTERAGENCY AGREEMENT FOR METEOROLOGICAL SERVICES. THIS OPERATING PLAN WILL BE REVIEWED ANNUALLY AND REVISED AS NEEDED.

DESCRIPTION OF NATIONAL WEATHER SERVICE FIRE WEATHER PROGRAM

THE OBJECTIVE OF THE NATIONAL WEATHER SERVICE FIRE WEATHER SERVICES PROGRAM IS TO PROVIDE FIRE WEATHER PRODUCTS AND SERVICES TO THE FIRE AND LAND MANAGEMENT COMMUNITY FOR THE PROTECTION OF LIFE AND PROPERTY, PROMOTION OF FIREFIGHTER SAFETY, RESOURCE ALLOCATION, AND STEWARDSHIP OF AMERICA'S PUBLIC WILDLANDS.

UNDER THE SUPERVISION OF THE METEOROLOGIST-IN-CHARGE AT NATIONAL WEATHER SERVICE OFFICES, DUTY FORECASTERS ARE PROVIDED TRAINING IN FIRE WEATHER METEOROLOGY. FORECAST SUPPORT IS PROVIDED YEAR ROUND. A METEOROLOGIST AT EACH NATIONAL WEATHER SERVICE OFFICE IS DESIGNATED FIRE WEATHER PROGRAM LEADER, RESPONSIBLE FOR INTER-AGENCY LIAISON AND NWS CONTACT CONCERNING LAND MANAGEMENT AGENCY METEOROLOGICAL NEEDS WITHIN EACH WEATHER OFFICES COUNTY AREA OF RESPONSIBILITY. A DESIGNATED PROGRAM LEADER WILL MAINTAIN A FLORIDA FIRE WEATHER OPERATIONS PLAN. THE ANNUAL OPERATING PLAN WILL BE REVIEWED ANNUALLY IN CONCERT WITH THE LAND MANAGEMENT AGENCIES AND REVISED AS NEEDED. SEE **PAGES 8 THROUGH 16** FOR FORECAST OFFICE LOCATIONS, TELEPHONE CONTACT AND FACSIMILE NUMBERS, INTERNET ADDRESSES, AND THE NAMES OF METEOROLOGISTS-IN-CHARGE, WARNING COORDINATION MANAGERS, AND DESIGNATED PROGRAM LEADERS.

II. SERVICE AREA AND ORGANIZATIONAL DIRECTORY

FORECAST AREA

FORECASTS ARE PROVIDED FOR THE ENTIRE STATE OF FLORIDA THROUGHOUT THE YEAR. FLORIDA IS PARTITIONED INTO 81 FORECAST ZONES (**SEE PAGES 5 AND 6, AND MAP PAGE 7)**. SEVEN NATIONAL WEATHER FORECAST OFFICES PROVIDE LOCALIZED FORECAST SUPPORT FOR DESIGNATED ZONES, OR SPECIFIED LAND MANAGEMENT ENTITIES WITHIN THE STATE. THESE OFFICES ARE LOCATED AT MIAMI, KEY WEST, MELBOURNE, RUSKIN (TAMPA BAY), JACKSONVILLE, TALLAHASSEE, AND MOBILE, ALABAMA.

MOST DESIGNATED ZONES ARE COUNTIES. BUT SOME COUNTIES HAVE TWO OR MORE FORECAST ZONES TO BETTER FORECAST PREVALENT DIFFERENCES PARTICULARLY BETWEEN INLAND AND COASTAL AREAS. TYPICALLY ZONES ARE GROUPED DIFFERENTLY FROM DAY TO DAY DEPENDENT UPON ONGOING OR THE TIMING OF FORECAST WEATHER. OTHER SITE SPECIFIC POINT FORECASTS ARE PROVIDED FOR LOCATIONS WITHIN FEDERAL LAND MANAGEMENT AREAS, THESE FORECASTS ARE A COMPONENT OF THE NATIONAL FIRE DANGER RATING SYSTEM (NFDRS) TO COMPUTE FUEL MOISTURE AND BURNING INDICES TO ASSESS WILDLAND FIRE DANGER. (FOR NFDRS FORECAST SITES AND FORECAST FORMAT SEE **PAGES 31-34**).

NWS FORECAST OFFICES AT JACKSONVILLE, TALLAHASSEE, AND MOBILE ALSO HAVE ADDITIONAL FORECAST AREAS OF RESPONSIBILITY FOR AREAS BORDERING FLORIDA INTO GEORGIA, ALABAMA, AND MISSISSIPPI. SEE **PAGES 8 THROUGH 16** FOR A LISTING OF THESE OFFICES COUNTY AREAS OF FORECAST SUPPORT OUTSIDE OF FLORIDA.

NATIONAL WEATHER SERVICE COUNTY ZONE ASSIGNMENTS FOR FLORIDA FIRE WEATHER FORECASTS . (SEE MAP PAGE 7)

NWS FORECAST OFFICE	COUNTIES OF RESPONSIBILITY	NWS FORECAST ZONE NUMBER
MOBILE, AL	INLAND ESCAMBIA	1
	COASTAL ESCAMBIA	2
	INLAND SANTA ROSA	3
	COASTAL SANTA ROSA	4
	INLAND OKALOOSA	5
	COASTAL OKALOOSA	6
	COASTAL WALTON	8
	(INCLUDING ALL OF EGLIN AFB)	
TALLAHASSEE	INLAND WALTON	7
	HOLMES	9
	WASHINGTON	10
	JACKSON	11
	BAY	12
	CALHOUN	13
	GULF	14
	FRANKLIN	15
	GADSDEN	16
	LEON	17
	JEFFERSON	18
	MADISON	19
	LIBERTY	26
	WAKULLA	27
	TAYLOR	28
	LAFAYETTE	29
	DIXIE	34
	(INCLUDING ALL OF APALACHICOLA NATIONAL FOREST)	
JACKSONVILLE	HAMILTON	20
	SUWANNEE	21
	COLUMBIA	22
	BAKER	23
	NASSAU	24
	DUVAL	25
	UNION	30
	BRADFORD	31
	CLAY	32
	ST JOHNS	33
	GILCHRIST	35
	ALACHUA	36
	PUTNAM	37
	FLAGLER	38
	MARION	40
	(INCLUDING ALL OF OSCEOLA AND OCALA NATIONAL FORESTS)	

NWS FORECAST OFFICE	COUNTIES OF RESPONSIBILITY	NWS FORECAST ZONE NUMBER
MELBOURNE	INTERIOR VOLUSIA	41
	COASTAL VOLUSIA	141
	NORTH LAKE (EXCEPT OCALA NF)	44
	SOUTH LAKE	144
	ORANGE	45
	SEMINOLE	46
	NORTH BREVARD	147
	SOUTH BREVARD	47
	OSCEOLA	53
	INDIAN RIVER	54
	OKEECHOBEE	58
	ST LUCIE	59
	MARTIN	64
TAMPA BAY RUSKIN	LEVY	39
	CITRUS	42
	SUMTER	43
	HERNANDO	48
	PASCO	49
	PINELLAS	50
	HILLSBOROUGH	51
	POLK	52
	MANATEE	55
	HARDEE	56
	HIGHLANDS	57
	SARASOTA	60
	DESOTO	61
	CHARLOTTE	62
	LEE	65
MIAMI	GLADES	63
	HENDRY	66
	INLAND PALM BEACH	67
	COASTAL PALM BEACH	68
	COASTAL COLLIER	69
	INLAND COLLIER	70
	INLAND BROWARD	71
	COASTAL BROWARD	72
	INLAND DADE	73
	COASTAL DADE	74
	MAINLAND MONROE (INCLUDING ALL OF EVERGLADES NATIONAL PARK AND BIG CYPRESS NATIONAL PRESERVE)	75
KEY WEST	MONROE/UPPER KEYS	76
	MONROE/MIDDLE KEYS	77
	MONROE/LOWER KEYS	78

MAP OF FLORIDA NWS ZONES BY FORECAST OFFICE RESPONSIBILITY

SOUTHERN REGION HEADQUARTERS
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE - SOUTHERN REGION HEADQUARTERS
FIRE WEATHER PROGRAM LEADER
PAUL WITSAMAN W/SR11x2
819 TAYLOR STREET ROOM 10A06
FORT WORTH TX 76102

TELEPHONE NUMBERS:

817- 978-1100 E116 8AM - 4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS

INTERNET HOME PAGE:

www.srh.noaa.gov/

METEOROLOGISTS:

PAUL WITSAMAN REGIONAL **FIRE WEATHER PROGRAM LEADER**

MOBILE, ALABAMA
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
8400 AIRPORT BLVD., BLDG 11
MOBILE, AL 36608

TELEPHONE NUMBERS:

251-633-6443 8AM - 4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS
251-607-9773 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/mob

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

RANDALL MCKEE	METEOROLOGIST IN CHARGE
DON FAULKNER	**FIRE WEATHER PROGRAM LEADER**
GARY BEELER	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: **ESCAMBIA OKALOOSA SANTA ROSA WALTON (COASTAL)**
ALL OF EGLIN AIR FORCE BASE

ALABAMA: **BALDWIN BUTLER CHOCTAW CLARKE CONECUH COVINGTON CRENSHAW ESCAMBIA MOBILE MONROE WASHINGTON WILCOX**

MISSISSIPPI: **GEORGE GREENE PERRY STONE WAYNE**

TALLAHASSEE
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
LOVE BUILDING
FLORIDA STATE UNIVERSITY
TALLAHASSEE, FL 32306-4509

TELEPHONE NUMBERS:

850-942-8833 24 HOUR
850-942-8850 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/tae

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

PAUL DUVAL	METEOROLOGIST IN CHARGE
BOB GOREE	WARNING COORDINATION METEOROLOGIST
MARTIN TREXLER	**FIRE WEATHER PROGRAM LEADER**

COUNTIES OF RESPONSIBILITY:

FLORIDA: **BAY CALHOUN DIXIE FRANKLIN GADSDEN GULF HOLMES JACKSON JEFFERSON LAFAYETTE LEON LIBERTY MADISON TAYLOR WAKULLA WALTON (INLAND) WASHINGTON**
ALL OF APALACHICOLA NATIONAL FOREST

GEORGIA: **BAKER BEN HILL BERRIEN BROOKS CALHOUN CLAY COLQUITT COOK DECATUR DOUGHERTY EARLY GRADY IRWIN LANIER LEE LOWNDES MILLER MITCHELL QUITMAN RANDOLPH SEMINOLE TERRELL THOMAS TIFT TURNER WORTH**

ALABAMA: **COFFEE DALE GENEVA HOUSTON HENRY**

JACKSONVILLE
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
13701 FANG DRIVE
JACKSONVILLE FL 32218

TELEPHONE NUMBERS:

904-741-4370 8AM-4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS
904-741-0078 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/jax

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

STEVE LETRO	METEOROLOGIST IN CHARGE
MARIE TRABERT	**FIRE WEATHER PROGRAM LEADER**
AL SANDRIK	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: **ALACHUA COLUMBIA HAMILTON ST JOHNS BAKER DUVAL MARION SUWANNEE BRADFORD FLAGLER NASSAU UNION CLAY GILCHRIST PUTNAN**
ALL OF OSCEOLA AND OCALA NATIONAL FORESTS

GEORGIA: **APPLING CAMDEN ECHOLS WARE ATKINSON CHARLTON GLYNN WAYNE BACON CLINCH JEFF DAVIS BRANTLEY COFFEE PIERCE**
ALL OF OKEFENOKEE NATIONAL WILDLIFE REFUGE

TAMPA BAY AREA - RUSKIN
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
2525 14TH AVENUE SE
RUSKIN FL 33570

TELEPHONE NUMBERS:

813-645-2323 8AM-4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS
813-641-2619 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/tbw

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS

SHAWN BENNETT	METEOROLOGIST IN CHARGE
RICK DAVIS	**FIRE WEATHER PROGRAM LEADER, IMET AND AMRS QUALIFIED**
DAN NOAH	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: CHARLOTTE CITRUS DESOTO HARDEE HERNANDO HIGHLANDS HILLSBOROUGH LEE LEVY MANATEE PASCO PINELLAS POLK SARASOTA SUMTER

MELBOURNE
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
421 CROTON RD
MELBOURNE FL 32935

TELEPHONE NUMBERS:

321-255-0212 8AM-4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS
321-255-0791 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/mlb

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

BART HAGEMEYER	METEOROLOGIST IN CHARGE
JOHN PENDERGRAST	**FIRE WEATHER PROGRAM LEADER, IMET TRAINEE AND AMRS QUALIFIED**
DENNIS DECKER	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: **BREVARD INDIAN RIVER LAKE (except Ocala NF) MARTIN OKEECHOBEE ORANGE OSCEOLA SEMINOLE ST LUCIE VOLUSIA**

MIAMI
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
11691 SW 17TH STREET
MIAMI, FL 33165-2149

TELEPHONE NUMBERS:

305-229-4528 8AM-4PM LST MON-FRI EXCEPT FEDERAL HOLIDAYS
305-229-4553 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/mfl

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

RUSSELL PFOST	METEOROLOGIST IN CHARGE
JOEL ROTHFUSS	**FIRE WEATHER PROGRAM LEADER, IMET TRAINEE**
ROBERT MOLLEDA	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: BROWARD COLLIER DADE GLADES HENDRY MONROE (MAINLAND) PALM BEACH

ALL OF EVERGLADES NATIONAL PARK AND BIG CYPRESS NATIONAL WILDLIFE REFUGE

KEY WEST
NATIONAL WEATHER SERVICE

MAILING ADDRESS:

NATIONAL WEATHER SERVICE OFFICE
KEY WEST, FLORIDA
1315 WHITE STREET
KEY WEST, FL 33040

TELEPHONE NUMBERS:

305-295-1316 24 HOUR
305-293-9987 FACSIMILE

INTERNET HOME PAGE:

www.srh.noaa.gov/eyw

STAFF METEOROLOGISTS ARE ON DUTY 24 HOURS A DAY.

METEOROLOGISTS:

MATT STRAHAN	METEOROLOGIST IN CHARGE
ALAN ALBANESE	**FIRE WEATHER PROGRAM LEADER**
JON RIZZO	WARNING COORDINATION METEOROLOGIST

COUNTIES OF RESPONSIBILITY:

FLORIDA: MONROE (UPPER/MIDDLE/LOWER KEYS)

DESIGNATED FLORIDA DOF OFFICE CONTACT SITES WITHIN NWS FORECAST AREAS AND BACKUP ASSIGNMENTS FOR FORECAST DISTRIBUTION :

NWS	DOF	CONTACT NUMBER	FAX NUMBER
MOBILE	BLACKWATER	850-957-6140	850-957-6143
TALLAHASSEE	TALLAHASSEE	850-488-1871	850-922-2107
JACKSONVILLE	JACKSONVILLE	904-266-5001	904-693-5061
MELBOURNE	ORLANDO	407-856-6512	407-856-6514
TAMPA	LAKELAND	863-648-3163	863-648-3169
MIAMI	EVERGLADES	954-475-4120	954-475-4126
KEY WEST	EVERGLADES	954-475-4120	954-475-4126

FORECAST PREPARATION BACKUP

IN THE EVENT OF POWER OR COMMUNICATION FAILURES, EQUIPMENT MALFUNCTIONS, OR DAMAGE RENDERING A FORECAST OFFICE INCAPABLE OF DISCHARGING ITS RESPONSIBILITIES, BACKUP NWS FORECAST (SISTER) OFFICES ARE DESIGNATED FOR FORECAST COMPOSITION. SEE BELOW:

FORECAST OFFICE	PRIMARY BACKUP OFFICE
MOBILE	NEW ORLEANS, LA
TALLAHASSEE	JACKSONVILLE
JACKSONVILLE	TALLAHASSEE
MELBOURNE	TAMPA BAY (RUSKIN)
TAMPA BAY (RUSKIN)	MELBOURNE
MIAMI	KEY WEST
KEY WEST	MIAMI

LIST OF PARTICIPATING AGENCIES

FEDERAL
NATIONAL WEATHER SERVICE
NATIONAL PARK SERVICE
U.S. FOREST SERVICE
U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF DEFENSE
BUREAU OF INDIAN AFFAIRS

STATE
THE FLORIDA DIVISION OF FORESTRY
STATE FORESTS OF FLORIDA
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
FLORIDA WATER MANAGEMENT DISTRICTS

III. SERVICES PROVIDED BY THE NATIONAL WEATHER SERVICE

FLORIDA SEASONAL FIRE WEATHER CONCERNS

THE PRIMARY FIRE WEATHER SEASON FOR FLORIDA PREVAILS DURING JANUARY THROUGH MAY WHEN FUEL MOISTURES ARE LOWEST, WINTER FROSTS HAVE KILLED HERBACEOUS FUELS, AND WHEN GUSTY WINDS WITH LOWER RELATIVE HUMIDITIES CAN OCCUR. HOWEVER CRITICAL FIRE CONDITIONS CAN OCCUR THROUGHOUT THE YEAR, MOST NOTABLY DURING LENGTHY PERIODS OF THIRTY OR MORE DAYS WITHOUT RAIN.

LIGHTNING DURING THE SPRING IS ALSO A WILDFIRE IGNITION PROBLEM WHEN FUEL AND SOIL MOISTURES ARE LOW.

SUMMER INTO EARLY AUTUMN IS NORMALLY A LOWER WILDFIRE THREAT PERIOD AS FUEL MOISTURES ARE HIGH DURING AND IMMEDIATELY FOLLOWING THE SUMMER "RAINY" SEASON

ROUTINE FIRE WEATHER FORECASTS

THE OBJECTIVE OF THE NATIONAL WEATHER SERVICE FIRE WEATHER SERVICES PROGRAM IS TO PROVIDE FIRE WEATHER PRODUCTS AND SERVICES TO THE FIRE AND LAND MANAGEMENT COMMUNITY FOR THE PROTECTION OF LIFE AND PROPERTY, PROMOTION OF FIREFIGHTER SAFETY, AND STEWARDSHIP OF AMERICA'S PUBLIC WILDLANDS.

FLORIDA NATIONAL WEATHER SERVICE FORECAST OFFICES WILL ISSUE A CORE SUITE OF FIRE PRODUCTS CONSISTING OF THE FOLLOWING FOR THEIR FIRE WEATHER SERVICE AREA.

A. FIRE WEATHER PRE-SUPPRESSION FORECASTS (FIRE WEATHER ZONES) (FWF)
B. THE DISPERSION INDEX UPDATE (SMF)
C. NATIONAL FIRE DANGER RATING SYSTEM FORECASTS (NFDRS) (FWM)
D. SPOT FORECASTS (FWS)
E. FIRE WEATHER WATCHES (RFW)
F. RED FLAG WARNINGS (RFW)

THE NATIONAL WEATHER SERVICE FIRE WEATHER FORECASTS ARE A ZONE-TYPE PRODUCT PROVIDING METEOROLOGICAL INFORMATION USED BY LAND MANAGEMENT PERSONNEL PRIMARILY FOR INPUT IN DECISION-MAKING RELATED TO MANAGING RESOURCES, PRE-SUPPRESSION OPERATIONS, SMOKE MANAGEMENT AND OTHER PLANNING. THE DECISIONS IMPACT FIREFIGHTER SAFETY, PROTECTION OF THE PUBLIC AND PROPERTY, AND RESOURCE ALLOCATION.

ZONE FORECASTS AND THE DISPERSION INDEX UPDATE PROVIDE FOR AN AVERAGE OF WEATHER CONDITIONS EXPECTED THROUGHOUT THE ZONE. ZONES ARE TYPICALLY GROUPED BASED UPON SIMILARITY OF WEATHER, WITH DAY TO DAY GROUPING VARIATIONS DEPENDENT UPON ONGOING WEATHER OR THE TIMING OF FORECAST WEATHER. DURING DAYLIGHT HOURS, FORECASTED ELEMENTS SHOULD REFLECT CONDITIONS EXPECTED FOR PERIODS OF HIGHEST FIRE IGNITION POTENTIAL, TYPICALLY DURING THE MID TO LATE AFTERNOON HOURS.

THE NATIONAL FIRE DANGER RATING SYSTEM (NFDRS) MEASURES WILDLAND FIRE DANGER AT OBSERVATION SITES THROUGHOUT THE CONTIGUOUS UNITED STATES. THE NATIONAL WEATHER SERVICE ROLE IN NFDRS IS FORECASTING WEATHER INPUT WHICH, COMBINED WITH USER INPUT, ALLOWS THE NFDRS SOFTWARE TO PREDICT THE NEXT DAY'S FIRE DANGER INDICES. THESE INDICES IMPACT AGENCY RESOURCE MANAGEMENT DECISIONS, FIREFIGHTER SAFETY, AND PROTECTION OF THE PUBLIC AND PROPERTY.

THE SITE SPECIFIC (SPOT) FORECASTS ARE ISSUED BY NATIONAL WEATHER SERVICE OFFICES IN SUPPORT OF WILDFIRE SUPPRESSION AND NATURAL RESOURCE MANAGEMENT. THESE FORECASTS AID THE LAND MANAGEMENT AND FIRE CONTROL AGENCIES IN PROTECTING LIFE AND PROPERTY DURING WILDLAND FIRES, HAZARDOUS FUELS REDUCTION, AND REHABILITATION AND RESTORATION OF NATURAL RESOURCES. SPOT FORECASTS MAY ALSO BE ISSUED FOR HAZARDOUS MATERIALS INCIDENTS AND OTHER THREATS TO PUBLIC SAFETY.

FLORIDA NATIONAL WEATHER SERVICE FORECAST OFFICES WILL ISSUE FIRE WEATHER WATCHES/RED FLAG WARNINGS WHEN WEATHER CONDITIONS SUPPORT EXTREME FIRE DANGER. THESE CONDITIONS ALERT LAND MANAGEMENT AGENCIES TO THE POTENTIAL FOR WIDESPREAD NEW IGNITIONS OR CONTROL PROBLEMS WITH EXISTING FIRES, BOTH OF WHICH COULD POSE A THREAT TO LIFE AND PROPERTY.

FORECAST ISSUANCES

FORECASTS ARE ISSUED DAILY THROUGHOUT THE YEAR.

1. THE EARLY MORNING FIRE WEATHER FORECAST (FWF) IS THE 36 HOUR (TODAY/TONIGHT/TOMORROW) TABULAR PLANNING FORECAST FOR FORECAST ZONES WITH A HEADLINE, WEATHER SYNOPSIS, AND THREE TO FIVE OR UP TO SEVEN DAY EXTENDED FORECAST OUTLOOK. SCHEDULED ISSUANCE IS NO LATER THAN 0730 AM EASTERN LOCAL TIME (0630 AM CENTRAL).

2. THE MID AFTERNOON FIRE WEATHER FORECAST (FWF) IS THE 48 HOUR (TONIGHT/TOMORROW/TOMORROW NIGHT/FOLLOWING DAY) TABULAR PLANNING FORECAST FOR THE FORECAST ZONES WITH A HEADLINE, WEATHER SYNOPSIS AND THREE TO FIVE OR UP TO SEVEN DAY EXTENDED FORECAST OUTLOOK. SCHEDULED ISSUANCE IS NO LATER THAN 1545 PM EASTERN LOCAL TIME (1445 PM CENTRAL).

3. THE DISPERSION INDEX FORECAST (SMF) IS THE 12 HOUR (TONIGHT) TABULAR DISPERSION INDEX FOR SMOKE MANAGEMENT UPDATE FOR THE FORECAST ZONES. SCHEDULED ISSUANCE 1130 AM EASTERN AND CENTRAL LOCAL TIME.

4. THE NATIONAL FIRE DANGER RATING SYSTEM (NFDRS) FORECAST (FWM) IS A 24 HOUR SITE SPECIFIC DIGITAL FORECASTS FOR 14 FEDERAL AGENCY LOCATIONS. SCHEDULED ISSUANCE IS NO LATER THAN 1600 PM EASTERN LOCAL TIME (1500 PM CENTRAL).

5. THE UNSCHEDULED SITE SPECIFIC (SPOT) FORECASTS (FWS) IS A USER REQUESTED INCREMENTAL TABULAR FORECAST WITH A HEADLINE AND WEATHER DISCUSSION FOLLOWED BY A 12 AND 24 HOUR OUTLOOK. SPOT FORECASTS ARE NON ROUTINE PRODUCTS WHERE ISSUANCE TIMES WILL VARY UPON USER REQUESTS.

6. THE FIRE WEATHER WATCH/ RED FLAG WARNING PRODUCT (RFW) WILL BE ISSUED WHEN WEATHER CONDITIONS SUPPORT EXTREME FIRE DANGER AND TO INFORM USERS OF THE STATUS OF ANY CURRENT FIRE WEATHER WATCHES OR RED FLAG WARNINGS FOR A SPECIFIC ZONE. THIS PRODUCT WILL BE ISSUED WHEN NECESSARY AND DEFINE THE AFFECTED ZONES AND INCLUDE A HEADLINE AND SHORT WEATHER SYNOPSIS.

FORECAST UPDATES

THE RFW AND FIRE WEATHER PLANNING FORECASTS (FWF) WILL BE UPDATED WHEN A FIRE WEATHER WATCH OR RED FLAG WARNING IS ISSUED OR CANCELLED.

