

ELK COMPLEX

Incident Action Plan

August 1-2, 2007

1800 - 0800

Maintain Situational Awareness

➤ NIGHT OPERATIONS

- Use your daylight hours for familiarization
- Use most experienced drivers
- Use appropriate warning devices

➤ DRIVING ISSUES

- Use extreme caution
- All roads are unforgiving
- Seatbelts on at all times

➤ HAZARD TREES

- Identify & Flag
- Stay Alert for Uphill Trees

➤ FOOTING

- Watch your footing
- Think before you move
- Watch out for Rolling Material

Always do a Risk Analysis Before You Engage in any
Operation

CA-KNF-0003176

KLAMATH NATIONAL FOREST

Northern California Incident Management Team 1

<p style="text-align: center;">Incident Objectives</p>	<p>1. Incident Name</p> <p style="text-align: center;">ELK COMPLEX</p>	<p>2. Date Prepared</p> <p style="text-align: center;">08/01/07</p>	<p>3. Time Prepared</p> <p style="text-align: center;">1130</p>															
<p>4. Operational Period</p> <p style="text-align: center;">08/01/07 Wednesday Night Shift 1800 - 0800</p>																		
<p>5. General Control Objectives for the incident (include alternatives)</p> <p>SAFETY Safety is a CORE VALUE and is to be integrated into all incident activities.</p> <p>CONTROL OBJECTIVES Keep fires: -- West of Grider Ridge -- East of Siskiyou Wilderness -- South of Slater Butte -- North of Pigeons Roost</p> <p>Protect communities of Happy Camp, Elk Creek and outlying private properties. Mitigate impacts to cultural and natural resources. Ensure ground and aviation suppression actions are coordinated and timely.</p>																		
<p>6. Weather Forecast for Period</p> <p>See attached spot weather forecast.</p>																		
<p>7. General Safety Message</p> <p>Stay aware of the surrounding environment. Current burning conditions and fire behavior are picking up. Post lookouts, and identify escapes routes. Other hazards to be aware of are steep, rocky terrain, rolling materials, and very hazardous driving conditions.</p>																		
<p>8. Attachments (mark if attached)</p>																		
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input checked="" type="checkbox"/> Organization List - ICS 203</td> <td style="width: 33%;"><input type="checkbox"/> Incident Map</td> <td style="width: 33%;"><input checked="" type="checkbox"/> Fire Behavior Forecast</td> </tr> <tr> <td><input checked="" type="checkbox"/> Div. Assignment Lists - ICS 204</td> <td><input checked="" type="checkbox"/> Safety Message</td> <td><input checked="" type="checkbox"/> Human Resource Message</td> </tr> <tr> <td><input checked="" type="checkbox"/> Communications Plan - ICS205</td> <td><input type="checkbox"/> Traffic Plan</td> <td><input type="checkbox"/> Phone List</td> </tr> <tr> <td><input checked="" type="checkbox"/> Medical Plan - ICS 206</td> <td><input type="checkbox"/> Camp Map</td> <td><input checked="" type="checkbox"/> Unit Log</td> </tr> <tr> <td><input type="checkbox"/> Air Operations Summary - ICS 220</td> <td><input checked="" type="checkbox"/> Fire Weather Forecast</td> <td><input type="checkbox"/> Traffic Map</td> </tr> </table>				<input checked="" type="checkbox"/> Organization List - ICS 203	<input type="checkbox"/> Incident Map	<input checked="" type="checkbox"/> Fire Behavior Forecast	<input checked="" type="checkbox"/> Div. Assignment Lists - ICS 204	<input checked="" type="checkbox"/> Safety Message	<input checked="" type="checkbox"/> Human Resource Message	<input checked="" type="checkbox"/> Communications Plan - ICS205	<input type="checkbox"/> Traffic Plan	<input type="checkbox"/> Phone List	<input checked="" type="checkbox"/> Medical Plan - ICS 206	<input type="checkbox"/> Camp Map	<input checked="" type="checkbox"/> Unit Log	<input type="checkbox"/> Air Operations Summary - ICS 220	<input checked="" type="checkbox"/> Fire Weather Forecast	<input type="checkbox"/> Traffic Map
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<input type="checkbox"/> Air Operations Summary - ICS 220	<input checked="" type="checkbox"/> Fire Weather Forecast	<input type="checkbox"/> Traffic Map																
<p>9. Prepared by (Planning Section Chief)</p> <p>Mark Wurdeman, PSC2</p>	<p>10. Approved by (Incident Commander)</p> <p>Kent Swartzlander, IC</p>																	

ORGANIZATION ASSIGNMENT LIST		9. Operations Section	
1. Incident Name ELK COMPLEX		Operations	PETE DUNCAN / ALEC LANE (T)
2. Date Prepared 08/01/07		3. Time Prepared 1130	Planning Operations PAUL A BANNISTER
4. Operational Period 08/01/07 Wednesday Night Shift 1800 - 0800		a. Divisions	
Position		Name	
5. Incident Commander and Staff		ALL DIVISIONS	
Incident Commander	KENT SWARTZLANDER	Division N/O	
Deputy	DAVE SINCLEAR	Division T	
Safety Officer	J. MACKENSEN / R. VERDIE	Division U	
Information Officer	YVONNE JONES / PHYLLIS SWANSON		
Human Resource Officer	MIKE BAINES	b. Divisions	
6. Agency Representative		Division A/B	
Agency	Name	Division C	
Agency Administrators	ALAN VANDIVER / DON HALL	Division DD	
Resource Advisor	GARR ABBAS		
Karuk Tribe	HAROLD TRIPP / NORM GOODWIN	Firing Group	
Technical Spec	BOB RONSSE		
Cal Fire; Siskiyou Sheriff Office; OES Fire;HCVFD	JOHN EVANS / DAN TINNEL / KIRK EDIE		
7. Planning Section		c. Divisions	
Chief	GARY RISLING	Division P	
Deputy	MARK WURDEMAN	Division Q	
Resources Unit	L. CHARBONNIER / R. MUSTATIA (T)	Division R	
Situation Unit	KEIJI SETA (T) / BERT BYERS (T)	Division S	
Documentation Unit			
Demobilization Unit	GARY DEBOI		
Fire Behavior Analyst	HUGH SCANLON		
Meteorologist	BRETT LUTZ	d. Air Operations Branch	
Training Specialist	DOMINIC PANNO	Air Operations Branch Director	ERICH SCHWAB
GIS Specialist	K. FELKER / S. CMEHIL-WARN	Helibase Manager	
Computer Specialist		Air Attack Supervisor	STAN KUBOTA
		Air Support Supervisor	
		Helicopter Coordinator	
		Air Tanker Coordinator	
8. Logistics Section		10. Finance Section	
Chief	P. MONTGOMERY / G. MOON (T)	Chief	LOIS CHARLTON
Deputy	MIKE JELLISON	Deputy	
Supply Unit	TOM J CHARLTON	Time Unit	SISSIE ANZORA
Facilities Unit	FRANK DELCARLO	Procurement Unit	
Ground Support Unit	HARRY ZABEL / JOHN CAMACHO	Compensation/Claims Unit	MONA LAKE
Communications Unit	KEN EARLE (T)	Cost Unit	ADELE HENDERSON
Medical Unit	KEN KUMPE	Prepared by (Resource Unit Leader)	
Security Unit	TOM DODD		
Food Unit	JAY WESTLAKE		

Fire Weather Forecast

FORECAST NO: 37

NAME OF FIRE: Elk Complex

PREDICTION FOR: NIGHT SHIFT

UNIT: Klamath NF

SHIFT DATE: August 1-2, 2007

SIGNED:

TIME AND DATE 1000 PST
FORECAST ISSUED: August 1, 2007

Incident Meteorologist
Brett T. Lutz

WEATHER DISCUSSION: Limited mid-high level moisture moving over the area will continue to bring a slight chance of dry thunderstorms to the Elk Complex this evening and, again, on Thursday. The threat will be higher to the north and east. Strong upper level High pressure will begin to weaken on Thursday. Offshore flow will weaken tonight, but poor RH recoveries are still expected at higher elevations.