FORECAST DISSEMINATION

FEDERAL AGENCIES:

SCHEDULED FORECASTS ARE DISTRIBUTED TO **FEDERAL** LAND MANAGEMENT AGENCIES THROUGH THE WEATHER INFORMATION MANAGEMENT SYSTEM (**WIMS**), WITH AGENCY LOGON AND PASSWORD AT:

http://famweb.nwcg.gov

FOR ALL OTHER AGENCIES

FORECAST DISTRIBUTION IS VIA THE **INTERNET.** ONE SUCH INTERNET ADDRESS IS THROUGH THE FLORIDA DOF AT:

http://www.fl-dof.com/fire_weather/forecasts.html

A USER AGENCY ALTERNATE INTERNET SITE FOR FORECAST ACCESS IS AVAILABLE AT ADDRESS:

http://fire.boi.noaa.gov/

FORECAST DISTRIBUTION BACKUP

FEDERAL USERS:

IF WIMS IS DOWN OR INOPERATIVE, CALL YOUR LOCAL NWS FORECAST OFFICE AND HAVE THEM FAX A TRANSMISSION OF THE FIRE WEATHER FORECAST. FEDERAL USERS CAN ALSO CONTACT THE INTERNET ADDRESS OF EACH NWS HOMEPAGE FOR LOCAL FIRE WEATHER FORECASTS. SEE **PAGES 8 THROUGH 16** FOR WEB SITE ADDRESSES.

ALL OTHER USERS

IF INTERNET LINKS ARE DISABLED, THE NWS WILL FAX THE FORECAST TO A DESIGNATED DOF DISTRICT OFFICE WITHIN THAT NWS FORECAST OFFICES AREA OF RESPONSIBILITY. THE DOF OFFICE WILL THEN FURTHER DISTRIBUTE THE FORECAST TO ALL OTHER DOF DISTRICT OFFICES WITHIN THE COUNTY (ZONE) COVERAGE OF A FORECAST OFFICE. ALL OTHER AGENCIES SHOULD THEN CONTACT THEIR AREA DOF OFFICE FOR FORECAST DISTRIBUTION AND ACCESS. SEE **PAGE 16** FOR LISTING OF DESIGNATED DOF DISTRICT OFFICES.

A. FIRE WEATHER FORECAST (FWF)

THIS IS A TABULAR PLANNING FORECAST FOR 15 DIFFERENT WEATHER PARAMETERS AND NARRATIVE EXTENDING OUTLOOK. A FORECAST IS MADE FOR ALL NATIONAL WEATHER SERVICE ZONES.

THE SCHEDULE ISSUANCE FOR AVAILABILITY TO THE USERS FOR THE MORNING FORECAST IS NO LATER THAN 730 AM EASTERN LOCAL TIME (0630 AM CENTRAL) AND FOR THE AFTERNOON FORECAST IS NO LATER THAN 330 PM EASTERN LOCAL TIME (0230 PM CENTRAL). THESE FORECASTS ARE ISSUED DAILY THROUGHOUT THE YEAR.

THE MORNING FORECAST IS FOR THREE 12 HOUR PERIODS (TODAY, TONIGHT, AND TOMORROW), BEGINNING 6AM LOCAL TIME ON DAY OF FORECAST PREPARATION. FORECAST PERIODS ARE DEFINED AS:

TODAY	6AM TO 6PM
TONIGHT	6PM TO 6AM
TOMORROW	6AM TO 6PM

THE AFTERNOON FORECAST IS FOR FOUR 12 HOUR PERIODS (TONIGHT, TOMORROW, TOMORROW NIGHT, AND THE FOLLOWING DAY), BEGINNING 6PM LOCAL TIME ON DAY OF FORECAST PREPARATION. FORECAST PERIODS ARE DEFINED AS:

TONIGHT	6PM TO 6AM
TOMORROW	6AM TO 6PM
TOMORROW NIGHT	6PM TO 6AM
THE FOLLOWING DAY	6AM TO 6PM

.**THE HEADLINE**
AN OVERVIEW HEADLINE, BEFORE THE SYNOPSIS, IS REQUIRED WHEN RED FLAG WARNINGS AND/OR FIRE WEATHER WATCHES ARE IN EFFECT. THE HEADLINE(S) WILL INCLUDE THE WARNING TYPE, LOCATION, BRIEF REASON FOR ISSUANCE, AND EFFECTIVE TIME PERIOD. A BLANK LINE WILL SEPARATE SUCH HEADLINES FROM THE BODY OF THE SYNOPSIS. ALSO, HEADLINES WILL BE INCLUDED ABOVE IN EACH APPROPRIATE ZONE GROUPING.

.THE WEATHER DISCUSSION
THIS SYNOPSIS IS A BRIEF PLAIN LANGUAGE NARRATIVE OF THE WEATHER PATTERN AS IT PERTAINS TO FLORIDA WITH SPECIAL EMPHASIS ON THE FIRST PERIOD FORECAST THROUGH 48 HOURS. WEATHER ELEMENTS WHICH CAN NOT BE ADEQUATELY ADDRESSED IN THE TABULAR FORMAT CAN BE DISCUSSED WITHIN THE SYNOPSIS. SUCH ELEMENTS MAY INCLUDE THE PASSAGE OF COLD FRONTS, TROPICAL DISTURBANCES, THE ONSET OF SEA BREEZES, LIKELIHOOD FOR FREEZES OR FROSTS, AND THUNDERSTORM WIND GUSTS, ETC.

.FORECAST ZONE NUMBERS/COUNTIES NAMES:
EACH OF THE FORECAST ZONES MAY BE GROUPED TOGETHER, OR HAVE A SEPARATE FORECAST. FORECASTS ZONE NUMBERS WILL BE FOLLOWED BY A COUNTY NAME THAT CORRESPONDS TO THAT PARTICULAR ZONE NUMBER (SEE **PAGES 5-7** FOR COUNTY ZONE NUMBERS AND NAMES).
A BRIEF FIRE WEATHER WATCH/RED FLAG WARNING HEADLINE WILL PRECEDE EACH AFFECTED ZONE GROUPING.

. EXTENDED FORECAST
PUBLIC TEXT FORECAST FOR GENERAL WEATHER CONDITIONS FOR DAYS 3 THROUGH 5 OR UP TO WILL BE APPENDED TO EACH ZONE GROUPING...WITH WIND FORECAST FOR EACH DAY.

FORECAST PARAMETERS:
EACH OF THE 15 FORECAST WEATHER PARAMETERS WILL BE DEFINED BY ELEMENT WORDING DOWN THE LEFT MARGIN OF EACH ZONE GROUPING. USE THE DESCRIPTOR THAT WOULD BEST DESCRIBE THE 12 HOUR PERIOD. WEATHER PARAMETERS ARE DEFINED AS FOLLOWS:

CLOUD COVER: (VALUE DESCRIPTIONS MAY BE ABBREVIATED)

CLEAR	MOSTLY CLOUDY
MOSTLY CLEAR	CLOUDY
PARTLY CLOUDY	

WEATHER TYPE: (VALUE DESCRIPTIONS MAY BE ABBREVIATED)

NONE	FREEZING RAIN
FOG	DRIZZLE
RAIN	SNOW/RAIN
SHOWERS	SNOW
THUNDERSTORMS	

DEFINITIONS OF WEATHER TYPE...

FOG - LARGE MASS OF WATER VAPOR CONDENSED TO FINE PARTICLES, AT OR NEAR THE GROUND, OBSCURING VISIBILITY.

DRIZZLE - MIST–VERY SMALL WATER DROPLETS THAT APPEAR TO FLOAT WHEN FALLING.

RAIN - STEADILY FALLING SMALL TO MEDIUM SIZED WATER DROPLETS

SHOWER - MEDIUM TO LARGE WATER DROPLETS THAT SEEM TO BEGIN OR END ABRUPTLY. NO THUNDER IS HEARD.

THUNDERSTORM - HEAVY OR VIOLENT DOWNPOUR OF LARGE WATER DROPS ACCOMPANIED WITH LIGHTNING AND MOST OFTEN WITH GUSTY WINDS OR POSSIBLY HAIL.

FREEZING RAIN - LIQUID PRECIPITATION THAT FREEZES UPON CONTACT WITH GROUND SURFACES OR VEGETATION.

SNOW/RAIN - RAIN CHANGING TO SNOW OR SNOW CHANGING TO RAIN.

SNOW - FLAKES OF FROZEN CRYSTALLINE PRECIPITATION.

CHANCE OF PRECIPITATION

CHANCE OF PRECIPITATION FOR THE 12 HOUR PERIOD. THE PROBABILITY OF MEASURABLE (0.01 INCH OR MORE) OF WATER EQUIVALENT AT ANY POINT IN A PARTICULAR ZONE HAVING NO RELATIONSHIP TO THE AMOUNT OF PRECIPITATION TO OCCUR. WITH SUMMERTIME SHOWER AND THUNDERSTORM SITUATIONS THE VALUE CAN BE THOUGHT OF AS AN EXPECTED AREAL COVERAGE OF PRECIPITATION ACROSS A ZONE GROUPING.

CHANCE OF PRECIPITATION VALUES

NONE	USE OF 10 PERCENT RESTRICTED TO ISOLATED EVENTS
10 PERCENT	THROUGH 100 PERCENT

MAXIMUM TEMPERATURE
MINIMUM TEMPERATURE
THE DRY BULB (AMBIENT AIR) TEMPERATURE MEASURED AT A STANDARD FIVE FEET ABOVE THE GROUND IN DEGREES FAHRENHEIT. DAYLIGHT TEMPERATURES ARE MEASURED IN THE SHADE.

MAXIMUM TEMPERATURE DEFINED AS THE *HIGHEST* VALUE EXPECTED WITHIN A FORECAST ZONE, USUALLY OCCURRING DURING THE MID AFTERNOON.

MINIMUM TEMPERATURE DEFINED AS THE *AVERAGE* LOWEST VALUE EXPECTED WITHIN A FORECAST ZONE, USUALLY OCCURRING JUST PRIOR TO SUNRISE.

FORECASTED TEMPERATURES CAN VARY 5 TO 10 DEGREES WITHIN A ZONE DUE TO LOCALIZED VEGETATIVE COVER, TERRAIN, SOIL TYPE, OR PROXIMITY TO LAKES AND COASTAL MARINE AREAS. USERS ARE ADVISED TO ADAPT FORECASTS TO LOCAL CONDITIONS.

TEMPERATURE LESS THAN ZERO IS PRECEDED BY A MINUS SIGN.

MINIMUM RELATIVE HUMIDITY
MAXIMUM RELATIVE HUMIDITY

RELATIVE HUMIDITY IS THE RATIO (PERCENT) OF THE AMOUNT OF MOISTURE IN THE AIR COMPARED TO THE AMOUNT OF MOISTURE THE AIR COULD HOLD AT SATURATION FOR A PARTICULAR TEMPERATURE. USUALLY THE LOWEST HUMIDITY OCCURS NEAR THE TIME OF THE MAXIMUM TEMPERATURE, AND THE HIGHEST HUMIDITY OCCURS NEAR THE TIME OF THE MINIMUM TEMPERATURE. HUMIDITY VALUES RUN FROM 0 TO 100 PERCENT.

WIND SPEED AND DIRECTION (AM AND PM) (20 FEET)

THE PREVAILING OR AVERAGE DIRECTION AND SPEED FROM WHICH THE WIND IS BLOWING AT THE 20 FEET LEVEL ABOVE THE OPEN GROUND OR TWENTY FEET ABOVE THE VEGETATION SURFACE. WIND SPEED IS REPORTED IN MILES AN HOUR AND IS A ONE MINUTE AVERAGE. DIRECTION WILL BE RESTRICTED TO EIGHT COMPASS DIRECTIONS. THE EXCEPTIONS ARE FOR VARIABLE OR CALM SITUATIONS.. VARIABLE MEANS A CHANGEABLE WIND DIRECTION OCCURRING MOST OFTEN WITHIN LIGHT WIND SITUATIONS. WIND DIRECTION CHANGES, SUCH AS FRONTAL PASSAGES OR FOR THE ONSET OF COASTAL SEA BREEZES, CAN BE DISCUSSED IN THE SYNOPSIS.

N	NORTH	**SW**	SOUTHWEST
NE	NORTHEAST	**W**	WEST
E	EAST	**NW**	NORTHWEST
SE	SOUTHEAST	**C**	CALM
S	SOUTH	**V**	VARIABLE

AMOUNT OF PRECIPITATION (EACH 12 HOUR PERIOD)
AMOUNTS PERTAIN TO AN AVERAGE PRECIPITATION EXPECTED. BUT FOR SHOWERY SITUATIONS, PARTICULARLY DURING THE SUMMER MONTHS, LOCAL AMOUNTS CAN VARY CONSIDERABLY.

NONE
TRACE TO 0.25 INCH
0.25 TO 0.50
0.50 TO 1.00
1.00 TO 2.00 INCHES
2.00 TO 4.00 INCHES
4.00 TO 6.00 INCHES
6.00 INCHES OR MORE

PRECIPITATION DURATION
MAXIMUM DURATION IN HOURS THAT PRECIPITATION IS EXPECTED TO OCCUR WITHIN THE TWELVE HOUR PERIOD.

RANGE OF VALUES FROM 0 TO 12
BLANK INDICATES NO PRECIPITATION
1 MEANS ONE SECOND UP TO ONE HOUR DURATION
2 MEANS TWO HOUR DURATION ETC.

TIMING OF PRECIPITATION (LOCAL TIME)
THIS PARAMETER WILL INDICATE THE PERIOD OF TIME WITHIN WHICH PRECIPITATION IS EXPECTED TO BEGIN AND END. THESE VALUES WILL BE IN LOCAL TIME. EXAMPLE: BLANK INDICATES NO PRECIPITATION, CONTINUE, 1 AM, 3 PM, ETC.

LIGHTNING ACTIVITY LEVEL (LAL)
CLOUD AND STORM DEVELOPMENT CODE

1 - NO THUNDERSTORMS

2 - CUMULUS CLOUDS ARE COMMON BUT ONLY A FEW REACH THE TOWERING CUMULUS STAGE. A SINGLE THUNDERSTORM MUST BE CONFIRMED IN THE RATING AREA. LIGHTNING IS VERY INFREQUENT.

3 - CUMULUS CLOUDS ARE COMMON. SWELLING AND TOWERING CUMULUS COVERS LESS THAN TWO TENTHS OF THE SKY. THUNDERSTORMS ARE FEW, BUT 2 TO 3 MUST OCCUR WITHIN THE OBSERVATION AREA. LIGHTNING IS INFREQUENT.

4 - SWELLING CUMULUS AND TOWERING CUMULUS COVER 2 TO 3 TENTHS OF THE SKY. THUNDERSTORM ARE SCATTERED BUT MORE THREE MUST OCCUR WITHIN THE OBSERVATION AREA. LIGHTNING IS FREQUENT.

5 - TOWERING CUMULUS AND THUNDERSTORMS ARE NUMEROUS COVERING MORE THAN THREE TENTHS OF THE SKY. LIGHTNING IS FREQUENT AND INTENSE.

6 - FOR DRY LIGHTNING ONLY (NOT USED IN FLORIDA)

MIXING HEIGHT
THE HEIGHT ABOVE THE GROUND AT WHICH AIRMASS STABILITY IS SUFFICIENT TO INHIBIT VIGOROUS VERTICAL MIXING OF AIR (OR AIR PARTICULATE I.E. SMOKE). THIS HEIGHT CAN IMPLY AN INVERSION LEVEL. FORECAST DIGIT VALUE IS IN FEET ABOVE THE GROUND. VALUE DEFINES A MAXIMUM MIXING HEIGHT EXPECTED ABOVE THE AVERAGE GROUND SURFACE (AGL) TYPICALLY DURING THE MID AFTERNOON.

TRANSPORT WIND DIRECTION AND SPEED
THE AVERAGE WIND DIRECTION THROUGH THE MIXING LAYER FROM THE SURFACE UP TO THE MIXING HEIGHT. DIRECTIONS ARE LIMITED TO THE EIGHT COMPASS DIRECTIONS WITH THE EXCEPTIONS OF VARIABLE OR CALM CONDITIONS (SEE **WIND DIRECTION AND SPEED 20 FEET**)

AVERAGE OF THE WIND SPEED WITHIN THE MIXING LAYER FROM THE SURFACE UP TO THE MIXING HEIGHT. IT GENERALLY REFERS TO THE RATE AT WHICH SMOKE EMISSIONS WILL BE HORIZONTALLY TRANSPORTED FROM ONE AREA TO ANOTHER. (VALUES ARE IN MILES AN HOUR).

DISPERSION INDEX - DI
AN INDEX COMPUTED FROM FORECASTED WIND SPEED, MIXING HEIGHT, TRANSPORT WIND, CLOUD COVER, AND CEILING HEIGHT USED AS A GUIDE FOR ATMOSPHERIC INSTABILITY AND SMOKE MANAGEMENT. (REF SEE **PAGE 79**)

DISPERSION INDEX VALUES	**FL DOF DAYTIME DESCRIPTORS**
GREATER THAN 80	EXCELLENT DISPERSION, CONTROL PROBLEMS EXPECTED.
61-80	VERY GOOD DISPERSION.
41-60	GENERALLY GOOD.
21-40	POOR TO FAIR, STAGNATION MAY BE INDICATED IF ACCOMPANIED BY LOW WIND SPEEDS.
0-20	POOR DISPERSION, STAGNANT IF PERSISTENT.

	NIGHTTIME DESCRIPTOR
GREATER THAN 8	VERY GOOD
5-8	GOOD
3-4	POOR TO FAIR
0-2	POOR

THE LOW VISIBILITY OCCURRENCE RISK INDEX - LVORI
THIS INDEX IS A MEASURE OF THE RISK OF LOW VISIBILITY OCCURRING. THE RISK DRAMATICALLY INCREASES WHEN RH IS HIGH AND DI IS LOW. THIS INDEX IN USEFUL IN QUALITATIVELY ESTIMATING THE LIKELIHOOD OF A VEHICLE ACCIDENT OCCURRING UNDER A GIVEN SET OF CONDITIONS. THIS INDEX CAN BE ASCERTAINED BY USING THE PREDICTED NIGHTTIME DI AND MAXIMUM RH, AND THE LVORI TABLE. (REF SEE **PAGE 83-84**)(See Table 2 and Table 3)

REMARKS
APPROPRIATE REMARKS TO ADD VALUE AND MARK SIGNIFICANT OR PERTINENT WEATHER CHANGES OR INFORMATION. INSERT 'NONE' IF NONE.

FOR EXAMPLE OF THE MORNING FIRE WEATHER FORECAST **PAGE 25**

FOR EXAMPLE OF THE AFTERNOON FIRE WEATHER FORECAST **PAGE 27**

EXAMPLE: MORNING FIRE WEATHER FORECAST (FWF)

FNUS52 KMLB 231215
FWFMLB

FIRE WEATHER PLANNING FORECAST FOR EAST CENTRAL FLORIDA
NATIONAL WEATHER SERVICE MELBOURNE FL
730 AM EST SUN FEB 23 2006

.RED FLAG WARNING FOR LAKE...ORANGE...OSCEOLA...SEMINOLE AND VOLUSIA COUNTIES FOR 4 TO 6 HOURS OF RH VALUES BELOW 35%. IN ADDITION...SUSTAINED WINDS OF 15 MPH WILL BE POSSIBLE INTO EARLY AFTERNOON.

.DISCUSSION...MUCH DRIER AIR IS OVERSPREADING THE REGION AT THE SURFACE AND ALOFT BEHIND A COLD FRONT THAT PASSED THROUGH EARLIER THIS MORNING. STRONG AND GUSTY SURFACE AND TRANSPORT WINDS WILL CONTINUE INTO EARLY AFTERNOON THEN DECREASE AS THE HIGH PRESSURE CENTER MOVES OVERHEAD. ONSHORE FLOW WILL DEVELOP AFTER 1 PM ONCE THE STRONG OFFSHORE FLOW SUBSIDES.

ONSHORE FLOW MONDAY WILL KEEP COASTAL SECTIONS ABOVE CRITICAL RH VALUES. INTERIOR SECTIONS MAY BRIEFLY FALL TO 35% ESPECIALLY IN LAKE COUNTY. NO RH OR WINDS CONCERNS TUESDAY OR WEDNESDAY. NO RAIN EXPECTED THROUGH THURSDAY.

FLZ041-044>046-053-141-144-232030-
COASTAL VOLUSIA- INLAND VOLUSIA-NORTHERN LAKE-ORANGE-OSCEOLA-SEMINOLE-SOUTHERN LAKE-
INCLUDING THE CITY OF....CLERMONT...DAYTONA BEACH...DELAND...KISSIMMEE...LEESBURG... ORLANDO...SANFORD...ST. CLOUD
730 AM EST SUN FEB 23 2006

.RED FLAG WARNING FOR RH VALUES BELOW 35% FOR 4 TO 6 HOURS. SUSTAINED WINDS OF 15 MPH WILL BE POSSIBLE INTO EARLY AFTERNOON.

	TODAY	TONIGHT	MON
CLOUD COVER	CLEAR	CLEAR	MCLEAR
CHANCE PRECIP (%)	0	0	0
WEATHER TYPE	NONE	NONE	NONE
TEMP	71	48	76
RH %	28	95	36
20FT WIND MPH (AM)	NW 14		E 4
20FT WIND MPH (PM)	N 7	NE 2	E 5
PRECIP DURATION			
PRECIP BEGIN			
PRECIP END			
PRECIP AMOUNT	NONE	NONE	NONE
LAL	1	1	1
MIXING HEIGHT(FT-AGL)	3500	200	4000
TRANSPORT WIND(MPH)	NW 23	E 5	E 12
DISPERSION INDEX	61	5	37
MAX LVORI		6	

.REMARKS...AN AFTERNOON SEABREEZE IS EXPECTED TO DEVELOP AFTER 1 PM.

.FORECAST FOR DAYS 3 THROUGH 5...
.TUESDAY...MOSTLY CLEAR. LOWS IN THE LOWER 50S. HIGHS IN THE MID 70S. NORTHEAST WINDS 10 TO 15 MPH.
.WEDNESDAY...PARTLY CLOUDY. LOWS IN THE MID 50S. HIGHS IN THE LOWER 70S. EAST WINDS 10 MPH.
.THURSDAY...PARTLY CLOUDY. LOWS IN THE MID 50S. HIGHS IN THE UPPER 70S. SOUTHWEST WINDS 15 MPH.

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FLZ047-054-058-059-064-147-232030-
INDIAN RIVER-MARTIN-NORTHERN BREVARD-OKEECHOBEE-SOUTHERN BREVARD-ST. LUCIE
INCLUDING THE CITIES OF...FORT PIERCE...HOBE SOUND...MELBOURNE...PALM BAY...TITUSVILLE...
VERO BEACH
730 AM EST SUN FEB 23 2006

.HEADLINE...NONE.

	TODAY	TONIGHT	MON
CLOUD COVER	CLEAR	CLEAR	MCLEAR
CHANCE PRECIP (%)	0	0	0
WEATHER TYPE	NONE	NONE	NONE
TEMP	72	52	78
RH %	39	94	46
20FT WIND MPH (AM)	NW 13		E 7
20FT WIND MPH (PM)	N 8	NE 4	E 8
PRECIP DURATION			
PRECIP BEGIN			
PRECIP END			
PRECIP AMOUNT	NONE	NONE	NONE
LAL	1	1	1
MIXING HEIGHT(FT-AGL)	3100	200	3800
TRANSPORT WIND (MPH)	NW 19	E 5	E 12
DISPERSION INDEX	47	5	37
MAX LVORI		6	

. REMARKS...AN AFTERNOON SEABREEZE IS EXPECTED TO DEVELOP AFTER 1 PM.

.FORECAST FOR DAYS 3 THROUGH 5...

.TUESDAY...MOSTLY CLEAR. LOWS IN THE MID 50S. HIGHS IN THE MID 70S. NORTHEAST WINDS 10 TO 15 MPH.
.WEDNESDAY...PARTLY CLOUDY. LOWS IN THE UPPER 50S. HIGHS IN THE MID 70S. EAST WINDS 10 MPH. .
THURSDAY...PARTLY CLOUDY. LOWS IN THE UPPER 50S. HIGHS IN THE LOWER 80S. SOUTHWEST WINDS 15 MPH.

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FORECASTER NWS MLB

EXAMPLE: AFTERNOON FIRE WEATHER FORECAST (FWF)

FNUS52 KTBW 222015
FWFTBW

FIRE WEATHER PLANNING FORECAST FOR WEST CENTRAL AND SOUTHWEST FLORIDA
NATIONAL WEATHER SERVICE TAMPA BAY AREA FL
330 PM EST SAT FEB 22 2006

...RED FLAG WARNING ALL ZONES SATURDAY AFTERNOON FOR HIGH DISPERSION INDICES...
...FIRE WEATHER WATCH SUNDAY AFTERNOON FOR NORTHERN ZONES FOR POSSIBLE RH DURATION OF 4 HOURS OR MORE...

.DISCUSSION...A COLD FRONT WILL SWEEP THROUGH THE STATE OVERNIGHT. STRONG GUSTY WINDS WILL CONTINUE AHEAD OF THE FRONT...BUT DIMINISH RAPIDLY TO LIGHT WINDS BY SUNDAY MORNING. HIGH PRESSURE WILL BUILD RAPIDLY INTO THE STATE SUNDAY...BRINGING MUCH DRIER AIR. MOISTURE WILL GRADUALLY INCREASE MONDAY AS THE HIGH SLIDES NORTHEAST OF THE AREA.

FLZ039-042-043-048-231230-
CITRUS-HERNANDO-LEVY-SUMTER-
INCLUDING THE CITIES OF...BROOKSVILLE...CHIEFLAND...INVERNESS...SPRING HILL
330 PM EST SAT FEB 22 2006

...RED FLAG WARNING THROUGH 5 PM SATURDAY FOR HIGH DISPERSION...
...FIRE WEATHER WATCH SUNDAY AFTERNOON...

	TONIGHT	SUN	SUN NIGHT	MON
CLOUD COVER	PCLDY	CLEAR	CLEAR	MCLEAR
CHANCE PRECIP (%)	40	0	0	0
WEATHER TYPE	TSTMS	NONE	NONE	NONE
TEMP	50	72	36	77
RH%	95	30	100	37
20FT WIND MPH (AM)		NW 10		SE 1
20FT WIND MPH (PM)	SW 12	N 5	N 2	SE 3
PRECIP DURATION	2			
PRECIP BEGIN	CONTINUE			
PRECIP END	8 PM			
PRECIP AMOUNT	0.25 TO .50	NONE	NONE	NONE
LAL	2	1	1	1
MIXING HGT(FT-AGL)	700	2900	200	3500
TRANSPORT WIND(MPH)	NW 11	N 17	CALM	SE 5
DISPERSION INDEX	12	58	1	20
MAX LVORI	5		10	

.REMARKS...NONE

.FORECAST FOR DAYS 3 THROUGH 5...