WENESDAY NIGHT:

WEATHER: A slight chance of dry thunderstorms in the evening, with a higher chance east and northeast of the Elk Complex. Otherwise Mostly Clear and very dry. Smoke gathering below the inversion after 9-10pm.

MIN TEMPERATURES: Lows 57-64 above 2500ft, 64-69 below 2500ft.

Trend: Up 1-2.

MAX HUMIDITY: 40-55% ridges, 55-75% upper slopes to 2000ft, 75-95% 2000ft-valleys, highest west of Titus ridge. **Trend: Up 5-10%.**

20 foot WINDS:

RIDGETOP/Upper Slopes- NW-W 7-12 mph with gusts 12-16 mph in the evening. Wind diminishing and becoming NE-SE 5-10mph after midnight. **Trend: Down 0-3.**

Other Slopes/Valleys- Upslope 6-10mph, except southwest up-valley 5-10mph with gusts 10-15mph in the Klamath River Canyon through 8-9pm. Wind then becoming down-slope and down-valley 3-6 mph. **Trend: Little change.**

HAINES: 4 (Some instability above the fire)

STABILITY/INVERSION: Inversion reforming near 5500 feet MSL around 10-11pm.

THURSDAY:

WEATHER: Mostly Sunny. Smoke S-W of active fires til 2-4pm. Scattered high based build-ups and a slight chance of afternoon-evening dry T-storms. Isolated T-storms expected north and east of the Elk Complex.

TEMPERATURES: 100-105 below 2000ft, 93-99 2000-3500ft, 87-92 above 3500 ft.

Trend: Down 2-4, except no change along the Klamath River.

MIN HUMIDITY: 18-28% below 2500 feet, 28-38% above 2500 feet. **Trend: Up 5-10%.**

20 foot WINDS:

RIDGETOP- SE 5-10 mph through 10am then becoming W 7-12 with gusts 12-17mph.

Trend: Up 2-3 in the afternoon..

SLOPE/VALLEY- Down-slope and down-valley 3-6mph through 10am, becoming upslope and up valley 6-10 mph in the afternoon. SW gusts 12-17mph along the Klamath in the afternoon. **Little change, except up 2 along the Klamath..**

STABILITY/INVERSION: **Haines=> 3.** Inversion near 5500 feet MSL, breaking at 2-4pm.

EXTENDED FORECAST: Friday through Sunday. Mostly Clear and not as hot. Cooling with generally higher RH each day. Smoke late night-mornings. Highs 78-88 mid-upper slopes/ridges, 88-98 low to mid-elevations. Lows in the mid 50s to mid 60s. Min RH 20-30% lower slopes, ridge/upper slopes 40-55%.

WEATHER INFORMATION:

Klamath Canyon (930 ft):	Low Tuesday A.M.	60	Max Humidity 90% @ 0630
Happy Camp (1500 ft):	Low Tuesday A.M.	58	Max Humidity 70% @ 0615
Titus FRWS-17 (3700 ft):	Low Tuesday A.M.	66	Max Humidity 59% @ 0635
Slater Butte (4670 ft):	Low Tuesday A.M.	69	Max Humidity 34% @ 0545

FIRE BEHAVIOR FORECAST NO. 30

NAME OF FIRE: Elk Complex PREDICTION FOR: Night Shift
AGENCIES: USFS, BLM, BIA, Siskiyou SO, CDF SHIFT DATE: 08/01/07 (Wednesday)
TIME AND DATE SIGNED: H. Scanlon, FBAN
FORECAST ISSUED: 08/01/07 1000 Hours

WEATHER SUMMARY: Slight chance of evening dry thunderstorms. Clear, temps from 57° to 67°F on upper slopes, poor humidity recovery with RHs 30 - 60%, and evening winds 5 - 10, north becoming SE on ridges, slopes becoming down valley 3 - 6 mph. See attached fire weather forecast issued 8/01/07 at 1000 hours.