.TUESDAY...MOSTLY SUNNY. LOWS IN THE UPPER 40S. HIGHS IN THE LOWER 70S. NORTHEAST WINDS 5 TO 10 MPH.
.WEDNESDAY...MOSTLY SUNNY. LOWS IN THE UPPER 40S. HIGHS IN THE MID 70S. SOUTHEAST WINDS 10 TO 15 MPH.
.THURSDAY...PARTLY CLOUDY. LOWS IN THE MID 50S. HIGHS IN THE MID 70S. SOUTH WINDS 10 TO 15 MPH.

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FLZ049-050-051-052-055-056-057-060-061-062-065-231230-
CHARLOTTE-DESOTO-HARDEE-HIGHLANDS-HILLSBOROUGH-LEE-MANATEE-PASCO-PINELLAS-POLK-SARASOTA
INCLUDING THE CITIES OF...ARCADIA...BARTOW...BRADENTON...BRANDON...CAPE CORAL... CLEARWATER...FORT MYERS...LAKELAND...NEW PORT RICHEY...PORT CHARLOTTE...PUNTA GORDA...SARASOTA...SEBRING...ST. PETERSBURG...TAMPA...VENICE...WINTER HAVEN... ZEPHYRHILLS
330 PM EST SAT FEB 22 2006

...RED FLAG WARNING THROUGH 5 PM SATURDAY FOR HIGH DISPERSION...

	TONIGHT	SUN	SUN NIGHT	MON
CLOUD COVER	MCLDY	CLEAR	CLEAR	MCLEAR
CHANCE PRECIP (%)	70	0	0	0
WEATHER TYPE	TSTMS	NONE	FOG	NONE
TEMP	55	74	38	78
RH%	97	36	100	39
20FT WIND MPH (AM)		NW 11		E 5
20FT WIND MPH (PM)	SW 12	N 7	NE 4	E 5
PRECIP DURATION	5			
PRECIP BEGIN	CONTINUE			
PRECIP END	1 AM			
PRECIP AMOUNT	0.50 TO 1.00	NONE	NONE	NONE
LAL	2	1	1	1
MIXING HGT(FT-AGL)	700	3000	200	3500
TRANSPORT WIND(MPH)	NW 12	N 20	NE 5	E 7
DISPERSION INDEX	13	62	2	24
MAX LVORI	6		10	

.FORECAST FOR DAYS 3 THROUGH 5...

.TUESDAY...MOSTLY SUNNY. LOWS IN THE LOWER 50S. HIGHS IN THE MID 70S. NORTHEAST WINDS 5 TO 10 MPH.
.WEDNESDAY...MOSTLY SUNNY. LOWS IN THE LOWER 50S. HIGHS IN THE MID 70S. SOUTHEAST WINDS 10 TO 15 MPH.
.THURSDAY...PARTLY CLOUDY. LOWS IN THE MID 50S. HIGHS IN THE MID 70S. SOUTH WINDS 10 TO 15 MPH.

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FORECASTER NWS TBW

B. SMOKE DISPERSION INDEX FORECAST (SMF)

A DAILY ZONE FORECAST UPDATE OF THE SMOKE DISPERSION INDEX FOR SMOKE MANAGEMENT FOR THE TONIGHT PERIOD ONLY WILL BE PROVIDED BETWEEN 11AM AND NOON LOCAL TIME. FORECAST PARAMETERS ARE DEFINED AS FOLLOWS:

CLOUD AMOUNT: (VALUE DESCRIPTIONS MAY BE ABBREVIATED)

CLEAR	MOSTLY CLOUDY
MOSTLY CLEAR	CLOUDY
PARTLY CLOUDY	FOG

USE THE TERMS THAT WOULD BEST DESCRIBE THE OVERNIGHT PERIOD.

CEILING HEIGHT
THE EXPECTED HEIGHT ABOVE THE GROUND LEVEL (AGL) FOR CLOUD BASES. FORECAST VALUES ARE IN FEET. I.E. 200, 1500, 3000 ETC. NONE INDICATES NO CEILING. FOR A CEILING, 6/10th OR MORE OF SKY MUST BE CLOUD COVERED.

MIXING HEIGHT
THE HEIGHT ABOVE THE GROUND AT WHICH AIRMASS STABILITY IS SUFFICIENT TO INHIBIT VIGOROUS VERTICAL MIXING OF AIR (OR AIR PARTICULATE SUCH AS SMOKE). THIS HEIGHT CAN IMPLY AN INVERSION LEVEL. FORECAST DIGIT VALUES ARE IN FEET ABOVE THE GROUND AND DEFINE A MAXIMUM MIXING HEIGHT EXPECTED THAT NIGHT.

WIND SPEED (20 FOOT)
WIND SPEED IN MILES AN HOUR (ONE MINUTE AVERAGE)
20 FOOT WIND IS DEFINED AS THE AVERAGE WIND TWENTY FEET ABOVE THE OPEN GROUND OR TWENTY FEET ABOVE THE VEGETATION SURFACE. USE OF CALM RESTRICTED TO NO WIND OR WIND SPEED ZERO. VARIABLE MEANS A CHANGEABLE WIND DIRECTION OCCURRING MOST OFTEN WITHIN LIGHT WIND SITUATIONS.

TRANSPORT WIND SPEED
AVERAGE OF THE WIND SPEED WITHIN THE MIXING LAYER FROM THE SURFACE UP TO THE MIXING HEIGHT. IT GENERALLY REFERS TO THE RATE AT WHICH SMOKE EMISSIONS WILL BE HORIZONTALLY TRANSPORTED FROM ONE AREA TO ANOTHER. VALUES ARE IN MILES AN HOUR.

DISPERSION INDEX - DI (REF SEE **PAGE 79**)
AN INDEX COMPUTED FROM FORECASTED WIND SPEED, MIXING HEIGHT, TRANSPORT WIND, CLOUD COVER, AND CEILING HEIGHT USED AS A GUIDE FOR ATMOSPHERIC INSTABILITY AND SMOKE MANAGEMENT.

DISPERSION INDEX VALUES	**FL DOF NIGHTTIME DESCRIPTOR**
GREATER THAN 8	VERY GOOD
5-8	GOOD
3-4	POOR TO FAIR
0-2	POOR

THE LOW VISIBILITY OCCURRENCE RISK INDEX - LVORI
THIS INDEX IS A MEASURE OF THE RISK OF LOW VISIBILITY OCCURRING. THE RISK DRAMATICALLY INCREASES WHEN RH IS HIGH AND DI IS LOW. THIS INDEX IN USEFUL IN QUALITATIVELY ESTIMATING THE LIKELIHOOD OF A VEHICLE ACCIDENT OCCURRING UNDER A GIVEN SET OF CONDITIONS. THIS INDEX CAN BE ASCERTAINED BY USING THE PREDICTED NIGHTTIME DI AND MAXIMUM RH, AND THE LVORI TABLE. (REF SEE **PAGE 83-84**)(See Table 2 and Table 3)

EXAMPLE: SMOKE DISPERSION INDEX UPDATE (SMF)

FNUS72 KTAE 211645
SMFTAE

NORTH FLORIDA DISPERSION FORECAST UPDATE
NATIONAL WEATHER SERVICE TALLAHASSEE FL
NOON EST MON APR 24 2006

FLZ007-009>011-013-016>019-026>029-034-212100- CALHOUN-DIXIE-GADSDEN-HOLMES-INLAND
WALTON-JACKSON-JEFFERSON- LAFAYETTE-LEON-LIBERTY-MADISON-TAYLOR-WAKULLA-
WASHINGTON- INCLUDING THE CITIES OF...BLOUNTSTOWN...BONIFAY...BRISTOL...
CHIPLEY...CRAWFORDVILLE...CROSS CITY...DE FUNIAK SPRINGS...MADISON...
MARIANNA...MAYO...MONTICELLO...PERRY...QUINCY...TALLAHASSEE

PARAMETER... TONIGHT
CLOUD AMOUNT.....PCLDY
CEILING HEIGHT.....NONE
MIXING HGT (FT-AGL).....400
20 FT WIND MPH(PM).....6
TRANSPORT WIND (MPH).....SW 6
DISPERSION INDEX.....3
MAX LVORI.....8

$$

FLZ012-014-015-212100- BAY-FRANKLIN-GULF- INCLUDING THE CITIES OF...APALACHICOLA...PANAMA
CITY...PORT ST JOE
NOON EST FRI FEB 21 2006

CLOUD AMOUNT.....PCLDY
CEILING HEIGHT.....NONE
MIXING HGT (FT-AGL).....600
20 FT WIND MPH(PM).....9
TRANSPORT WIND (MPH).....SW96
DISPERSION INDEX.....5
MAX LVORI.....7

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FORECASTER NWS TAE

C. THE NATIONAL FIRE DANGER RATING SYSTEM (NFDRS) FORECAST (FWM)

THIS FORECAST IS A NATIONAL FIRE DANGER RATING SYSTEM (NFDRS) SPECIFIC LOCATION POINT FORECAST FOR FEDERAL LAND MANAGEMENT SITES WITH A REMOTE AUTOMATED WEATHER SYSTEM (RAWS) OBSERVATION SITE. FORECASTS ARE FOR 24 HOURS (1400 TO 1400 LST). DEADLINE FOR THESE FORECASTS TO BE AVAILABLE (VIA WIMS) INTO THE NFDRS SYSTEM IS 1600 LST. THIS FORECAST IS UTILIZED AS WEATHER INPUT FOR COMPUTATION OF NFDRS FUEL MOISTURE, BURNING AND FIRE RATE OF SPREAD INDICES. SEE **PAGES 32-34** FOR REFERENCE OF NFDRS PARAMETERS.

EXAMPLES: NFDRS POINT FORECAST (FWM)

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FNUS82 KMFL 302015
FWMMFL

FCST,086401,060501,13,1,86,36,1,1,NNE,06, ,86,56,100,36,0,0,N
FCST,086402,060501,13,1,86,37,1,1,NNE,06, ,86,55,100,37,0,0,N
FCST,086403,060501,13,1,85,39,1,1,N,06, ,85,57,100,39,0,0,N
FCST,086404,060501,13,1,85,38,1,1,NNE,06, ,85,55,100,37,0,0,N
FCST,086702,060501,13,1,84,41,1,1,NE,09, ,84,58,100,41,0,0,N
FCST,086703,060501,13,1,83,40,1,1,NNE,06, ,83,60,93,40,0,0,N
FCST,086704,060501,13,1,83,41,1,1,NE,08, ,83,62,90,41,0,0,N

FNUS82 KTAE 301851
FWMTAE

FCST,082201,060501,14,2,79,36,2,1,E,05,M,79,54,87,36,0,0,N
FCST,080802,060501,14,2,80,33,2,1,E,04,M,80,52,87,33,0,0,N
FCST,082001,060501,14,2,79,41,2,1,ESE,05,M,79,55,80,40,0,0,N
FCST,082002,060501,14,2,78,45,2,1,ESE,06,M,78,57,82,45,0,0,N

FNUS82 KJAX 301820
FWMJAX

FCST,081301,060501,13,1,77,39,1,1,NNE,08,M,77,52,100,39,0,0,N
FCST,081302,060501,13,1,76,36,1,1,NNE,08,M,76,51,100,36,0,0,N
FCST,083501,060501,13,1,80,40,1,1,NE,11,M,80,57,96,40,0,0,N
FCST,083502,060501,13,1,80,40,1,1,NE,10,M,80,56,97,40,0,0,N
~~~~~~

BELOW ARE QUICK REFERENCE DEFINITIONS OF NFDRS PARAMETERS.

A B C WX T RH AL TL DD FF F TX TN RX RN P1 P2 WF
FCST,086702,030216,13, 2, 81, 66, 1, 3, S, 13, M, 83, 66, 98, 64, 0, 0, N

A: STATION ID	
B: DATE FOR FORECAST	TOMORROW
C: LOCAL TIME TO VERIFY	2 PM TOMORROW
WX: STATE OF WEATHER	2 PM TOMORROW
T: TEMPERATURE	2 PM TOMORROW
RH: RELATIVE HUMIDITY	2 PM TOMORROW
AL: LIGHTNING ACTIVITY LEVEL	2 PM TO MIDNGT TONIGHT
TL: LIGHTNING ACTIVITY LEVEL	MIDNGT TONIGHT TO MIDNGT TOMORROW NIGHT
DD: WIND DIRECTION 20 FOOT	2 PM TOMORROW
FF: WIND SPEED 20 FOOT	2 PM TOMORROW
F: FUEL STICK	(NOT FORECAST)
TX: MAX TEMPERATURE 24 HR	2 PM TODAY TO 2 PM TOMORROW
TN: MIN TEMPERATURE 24 HR	2 PM TODAY TO 2 PM TOMORROW
RX: MAX HUMIDITY 24 HR	2 PM TODAY TO 2 PM TOMORROW
RN: MIN HUMIDITY 24 HR	2 PM TODAY TO 2 PM TOMORROW
P1: PRECIPITATION 1ST PERIOD	2 PM TODAY TO 6 AM TOMORROW
P2: PRECIPITATION 2ND PERIOD	6 AM TOMORROW TO 2 PM TOMORROW
WF: WET FLAG (Y/N) .10 INCH	2 PM TODAY TO 2 PM TOMORROW

NFDRS DIGITAL POINT FORECAST

A: STATION NUMBER - SIX DIGITS
- REFERS TO FEDERAL OBSERVING SITES
- FIRST 2 DIGITS ARE STATE CODE (FLORIDA--08)
- SECOND 2 DIGITS ARE USFS COUNTY ID
- THIRD 2 DIGITS ARE SITE NUMBER

B: DATE - SIX DIGITS (YEAR, MONTH, DAY)

C: VALID TIME - TWO DIGITS, 01 TO 24
- VALID TIME OF FORECAST (LST)
- NORMALLY THIS IS 14 (1400). (WIMS VALID TOMORROWS DATE)

WX:. STATE OF WEATHER - SINGLE DIGIT, 0 TO 9
- STATE OF WEATHER VALID AT 1400 TOMORROW
- SELECT FROM AMONG THE FOLLOWING CODES:

CODE STATE OF WEATHER
- **0** CLEAR (LESS THAN 1/10 CLOUD COVER)
- **1** SCATTERED CLOUDS (1/10 TO 5/10)
- **2** BROKEN CLOUDS (6/10 TO 9/10)
- **3** OVERCAST (MORE THAN 9/10 CLOUDS)
- **4** FOG
- **5** DRIZZLE
- **6** RAIN
- **7** SNOW OR SLEET
- **8** SHOWERS
- **9** THUNDERSTORM

(**USE CODE 5-7 ONLY IF POP IS 70 PERCENT OR HIGHER**)

T: TEMPERATURE - ONE TO FOUR DIGITS (-100 TO 136)
- TEMPERATURE (F) AT 1400 LST TOMORROW

RH: RELATIVE HUMIDITY - ONE TO THREE DIGITS (1 TO 100)
- RELATIVE HUMIDITY (%) AT 1400 LST TOMORROW

AL: TODAYS LIGHTNING ACTIVITY LEVEL - ONE DIGIT (1 TO 5) FOR THE PERIOD 1400 TODAY TO 2400 TONIGHT

TL: TOMORROWS LIGHTNING ACTIVITY LEVEL - ONE DIGIT (1 TO 5) FOR THE 24 HR PERIOD 2400 TONIGHT UNTIL 2400 TOMORROW NIGHT

LIGHTNING ACTIVITY LEVEL

LAL CLOUD AND STORM DEVELOPMENT CODE

1 - NO THUNDERSTORMS

2 - CUMULUS CLOUDS ARE COMMON BUT ONLY A FEW REACH THE TOWERING CUMULUS STAGE. A SINGLE THUNDERSTORM MUST BE CONFIRMED IN THE RATING AREA. LIGHTNING IS VERY INFREQUENT.

3 - CUMULUS CLOUDS ARE COMMON. SWELLING AND TOWERING CUMULUS COVERS LESS THAN TWO TENTHS OF THE SKY. THUNDERSTORMS ARE FEW, BUT 2 TO 3MUST OCCUR WITHIN THE OBSERVATION AREA. LIGHTNING IS INFREQUENT.

4 - SWELLING CUMULUS AND TOWERING CUMULUS COVER 2 TO 3 TENTHS OF THE SKY. THUNDERSTORM ARE SCATTERED BUT MORE THREE MUST OCCUR WITHIN THE OBSERVATION AREA. LIGHTNING IS FREQUENT.

5 - TOWERING CUMULUS AND THUNDERSTORMS ARE NUMEROUS COVERING MORE THAN THREE TENTHS OF THE SKY. LIGHTNING IS FREQUENT AND INTENSE.

6 - FOR DRY LIGHTNING ONLY (NOT USED IN FLORIDA)

DD: WIND DIRECTION - ONE TO THREE ALPHABETIC CHARACTERS (N, NW, NNW, ETC.)
- WIND DIRECTION AT 1400 LST TOMORROW

FF: WIND SPEED - ONE OR TWO DIGITS (I TO 99)
- FOREST CANOPY WIND SPEED IN MPH, AT 1400 TOMORROW
- NORMALLY ABOUT 70 PERCENT OF THE VALUE USED IN THE ZONE FORECAST

F: 10 HR T/L - 10-HOUR TIME LAG FUEL MOISTURE INDEX
- EITHER ONE OR TWO DIGITS (1 TO 99) OR **M** (MISSING)
- NORMALLY CODED AS **M** (MISSING) SINCE COMPUTATION IS MADE BY WIMS COMPUTER FOR DSPW AND DSPI PRODUCTS

TX: MAXIMUM TEMPERATURE - ONE TO FOUR DIGITS (T VALUE UP TO 136)
- 24 HR MAXIMUM TEMPERATURE (F) FOR THE PERIOD 1400 TODAY TO 1400 TOMORROW (MAY NOT BE LESS THAN 1400 **T** VALUE)

TN: MINIMUM TEMPERATURE - ONE TO FOUR DIGITS (-100 UP TO **T** VALUE).
- 24 HR MINIMUM TEMPERATURE (F) FOR THE PERIOD 1400 TODAY UNTIL 1400 TOMORROW (MAY NOT EXCEED 1400 **T** VALUE)

RX: MAX RELATIVE HUMIDITY - ONE TO THREE DIGITS (OBSERVED RH TO 100)
- 24 HR MAXIMUM RELATIVE HUMIDITY (%) FOR THE PERIOD 1400 TODAY TO 1400 TOMORROW

RN: MIN RELATIVE HUMIDITY - ONE TO THREE DIGITS (1 TO OBSERVED RH)
- 24 HR MINIMUM RELATIVE HUMIDITY (%) FOR THE PERIOD 1400 TODAY TO 1400 TOMORROW

P1: PRECIP DURATION - ONE OR TWO DIGITS IN HOURS (0 TO 16)
- DURATION OF PRECIPITATION EXPECTED FROM 1400 TODAY UNTIL 0600 TOMORROW.
- RESERVE FOR RAIN AREAL COVERAGE OF 70 PERCENT OR HIGHER

P2: PRECIP DURATION - ONE OR TWO DIGITS IN HOURS (00 TO 08)
- DURATION OF PRECIPITATION EXPECTED FROM 0600 UNTIL 1400 TOMORROW.
- RESERVE FOR RAIN AREAL COVERAGE OF 70 PERCENT OR HIGHER.

WF: WET FLAG - CODED YES OR NO. IF FUELS EXPECTED TO BE WET AT FORECAST VALID TIME (1400) TOMORROW, CODE AS **Y**. IF FUELS ARE DRY, CODE AS **N**. RESERVE **Y** FOR GREATER THAN 70 PERCENT AREAL COVERAGE OF WETTING RAIN IN AMOUNTS GREATER THAN ONE TENTH INCH, OTHERWISE **Y** RESETS FIRE DANGER INDICES TO ZERO.

D. THE SPOT WEATHER FORECAST (FWS)

THE NATIONAL WEATHER SERVICE WILL PROVIDE UPON REQUEST, SPECIALIZED SITE SPECIFIC **SPOT FORECASTS** (FWS) FOR WILDFIRES, PRESCRIBED BURNS, PARTICULATE DISPERSAL OR AERIAL SPRAY PROJECTS, HAZARDOUS MATERIALS INCIDENTS AND OTHER TREATS TO PUBLIC SAFETY. A REQUEST MAY BE MADE AT ANY TIME AND ARE FOR SITE SPECIFIC LOCATIONS. SPOT FORECASTS PROVIDE A MORE DETAILED BREAKDOWN OF WEATHER FORECASTED ELEMENTS INTO TWO OR THREE HOUR SEGMENTS OF TIME. SPOT FORECASTS ARE INITIALLY MADE FOR A 12 HOUR PERIOD WITH A 12 TO 24 HOUR OUTLOOK.

THE NATIONAL WEATHER SERVICE WILL PROVIDE SPOT FORECAST SUPPORT AND SERVICE UPON REQUEST OF ANY FEDERAL, STATE, TRIBAL, OR LOCAL OFFICIAL WHO REPRESENTS THE SPOT FORECAST IS REQUIRED TO SUPPORT A WILDFIRE.

FOR NON-WILDFIRE PURPOSES, RESOURCES PERMITTING, THE NATIONAL WEATHER SERVICE WILL PROVIDE SPOT FORECAST SUPPORT AND SERVICE UNDER THE FOLLOWING CIRCUMSTANCES AND CONDITIONS:

A. UPON THE REQUEST OF ANY FEDERAL OFFICIAL WHO REPRESENTS THAT THE SPOT FORECAST IS REQUIRED UNDER THE TERMS OF THE INTERAGENCY AGREEMENT FOR METEOROLOGICAL SERVICES.

B. UPON REQUEST OF ANY STATE, TRIBAL, OR LOCAL OFFICIAL WHO REPRESENTS THAT THE SPOT FORECAST IS REQUIRED TO CARRY OUT THEIR WILDLAND FIRE MANAGEMENT RESPONSIBILITIES IN COORDINATION WITH ANY FEDERAL LAND MANAGEMENT AGENCY PARTICIPATING IN THE INTERAGENCY AGREEMENT FOR METEOROLOGICAL SERVICES.

C. UPON REQUEST OF ANY PUBLIC OFFICIAL WHO REPRESENT THE SPOT FORECAST IS ESSENTIAL TO PUBLIC SAFETY, E.G. DUE TO THE PROXIMITY OF POPULATION CENTERS OR CRITICAL INFRASTRUCTURE. A “PUBLIC SAFETY OFFICIAL” IS AN EMPLOYEE OR CONTRACT AGENT OF A GOVERNMENT AGENCY AT ANY LEVEL (FEDERAL, STATE, LOCAL, TRIBAL, ETC.) CHARGED WITH PROTECTING THE PUBLIC FROM HAZARDS INCLUDING WILDLAND FIRES OF WHATEVER ORIGIN AND/OR OTHER HAZARDS INFLUENCED BY WEATHER CONDITIONS SUCH AS HAZARDOUS MATERIAL RELEASES.

THE UPDATED INTERNET BASED NWS SPOT PROGRAM IS THE NEW NATIONAL STANDARD FOR REQUESTING AND ISSUING SPOT FORECASTS AND SHOULD BE USED WHEN POSSIBLE. IN TIMES WHEN INTERNET ACCESS IS HINDERED OR NOT POSSIBLE, SPOT FORECASTS MAY STILL BE REQUESTED AND DISSEMINATED BY TELEPHONE OR FAX. SEE **PAGES 8 THROUGH 16** FOR NWS SPOT FORECAST SUPPORT CONTACT TELEPHONE NUMBERS AND INTERNET ADDRESSES.

SPOT FORECASTS SHOULD NORMALLY BE AVAILABLE WITHIN 30 MINUTES OF REQUEST WITH TYPICALLY NO MORE THAN A 45 MINUTE DEADLINE. HOWEVER UNDER ADVERSE WEATHER CONDITIONS, SPOT FORECAST REQUESTS WILL BE PROCESSED WITHIN A MYRIAD OF ONGOING WEATHER CONCERNS. IF THE SPOT REQUEST IS FOR WILDFIRE, THE FORECASTER SHOULD ASSIGN A HIGHER PRIORITY FOR FORECAST PREPARATION. FOR THE SAFETY OF FIRE CREWS AND OPERATIONS, A SPOT REQUEST FOR WILDFIRE WILL BE PRIORITIZED SIMILAR TO THE EXPEDIENCY GIVEN SEVERE WEATHER.

THE REQUESTING AGENCY CAN GREATLY AID THE FORECASTER BY PROVIDING AT A MINIMUM THE FOLLOWING INFORMATION.

NATURE OR REASON OF FIRE (WILDFIRE or PRESCRIBED BURN)
NAME OF FIRE
NAME ANY PHONE NUMBER OF CONTROL AGENCY AND/OR REPRESENTATIVE
LOCATION OF THE FIRE (LAT/LONG IN DEGREES/MINUTES/SECONDS FORMAT OR TOWNSHIP AND RANGE)
SIZE OF FIRE OR PROJECT
RECENT WEATHER OBSERVATION NEAR THE FIRE SITE

THE SUBMISSION OF AT LEAST ONE RECENT ACCURATE WEATHER OBSERVATION FROM NEAR THE FIRE SITE CAN NOT BE OVER-EMPHASIZED WITH EACH SPOT FORECAST REQUEST. FOR PRESCRIBED BURNS, A PLANNED IGNITION TIME IS RECOMMENDED AS WELL. ANY ADDITIONAL INFORMATION WHICH WOULD HELP THE FORECASTER PRIORITIZE THE REQUEST SUCH AS A THREAT TO STRUCTURES, THE PUBLIC, FIRE OPERATIONS, OR UNUSUAL FIRE BEHAVIOR

CONSTRUCTIVE CRITIQUE OF SPOT FORECASTS BY USERS IS ALSO ENCOURAGED, PREFERABLY DIRECTLY TO THE FORECASTER AND SUBSTANTIATED BY ON-SITE OBSERVATIONS. IF THE FORECAST DOES NOT REASONABLY MATCH OBSERVED CONDITIONS, CALL THE FORECASTER TO DISCUSS THE SITUATION OR TO REQUEST AN UPDATED SPOT FORECAST.

SPOT FORECAST AGENCY SUPPORT

ADDITIONAL SITE SPECIFIC SPOT FORECAST SUPPORT IS AVAILABLE FROM THE FLORIDA DIVISION OF FORESTRY'S SPOT FORECAST WEB PAGE. TO PROCESS AND RECEIVE AUTOMATED SPOT FORECASTS FROM THE MM5 METEOROLOGICAL MODEL.

ACCESS THE INTERNET ADDRESS:

http://www.fl-dof.com/fire_weather/spot/

NWS SPOT FORECAST CONTENT:

SPOT FORECAST FOR NAME OF INCIDENT
ISSUING NATIONAL WEATHER SERVICE OFFICE
TIME AND DATE OF SPOT FORECAST ISSUANCE

A HEADLINE...ONLY FOR WATCH/WARNING CRITERIA
WEATHER DISCUSSION

WEATHER PARAMETERS FOR THE FIRST 12 HOURS WILL INCLUDE A 2 TO 3 HOUR TIME INCREMENTAL BREAKUP OF:

SKY
WEATHER
CHANCE OF PRECIPITATION
TEMPERATURE
RH
20 FOOT WIND
(OPTIONAL ELEMENTS MAY BE FORECAST SUCH AS MIXING HEIGHT...TRANSPORT WINDS...SMOKE DISPERSION...ETC).

NEXT 12 HOUR OUTLOOK PERIOD...TYPICALLY OVERNIGHT WITH ABBREVIATED WEATHER INFORMATION.

OUTLOOK FOR NEXT DAY...TYPICALLY NEXT DAY WITH ABBREVIATED WEATHER INFORMATION.

EXAMPLE: NATIONAL WEATHER SERVICE SPOT WEATHER FORECAST (FWS)

000
FNUS72 KTBW 132219
FWSTBW

SPOT FORECAST FOR VINCENT STREET FIRE...DOF TLH
NATIONAL WEATHER SERVICE TAMPA BAY AREA - RUSKIN FL
619 PM EDT SAT MAY 13 2006

...RED FLAG WARNING IN EFFECT UNTIL 8 PM EDT THIS EVENING 15 MILES INLAND FROM THE COAST AND POINTS EAST...
...FIRE WEATHER WATCH IN EFFECT SUNDAY AFTERNOON 15 MILES INLAND FROM THE COAST AND POINTS EAST FOR LOW HUMIDITY AND POSSIBLE DISPERSION ABOVE 75...

IF CONDITIONS BECOME UNREPRESENTATIVE... CONTACT THE NATIONAL WEATHER SERVICE.

.DISCUSSION...DRY HIGH PRESSURE WILL CONTINUE ACROSS SOUTHWEST FLORIDA THROUGH SUNDAY. RELATIVE HUMIDITY WHICH IS ESTIMATED TO BE NEAR 30 PERCENT LATE THIS AFTERNOON WILL RISE QUICKLY BY SUNSET THIS EVENING.

HUMIDITY VALUES WILL DROP ONCE AGAIN SUNDAY AFTERNOON...AND FALL BELOW 35 PERCENT BY MID AFTERNOON IN THE AFFECTED AREA. HOWEVER...THERE IS A GOOD CHANCE THAT THE AFTERNOON SEA BREEZE WILL PUSH HIGHER HUMIDITY VALUES WELL INLAND BEFORE 4 HOURS OF DURATION ARE REACHED. UNFORTUNATELY...THE DRY GROUND COMBINED WITH THE ADDED GUSTY WIND MAY EXACERBATE FIRE SPREAD ISSUES DESPITE THE RISING HUMIDITY AS LAVDAS DISPERSION VALUES ARE EXPECTED TO EXCEED 75.

_____
.TONIGHT...

TIME (EDT)	6 PM	8 PM	10 PM	MIDNT	2 AM	4 AM	6 AM
SKY	CLEAR	MCLR	MCLR	MCLR	MCLR	MCLR	MCLR
WX	NONE	NONE	NONE	NONE	NONE	NONE	NONE
TEMP (F)	81	76	72	68	64	62	60
RH (%)	41	54	62	72	83	88	96
20 FT WIND	W 15	W 5	W 5	W 3	W 0	W 0	W 0
20 FT WIND GUST	20	NO	NO	NO	NO	NO	NO
CHC PRECIP (%)	0	0	0	0	0	0	0
LAL	1	1	1	1	1	1	1
MIX HGT (FT)	4000	300	300	300	300	300	300
TRANSPORT WIND	W 15	W 8	W 6	W 6	W 4	W 4	W 3
DISPERSION	55	5	3	2	1	1	1

SKY/WEATHER.....MOSTLY CLEAR (10-20 PERCENT).
MIN TEMPERATURE.....AROUND 60.
MIN HUMIDITY.....41 PERCENT.
WIND (20 FT).....WEST WINDS AROUND 10 MPH DECREASING TO 0 TO 5 MPH.
LAL.....1.
MIXING HEIGHT.....4500 FT AGL DECREASING TO 300 FT AGL AFTER MIDNIGHT.
TRANSPORT WIND.....WEST 10 TO 15 DECREASING TO AROUND 5 MPH.

_____
.SUNDAY...

SKY/WEATHER.....MOSTLY SUNNY (20-30 PERCENT).
MAX TEMPERATURE....AROUND 88.
MIN HUMIDITY.....30-35 PERCENT RISING TO 40 PERCENT AFTER 4 PM.
WIND (20 FT).....LIGHT WINDS BECOMING SOUTHWEST 10 MPH THEN INCREASING TO WEST 17 MPH BY MID AFTERNOON.

CWR.....ZERO.
LAL.....1.
MIXING HEIGHT.....300 FT AGL INCREASING TO 5500 FT AGL BY EARLY AFTERNOON
MIXING WINDS.....SOUTHWEST 5 MPH INCREASING TO 15 MPH BY AFTERNOON.
LAVDAS DISPERSION...WILL EXCEED 75 BY MID AFTERNOON AND MAY BRIEFLY APPROACH 85.
_____

$$
FORECASTER...NWS TAMPA BAY
REQUESTED BY...DOF
REASON FOR REQUEST...WILDFIRE
.TAG 20060513.VINCE.01/TBW

E. FIRE WEATHER WATCHES AND RED FLAG WARNINGS:

THE **FIRE WEATHER WATCH** AND **RED FLAG WARNING** PROGRAMS ARE A MEANS BY WHICH THE WEATHER FORECASTER INFORMS THE LAND MANAGEMENT AGENCIES OF CRITICAL WEATHER FACTORS, COMBINED WITH DRY FUELS, WHICH COULD SUPPORT EXTREME FIRE DANGER AND/OR FIRE BEHAVIOR WHICH MAY LEAD TO EXTENSIVE WILDFIRE OCCURRENCE OR CONTROL PROBLEMS WITH EXISTING FIRES. FORECASTS ARE HEADLINED WITH FIRE WEATHER WATCHES OR RED FLAG WARNINGS AS ISSUED.

A **FIRE WEATHER WATCH** OR **RED FLAG WARNING** IS ISSUED FOR WEATHER SITUATIONS, COMBINED WITH DRY FUELS, WHICH MAY REPRESENT A THREAT TO LIFE AND PROPERTY, BY ADVERSELY IMPACTING FIRE FIGHTING RESOURCES OR PERSONNEL. THEREFORE THE IDENTIFICATION OF RED FLAG EVENTS IS A PRIME RESPONSIBILITY OF THE FIRE WEATHER FORECASTER.

THE CRITERIA OF WEATHER AND FUEL CONDITIONS FOR THE ISSUANCE OF RED FLAG EVENTS IS COORDINATED IN ADVANCE WITH LAND MANAGEMENT AGENCIES AND USERS WITHIN THE STATE OF FLORIDA . FIRE WEATHER WATCHES AND RED FLAG WARNINGS ARE ISSUED SOLELY FOR THE PURPOSE OF ADVISING LAND MANAGEMENT AGENCIES OF CRITICAL FIRE WEATHER CONDITIONS. CRITICALLY DRY FUELS IN FLORIDA ARE HIGHLY DEPENDANT ON ONE HOUR FUEL MOISTURE, WHICH IS DIRECTLY DETERMINED BY THE RELATIVE HUMIDITY, THEREFORE CRITICALLY DRY RELATIVE HUMIDITY IS EQUIVALENT TO CRITICALLY DRY FUELS.

RED FLAG WARNING:

A RED FLAG WARNING IS ISSUED TO WARN OF AN IMPENDING OR ONGOING RED FLAG EVENT. A RED FLAG WARNING WILL BE ISSUED IMMEDIATELY WHEN RED FLAG CONDITIONS ARE IMMINENT, OCCURRING, OR WHEN THERE IS A HIGH LEVEL OF CONFIDENCE THAT RED FLAG CONDITIONS WILL DEVELOP WITHIN THE NEXT 24 HOURS.

IN COORDINATION WITH LAND MANAGEMENT AGENCIES, ANY AREA OF FLORIDA WILL BE CONSIDERED TO BE EXPERIENCING A RED FLAG EVENT WHENEVER ANY ONE OF THE FOLLOWING CRITERIA ARE MET:

MINIMUM FLORIDA RED FLAG CRITERIA

1. RELATIVE HUMIDITY LESS THAN 35 PERCENT FOR FOUR CONSECUTIVE HOURS OR MORE.

2. RELATIVE HUMIDITY LESS THAN 35 PERCENT WITH SUSTAINED 20 FOOT WIND SPEEDS OF 15 MPH OR MORE.

3. RELATIVE HUMIDITY LESS THAN 35 PERCENT WITH A DISPERSION INDEX VALUE OF 75 OR MORE. (SEE **PAGE 80** FOR A DESCRIPTION OF THE LAVDAS DISPERSION INDEX).

FIRE WEATHER WATCH:

A FIRE WEATHER WATCH IS ISSUED TO ALERT THE USERS TO THE POSSIBLE DEVELOPMENT OF A RED FLAG EVENT AS DEFINED ABOVE. A FIRE WEATHER WATCH IS NOT ALLOWED WITHIN THE INITIAL 12 HOURS OF FORECAST ISSUANCE. A WATCH IS ISSUED IF A FORECASTERS CONFIDENCE IS REASONABLY HIGHER THAT AN EVENT WILL OCCUR IN THE PERIOD GREATER THAN 24 HOURS IN ADVANCE OF FORECAST ISSUANCE. A WATCH WILL NOT BE ISSUED MORE THAN 72 HOURS IN ADVANCE OF AN EXPECTED EVENT. ALTHOUGH IT IS DESIRABLE TO HAVE A FIRE WEATHER WATCH PRECEDE A RED FLAG EVENT BY AT LEAST 12 HOURS...A WATCH IS IN NO WAY A MANDATORY PREREQUISITE FOR AN UNFORESEEN WARNING TO BE ISSUED.

A FIRE WEATHER WATCH SHALL REMAIN IN EFFECT UNTIL THE FORECASTER DETERMINES THAT EITHER THE RED FLAG EVENT WILL NOT DEVELOP OR THAT THE WATCH SHOULD BE UPGRADED TO A RED FLAG WARNING. IF THE FIRE WEATHER FORECASTER DETERMINES THAT THE A POTENTIAL RED FLAG EVENT WILL NOT OCCUR, THE FIRE WEATHER WATCH WILL BE CANCELED.

USAGE IN FORECASTS

WHEN A FIRE WEATHER WATCH OR RED FLAG WARNING (RFW) IS ISSUED, THE EVENT SHALL BE HEADLINED ON **ALL** SUBSEQUENT FIRE WEATHER FORECASTS (FWF) UNTIL THE EVENT EXPIRES OR IS CANCELED. (EXCEPTION: HEADLINES ARE OMITTED FROM NATIONAL FIRE DANGER RATING SYSTEM -NFDRS- POINT FORECASTS AND THE AFTERNOON SMOKE DISPERSION UPDATE (SMF)). UNSCHEDULED SPOT FORECAST WILL ONLY CONTAIN AN EVENT HEADLINE IF THE SPOT FORECAST SITE IS WITHIN A WATCH OR WARNED AREA.

WATCH/WARNING FORECAST UPDATES

WHENEVER UNFORESEEN RED FLAG CONDITIONS DEVELOP, A RED FLAG WARNING PRODUCT (RFW) WILL BE ISSUED. AN UPDATED FIRE WEATHER FORECAST WITH APPROPRIATE WATCH OR WARNING HEADLINES SHOULD BE ISSUED. HEADLINES SHOULD INCLUDE THE EFFECTIVE ONSET TIME, ZONES AFFECTED, VALID PERIOD OF THE WATCH OR WARNING, AND REASONS FOR ISSUANCE UPDATE. NOTIFY THE DOF AND AFFECTED FEDERAL AGENCY DISPATCH OFFICES WITHIN AMENDED WARNED AREAS.

RFW CONTENT
THE FIRE WEATHER WATCH AND RED FLAG WARNING FORMAT WILL INCLUDE SEGMENTED FORECAST INFORMATION, AND MAY CONTAIN AN OVERVIEW SECTION.

.OVERVIEW SECTION
THIS SECTION IS OPTIONAL. IF INCLUDED, IT SHOULD CONTAIN AT LEAST ONE OF THE FOLLOWING ITEMS:

OVERVIEW HEADLINE(S) - GENERAL HEADLINE STATEMENT(S) THAT SUMMARIZES THE FIRE WEATHER THREAT, TIME OF DEVOLVEMENT, REASON FOR ISSUANCE, AND AREA AFFECTED.

GENERAL DISCUSSION - A BRIEF, NON TECHNICAL DISCUSSION OF THE EXPECTED FIRE WEATHER EVENT.

.SEGMENTED FORECAST INFORMATION
EACH SEGMENT OF THE FIRE WEATHER WATCH/RED FLAG WARNING WILL INCLUDE:

UCG CODING AND GEOGRAPHIC DESCRIPTION OF ZONES AND/OR ZONE NUMBERS.

A HEADLINE DESCRIBING THE STATE OF THE FIRE WEATHER WATCH OR RED FLAG WARNING (ISSUED, CONTINUES, CANCELED), THE EFFECTIVE TIME OF THE EVENT, THE CRITICAL WEATHER ELEMENT(S) CAUSING THE EVENT, AND A DESCRIPTION OF THE AFFECTED AREA.

DISCUSSION SECTION WHICH DESCRIBES THE ADVERSE WEATHER CONDITIONS. IN THE INTIAL ISSUANCE OF THE WATCH OR WARNING, INCLUDING THE FOLLOWING PHRASE TO BEGIN THE DISCUSSION:
THE NATIONAL WEATHER SERVICE IN (WFO OR LOCATION) HAS ISSUED A (RED FLAG WARNING OF FIRE WEATHER WATCH) FOR

.ORDER OF SEGMENTS