FIRE BEHAVIOR GENERAL:

Expect active ground fire activity tonight, slow spread rates with occasional torching, diminishing after midnight, with concentrated burning in fuel jackpots. The topography is very complex, steep, and rugged. Fuels are primarily brush, plantations, and timber, with some rocky areas supporting sparse vegetation. Humidity recovery will be poor tonight on ridges. Fire spread is enhanced by short range spotting near burning snags and jackpots. Remain alert for rolling material.

Fire Behavior – Optimal alignment

Fuel Type	ROS (ft./min) Fwd.	ROS Flank	ROS Back	FL (ft.)	Spotting (mi.)	pI
Sh3 Moderate load shrub, Plantations	3 - 5	0 - .4	0 - .2	1 - 3	.15	27
Tl8 Timber litter	1 - 6	0 - .5	0 - .3	1 - 3	.19	27

Local Thresholds: These factors in combination with a high ERC may greatly increase fire behavior: 20' wind speed over 7 mph; RH less than 25%; temperature over 81°; ERC over 46. Average BI for late-July: 64.

Observed ERC/BI Oak Knoll 7-31: 61 / 52 Predicted ERC/BI 8-01: 62 / 52

SPECIFIC:

All Divisions: Ground fire with slow spread. Roll out may produce short head runs. Heavy fuel jackpots will burn actively through the evening. Snags may produce short range spotting. Keep some eyes on the green, where undetected heat may become active spot fires. Downslope winds will draw most heat back into the burn, favorable for patrol and holding. Should thunderstorm activity occur over the fire, outflow winds can push active fire in all directions and may lead to extreme fire behavior. Fire activity should diminish after midnight on lower slopes, but may persist near ridges with the poor humidity recovery and winds.

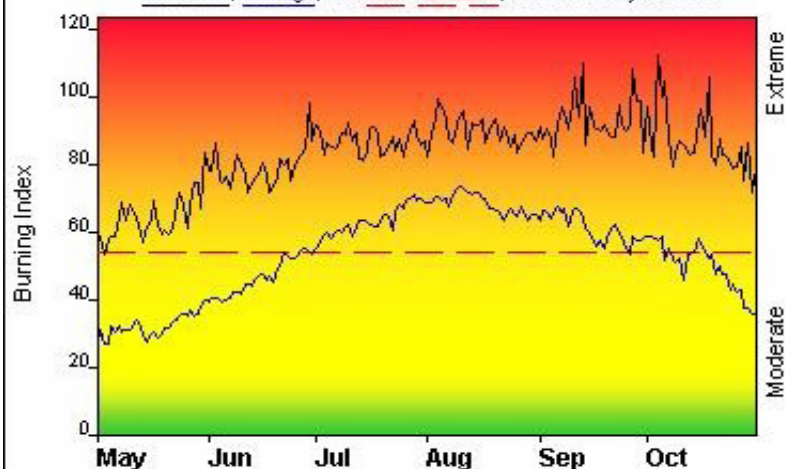
AVIATION OPERATIONS: Air operations should be available until night cutoff.

SAFETY: While the chance is slight, remain aware of thunderstorm potential over the fire. Strong outflow winds can fan embers and push active fire out in all directions. Consider your engagement strategy. Review **Pocket Guide (IRPG) Page 75 on Thunderstorm Safety** as part of your crew safety briefing.