(1) CANCELLATION
(2) WARNINGS
(3) WATCHES

.ORDER OF HEADLINES
IF MULTIPLE HEADLINES ARE REQUIRED IN A SINGLE SEGMENT, THE ORDER OF HEADLINES WILL FOLLOW THE ORDER OF SEGMENTS.

.UPDATES AND CORRECTIONS
A FIRE WEATHER WATCH WILL REMAIN IN EFFECT UNTIL THE WATCH: 1) IS CANCELED, 2) IS UPGRADED TO A RED FLAG WARNING, OR 3) EXPIRES.

A RED FLAG WARNING WILL REMAIN IN EFFECT UNTIL THE WARNING: 1) IS CANCELED, OR 2) EXPIRES.

USE THE SAME PRODUCT IDENTIFIER (RFW) FOR ISSUING, UPDATING, AND CANCELING FIRE WEATHER WATCHES AND RED FLAG WARNINGS. FORECASTERS WILL ALSO UPDATE THE FWF PRODUCT WHEN A RFW PRODUCT IS ISSUED, UPDATED, OR CANCELED.

THE RFW WILL BE CORRECTED WHEN A TYPOGRAPHICAL/FORMAT ERROR IS DETECTED.

.OTHER DISSEMINATION OF RED FLAG INFORMATION
FORECASTERS WILL PLACE HEADLINES FOR FIRE WEATHER WATCHES/RED FLAG WARNINGS AT THE BEGINNING OF THE ROUTINE FWF AND IN THE APPROPRIATE ZONE SECTIONS.

FORECASTS SHOULD INCLUDE THE RFW HIGHLIGHTS IN THE APPROPRIATE LIST OF HIGHLIGHTS IN THE AREA FORECASTS DISCUSSION.

EXAMPLE: RED FLAG WARNING OR FIRE WEATHER WATCH (RFW)

000
WWUS84 KMOB 301020
RFWMOB

RED FLAG WARNING
NATIONAL WEATHER SERVICE MOBILE AL
520 AM CDT FRI JUN 30 2006

...A RED FLAG WARNING IS IN EFFECT FROM LATE MORNING THROUGH THE AFTERNOON HOURS FOR THE WESTERN FLORIDA PANHANDLE DUE TO THE FORECAST OF LONG DURATIONS OF CRITICALLY LOW RELATIVE DAYTIME HUMIDITY BELOW 35 PERCENT...

...A FIRE WEATHER WATCH IS IN EFFECT SATURDAY AFTERNOON FOR THE INTERIOR OF THE WESTERN FLORIDA PANHANDLE DUE TO THE POTENTIAL OF LONG DURATIONS OF LOW DAYTIME RELATIVE HUMIDITY...
.A DRY AIRMASS PERSISTS OVER THE CENTRAL GULF COAST REGION FOR THE NEXT COUPLE DAYS. AFTERNOON RELATIVE HUMIDITY VALUES WILL DROP BELOW 35 PERCENT FOR SEVERAL HOURS TODAY AND POSSIBLY AGAIN ON SATURDAY.

FLZ001-003-005-302000-
/O.CON.KMOB.FW.W.0055.060630T1600Z-060701T0000Z/
/O.CON.KMOB.FW.A.0048.060701T1800Z-060702T0000Z/
INLAND ESCAMBIA-INLAND SANTA ROSA-INLAND OKALOOSA-
520 AM CDT FRI JUN 30 2006

...RED FLAG WARNING REMAINS IN EFFECT FROM 11 AM THIS MORNING TO 7 PM CDT THIS EVENING...
...FIRE WEATHER WATCH REMAINS IN EFFECT FROM SATURDAY AFTERNOON THROUGH SATURDAY EVENING...

A RED FLAG WARNING REMAINS IN EFFECT FROM 11 AM THIS MORNING TO 7 PM CDT THIS EVENING.
A FIRE WEATHER WATCH REMAINS IN EFFECT FROM SATURDAY AFTERNOON THROUGH SATURDAY EVENING.

...A FIRE WEATHER WATCH IS IN EFFECT SATURDAY AFTERNOON FOR THE INTERIOR OF THE WESTERN FLORIDA PANHANDLE DUE TO THE POTENTIAL OF LONG DURATIONS OF LOW DAYTIME RELATIVE HUMIDITY...

LOWEST DAYTIME HUMIDITIES ARE FORECAST TO AVERAGE AROUND 25 PERCENT FOR SEVERAL HOURS FROM MID DAY THROUGH THE LATE AFTERNOON.

A RED FLAG WARNING MEANS THAT CRITICAL FIRE WEATHER CONDITIONS ARE FORECAST. HOT TEMPERATURES ALONG WITH DRIER AIR...SETS UP LOW RELATIVE HUMIDITY VALUES CREATING THE CONDITIONS FOR EXPLOSIVE FIRE GROWTH POTENTIAL.

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COASTAL ESCAMBIA-COASTAL SANTA ROSA-COASTAL OKALOOSA- COASTAL WALTON-
520 AM CDT FRI JUN 30 2006

...RED FLAG WARNING REMAINS IN EFFECT FROM 11 AM THIS MORNING TO 7 PM CDT THIS EVENING...

A RED FLAG WARNING MEANS THAT CRITICAL FIRE WEATHER CONDITIONS ARE FORECAST. HOT TEMPERATURES ALONG WITH DRIER AIR...SETS UP LOW RELATIVE HUMIDITY VALUES CREATING THE CONDITIONS FOR EXPLOSIVE FIRE GROWTH POTENTIAL.

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FORECASTER NWS MOB

F: ON SITE SUPPORT RESPONSIBILITIES

AT DESIGNATED FORECAST OFFICES, AN **INCIDENT METEOROLOGIST (IMET**) WILL BE **ALL HAZARDS METEOROLOGICAL RESPONSE SYSTEM (AMRS)** QUALIFIED FOR ON-SITE DEPLOYMENT TO MAJOR WILDFIRES OR MAJOR ALL HAZARDS INCIDENTS WITHIN OR OUT OF STATE FOR INCIDENT FORECAST SUPPORT. AMRS DEPLOYMENTS ARE DISPATCHED THROUGH THE NWS REGIONAL FIRE WEATHER PROGRAM LEADER. THE IMET METEOROLOGIST WILL WORK IN SUPPORT OF THE FIRE BEHAVIOR ANALYST, HAZMAT TEAM AND INCIDENT COMMANDER UNDER THE NATIONAL INCIDENT COMMAND STRUCTURE WITH RESPONSE TEAM.

TRAINING RESPONSIBILITIES

NWS FIRE WEATHER PROGRAM LEADERS WILL AT TIMES BE REQUESTED TO PROVIDE TRAINING WITHIN BASIC METEOROLOGY IN SUPPORT TO LAND MANAGEMENT AGENCY SCHOOLS OR SEMINARS. INSTRUCTION TOPICS CAN INCLUDE THE IMPACT OF WEATHER UPON FIRE AND WILDLAND FUELS, SMOKE MANAGEMENT, OR THE USE OF NATIONAL WEATHER SERVICE PRODUCTS AND SERVICES.

OTHER SPECIALIZED SERVICES INCLUDE COURSE DEVELOPMENT WORK, INSTRUCTION IN OBSERVATION PROCEDURES, AND MAINTAINING THE FLORIDA FIRE WEATHER OPERATIONS PLAN.

IMET/AMRS SUPPORT

ON-SITE METEOROLOGICAL SERVICES (IMET/AMRS)

SPECIALLY TRAINED INCIDENT METEOROLOGISTS (**IMET**), EQUIPPED WITH ALL HAZARDS METEOROLOGICAL RESPONSE SYSTEM (**AMRS**) AND A LAPTOP COMPUTER PROVIDE ON-SITE, SITE-SPECIFIC WEATHER SUPPORT TO PERSONNEL WORKING CRITICAL PRESCRIBED BURNS, CONTROL OF LARGE WILDFIRES, MAJOR ALL HAZARDS INCIDENTS , OR OTHER SIGNIFICANT WEATHER SENSITIVE INCIDENTS.

AN ALL HAZARDS METEOROLOGICAL RESPONSE SYSTEM (**AMRS**) IS A MODULARIZED MOBILE FORECASTING UNIT DESIGNED TO BE EASILY TRANSPORTED AND ASSEMBLED ON SITE. THE MODULES CONTAIN A SATELLITE SYSTEM FOR HIGH SPEED DATA TRANSFER TO THE LAPTOP, AN OPTIONAL THEODOLITE (FOR TRACKING PILOT BALLOONS), BELT WEATHER KIT, AND ASSORTED SUPPLIES.

A REQUEST FOR AN AMRS SUPPORTED METEOROLOGIST SHOULD BE PLACED THROUGH THE SOUTHERN AREA COORDINATION CENTER (SACC) IN ATLANTA. TWO RESOURCE ORDERS ARE REQUIRED WHEN MAKING A REQUEST, ONE FOR OVERHEAD IMET, AND A SECOND FOR THE AMRS EQUIPMENT. SACC WILL FORWARD THE REQUEST TO APPROPRIATE NWS REGIONAL HEADQUARTERS TO CONTACT AN AVAILABLE IMET'S METEOROLOGIST-IN-CHARGE FOR IMET DISPATCH, DAY AND NIGHT. THE REQUESTING AGENCY IS RESPONSIBLE FOR COORDINATING TRANSPORTATION OF THE AMRS AND THE IMET TO AND FROM THE INCIDENT SITE.

IMET AND AMRS METEOROLOGISTS SHOULD OBTAIN THE FOLLOWING INFORMATION:

--NAME OF AGENCY REQUESTING SUPPORT
--NAME AND TELEPHONE NUMBER OF PERSON REQUESTING SUPPORT
--INCIDENT NAME AND LOCATION
--RESOURCE ORDER NUMBERS FOR THE IMET AND AMRS
--DIRECTIONS TO FIRE CAMP OR INCIDENT LOCATION
--TYPE OF INCIDENT TEAM INCLUDING THE INCIDENT COMMANDER, PLANS CHIEF AND FIRE BEHAVIOR ANALYST, OR HAZMAT PERSONNEL IF AVAILABLE.

CACHE SITE FOR THE AMRS IN THE SOUTHEAST U.S. IS LOCATED IN LONDON, KENTUCKY. IF UNAVAILABLE...AN AMRS CAN BE OBTAINED FROM AN ALTERNATE CACHE SITE THROUGH NIFC.

THE REQUESTING AGENCY IS RESPONSIBLE FOR TRANSPORTING THE IMET AND AMRS TO AND FROM AN INCIDENT. ADDITIONALLY THE USER AGENCY IS RESPONSIBLE FOR PROVIDING ADEQUATE SHELTER FOR METEOROLOGIST AND EQUIPMENT TO FUNCTION EFFICIENTLY. THIS WOULD INCLUDE A LOCATION FREE OF EXCESSIVE DUST, HEAT AND MOISTURE, PROTECTION FROM WIND AND OTHER ELEMENTS, AND A TABLE AND CHAIR. TRANSPORTATION AND SHELTER ARRANGEMENTS SHOULD BE MADE AT THE TIME OF THE REQUEST. THE AMRS REQUIRES 120 VOLT AC POWER AND THE LAPTOP NEEDS A QUALITY TELEPHONE ACCESS. IF IMET REQUESTED, A SMALL TANK OF HELIUM FOR WEATHER BALLOONS SHOULD BE PROVIDED. AN OUTSIDE AREA WITH A CLEARING TO THE SOUTH, ALLOWING VISIBILITY TO WITHIN 40 DEGREES OF THE HORIZON, SHOULD BE PROVIDED TO ALLOW THE IMET TO TAKE ADVANTAGE OF THE SATELLITE SYSTEM THAT IS PART OF THE AMRS.

USER AGENCIES WILL REIMBURSE THE NWS FOR ALL COSTS ASSOCIATED WITH IMET MOBILIZATIONS SET FORTH IN THE NATIONAL AGREEMENT (**PAGES 58-74**). REIMBURSABLE EXPENSES INCLUDE OVERTIME, PER DIEM, TRAVEL, EQUIPMENT MAINTENANCE, AND TRANSPORTATION OF THE IMET AND EQUIPMENT.

IMET COORDINATION AND CONFERENCE CALLS

IF THREE OR MORE IMETS ARE CONCURRENTLY DEPLOYED WITHIN THE STATE IN SUPPORT OF A MAJOR WILDFIRE INCIDENT (I.E. JUNE/JULY 1998), AN NWS REGIONALLY SUPPORTED COORDINATION CENTER WILL BE ESTABLISHED. THIS CENTER WILL BE LOCATED AT AN NWS OFFICE STRATEGICALLY LOCATED AWAY FROM THE NWS COUNTY WARNING AREA IN WHICH MAJOR FIRE ACTIVITY IS OCCURRING.

THE CENTER WILL COORDINATE THE NUMEROUS LOGISTICAL, SUPPLY, AND COMMUNICATION NEEDS OF THE IMETS LOCATED AT SEVERAL FIRE STAGING AREAS. DAILY CONFERENCE CALLS HOSTED BY A COORDINATION CENTER WILL FURTHER PROVIDE A FORUM FOR THE ACTIVITIES AND COMMON FORECAST LOGIC OF THE FIELD IMETS.

IMET SUPPORT LAPTOP PC

NWS FIRE WEATHER LAPTOP COMPUTERS ARE NATIONAL RESOURCES TO SUPPORT INCIDENT METEOROLOGISTS DURING OUT OF OFFICE ASSIGNMENTS. THE LAPTOPS HAVE BEEN SETUP WITH A STANDARDIZED SOFTWARE CONFIGURATION. THE STANDARDIZED SOFTWARE SHOULD NOT BE MODIFIED. LAPTOPS UTILIZE A WINDOWS XP OPERATING SYSTEM.

ALL IMETS WILL HAVE ACCESS TO LAPTOP PC's TO SUPPORT A SATELLITE DOCKING STATION, DATA ACQUISITION, AND A PRINTER. SPECIFIED IMETS WILL BE ASSIGNED A CACHED NWS OWNED LAPTOP PC AT THEIR HOME DUTY OFFICE. WITHIN FLORIDA, LAPTOP PC's ARE CACHED AT THE TAMPA BAY AREA OFFICE IN RUSKIN. IF A LAPTOP IS NOT LOCATED AT YOUR LOCAL WEATHER OFFICE, AN ASSIGNED INCIDENT METEOROLOGIST WILL NEED TO ARRANGE SHIPMENT OF A SEPARATE SUPPORTING LAPTOP FROM THE STAFF METEOROLOGIST (SMN) AT NIFC.

ALL IMETS ARE RESPONSIBLE FOR THE CARE AND TRANSPORT OF THE LAPTOPS TO AND FROM INCIDENT SITES OR THE LAPTOP CACHE SITE. ANY SHIPPING CHARGES TO OR FROM INCIDENT SHOULD BE CHARGED TO THE FIRE COSTS. WHILE IN POSSESSION OF THE LAPTOP, THE METEOROLOGIST IS ALSO RESPONSIBLE FOR CHECKING THE LAPTOP PC AND RESTOCKING ANY SUPPORT SATCHEL SUPPLIES, BATTERIES, SOFTWARE, FORMS, ETC (TO ENSURE DISPATCH READINESS.

IMET ACCOUNTING PROCEDURES

AS SOON AS POSSIBLE AFTER EACH IMET MOBILE UNIT (AMRS) OPERATION, WEATHER SERVICE FORM **D-21**, *FIRE WEATHER MOBILE UNIT OPERATION REPORT,* SHOULD BE COMPLETED WITH COPIES FORWARDED TO NWS SOUTHERN REGION HEADQUARTERS, AND TO THE STAFF METEOROLOGIST (SMN) AT NIFC. THIS REPORT DOCUMENTS ANY LOGISTIC, EQUIPMENT, OR ACCOUNTING PROBLEMS WHICH MAY HAVE OCCURRED IN SUPPORT OF AN INCIDENT.

AN **RRE** FORM, *REPORT OF REIMBURSABLE EXPENSES*, FOR EACH INCIDENT SHOULD ALSO BE FORWARDED TO THE APPROPRIATE NWS REGIONAL HEADQUARTERS. THIS FORM WILL ITEMIZE THE EXPENSES WHICH MAY BE CHARGED TO THE APPROPRIATE LAND MANAGEMENT AGENCY RESPONSIBLE FOR FIRE COSTS. REIMBURSABLE EXPENSES AS PER NATIONAL AGREEMENT INCLUDE OVERTIME, PER DIEM, TRAVEL, MAINTENANCE OF DAMAGED EQUIPMENT AND EXPENSES RESULTING FROM AMRS ACTIVITIES.

AMRS/IMET DUTIES

IMET DEPLOYMENTS TO AN INCIDENT CAN VARY FROM 3 TO 5 DAYS, BUT CAN RANGE UP TO ONE OR TWO WEEKS, BUT ROUTINELY WILL NOT EXCEED 14 DAYS. THE IMET WORKS WITHIN THE STRUCTURE OF THE LAND MANAGEMENT INCIDENT MANAGEMENT TEAM, IN CONCERT WITH THE FIRE BEHAVIOR ANALYST UNDER THE SUPERVISION OF THE PLANS CHIEF. IMET DUTIES INCLUDE DAILY FORECAST COORDINATION AND COMPOSITIONS, SPOT FORECASTS AS REQUESTED, DAILY WEATHER BRIEFINGS, WEATHER OBSERVATIONS, WEATHER RECORDS, DAILY LOG OF DUTIES AND CONTACTS, AND MAINTAINING THE FUNCTIONALITY OF THE AMRS AND MICROREMS EQUIPMENT.

IMET/AMRS FORECASTS

DAILY PLANNING FORECASTS ARE PREPARED ALONG WITH SUPPLEMENTAL SPOT FORECASTS, INCLUDING UPDATES AS NECESSARY. PLANNING FORECASTS ARE COMPOSED WITHIN THE GUIDELINES OF AN AMRS FIRE WEATHER FORECAST FORM (**PAGE 44**).

EXAMPLE OF AMRS/IMET FORECAST

FIRE WEATHER FORECAST

FORECAST NO. 13

NAME OF FIRE: BLACKJACK BAY COMPLEX **PREDICTION FOR:** 05/21/02

UNIT: OKEFENOKEE NWR **DAY OPERATIONAL PERIOD**

TIME AND DATE FORECAST ISSUED: 05/20/02 600PM **SIGNED:** RICK DAVIS/ MIKE EDMONSTON
Incident Meteorologists

WEATHER DISCUSSION: RED FLAG WARNING WILL BE IN EFFECT TODAY FOR LOW RELATIVE HUMIDITIES WITH DURATIONS. HIGH PRESSURE WILL CONTINUE TO DOMINATE THE WEATHER PATTERN OVER THE REGION AS DRY CONDITIONS REMAIN OVER THE FIRE AREA TODAY.

WEATHER FORECAST

...RED FLAG WARNING TODAY FOR RELATIVE HUMIDITIES BELOW 35 PERCENT WITH DURATIONS OF FOUR HOURS OR MORE...

WEATHER: MOSTLY SUNNY AND CONTINUED DRY.

TEMPERATURES: LOW 47 TO 50. A LITTLE WARMER HIGH 78 TO 81.

HUMIDITY: EXPECT RELATIVE HUMIDITY RECOVERY TONIGHT WITH A MAXIMUM RH NEAR 95 PERCENT. THE RELATIVE HUMIDITY WILL REMAIN ABOVE 50 PERCENT UNTIL 10 AM. AFTERNOON MINIMUM RELATIVE HUMIDITY WILL BE LOW...28 TO 33 PERCENT.

20 FT WINDS: NORTHEAST WINDS 8 TO 10 MPH WITH GUSTS TO 15 MPH.

STABILITY/INVERSION: STRONGER NIGHTTIME INVERSION UNDER CLEAR SKIES AND LIGHT WIND WITH SLIGHTLY REDUCING VISIBILITIES AROUND THE FIRE AREA. AFTERNOON MIXING HEIGHT 4000 FEET. TRANSPORT WIND...NORTHEAST AT 14 TO 16 MPH. LOWER DISPERSION INDEX OF 60.

EXTENDED FORECAST: A GRADUAL WARMING TREND THROUGH THE PERIOD.

WEDNESDAY...MOSTLY SUNNY. LOWS 54 TO 58. HIGHS 79 TO 83. NORTHEAST WINDS. CONTINUED DRY.
THURSDAY...PARTLY CLOUDY. LOWS 58 TO 61. HIGHS 83 TO 86. EAST WINDS.
FRIDAY...PARTLY CLOUDY. LOWS 61 TO 63. HIGHS 85 TO 87. SOUTHEAST WINDS.

MONDAY'S MIN/MAX/MIN-RH

CAMP CORNELIA 47/74/28
JONES ISLAND –-/74/34
EDDIE TOWER 48/74/25

OTHER SPECIAL SUPPORT SERVICES

NWS FIRE WEATHER METEOROLOGISTS ARE AVAILABLE TO ASSIST LAND MANAGEMENT AGENCIES WITH FIRE TRAINING COURSES (I.E. S-290, RX-450, FLORIDA INTERAGENCY PRESCRIBED BURN COURSE, ETC.). REQUESTS FOR ASSISTANCE SHOULD BE MADE THROUGH THE LOCAL NWS PROGRAM LEADER. REQUESTS SHOULD BE MADE AS FAR IN ADVANCE OF THE TRAINING DATES AS POSSIBLE TO ALLOW FOR SCHEDULING. UNDER THE NATIONAL AGREEMENT, EXPENSES INCURRED BY THE NWS WHILE PROVIDING TRAINING SHOULD BE REIMBURSED BY THE REQUESTING AGENCY.

OTHER METEOROLOGICAL SERVICES ARE AVAILABLE UNDER THE DIRECTION OF THE NATIONAL AGREEMENT FOR METEOROLOGICAL SERVICES. THESE INCLUDE BUT ARE NOT NECESSARILY LIMITED TO...

OBSERVATION SITE VISITATION
COURSE DEVELOPMENT WORK
TRAINING OF WEATHER OBSERVERS
AGENCY OBSERVATION QUALITY CONTROL

FORECASTER TRAVEL IS ENCOURAGED FOR LIAISON, MEETINGS, OR PARTICIPATION IN TRAINING ACTIVITIES OR SEMINARS. FORECASTERS SHOULD EXPERIENCE AS MANY VARIED TYPES OF FIRE AND FORESTRY OPERATIONS AS POSSIBLE TO BECOME ACQUAINTED WITH AGENCY OPERATIONS AND THE LOCAL INFLUENCES OF WEATHER ON FIRE BEHAVIOR. RECIPROCAL VISITS BY AGENCY PERSONNEL SHOULD LIKEWISE BE MADE AVAILABLE. AS RESOURCES ARE AVAILABLE, FORECASTERS SHOULD ATTEND NWS OR LAND AGENCY SPONSORED TRAINING, WORKSHOPS, OR REFRESHER SEMINARS.

FIRE WEATHER OPERATION PLANS

THIS FLORIDA FIRE WEATHER OPERATIONS PLAN SHALL BE MAINTAINED, REVIEWED, AND UPDATED ANNUALLY AS NECESSARY. THE ANNUAL REVISION MAY BE ROTATED AMONG THE FLORIDA NWS OFFICES. EACH NWS OFFICE SHALL ALSO MAINTAIN AN IN-HOUSE FIRE WEATHER FORECASTING MANUAL INCLUSIVE OF THIS PLAN AND ANY OTHER LOCAL AGENCY CONTACTS, AND FORECAST PROCEDURES OR PREPARATION GUIDELINES.

INTERAGENCY CONFERENCE CALLS

DURING PERIODS PROLONGED DROUGHT OR INTENSE WILDFIRE ACTIVITY, CONFERENCE CALLS MAY BE ORGANIZED BETWEEN LAND MANAGEMENT AGENCIES, STATE AND FEDERAL EMERGENCY OFFICIALS, STATE WATER MANAGEMENT DISTRICTS, AND THE NATIONAL WEATHER SERVICE. TOPICS OF DISCUSSION WOULD INCLUDE, BUT NOT BE LIMITED TO, CURRENT DROUGHT AND/OR INDICES RELATING TO DROUGHT, AVAILABLE SURFACE AND FUEL MOISTURE, ANY ONGOING WILDFIRE ACTIVITY, STATUS OF CONTROL OPERATIONS, PUBLIC AND PROPERTY SAFETY ISSUES, PREPAREDNESS ACTIONS, AND THE OUTLOOK FOR FUTURE PLANNING AND LOGISTICS.

NWS AREA FORECAST DISCUSSIONS (AFD)

THE AREA FORECAST DISCUSSION IS A NWS ISSUED PRODUCT WHERE INFORMATION ON WILDFIRE RELATED WEATHER EFFECTS MAY BE INCLUDED. TYPICALLY ISSUED UP TO FOUR TIMES DAILY, THE PRODUCT SERVES AS AN EXCELLENT FORUM FOR COORDINATING METEOROLOGICAL REASONING AMONG WEATHER OFFICES. TECHNICAL TERMS MAY BE USED, BUT THE BRIEF DISCUSSION SHOULD FOCUS ON WEATHER EFFECTS AND NOT FIRE BEHAVIOR. AS A COORDINATION TOOL AND LEDGER OF ONGOING NWS WATCH AND WARNING ISSUANCES, USE OF THE TERMS **RED FLAG WARNING** AND **FIRE WEATHER WATCH** IS PERMITTED.

CIVIL EMERGENCY MESSAGES (CEM)

SPECIAL MESSAGES THAT CONTAIN INFORMATION ON EVENTS THAT WOULD REQUIRE PROTECTIVE ACTIONS ON THE PART OF THE PUBLIC ARE TRANSMITTED BY THE NWS VIA THE NOAA WEATHER WIRE AND BROADCAST ON NOAA WEATHER RADIO WHEN REQUESTED BY THE PROPER AUTHORITY. EMERGENCY SITUATIONS REQUIRING CIVIL EMERGENCY MESSAGES WOULD INCLUDE **WILDFIRES** THREATENING LIFE AND PROPERTY, INCLUDING THE HEALTH HAZARD OF EXCESSIVE **DENSE SMOKE**. SUCH MESSAGES MAY INCLUDE PENDING OR ONGOING EVACUATION ORDERS.

REQUEST AND AUTHENTICATION OF **CEM** MESSAGES (CCCCEMXXX) WOULD COME FROM THE OFFICE OF THE STATE OF FLORIDA, COUNTY EMERGENCY OPERATIONS CENTERS, OR LAW/FIRE ENFORCEMENT OFFICIALS THROUGH THE ESATCOM, THE STATE'S EMERGENCY COMMUNICATIONS SYSTEM. TEXT OF THE REQUESTED **CEM** SHOULD BE FAXED TO THE APPROPRIATE NWS OFFICE AND RECEIPT CONFIRMED BY THE SENDER. **CEM** MESSAGES SHOULD BE SAME/TONE ALERTED ON NOAA WEATHER RADIO.

EXAMPLE OF CIVIL EMERGENCY MESSAGE (CEM)

BULLETIN-EAS ACTIVATION REQUESTED
CIVIL EMERGENCY MESSAGE
NATIONAL WEATHER SERVICE TAMPA BAY AREA-RUSKIN FL
330 PM EST FRI MAR 19 1999

THE FOLLOWING MESSAGE IS BEING TRANSMITTED AT THE REQUEST OF THE LEE COUNTY EMERGENCY MANAGEMENT OFFICE.

A WILDFIRE AT LEHIGH ACRES COUNTRY CLUB HAS CONSUMED SEVERAL HUNDRED ACRES OF GRASS AND WAS SPREADING WEST TOWARD DENSELY POPULATED AREAS OF EAST LEHIGH ACRES. STRONG WINDS FROM THE EAST COUPLED WITH LOW HUMIDITY ARE EXPECTED TO PUSH WILDFIRES RAPIDLY WEST ACROSS LEHIGH ACRES OVER THE NEXT 3 HOURS.

EMERGENCY MANAGEMENT OFFICIALS HAVE ORDERED A MANDATORY EVACUATION, EFFECTIVE IMMEDIATELY, NORTH OF STATE ROAD 884 TO SOUTH OF 8TH AVENUE, AND WEST TO THE ORANGE RIVER CANAL.

LISTEN TO NOAA WEATHER RADIO, LOCAL TELEVISION, OR RADIO FOR ADDITIONAL INFORMATION ON THE LOCAL CIVIL EMERGENCY.

NWS NOAA WEATHER RADIO

THE NWS VHF WEATHER RADIO BROADCASTS (162.400-162.550 Mhz)ARE AN EXCELLENT COMMUNICATION MEANS FOR DISSEMINATION OF PERTINENT WEATHER INFORMATION, AND THE DISTRIBUTION OF PUBLIC SAFETY INFORMATION. THE WEATHER RADIO PROVIDES A CONTINUOUS BROADCAST WHICH CAN BE FREQUENTLY UPDATED DURING RAPIDLY CHANGING LOCAL WEATHER, OR IF NEARBY HAZARDOUS ENVIRONMENTAL CONDITIONS EXIST. DURING PERIODS OF HIGH WILDFIRE THREAT, LOCALIZED NON-ROUTINE BROADCAST TEXT IN THE FORM OF SPECIALIZED **NOWCASTS (NOW**) OR **CIVIL EMERGENCY MESSAGES (CEM)** CAN BE UTILIZED TO THEIR MAXIMUM EXTENT.

NOWCASTS OF SPECIFIC WEATHER CONCERNS WITH RESPECT TO WILDFIRE ACTIVITY MAY BE UPDATED HOURLY OR MORE FREQUENTLY AS NEEDED. SUCH INFORMATION CAN BE OF TIMELY SUPPORT FIREFIGHTING PERSONNEL, PARTICULARLY WITH RESPECT TO PUBLIC OR FIRE CREW SAFETY. TIMELY INFORMATION CAN INCLUDE FREQUENT UPDATES OF:

WIND AND OR WIND SHIFTS
TIMING OR INLAND PROGRESSION OF COASTAL SEA BREEZES
PRECIPITATION AREAL COVERAGE
TIMING OF PRECIPITATION ONSET
TIMING OF ANY THUNDERSTORM FORMATION
TIMING OF THUNDERSTORM WIND GUSTS OR SHIFTS
TIMING OR ASSESSMENT OF ANY LIGHTNING THREAT OR FREQUENCY
TEMPERATURE AND HUMIDITY
DENSE SMOKE IMPACTING VISIBILITY OR PUBLIC HEALTH
NWS PERSONNEL SHOULD INITIATE THE WEATHER RADIO SAME/TONE ALERT FEATURES FOR ANY EMERGENCY OPERATIONS EVACUATION **CEM** ORDER CALLS TO ACTION.

NWS HAZARDOUS WEATHER OUTLOOKS (HWO)

THE NWS HAZARDOUS WEATHER OUTLOOK IS A PUBLICLY DISSEMINATED DISCUSSION OF ANY AND ALL POTENTIALLY HAZARDOUS WEATHER THAT MAY AFFECT A FORECAST AREA.

THE **HWO** IS AN EXCELLENT PRODUCT THROUGH WHICH WEATHER INFORMATION RELATED TO A **FIRE THREAT** CAN BE COMMUNICATED TO THE PUBLIC. THE REALITY IS THAT FIRE DOES OFTEN THREATEN POPULATED AREAS AND AT THAT POINT, BECOMES A SERIOUS EMERGENCY MANAGEMENT ISSUE. CRITICAL INFORMATION THEN NEEDS TO BE COMMUNICATED THROUGH WHATEVER OUTLETS THE NWS HAS AT IT'S DISPOSAL.

THE INTENT IS TWO-FOLD: TO PROVIDE THE PUBLIC WITH A SUFFICIENT LEVEL OF AWARENESS AS TO MINIMIZE THE OCCURRENCE OF ACCIDENTAL FIRE STARTS; AND ENCOURAGE A RAPID AND APPROPRIATE RESPONSE SHOULD FIRE THREATEN LIFE AND/OR PROPERTY.

NWS OFFICES SHOULD CONSIDER PROVIDING FIRE WEATHER INFORMATION IN THE **HWO** WHEN ANY OF THE FOLLOWING ARE MET WITHIN AN OFFICES AREA OF RESPONSIBILITY:

1. RED FLAG WARNING IN EFFECT
2. SIGNIFICANT WILDFIRE ACTIVITY EXISTS
3. SMOKE IS EXPECTED TO BE A SERIOUS OBSTRUCTION TO VISIBILITY
4. SEVERE DROUGHT CONDITIONS EXIST
   and/or...KEETCH-BYRAM INDEX IN EXCESS OF 600
   ...GUSTY SURFACE WINDS OF 15 -20 MPH OR MORE.

IN MENTIONING THE FIRE THREAT IN THE **HWO**, AVOID USE OF THE TERMS **FIRE WEATHER WATCH** OR **RED FLAG WARNING** AS THE PUBLIC MAY NOT BE FAMILIAR WITH THESE TERMS WHICH COULD RESULT IN PUBLIC MIS-INTERPRETATION. ALSO AVOID USING TERMS AS HIGH OR EXTREME FIRE DANGER, OR FIRE ALERT SINCE THESE TERMS CARRY OFFICIAL DEFINITIONS OF LAND MANAGEMENT AGENCIES.

SUGGESTED TEXT GUIDELINES INCLUDE:

1. ADDRESS ONLY THE WEATHER EFFECTS ON THE FIRE THREAT.
2. AVOID ASSESSING FIRE ACTIVITY OR FIRE BEHAVIOR
3. STRESS SAFETY WITH FIRE SOURCES BUT AVOID RECOMMENDING COURSES OF ACTION.

IV. FIRE AGENCY OPERATIONAL SUPPORT AND SERVICES

FLORIDA FIRE WEATHER OBSERVATIONS

ROUTINE FIRE WEATHER OBSERVATIONS ARE MEANT TO REFLECT THE MOST VOLATILE FIRE WEATHER CONDITIONS OF THE DAY, SO OBSERVATIONS ARE TAKEN DURING THE MID AFTERNOON AT THE TIME OF MAXIMUM HEATING. OBSERVATIONS PROVIDE NEEDED SITE WEATHER INFORMATION FOR FORECAST ISSUANCES AND THE VERIFICATION OF PRIOR FORECASTS. OBSERVATIONS AS WELL AS FORECASTS PROVIDE THE NEEDED WEATHER INPUT FOR LAND MANAGEMENT DECISION MAKING FOR OPERATIONS PLANNING, STAFFING, AND ISSUANCE OF BURN PERMITS. TO PROVIDE INPUT FOR THE PREPARATION OF AFTERNOON PLANNING FORECASTS, OBSERVATIONS ARE TAKEN DAILY AT 2PM EASTERN LCL OR 1300 CENTRAL TIME).

IT IS STRESSED THAT OBSERVATIONS NEED TO BE AS ACCURATE AND COMPLETE AS POSSIBLE. POOR PROCEDURALLY OBTAINED OBSERVATIONS CAN CORRUPT FORECASTS BY NOT PROVIDING THE FORECASTER AS ACCURATE PICTURE OF THE SITE WEATHER AS POSSIBLE.

FLORIDA DIVISION OF FORESTRY OBSERVATIONS

DEADLINE FOR DOF OBSERVATIONS TO BE AVAILABLE IS 2:30 PM EASTERN LCL TIME. THE MAJORITY OF THE OBSERVATIONS ARE FROM FLORIDA DOF DISTRICT OFFICES. DOF OBSERVATIONS ARE ACCESSIBLE VIA THE INTERNET AT ADDRESS:

http://flame.fl-dof.com/cgi-bin/weather/weather.ksh/

FLORIDA DIVISION OF FORECAST OBSERVATION SITES INFORMATION:

NWS ZONE	DOF DIST	STATION NAME	COUNTY	DOF FIELD UNIT
03	01	MILTON	SANTA ROSA	BLACKWATER
09	02	BONIFAY	HOLMES	CHIPOLA
12	02	PANAMA CITY	BAY	CHIPOLA
17	04	TALLAHASSEE	LEON	TALLAHASSEE
28	05	PERRY	TAYLOR	PERRY
22	06	SUWANNEE	COLUMBIA	SUWANNEE
25	07	JACKSONVILLE	DUVAL	JACKSONVILLE
39	08	USHER	LEVY	WACCASASSA
38	10	BUNNELL	FLAGLER	BUNNELL
48	11	BROOKSVILLE	HERNANDO	WITHLACOOCHEE
45	12	ORLANDO	ORANGE	ORLANDO
52	14	LAKELAND	POLK	LAKELAND
55	15	BRADENTON	MANATEE	MYAKKA RIVER
58	16	OKEECHOBEE	OKEECHOBEE	OKEECHOBEE
65	17	FT. MYERS	LEE	CALOOSAHATCHEE
72	18	DAVIE	BROWARD	EVERGLADES

EXAMPLE OF FLORIDA DIVISION OF FORESTRY DAILY OBSERVATIONS:

http://flame.fl-dof.com/cgi-bin/weather/weather.ksh

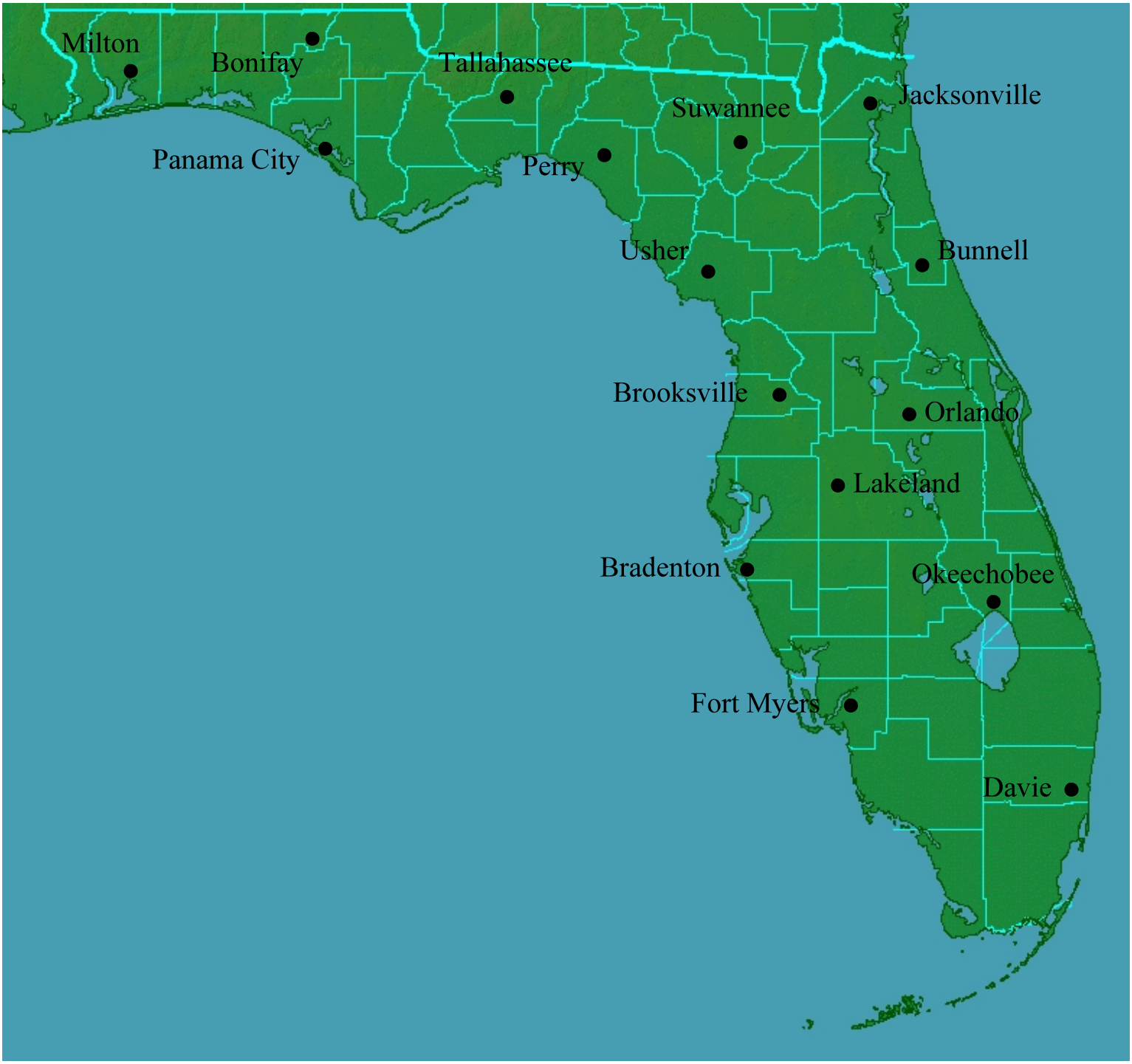
FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
DIVISION OF FORESTRY

FIRE WEATHER

OBSERVATIONS

Dst	Date	Location	Temp (Min/Max)	RH (%)	Wind Spd Dir	State of Weather	Rainfall (Duration)	Lightning Activity	Herb Stage	Buildup	Spread	Fire Readiness Level
1	05/14	Blackwater Fc, Milton	83 (63/92)	40	W 10 mph	3	0.00 in	pm:1 am:1	3	15	10	1
2	05/14	Chiploa River Com Ctr, Bonifay	83 (61/83)	57	S 7 mph	1	0.00 in	pm:1 am:1	3	11	5	2
2	05/14	Chipola River Do, Panama City	81 (61/81)	54	W 22 mph	1	0.00 in	pm:1 am:1	3	9	13	2
4	05/14	Tallahassee District Office	86 (56/86)	34	W 16 mph	1	0.00 in	pm:4 am:1	3	12	19	2
5	05/14	Perry District Office	83 (51/84)	54	SW 6 mph	1	0.00 in	pm:1 am:1	2	12	9	2
6	05/14	Suwannee District Office	86 (58/84)	49	W 17 mph	0	0.00 in	pm:1 am:1	3	20	15	2
7	05/14	Jacksonville District Office	85 (56/87)	34	W 13 mph	1	0.00 in	pm:1 am:1	2	41	30	3
8	05/14	Usher Work Center	82 (53/83)	49	SW 4 mph	0	0.00 in (1.0 hrs)	pm:1 am:1	2	29	12	3
10	05/14	Bunnell District Office	86 (55/86)	31	SE 3 mph	0	0.00 in	pm:1 am:1	2	76	18	3
10	05/14	Deleon Forestry Station (Comp)	86 (55/86)	31	SE 3 mph	0	0.00 in	pm:1 am:1	2	120	21	3
11	05/14	Withlacoochee Fc, Brooksville	90 (52/90)	39	W 17 mph	1	0.00 in	pm:1 am:1	2	44	41	3
12	05/14	Orlando District Office	87 (60/87)	47	SE 13 mph	0	0.00 in	pm:1 am:1	1	21	39	2
14	05/14	Lakeland District Office	90 (59/90)	24	S 4 mph	1	0.00 in	pm:1 am:1	1	30	24	3

15	05/14	Myakka River Do, Bradenton	86 (62/90)	45	W 16 mph	1	0.00 in	pm:1 am:1	2	51	37	3
16	05/14	Okeechobee District Office	88 (60/88)	42	S 11 mph	0	0.00 in	pm:1 am:1	1	79	50	3
17	05/14	Caloosahatchee Do, Fort Myers	87 (67/87)	49	W 12 mph	1	NR	pm:1 am:1	1	105	46	3
18	05/14	Everglades Do, Davie	90 (68/91)	48	S 6 mph	2	0.00 in	pm:1 am:1	3	76	12	3



FLORIDA DIVISION OF FORESTRY OBSERVATION SITES

WIMS (NFDRS) FEDERAL LAND MANAGEMENT OBSERVATIONS

RAWS (REMOTE AUTOMATED WEATHER SYSTEM) OBSERVATIONS FOR WIMS (WEATHER INFORMATION MANAGEMENT SYSTEM) NFDRS SITE FORECASTS MUST BE ENTERED INTO WIMS NO LATER THAN 1350 LCL TIME. OBSERVATIONS ARE THEN RETRIEVED FROM WIMS VIA AWIPS BY THE FORECASTER, AND USED TO PREPARE THE DAILY NFDRS FORECAST. WIMS COLLECTIVES OF OBSERVATIONS (NMCFWOSR) ARE AVAILABLE BETWEEN 230 PM AND 400 PM DAILY. WIMS OBSERVATIONS ARE ALSO COLLECTIVELY GROUPED INTO ZONES FOR CALCULATION OF ZONE SITE OBSERVATION AVERAGES.

OBSERVATION SITES ARE ASSIGNED A 6-DIGIT NWS STATION IDENTIFICATION NUMBER. THE FIRST TWO DIGITS INDICATE THE STATE, THE SECOND TWO DIGITS THE COUNTY, AND THE LAST TWO DIGITS ARE THE CONSECUTIVELY ASSIGNED STATION NUMBERS WITHIN A COUNTY. THE LOCAL NWS OFFICE MUST BE CONTACTED FOR ASSIGNMENT OF A 6-DIGIT NUMBER FOR ANY NEW PERMANENT STATIONS, OR FOR CHANGES IN LOCATION MADE TO EXISTING STATIONS ALREADY ASSIGNED A NUMBER. SEVERAL SITES ARE ALSO ASSIGNED A NATIONAL ENVIRONMENTAL SATELLITE (NESDIS) DATA PLATFORM ID's FOR AUTOMATED INTERROGATION.

DECODE FEDERAL WIMS/RAWS/NFDRS OBSERVATIONS:

ST NME – STATION NAME

STAT'N – 6-DIGIT NWS STATION IDENTIFICATION

DATE -- YYMMDD (YEAR, MONTH, DAY)

HR -- HOUR OF OBSERVATION

T – OBSERVATION TYPE (**O**) (**F** FOR FORECAST COLLECTIVE)

W – STATE OF WEATHER AT OBSERVATION TIME:

0 - CLEAR, LESS THAN 1/10 CLOUD COVER
1 - SCATTERED CLOUDS, 1/10 - 5/10 CLOUD COVER
2 - BROKEN CLOUDS, 6/10 - 9/10 CLOUD COVER
3 - OVERCAST, MORE THAN 9/10 CLOUD COVER
4 - FOG
5 - DRIZZLE *
6 - RAIN *
7 - SNOW OR SLEET *
8 - SHOWERS
9 - THUNDERSTORMS

* – These entries, if entered as a forecast, will reset fire danger indices to zero.

DBT – DRY BULB (AIR) TEMPERATURE

DPT – DEW POINT TEMPERATURE

RH – RELATIVE HUMIDITY

Y – YESTERDAY'S LIGHTNING ACTIVITY LEVEL (LAL). (Midnight to Midnight) (see **PAGE 2-4)**

M – MORNING LIGHTNING ACTIVITY LEVEL. (Midnight to Observation time) (see **PAGE 2-4**)

DIR – WIND DIRECTION (FROM WHICH THE WIND IS BLOWING). (Reported in whole degrees)

WS – WIND SPEED (10 Minute average)

10 – TEN HOUR TIME LAG FUEL MOISTURE

TMX -- MAXIMUM TEMPERATURE DURING LAST 24 HOURS. (2PM-2PM) Value can not be less than DBT.

TMN -- MINIMUM TEMPERATURE DURING LAST 24 HOURS. (2PM-2PM) Value can not be more than DBT)

HMX – MAXIMUM RELATIVE HUMIDITY DURING LAST 24 HOURS. (2PM-2PM)

HMN – MINIMUM RELATIVE HUMIDITY DURING LAST 24 HOURS. (2PM-2PM)

PD -- PRECIPITATION DURATION. (Enter total time in hours–-cumulative number of minutes converted to hours–that precipitation occurred in the past 24 hours. If none, enter a **0** (**zero**). A minus sign is used to indicated wet fuels at time of observation).

PPAMT – PRECIPITATION AMOUNT. (Total accumulation past 24 hours. If none, enter **0** (**zero**); If a trace, enter **T**. If at least **T** entered then duration must be at least **1**).

FEDERAL RAWS OBSERVATION AND FIRE DANGER RATING SITES WITHIN FLORIDA:

STATION NAME	COUNTY	AGENCY	LAT.	LONG.	ELE.	GOES ID
NAVAL LIVE OAKS	ESCAMBIA	NPS	30.22	87.08	15	xx080202
BLOXHAM	LEON	USFS	30.34	84.60	100	3287F012
WILMA	LIBERTY	USFS	30.18	84.94	50	3333E634
SUMATRA	FRANKLIN	USFS	30.02	84.99	60	323A74A8
SANBORN	WAKULLA	USFS	30.07	84.59	50	3287E3641
ST MARKS (EAST)	WAKULLA	FWS	30.13	84.13	15	8376D684
ST MARKS (WEST)	WAKULLA	FWS	30.00	84.42	50	8378B70A
OLUSTEE	BAKER	USFS	30.21	82.39	175	3271113A
EDDY TOWER	BAKER	USFS	30.55	82.35	131	32876570
LOWER SUWANNEE	LEVY	NWR	29.37	83.03	15	837724FA
CENTRAL	MARION	USFS	29.10	81.63	61	327FA6DC
LAKE GEORGE	MARION	USFS	29.40	81.81	87	3286B1E2
LAKE WALES	POLK	NWR	27.84	81.58	141	837891E6
MERRITT ISLAND	BREVARD	NWR	28.63	80.73	30	327D53AC
LOXAHATCHE	PALM BEACH	NWR	26.50	80.22	17	8379931C
OASIS	COLLIER	BCNP	25.85	81.03	8	325DC720
MILES CITY	COLLIER	BCNP	26.25	81.30	15	FA62232E
OCHOPEE	COLLIER	BCNP	25.91	81.28	7	FA6246C8
RACCOON PT	COLLIER	BCNP	25.98	80.90	7	FA50C358
CACHE	DADE	ENP	25.39	80.68	5	FA6332A2
TENRAW	DADE	ENP	25.60	80.85	5	FA50D02E
CHEKIKA	DADE	ENP	25.62	80.57	5	FA6255BE

AGENCIES:
USFS: UNITED STATES FORESTRY SERVICE
NPS: NATIONAL PARKS SERVICE
FWS: FISH AND WILDLIFE SERVICE
NWR: NATIONAL WILDLIFE REFUGE
BCNP: BIG CYPRESS NATIONAL PRESERVE
ENP : EVERGLADES NATIONAL PARK

CATALOG OF RAWS SITES AND OBSERVATIONS:
http://raws.wrh.noaa.gov/rawsobs.html

REGIONAL MAP OF RAWS SITES AND OBSERVATIONS:
http://gacc.nifc.gov/sacc/predictive/weather/RAWSmapSA.htm

SXUS60 KMWI 172045
FWOSR
Weather Information Management System (WIMS)
USDA National Information Technology Center (KMWI)
17-Apr-06 20:45:31 GMT

Listing of Observations (SOUTHERN REGION)

ST NME STAT'N DATE HR T W DBT DPT RH Y M DIR WS 10 TMX TMN HMX HMN PD PPAMT
------ ------ ------ -- - - --- --- --- - - --- -- -- --- --- --- --- -- -----
NWS Office: MFL/ZONE: 821
OASIS 086401 030217 13 O 3 77 72 85 2 1 256 10 25 88 65 100 61 4 0.890
MILES 086402 030217 13 O 3 76 68 75 2 1 262 8 17 90 64 100 59 7 0.880
OCHOPE 086403 030217 13 O 3 75 64 69 2 1 301 9 15 86 64 100 55 6 0.550
RACCOO 086404 030217 13 O 3 78 67 69 2 1 278 4 25 88 65 98 50 4 0.490
CACHE 086702 030217 13 O 3 77 67 71 1 1 255 6 13 83 63 98 62 2 0.020
TENRAW 086703 030217 13 O 3 77 72 84 1 1 279 8 17 86 65 100 68 3 0.060
Count: 6 Zone Average: 77 68 76 8 19 87 64 99 59 4 0.482

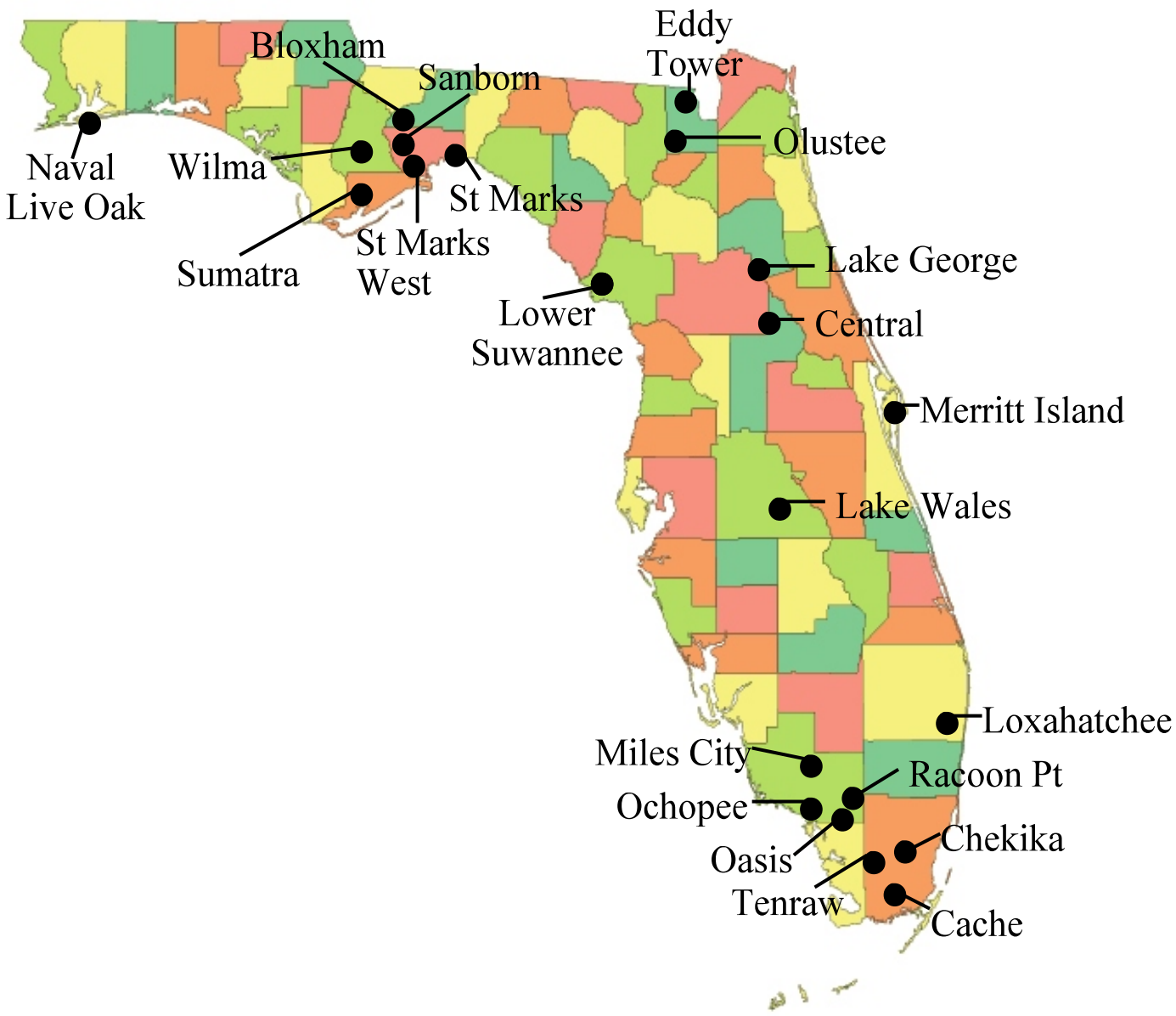
Zone: 822
CHEKIK 086704 030217 13 O 3 78 69 73 1 1 270 8 14 86 64 99 61 3 0.060
Count: 1 Zone Average: 78 69 73 8 14 86 64 99 61 3 0.060

Zone: 805
BLOXHA 080802 030218 14 F 1 64 34 33 1 1 360 7 0 64 39 90 33 0 0
Count: 1 Zone Average: 64 34 33 7 0 64 39 90 33 0 0

NWS Office: TBW/ZONE: 805
WILMA 082001 030218 14 F 1 65 33 31 1 1 360 7 0 65 39 93 31 0 0
SUMATR 082002 030218 14 F 1 65 33 31 1 1 360 7 0 65 40 93 31 0 0
SANBOR 082201 030218 14 F 1 64 34 33 1 1 360 7 0 64 38 90 33 0 0
Count: 3 Zone Average: 65 33 32 7 0 65 39 92 32 0 0

NWS Office: TBW/ZONE: 811
CENTRA 083501 030216 13 O 2 78 69 73 1 1 180 11 13 82 55 100 43 0 0.000
Count: 1 Zone Average: 78 69 73 11 13 82 55 100 43 0 0.000

End of WIMS Bulletin @ 17-Apr-06 20:45:31 GMT



Federal RAWS Observation Sites

CALL FOR SPECIAL OBSERVATIONS

THE NATIONAL WEATHER SERVICE REQUESTS THE ASSISTANCE OF THE LAND MANAGEMENT AGENCIES IN PROVIDING MUCH NEEDED REPORTS OF SIGNIFICANT WEATHER EVENTS. IN SPITE OF EVER-ADVANCING TECHNOLOGY, THE COLLECTION OF TIMELY REPORTS FROM RELIABLE OBSERVERS WILL ALWAYS BE OF CRITICAL IMPORTANCE TO THE WEATHER FORECASTER.

TIMELY REPORTS OF ONGOING SEVERE WEATHER CAN GREATLY AID THE METEOROLOGIST IN HIS MISSION OF PROTECTING LIFE AND PROPERTY. EVEN REPORTS ON A DELAYED BASIS ASSIST THE METEOROLOGIST IN EVALUATING AND VERIFYING WARNING EVENTS.

REPORTS CAN BE MADE ANYTIME DIRECTLY TO NATIONAL WEATHER SERVICE OFFICES (**PAGES 8 THROUGH 16**) OR LOCAL LAW ENFORCEMENT OFFICIALS WITH A REQUEST TO RELAY THE REPORT TO THE LOCAL NATIONAL WEATHER SERVICE.

AMONG THE SIGNIFICANT EVENTS THAT WOULD BE OF VALUE TO THE FORECASTER:

1. FUNNEL CLOUDS OR TORNADO TOUCHING THE GROUND
2. HAIL ONE HALF INCH OR LARGER
3. MEASURED WIND GUSTS IN EXCESS OF 50 MPH
4. UPROOTING OF TREES OR WEATHER DAMAGE TO STRUCTURES
5. ANY WEATHER RELATED EVENT WITH POSSIBLE IMPACT TO LIFE OR PROPERTY
6. FLOODING RAINS OF 2 INCHES PER HOUR OR 4 INCHES PER DAY.

PLEASE REPORT:

1. THE TIME OF THE EVENT (BEGINNING/END)
2. LOCATION (SECTION OF COUNTY OR ROAD INTERSECTION)
3. MOVEMENT (IF KNOWN)
4. NAME OF AGENCY MAKING REPORT

V. APPENDICES

INTERAGENCY AGREEMENT

for

METEOROLOGICAL SERVICES

Among the
Bureau of Land Management
Bureau of Indian Affairs
U.S. Fish and Wildlife Service
National Park Service
of the
United States Department of the Interior
and the
Forest Service
of the
United States Department of Agriculture
and the
National Weather Service
of the
United States Department of Commerce

BLM Agreement No. 1422RAI02-0030
BIA Agreement No.
FWS Agreement No.
FS Agreement No. 02-IA11130206041
NPS Agreement No.
NWS Agreement No. 201-02-002

1.0 INTRODUCTION.

Fire management and suppression in the nation's wildlands is an on-going concern to the American public and to the Department of the Interior's Bureau of Land Management, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service, and the Department of Agriculture, Forest Service, as well as to the Department of Commerce, National Oceanic and Atmospheric Administration-National Weather Service (NWS). Considerable cooperation and coordination among these agencies exists, which is critical to the success of fire management, suppression and safety. This agreement will refer to the National Weather Service as "NWS" and the federal wildland fire management agencies as the "Interagency Wildland Fire Agencies."

The National Weather Service is legally mandated to issue weather forecasts and warnings for the protection of life and property. The Interagency Wildland Fire Agencies are responsible for the stewardship and/or protection of lands owned or held in trust by the United States or under the jurisdiction of state agencies.

The NWS and Interagency Wildland Fire Agency responsibilities are defined in Section 5. The NWS Weather Forecast Office (WFO) products and services shall be focused on respective County Warning Forecast Areas (CWFA) for the operational concerns of local wildland fire agency districts, while Interagency Wildland Fire Agencies shall focus on geographic area and national level products and services. The needs of geographic areas are met using a geographic area Memorandum of Understanding and/or geographic specific Annual Operating Plan (AOP) -
(see appendix 1 for a suggested outline), and this Interagency Agreement. The NWS and Interagency Wildland Fire Agencies will coordinate and cooperate on developing fire weather policy, standards and guidelines

2.0 AUTHORITIES.

A. Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 1535), as amended.

B. Travel Authority (5 U.S.C. 5702).

C. Organic Act of 1890 (15 U.S.C. 313).

D. Joint Project Authority (49 U.S.C. 44720).

E. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

F. National Park Service Organic Act of August 1916 (16 U.S.C. 1).

G. National Wildlife Refuge Administration Act of June 27, 1998 (16 U.S.C. 668dd)

H. Disaster Relief Act of 1974 (42 U.S.C. 5147).

I. National Indian Forest Resources Management Act of 1990 (25 U.S.C. 3101 et seq.).

J. Cooperative Forestry Assistance Act of 1978 (P.L. 95-313, 92 Stat. 365 as amended; 16 U.S.C. 2101 (note), 2101-2103, 2103a, 2103b, 2104-2105).

K. Federal Fire Prevention and Control Act of October 29, 1974, (P.L. 93-498, 15 U.S.C. 2201 et seq., 88 Stat 1535.)

3.0 PURPOSE.

The purpose of this Inter-Agency Agreement is to combine resources and provide complementary services without duplication to best serve the needs of the public and all agencies for the protection of life, property and resource values to enhance ecosystem health. Accurate and timely meteorological and fire danger information is required to manage these resources effectively and efficiently. It is also the purpose of this Agreement to set forth the terms and conditions under which the NWS will continue to provide meteorological services to support these efforts as requested by the Interagency Wildland Fire Agencies. It is with this knowledge that this Inter-Agency Agreement is entered into.

This Agreement supersedes the ANational Agreement for Meteorological Services in Support of Agencies with Land Management and Fire Protection Responsibilities" among the six participating agencies, as listed above, that was effective June 1983.