Sunset: 2030 Sunrise: 0609

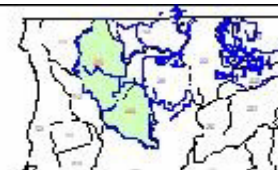
FIRE DANGER -- Western Klamath NF

Maximum, Average, and 42th Percentile, based on 33 years data



Fire Danger Area:

- ◆ FDRAs 200 & 202
- ◆ FWZ CA280
- ◆ 40203 40222 40225 40231
- * Meets NWCG Wx Station Standards



Fire Danger Interpretation:



- EXTREME** -- Use extreme caution
- (Caution)** -- Watch for change
- Moderate** -- Lower Potential, but always be aware

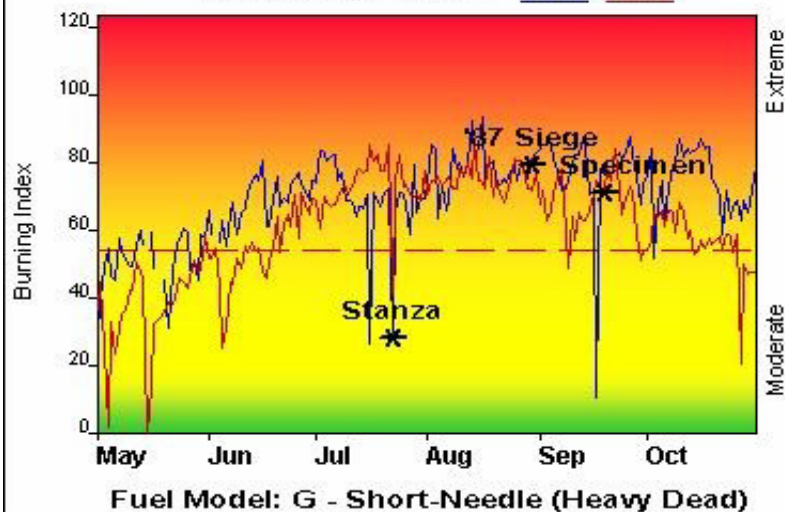
Maximum -- Highest Burning Index by day for 1972 - 2004

Average -- shows peak fire season over 33 years (5481 observations)

42th Percentile -- Only 42% of the 5481 days from 1972 - 2004 had an Burning Index below 54

Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
 20' Wind Speed over 7 mph, RH less than 25%,
 Temperature over 81, Energy Release Component over 45

Years to Remember: 2002 1994



Fuel Model: G - Short-Needle (Heavy Dead)

Remember what Fire Danger tells you:

- ✓ Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- ✓ Wind is part of BI calculation.
- ✓ Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
- ✓ Listen to weather forecasts -- especially WIND.

Past Experience:

*RAWS data from: Blue Ridge, Sawyers Bar, Slater Butte, Somes Bar. *300 acre fires increase at BIs of 52 and above. *Beware afternoon winds in major canyons. *Multiple lightning ignitions can overwhelm IA resources. *Large fires can and do occur at lower indices.

**NOTE: Local thresholds for Wind, RH and Temp reflect observations from the Sawyers Bar RAWS and represent conditions in the lower river canyons.

Responsible Agency: USFS - Region 5 - Klamath NF

FF+3.0.5 07/24/2005-15:13 (C:\Firestuff\Fire Family Plus305m db\FFP_knf2003am db.m db)