4.0 OBJECTIVES.

The objectives of this Agreement are:

A. To identify meteorological services to be provided;

B. Establish interagency relationships; and

C. Define obligations of the NWS and Interagency Wildland Fire Agencies.

5.0 RESPONSIBILITIES.

The responsibilities listed are not all-inclusive, but are meant to provide the overall scope of services provided by the respective agencies.

A. The National Weather Service agrees to:

All obligations undertaken by the NWS under this Agreement are subject to the availability of appropriated funds.

1. Provide Basic Meteorological Services: Basic Meteorological Services will be provided in accordance with the Annual Operating Plan (AOP) for Fire Weather Service for designated NWS offices. These services will be made available without cost to Interagency Wildland Fire Agencies and will include:

   a. Routine fire weather forecast and updates during the designated period outlined in the AOP.

   b. Extended and long-range weather and climate outlooks.

   c. NWS weather observations.

   d. Fire Weather Watch and Red Flag Warning program.

   e. Site-specific forecasts for wildland fires or special federal projects (i.e. spraying, seeding, fuels management, or search and rescue operations).

   f. Provide consultation and technical advice in support of basic services to Interagency Wildland Fire Agencies.

   g. Provide weather information to a central communication gateway and the internet for Interagency Wildland Fire Agencies' use and further distribution.

h. Provide a cadre of Incident Meteorologists (IMET) in support of the fire weather program.

i. Maintain a current list of offices providing basic meteorological services.

j. National scale short-range fire weather outlooks.

2. Non-Routine Services: These services will be provided by designated NWS offices. Expenses above planned salary and operating costs will be borne by the benefiting agency.

a. Weather Observer training.

b. Weather observation station visits.

c. Participation in Wildland Fire Agency training.

1. Course development.
2. Classroom instruction.

d. On-site meteorological services.

e. Other special fire management services.

3. Fire Weather Training: The NWS recognizes the need for specialized training in fire weather meteorology for forecasters. Costs associated with training NWS staff will be borne by NWS. The NWS will meet this need as follows:

a. The NWS will ensure all meteorologists producing fire weather products have met the minimum fire weather forecaster training requirements.

b. The NWS will provide specialized training for the purpose of qualifying NWS IMETs.

4. Participation in interagency groups: All NWS costs will be borne by NWS.

5. Wildland fire suppression related activities: The NWS will not charge an administrative surcharge or any other expenditure that is not authorized under the Wildland Fire Agencies' Appropriation Acts related to these activities.

B. Interagency Wildland Fire Agencies

Wildland Fire Agencies' programs provide Geographic Area and national products for the strategic role of resource prioritization and utilization. Specific responsibilities of Wildland Fire Agencies are listed below.

1. Operational Support and Predictive Services
   a. Geographic Area and national level fire weather products, services and assessments will be provided for resource allocation and prioritization.

b. Integration of weather and climatic sciences into Geographic Area Coordination Center (GACC) operations.

c. Develop value-added products to enhance short and long-range outlooks and projections.

d. Provide weather briefings to GACC and NIFC Coordinators and Multi-agency Coordinating Groups.

e. Manage weather and climatology portions of GACC web site.

f. Manage agency fire weather infrastructure.

g. Smoke management.

2. Program Management

Program management of federal land management and fire agencies' fire weather responsibilities, which includes:

a. Program coordination with state agencies.

b. Programmatic guidance, evaluation and certification.

c. Advice and staff support to Fire Directorate

d. Manage weather station network.

e. Liaison between field users and service providers.

f. Participation in activity reviews.

3. Monitoring, Feedback and Improvement

a. Transmit feedback to product and service providers.

b. Suggest improvements to providers of products and services received.

c. Advise agencies on quality control of weather observations.

d. Coordination with NWS and users in assessment and evaluation of program effectiveness.

e. Fire weather expertise in accident/incident investigations.

4. Technology Transfer

   a. Transfer meteorology and climatology knowledge to field level personnel.

   b. Promote proper usage by agency personnel of weather and climate products and services.

   c. Conduct training/expertise needs assessment.

   d. Coordinate data and technology acquisition.

   e. Participation on training cadre.

5. Agency Computer Systems

   Where fire management computer systems are locally available, access to the systems will be granted to NWS to provide services, as needed. Costs will be borne by the Interagency Wildland Fire Agencies for requirements that are beyond the distribution of weather information through a central communications gateway.

6. Fire Weather Observations:

   a. Provide routine surface weather observations to NWS.

   b. Provide all equipment, equipment maintenance, inspection of weather observation sites, and data quality control.

   c. Pay all travel and per diem costs associated with Interagency Wildland Fire Agencies' requests for visits of NWS personnel to weather observing sites.

   d. Provide for collection, storage and retrieval of remote automatic weather stations (RAWS) data.

   e. Provide observations for site specific and other special forecasts.

7. On-Site Meteorological Support:

   a. Pay costs directly associated with on-site meteorological support by NWS personnel. This includes costs incurred by the NWS IMET duty station.

   b. Provide logistical and weather observation support to NWS personnel at on-site operations.

   c. Provide and pay costs associated with telecommunication services.

8. Training:

   a. Pay per diem and travel costs for NWS personnel instructing and providing course development in Wildland Fire Agency training.

b. Provide technical assistance, instruction, and supporting material for NWS sponsored fire weather training sessions.

9. Other Non-Routine Services

Interagency Wildland Fire Agencies will provide logistics support and pay all overtime, travel, and per diem costs of NWS personnel associated with the provision of all other special fire meteorological services, including Wildland Fire agency approved wildland fire familiarization for NWS personnel.

6.0 JOINT RESPONSIBILITIES:

NWS and Interagency Wildland Fire Agencies shall jointly prepare national and Geographic Area specific MOUs and/or AOPs for Fire Weather Services that will set policy and procedures at GACC, NIFC, state or forecast office level, and shall include:

A. Shared responsibilities of all participants shall include, but not limited to weather briefings, training, research, product/service verification as outlined in Geographic Area specific AOPs.

B. Provision for monitoring, feedback and improvement.

C. Procedure for documenting, monitoring and evaluating fire weather products, briefings and services delivered.

D. Provision for monitoring and evaluating advances in science and technology.

E. Provision for efficient means for technology transfer.

F. Provision for participation in fire weather research activities.

G. Provision that on-site IMET services may be provided by Interagency Fire Weather Meteorologist meeting NWS standards only when NWS IMETs are not available to meet Wildland Fire Agency resource requests on a national basis. The coordination for Interagency Fire Weather Meteorologists will be done between the NWS IMET coordinator and the National Interagency Coordination Center.

H. Provision that NWS meteorologists and Interagency Wildland Fire Agency meteorologists stationed at GACCs and at NIFC will work together to ensure fire agency decision makers receive consistent and coordinated fire weather products and services.

I. Provision that the NWS and Interagency Wildland Fire Agencies will jointly develop and share technology including meteorological software and data, Advance Technology Meteorological Units, portable weather stations, etc. to improve abilities and performance.

J. The NWS and Wildland Fire Agency meteorologists shall work closely in all phases of the fire weather forecast and warning program to resolve concerns and avoid potential inconsistencies in products and services prior to delivery to fire agency customers. The goal of all agencies is to maximize firefighter and public safety through a coordinated delivery of consistent services.

K. The Parties recognize that, given the current administrative process for payments for fire suppression activities, it is not feasible to obligate the full amount of funds that may be required by this Agreement, because the Agreement does not constitute a binding obligation under 31 U.S.C. § 1501 since it cannot anticipate the specific goods or services for which payment will be requested, or the individual payment amounts, in each future case. This information can only be provided by Resource Orders executed when the goods or services are requested. At the same time, the Parties recognize that Resource Orders are insufficient to constitute a binding obligation under the statute because there is no evidence of intent to be bound, no authorized signatures are present, and no legal authorities are cited. However, these requirements are satisfied by the Agreement. The two documents, when taken together, contain all the elements required for an obligation under the statute. Hence, the Parties agree that this Agreement shall automatically be incorporated by reference into any Resource Orders issued under it, and that an obligation of funds will occur at the time the NWS presents a copy of this Agreement and the Resource Orders for payment. The parties also agree to work toward a more efficient resolution of this administrative process for obligation and payment of fire suppression funds.

7.0 STATEMENT OF WORK.

Procedures for notification of and obtaining services from the NWS will be prepared and specified in the Annual Operating Plans (AOP) and/or in the MOUs for the Geographic Area Coordinating Centers, and in the Geographical Area and *National Mobilization Guides*. An electronic copy of the National Mobilization Guide can be viewed via www.nifc.gov - select "National Interagency Coordination Center" – select "References" link to National Mobilization Guide.

8.0 TRANSFER OF FUNDS.

A. Billing and collection procedures will follow the Intra-governmental Payment and Collection (IPAC) system process.

B. Wildland Fire Suppression Activities: Transfers under this subsection are under the Disaster Relief Act, 42 U.S.C. § 5147. Reimbursable costs are estimated not to exceed a maximum of $2,000,000.00 per fiscal year. In the event this amount is insufficient for a particular fiscal year, this Agreement may be modified to increase the amount of funding, subject to the availability of funds. This Agreement is automatically incorporated by reference into any Resource Order that is issued under it, constituting a binding obligation. The Interagency Wildland Fire Agencies warrant that they will administratively reserve these funds to ensure that the funds will be available when the obligations are recorded. The recording of the obligations will occur upon the receipt of the billings from the NWS by the applicable Interagency Wildland Fire Agency.

The billings, inclusive of copies of this Agreement, the Resource Order(s), and expenditure documentation, will define the specific services, supplied goods and costs for each order, and subsequent obligation and payment.

1. Reimbursement payments for suppression-related activities will be accomplished by submission of billings, which are inclusive of copies of the Resource Orders that define the requested services and goods, and the expenditure back-up documentation. The NWS will not charge an administrative surcharge or any other expenditure that is not authorized under the Wildland Fire Agencies' Appropriation Acts related to these activities

2. It is the responsibility of the requesting agency/office to provide billing instructions to the NWS office that provided the service, which includes the items listed below. It is also the responsibility of the requesting agency/office to conduct any required verification of costs, authorization of expenditures and reconciliation of payment.

    a) The fire name, jurisdictional unit, and incident number (The copy of the Resource Order generally includes this information);
    b) Applicable support documentation requirements;
    c) A copy of this Agreement complete with signatures;
    d) Identification (name and phone number) of NWS financial contact;
    e) Provide information to NWS regarding which payment center to send the billings for processing; and
    f) Billings and support documentation are to be submitted to the appropriate payment center by the NWS within sixty-days of completion of service.

C. Non-Wildland Fire Suppression Activities: Obligation of funds and payments for non-wildland fire suppression activities that are included in the Annual Operating Plan (AOP) shall be accomplished by Task Orders against this Agreement between the concerned agencies by the responsible officers at the appropriate level operating within their authority.

1. All funding obligations must be placed against the individual agency/office's Task Order number and not against this Agreement number.

2. Task Orders to this Agreement may be approved and signed for the NWS by the Director, Office of Climate, Water and Weather Services.

3. Each federal agency shall make direct settlement from its own funds for all liabilities it incurs under this Agreement.

4. The NWS will not charge any agency that is signatory to this Agreement an indirect administrative surcharges for activities addressed in the respective Annual Operating Plan(s) and Geographical Area MOUs, and are requested through Task Orders or Resource Orders under the National Mobilization Guide.

5. Task Orders may be prepared in any format acceptable to the agencies involved in each project. At a minimum, each Task Order written in support of this Agreement will include the following items:

   a) Detailed description of services to be done or supplies to be delivered;

   b) Description of the deliverables;

   c) Performance period for completion;

   d) Cost estimates;

   e) Identify responsible project officials for each Task Order agency;

   f) Payment procedures (applicable billing procedures, identification of codes, method of payment—advance/reimbursement; and

   g) Signature(s) by authorized personnel for each Task Order agency.

9.0 TERM OF AGREEMENT.

The terms of this Inter-agency Agreement shall become effective with and upon execution by NWS and any or all Interagency Wildland Fire Agencies and shall remain in effect for a period of five-years from the date the last signature was placed on the signatory section, or until such time as the Inter-agency Agreement is terminated by mutual agreement. Any signatory may terminate their participation in this Agreement by written notice to all other signatories provided that such notice shall be given between the dates of October 1 of any year and February 1 of the following year. Full credit shall be allowed for each party's expense and all non-cancelable obligations properly incurred up to the effective date of termination. The remaining signatories may continue the provisions of this Agreement as long as the NWS remains a signatory.

10.0 RESOLUTION OF DISAGREEMENT.

Should disagreement arise on the interpretation of the provisions of this Agreement, or modifications thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement on interpretation is not reached within thirty-days, the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution. Conflicts and/or disagreements that cannot be resolved at the regional (GACC) level will be elevated to the National Fire Weather Program Managers for the NWS and Interagency Wildland Fire Agencies. If the conflict cannot be resolved at the National Program Managers level, the conflict will be elevated to the Agency Director level (NWS and applicable Wildland Fire Agency Director) for final resolution.

11.0 GENERAL PROVISIONS.

A. Parties to this Agreement are not obligated to make expenditures of funds or provide services under terms of this Agreement unless such funds are appropriated or services are authorized by either the State Legislatures or the Congress of the United States, or are otherwise available under Section 101 and 102 of the Annual Appropriations Act for Interior and Related Agencies.

B. The points of contact listed in Section 13 will review this Agreement annually.

C. Modifications to this Agreement may be initiated by any signatory agency. The modifications shall not take effect until documented and signed by all signatory agencies.

1. The BLM is designated as the agency responsible for all administrative oversight of modifications to this agreement.

2. Modifications to this Agreement may be approved for the NWS and signed by the Director, Office of Climate, Water and Weather Services, or pursuant to NWS protocol.

D. The signatory Interagency Wildland Fire Agencies agree to consider expansion of this Agreement to cover areas of mutual concern, e.g., changing technology and improved procedures, as opportunities for such cooperation become available.

12.0 WAIVER.

Each party to this agreement does hereby expressly waive all claims against the other party for compensation for any loss, damage, personal injury or death occurring in consequence of the performance of this agreement.

13.0 PRINCIPAL CONTACTS.

The Points of Contact are responsible for coordinating an annual review of the currency and adequacy of this Agreement among the signatories, and/or their designees.

<u>National Weather Service:</u>

National Fire Weather Program Manager
Rusty Billingsley
National Weather Service
3833 South Development Ave.
Boise, ID 83705
208/334-9824 – Office
david.billingsley@noaa.gov

<u>Interagency Wildland Fire Agencies:</u>

NIFC Fire Weather Program Manager
Rick Ochoa
National Interagency Fire Center
3833 South Development Ave.
Boise, ID 83705
208/387-5451-Office
rick_ochoa@nifc.blm.gov

14.0 DEFINITIONS.

When the following terms are used in this Agreement, or in an AOP, such terms will have the meanings stated below.

A. **Annual Operation Plan for Fire Weather Services (AOP):** A procedural guide, based on the National Interagency MOU and applicable Geographic Area MOUs, which describes fire meteorological services provided within the Geographic Area of responsibility, including NIFC. At a minimum the AOP will include the items in Appendix 1, Annual Operating Plan - Required Elements and Suggested Format.

B. **Assessment:** Fire weather and/or fire danger product based on a thorough evaluation of all pertinent sources of meteorological and fire danger information.

C. **Basic Meteorological Services:** Basic meteorological services are those state-of-the-science meteorological forecasts, warnings, observations and statements produced at a designated NWS office.

D. **Fire Weather Watch:** Fire Weather Watch is issued to advise of conditions, which could result in extensive wildfire occurrence or extreme fire behavior, which are expected to develop in the next 12 to 48 hours, but not more than 72 hours. In cases of dry lightning, a Fire Weather Watch may be issued for the next 12 hours. Fire Weather Watch meteorological and fuel criteria will be defined in the AOP.

E. **Geographic Area:** A geographic boundary designated by Interagency Wildland Fire Agencies, where these agencies work together in the coordination and effective utilization of resources within their boundaries. The National Interagency Mobilization Guide identifies the areas encompassed by the eleven Geographic Areas.

F. **Geographic Area Memorandum of Understanding (MOU):** A document, based on the National Interagency Memorandum of Understanding for Meteorological Services, which establishes local policy to meet unique needs of a Geographic Area.

G. **Incident Meteorologist (IMET):** A meteorologist specially trained to provide on-site meteorological support of Wildland Fire Agency designated incidents.

H. **Non-Routine Services:** Meteorological services uniquely required by interagency Wildland Fire Agencies, which usually are not provided from a designated NWS office.

I. **On-Site Meteorological Services:** Special service which dedicates an IMET to an incident so that they are removed from their normal duties.

J. **Predictive Services:** Those Geographic Area/national level fire weather and/or fire danger services and products produced by Wildland Fire Agency meteorologists in support of resource allocation and prioritization.

K. **Red Flag Warning:** Red Flag Warning is used to warn of impending or actually occurring critical weather conditions that could result in extensive wildland fire activity. A warning will be issued when the forecast time of onset is less than 24 hours. Red Flag Warning meteorological and fuel criteria will be defined in the AOP.

L. **Routine Fire Weather Forecasts:** A Routine Fire Weather Forecast is a scheduled narrative and/or matrix forecast of weather parameters pertinent fire management activities in support of protection of life, property, and resources at risk in a given area. The number of parameters may vary due to regional weather requirements, but normally include a brief weather synopsis, expected weather and clouds, duration of precipitation, maximum and minimum temperature/relative humidity, wind direction and speed, transport and stability parameters, and lightning activity level. These forecasts normally cover the next 48 hours and may include input for the computation of National Fire Danger Rating System indices. These forecasts may also include long-range outlooks.

M. **Site Specific Forecasts:** Site-specific forecasts are issued when requested by Interagency Wildland Fire Agencies for wildland fires. These forecasts differ from routine fire weather forecasts by incorporating greater detail in timing, higher resolution of terrain influences, and incorporate meso-scale and sometimes micro-scale weather influences impacting the site. These may be generated from an office with Wildland Fire supplied information (i.e., location, weather observations, objectives) or generated by an IMET assigned to the incident. Forecast formats may vary but all are highly tailored to satisfy requirements of the incident objectives.

N. **Wildland Fires:** All ignitions that occur on wildlands.

15.0 SIGNATORY.

This Agreement shall be effective on the date the last signature is placed on the signature section and it will remain in effect for a period of five-years from the date of the last signature.

/signed/	9/26/02
Gregory A. Mandt, Director Office of Climate, Water and Weather Services	Date
/signed/	10/9/02
Byron J. Green, Contracting Officer Bureau of Indian Affairs	Date
/signed/	10/24/02
Dan Ashe, Chief, National Wildlife Refuge System Fish and Wildlife Service	Date
/signed/	10/3002
Donna Kalvels, Chief, Contract Office National Park Service	Date

/signed/ 9/30/02

Larry Hamilton, Director — Date
Bureau of Land Management-Office of Fire & Aviation

/signed/ 10/31/02

Richard A. Harter, Supervisory Contract Officer — Date
Bureau of Land Management-Office of Fire & Aviation

/signed/ Roger Spaulding, for 9/30/02

Phil Street, Director — Date
DOI-Fish and Wildlife Service

/signed/ 9/30/02

Jim Stires, Fire Director — Date
DOI-Bureau of Indian Affairs

/signed/ 9/30/02

Sue Vap, National Fire Management Officer — Date
DOI-National Park Service

/signed/ 9/30/02

Alice Forbes, Acting Director — Date
USDA, Forest Service-NIFC

/signed/ 9/30/02

Tory Majors, Administrative Officer — Date
USDA, Forest Service-NIFC

Appendix 1
Annual Operating Plan
Required Elements and Suggested Format

I. INTRODUCTION

The introduction will include a general statement of purpose and an explanation of the relationship between the Annual Operating Plan (AOP) and the Geographic Area Coordinating Center Memorandum of Understanding (MOU) for Meteorological Services, and the Geographic Area Mobilization Guide and/or the National Mobilization Guide will be referenced.

II. SERVICE AREA AND ORGANIZATIONAL DIRECTORY

A. List of weather offices and points of contact
B. List of agencies participating

III. SERVICES PROVIDED BY THE NATIONAL WEATHER SERVICE

A. Basic Services
1. Routine fire weather forecasts
   a. Issuance (seasonal, daily)
   b. How forecast is issued and accessed
   c. Content of the forecast
2. Site-specific wildland fire forecasts
   a. Criteria
   b. Contents
   c. Procedures
3. Fire Weather Watch, Red Flag Programs
   a. Criteria
   b. Contents
   c. Procedures
4. Participation in interagency groups.

B. Special Services. Procedures for obtaining and billing for special services.

C. Training. Procedures for obtaining and billing for special services.

IV. WILDLAND FIRE AGENCY RESPONSIBILITIES

A. Operational support and predictive services.
1. Program management
2. Monitoring, feedback and improvement
3. Technology transfer
4. Agency computer systems
5. Fire weather observations
6. On-site support
7. Training

V. JOINT RESPONSIBILITIES

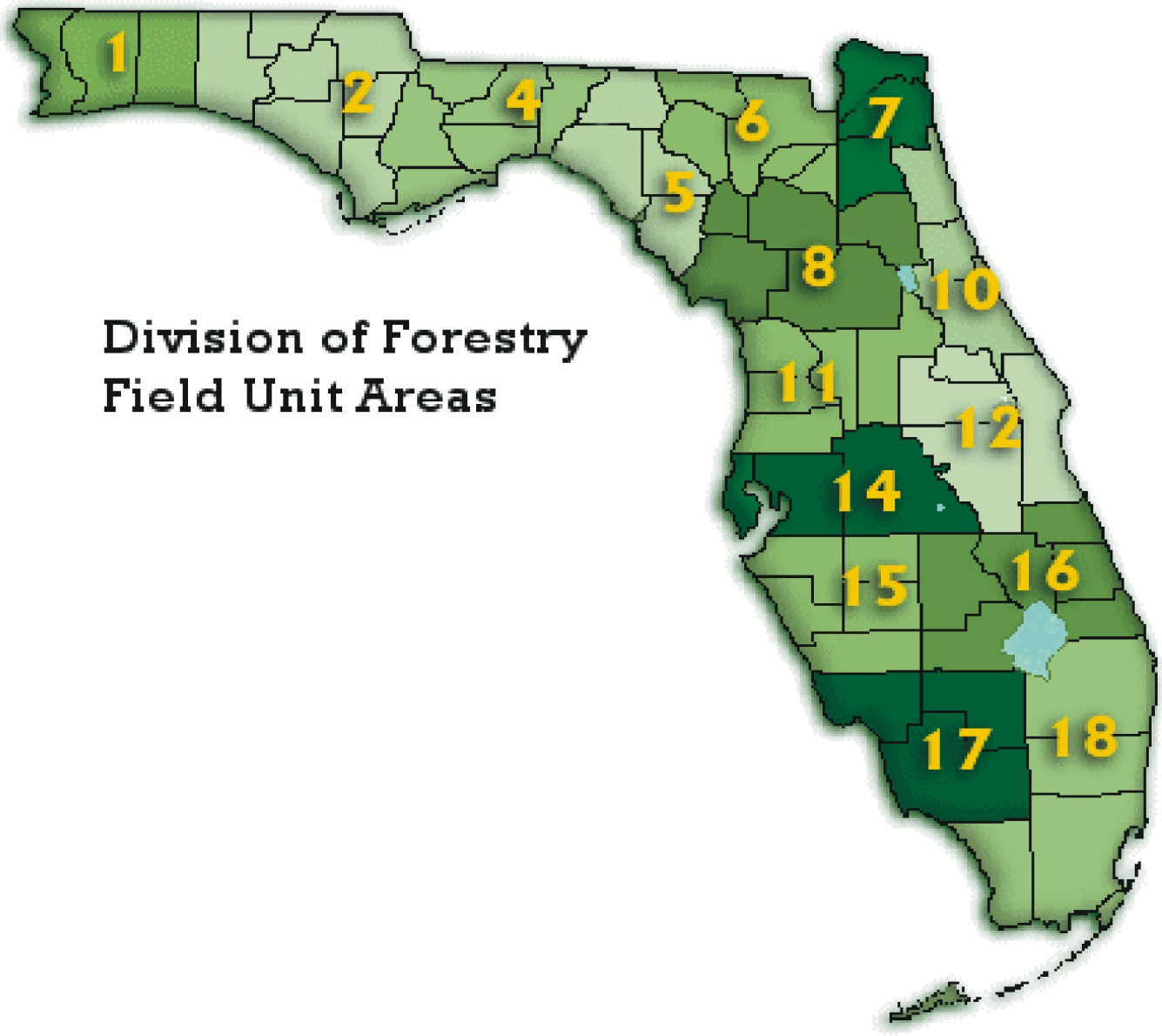
Negotiate service boundaries and fire weather forecast zones to meet customer and forecaster need.

VI. EFFECTIVE DATES ON THE AOP

VII. SIGNATURE PAGE

VIII. APPENDICES

A. Interagency Agreement for Meteorological Services in Support of Agencies with Land and Fire Management Responsibilities
B. Fire weather zone maps.
C. Catalog of fire weather observation sites.

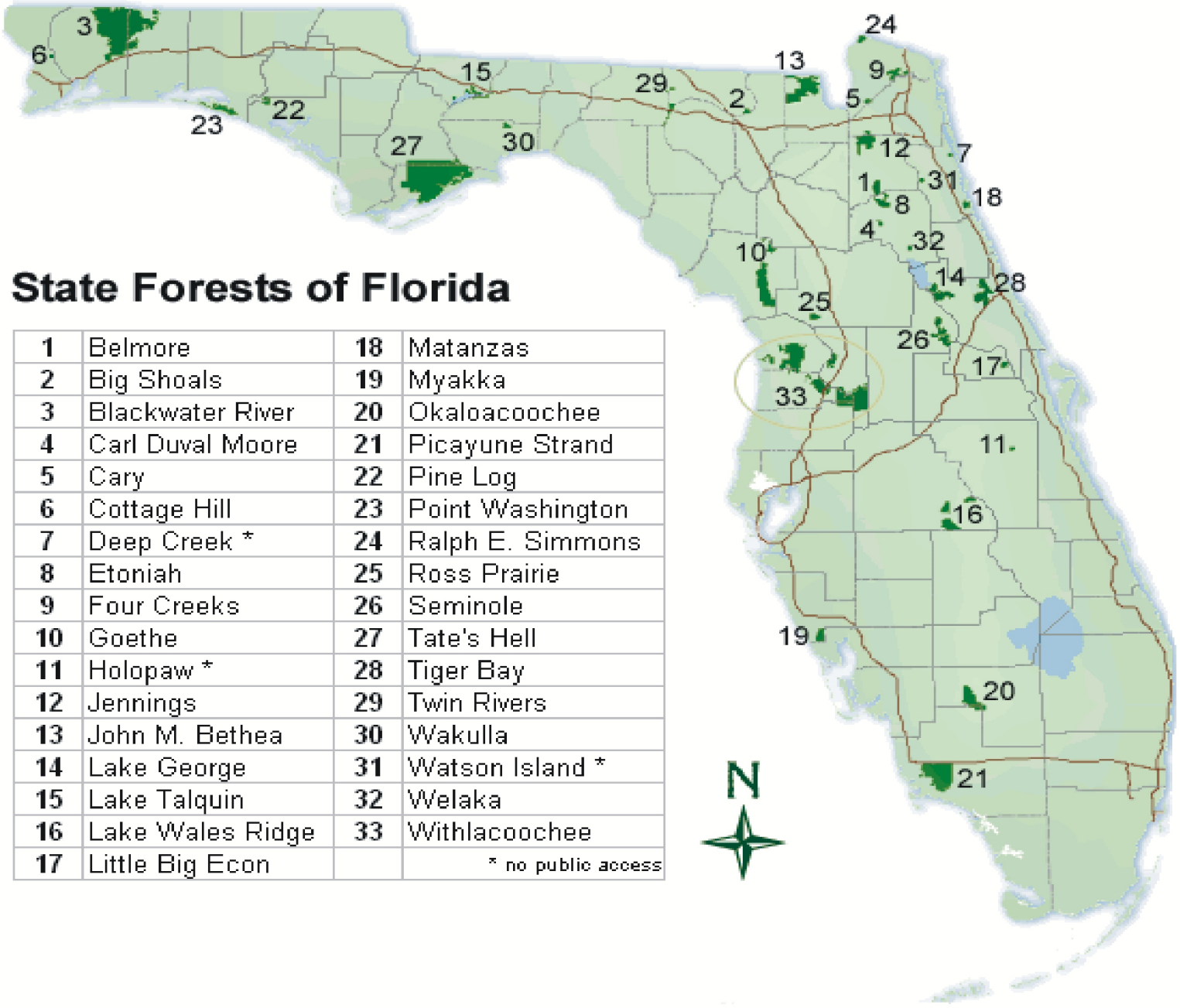


DOF FIELD OFFICES BY FIELD UNIT NAME AND DISTRICT NUMBERS

1 - BLACKWATER
2 - CHIPOLA
4 - TALLAHASSEE
5 - PERRY
6 - SUWANNEE
7 - JACKSONVILLE
8 - WACCASASSA
10 - BUNNELL
11 - WITHLACOOCHEE
12 - ORLANDO
14 - LAKELAND
15 - MYAKKA RIVER
16 - OKEECHOBEE
17 - CALOOSAHATCHEE
18 - EVERGLADES

http://www.fl-dof.com/field_operations/index.html

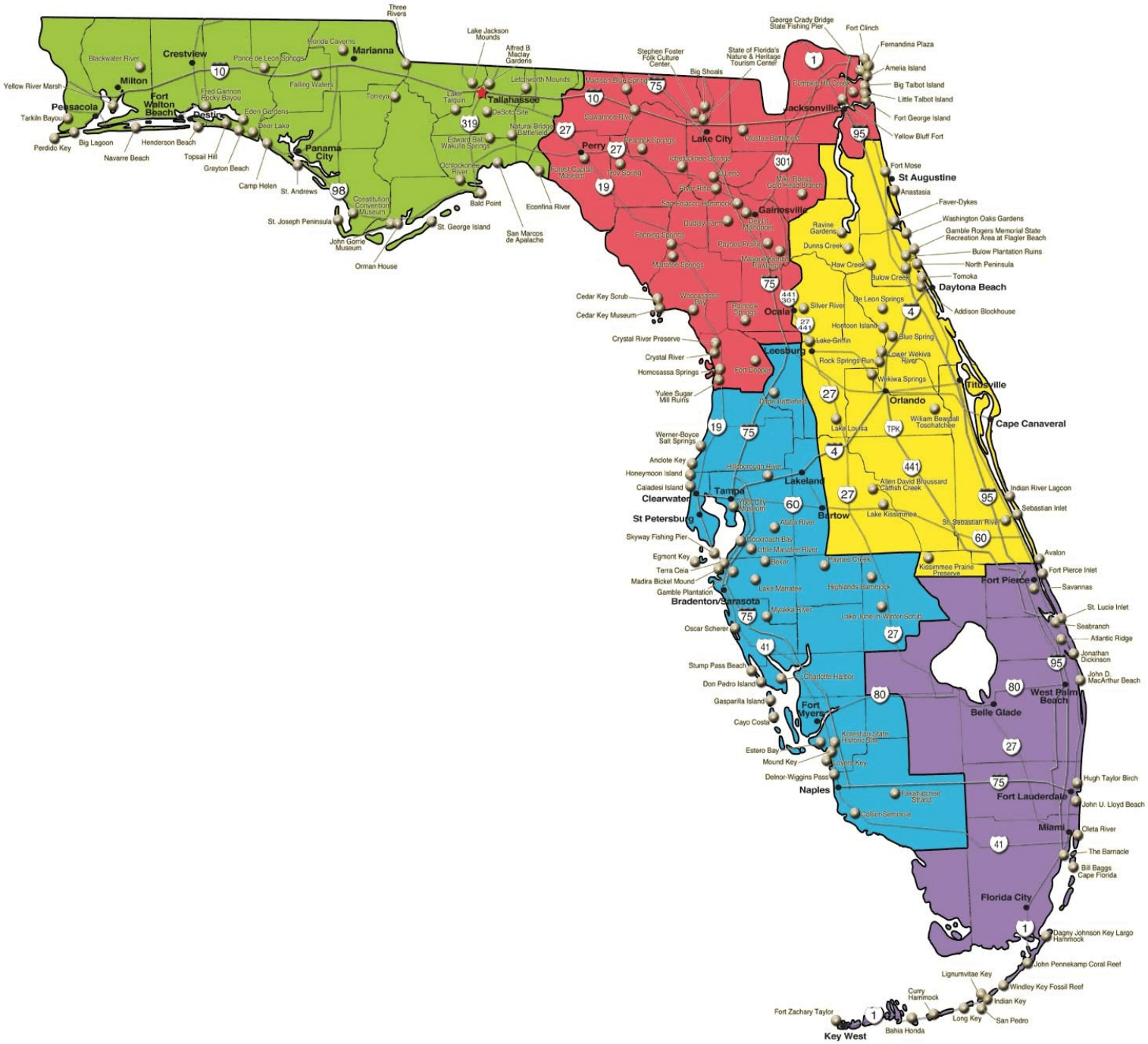
MAP OF STATE FORESTS UNDER STATE LAND MANAGEMENT



1	Belmore	18	Matanzas
2	Big Shoals	19	Myakka
3	Blackwater River	20	Okaloacoochee
4	Carl Duval Moore	21	Picayune Strand
5	Cary	22	Pine Log
6	Cottage Hill	23	Point Washington
7	Deep Creek *	24	Ralph E. Simmons
8	Etoniah	25	Ross Prairie
9	Four Creeks	26	Seminole
10	Goethe	27	Tate's Hell
11	Holopaw *	28	Tiger Bay
12	Jennings	29	Twin Rivers
13	John M. Bethea	30	Wakulla
14	Lake George	31	Watson Island *
15	Lake Talquin	32	Welaka
16	Lake Wales Ridge	33	Withlacoochee
17	Little Big Econ		* no public access

http://www.fl-dof.com/state_forests/index.html

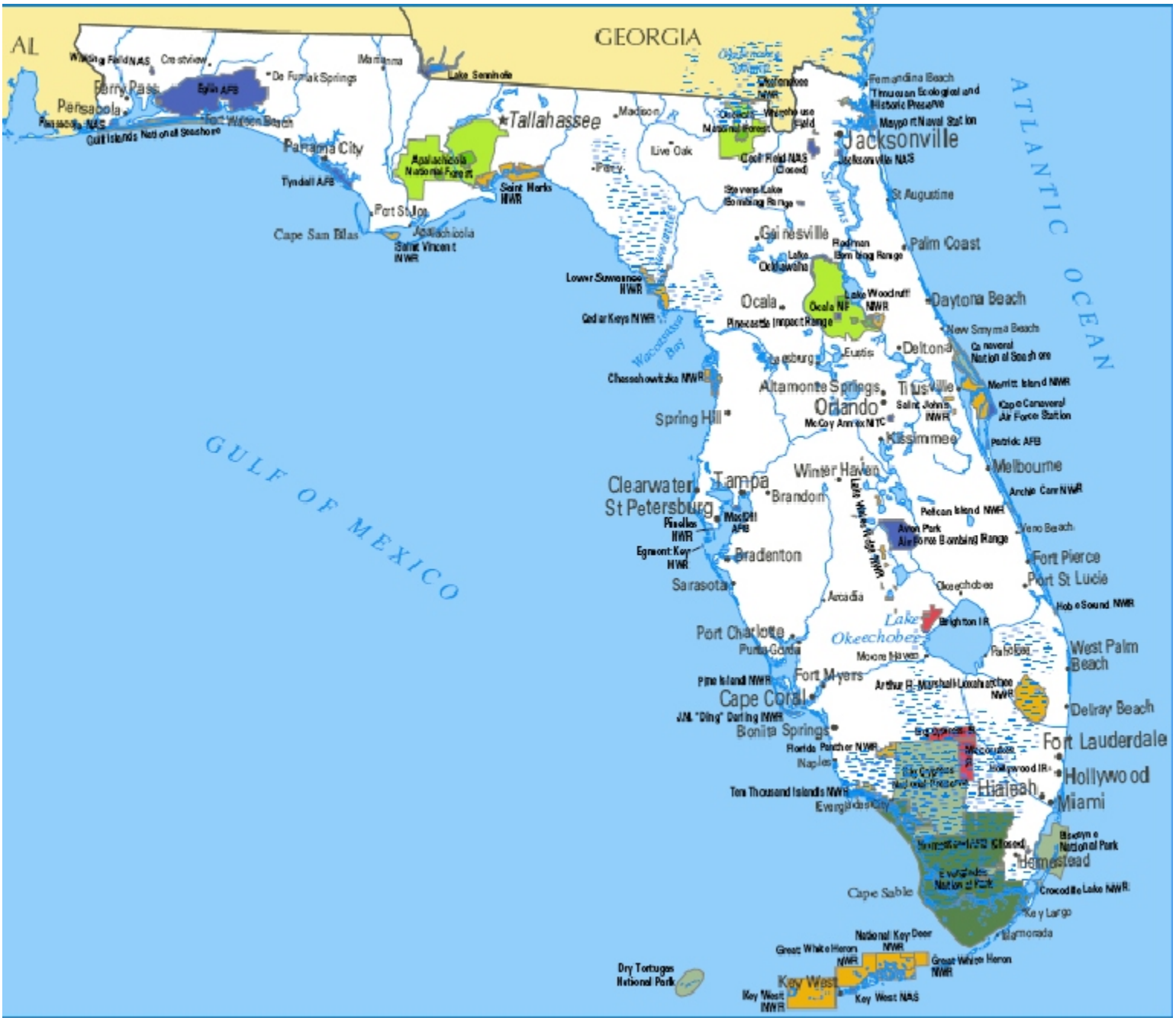
MAP OF STATE PARKS AND REGIONS UNDER STATE LAND MANAGEMENT



http://www.floridastateparks.org/images/DistMapAll.cfm

http://www.dep.state.fl.us/Parks/planning/forms/State_parks_b&w_8X11.pdf

MAP OF LAND ENTITIES UNDER FEDERAL MANAGEMENT



http://www.lib.utexas.edu/maps/united_states/fed_lands_2003/florida_2003.pdf

LAVDAS DISPERSION INDEX

THIS DISPERSION INDEX OFFERS A MEANS OF ALLOCATING PRESCRIBED FIRE EMISSIONS WITHIN AN AREA, ACCORDING TO PREVAILING WEATHER CONDITIONS, TO AVOID REGIONAL SMOKE OVERLOAD. IN OTHER WORDS, THIS INDEX REFERS TO THOSE PROCESSES WITHIN THE ATMOSPHERE WHICH MIX AND TRANSPORT PARTICULATE (SMOKE) AWAY FROM A SOURCE BOTH HORIZONTALLY VIA THE WIND AND VERTICALLY VIA STABILITY.

THE DISPERSION INDEX IS PREDOMINATELY WEIGHTED TO, AND DIRECTLY PROPORTIONAL TO VALUES OF THE MIXING HEIGHT AND TRANSPORT WIND. BUT THE INDEX ALSO INCORPORATES FACTORS OF SEASONAL SOLAR ELEVATION ANGLE (NET RADIATION), TOTAL OPAQUE CLOUD COVER, CEILING HEIGHT, AND SURFACE WIND SPEED, WITH THESE ADDITIONAL ELEMENTS APPROXIMATING AN OVERALL ATMOSPHERIC STABILITY CLASS.

MUCH OF THE RANGE OF GOOD DISPERSION OF POLLUTANTS OVERLAPS THE RANGE OF WEATHER CONDITIONS UTILIZED FOR GOOD BURNING CONDITIONS, SO WITH GOOD MANAGEMENT, NEITHER SMOKE NOR FIRE WILL BE A HAZARD. HOWEVER HIGH INDEX VALUES IMPLY AN EXTREMELY UNSTABLE ATMOSPHERE, CONTRIBUTING TO INCREASED INCIDENCE OF WILDFIRE. MUCH AS LOW VALUES OF THE INDEX IMPLY POOR DISPERSION OF SMOKE, HIGH VALUES OF THE INDEX MAY IMPLY CONDITIONS FOR POTENTIALLY LARGE FIRE GROWTH.

THEREFORE, IN AGREEMENT WITH THE LAND MANAGEMENT AGENCIES WITHIN FLORIDA, HIGH VALUES OF THE DISPERSION INDEX (75 OR GREATER) INITIATE ADDITIONAL CRITERIA FOR THE ISSUANCE OF FIRE WEATHER WATCHES AND RED FLAG WARNINGS WITHIN THE STATE. (SEE **PAGE 38** FOR COMPLETE WATCH/WARNING CRITERIA)

BOTH DAY AND NIGHTTIME DISPERSION INDEX VALUES ARE CALCULATED WITHIN ISSUANCES OF THE MORNING AND AFTERNOON PLANNING FORECASTS (FWF), AND UPDATED FOR THE NIGHTTIME PERIOD WITH ISSUANCE OF THE LATE MORNING DISPERSION INDEX UPDATE.

USAGE OF FORECAST DISPERSION INDEX VALUES WITHIN FLORIDA WILL BE CATEGORIZED BY THE DOF AS THE FOLLOWING:

DISPERSION INDEX VALUES	**DAYTIME DESCRIPTOR**
GREATER THAN 74	EXCELLENT DISPERSION, CONTROL PROBLEMS EXPECTED.
61-74	VERY GOOD DISPERSION
41-60	GENERALLY GOOD.
21-40	POOR TO FAIR, STAGNATION MAY BE INDICATED IF ACCOMPANIED BY LOW WIND SPEEDS.
0-20	POOR DISPERSION, STAGNANT IF PERSISTENT.
	NIGHTTIME DESCRIPTOR
GREATER THAN 8	VERY GOOD
5-8	GOOD
3-4	POOR TO FAIR
0-2	POOR

REFERENCE:
LAVDAS, LEONIDAS G.; *AN ATMOSPHERIC DISPERSION INDEX FOR PRESCRIBED BURNING;* U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE, RESEARCH PAPER SE-256, OCTOBER 1986.

KEETCH-BYRAM DROUGHT INDEX

THE KEETCH-BYRAM INDEX EVALUATES THE EFFECTS OF LONG-TERM METEOROLOGICAL DROUGHT AS IT RELATES TO THE GAIN OR LOSS FROM THE DUFF LAYER DOWN THROUGH AN EIGHT INCH DEPTH OF SOIL. THEREFORE THE INDEX IS BASED ON THE AVAILABLE MOISTURE IN THE UPPER SOIL LAYERS THAT CAN BE USED BY VEGETATION FOR EVAPOTRANSPIRATION.

THE INDEX MEASURE IS IN HUNDREDTHS OF AN INCH OF WATER, AND HAS A RANGE OF ZERO THROUGH 800, WITH ZERO BEING SATURATED AND 800 REPRESENTING THE WORST DROUGHT CONDITION. A **KBDI** OF 250 MEANS THERE IS A DEFICIT OF 2.5 INCHES OF GROUND WATER AVAILABLE TO VEGETATION. SUBSEQUENTLY AS DROUGHT PROGRESSES, THERE IS MORE AVAILABLE FUEL THAT CAN CONTRIBUTE TO FIRE INTENSITY.

FACTORS CONTRIBUTING TO INDEX CALCULATION INCLUDE DAILY MAXIMUM TEMPERATURE, DAILY PRECIPITATION, ANTECEDENT PRECIPITATION, AND ANNUAL PRECIPITATION.

EVALUATION OF APPROXIMATE INDEX RANGE VALUES:

ZERO TO 200 -- SOIL MOISTURE AND LARGE CLASS FUEL MOISTURE ARE HIGH AND DO NOT CONTRIBUTE MUCH TO FIRE INTENSITY.

200 TO 400 -- A NEAR NORMAL RANGE BUT LOWER LITTER AND DUFF LAYERS ARE DRYING AND BEGINNING TO CONTRIBUTE TO FIRE INTENSITY.

400 TO 600 -- LOWER LITTER AND DUFF LAYERS ACTIVITY CONTRIBUTE TO FIRE INTENSITY AND WILL BURN ACTIVELY.

600 TO 800 -- OFTEN ASSOCIATED WITH MORE SEVERE DROUGHT WITH INCREASED WILDFIRE OCCURRENCE. INTENSE DEEP BURNING FIRES WITH SIGNIFICANT DOWNWIND SPOTTING CAN BE EXPECTED. LIVE FUELS CAN ALSO BE EXPECTED TO BURN ACTIVITY AT THESE LEVELS.

REFERENCE:
KEETCH, JOHN J. AND BYRAM, GEORGE M., *A DROUGHT INDEX FOREST FIRE CONTROL;* U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE, RESEARCH PAPER SE-38, NOVEMBER 1968.

THE LOW VISIBILITY OCCURRENCE RISK INDEX - LVORI

THIS INDEX IS A MEASURE OF THE RISK OF LOW VISIBILITY OCCURRING. THE RISK DRAMATICALLY INCREASES WHEN RH IS HIGH AND DI IS LOW. THIS INDEX IN USEFUL IN QUALITATIVELY ESTIMATING THE LIKELIHOOD OF A VEHICLE ACCIDENT OCCURRING UNDER A GIVEN SET OF CONDITIONS. THIS INDEX CAN BE ASCERTAINED BY USING THE PREDICTED NIGHTTIME DI AND MAXIMUM RH, AND THE LVORI TABLE. (REF SEE **PAGE 83-84**)(See Table 2 and Table 3)

Table 2 – Description of LVORI Values

LVORI	Description
1	Lowest proportion of accidents with smoke and/or fog reported (130 of 127,604 accidents, or just over 0.0010 of all accidents)
2	Physical or statistical reasons for not including in LVORI Class 1, but proportion of accidents not significantly higher
3	Higher proportion of accidents than LVORI Class 1, by about 30 to 50 percent, marginal significance (between 1 and 5 percent)
4	Significantly higher than LVORI Class 1, by about a factor of 2
5	Significantly higher than LVORI Class 1, by a factor of 3 to 10
6	Significantly higher than LVORI Class 1, by a factor of 10 to 20
7	Significantly higher than LVORI Class 1, by a factor of 20 to 40
8	Significantly higher than LVORI Class 1, by a factor of 40 to 75
9	Significantly higher than LVORI Class 1, by a factor of 75 to 125
10	Significantly higher than LVORI Class 1, by about a factor of 150

Table 3 - Low Visibility Occurrence Risk Index (Stable Conditions such as Nighttime)

RH	Dispersion Index											
	>40	40-31	30-26	25-17	16-13	12-11	10-9	8-7	6-5	4-3	2	1
<55	1	1	2	2	2	2	2	2	2	2	2	2
55-59	1	1	2	2	2	2	2	3	3	3	3	3
60-64	1	1	2	2	2	2	3	3	3	3	3	3
65-69	1	3	3	3	3	3	3	3	3	3	3	4
70-74	3	3	3	3	3	3	3	3	3	3	3	4
75-79	3	3	3	3	4	4	4	4	4	4	4	4
80-82	3	3	3	3	4	4	4	4	4	5	5	6
83-85	4	4	4	4	4	4	4	4	5	5	5	6
86-88	4	4	4	4	4	5	5	5	5	6	6	6
89-91	4	4	4	4	5	5	5	5	6	6	7	7
92-94	4	4	4	5	5	5	6	6	6	6	7	8
95-97	4	4	4	5	5	6	6	6	7	8	8	9
>97	4	4	4	5	5	7	8	8	9	9	10	10

FORESTRY INTERNET LINKS:

NWS NATIONAL FIRE WEATHER PAGE
http://fire.boi.noaa.gov/

NWS SOUTHERN REGION HDQTRS FIRE WEATHER PAGE
http://www.srh.noaa.gov/srh/cwwd/msd/firewx/index.htm

NWS BOISE FIRE WEATHER RAWS OBS
http://raws.wrh.noaa.gov/rawsobs.html

NATIONAL INTERAGENCY FIRE CTR
http://www.nifc.gov/

USFS SOUTHERN REGION
http://www.fs.fed.us/r8/

GEOGRAPHIC AREA COORDINATION CENTER
http://www.nifc.gov/fireinfo/geomap.html

SOUTHERN AREA COORDINATION CENTER
http://gacc.nifc.gov/sacc/

FLORIDA DIVISION OF FORESTRY HOME PAGE
http://www.fl-dof.com/

FLORIDA DIVISION OF FORESTRY FORECAST ACCESS
http://www.fl-dof.com/fire_weather/forecasts.html

WEATHER INFORMATION MANAGEMENT SYSTEM
http://famweb.nwcg.gov

WILDLAND FIRE ASSESSMENT SYSTEM
http://www.wfas.net/

GEORGIA FORESTRY COMMISSION
http://www.gfc.state.ga.us

ALABAMA FOREESTRY COMMISSION
http://www.forestry.state.al.us

MISSISSIPPI FORESTRY COMMISSION
http://www.mfc.state.ms.us

NWS STORM PREDICTION CENTER
http://www.spc.noaa.gov/fire
(Fire Weather Outlooks)

NWS CLIMATE PREDICTION CENTER
http://www.cpc.ncep.noaa.gov/index.html
(Long term weather outlooks)

NATIONAL WILDFIRE COORDINATING GROUP
http://www.nwcg.gov

GLOSSARY OF ABBREVIATIONS

AFD - AREA FORECAST DISCUSSION

AMRS - ALL HAZARDS METEOROLOGICAL RESPONSE SYSTEM

AWIPS - ADVANCED WEATHER INTERACTIVE PROCESSING SYSTEM

CEM - CIVIL EMERGENCY MESSAGE

DB - DRY BULB

DI - DISPERSION INDEX (LAVDAS)

DOF - DIVISION OF FORESTRY

FRL - FIRE READINESS LEVEL

FWF - FIRE WEATHER FORECAST

FWS - FIRE WEATHER SPOT FORECAST

HAZMAT - HAZARDOUS MATERIAL(S)

HWO - HAZARDOUS WEATHER OUTLOOK

IMET - INCIDENT METEOROLOGIST

KBDI - KEETCH-BYRAM DROUGHT INDEX

LAL - LIGHTNING ACTIVITY LEVEL

WIMS - WEATHER INFORMATION MANAGEMENT SYSTEM

MOU - MEMORANDUM (LETTER) OF AGREEMENT

NFDRS - NATIONAL FIRE DANGER RATING SYSTEM

NIFC - NATIONAL INTERAGENCY FIRE CENTER - BOISE

NWS - NATIONAL WEATHER SERVICE

NWR - NOAA WEATHER RADIO

RAWS - REMOTE AUTOMATED WEATHER SYSTEM

GACC - GEOGRAPHIC AREA COORDINATION CENTER

SACC - SOUTHERN AREA COORDINATION CENTER

SMF - SMOKE DISPERSION FORECAST

SPC - SEVERE PREDICTION CENTER - NWS