Design by NWCG Fire Danger Working Team

INCIDENT RADIO COMMUNICATIONS PLAN			1. INCIDENT NAME ELK COMPLEX		2. DATE / TIME PREPARED 08/01/07 0830		3. OPERATIONAL PERIOD 08/01/07 1800-0800	
4. BASIC RADIO CHANNEL UTILIZATION								
SYSTEM / CACHE		CHANNEL	FUNCTION	FREQUENCY		ASSIGNMENT	REMARKS	
NIRSC	1	NIFC C-1	Rx	168.7000 N		COMMAND NORTH		
			Tx	170.9750 N				
NIRSC	2	NIFC C-4	Rx	166.6125 N		COMMAND EAST		
			Tx	168.4000 N				
NIRSC	3	NIFC C-12	Rx	173.0375 N		COMMAND SOUTH		
			Tx	167.3250 N				
NIRSC	4	KNF ORANGE	Rx	168.7750 N		FOREST NET RPT	USE TONE 2, 4, 11	
			Tx	170.5750 N				
NIRSC	5	NIFC TAC-1	Rx	168.0500 N		ALL NIGHT UNITS		
			Tx	168.0500 N				
NIRSC	6	NIFC TAC-3	Rx	168.6000 N				
			Tx	168.6000 N				
NIRSC	7	BLM TAC-1	Rx	166.7250 N				
			Tx	166.7250 N				
NIRSC	8	BLM TAC-2	Rx	166.7750 N				
			Tx	166.7750 N				
NIRSC	9	BLM TAC-3	Rx	168.2500 N				
			Tx	168.2500 N				
NIRSC	10	R5 TAC-6	Rx	173.9875 N				
			Tx	173.9875 N				
NIRSC	11	AIR TO GROUND	Rx	165.6000 N		ALL AREAS A/G		
			Tx	165.6000 N				
NIRSC	12		Rx					
			Tx					
NIRSC	13	R5 TAC-4	Rx	173.9125 N		MEDICAL EVAC	FOR MEDICAL EVAC USE ONLY	
			Tx	173.9125 N				
NIRSC	14	AIR GUARD	Rx	168.6250 N		AIR GUARD	EMERGENCY USE ONLY	
			Tx	168.6250 N				
NIRSC	15		Rx					
			Tx					
NIRSC	16	AIR GUARD	Rx	168.6250 N		AIR GUARD	EMERGENCY USE ONLY	
			Tx	168.6250 N				
ICS 205 9/86 NFES 1330		5. PREPARED BY: (COMMUNICATIONS UNIT) <i>KEN EARLE COM UNIT LEADER (T)</i>						

MEDICAL PLAN	1. INCIDENT NAME Eik	2. DATE PREPARED 08-1-07	3. TIME PREPARED 1000hrs	4. OPERATIONAL PERIOD 8/1/07 1800-0800
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5. INCIDENT MEDICAL AID STATIONS			
MEDICAL AID STATIONS	LOCATION	PARAMEDICS	
		YES	NO
Frontline Medical	Eik ICP	XX	

6. TRANSPORTATION				
NAME	ADDRESS	PHONE	PARAMEDICS	
			YES	NO
Happy Camp Ambulance Medic 23	Happy Camp	530-493-2643		XX
Mercy Flight	Medford, OR	911/530-842-7066	XX	
CHP H-14, H-16 (Rescue Hoist)	Redding, CA	911/530-842-7066	XX	
REACH	Redding, CA	911/530-842-7066	XX	

7. HOSPITALS								
NAME	ADDRESS	TRAVEL TIME		PHONE	HELIPAD		BURN CENTER	
		AIR	GRND		YES	NO	YES	NO
Fairchild Medical Center	444 Bruce Street, Yreka CA	15 min	1.5 hr	530-842-4121		X		X
Rouge Valley Medical	2525 Barnet, Medford OR	20 min	2.5 hr	541-608-4144	X			X
Shasta Regional Medical Center	1100 Butte, Redding CA	30 min	3 hr	530-243-4042	X			X
UC Davis Burn Center	2315 Stockton Blvd., Sacramento CA	2 hr	6 hr	916-734-3544 or Blue Net 155.340	X		X	
Mercy Med Center Level 2 Trauma	2175 Rosaline Ave, Redding CA	30 min	3 hr	530-225-7201	X			X

****Two EMT Paramedics with USAR qualifications and a complement of rope rescue equipment are assigned to the incident. Request "Elk Rescue Group" through Communications. SOF Mackensen will oversee all technical rope rescue operations of the rescue group****

8. MEDICAL EMERGENCY PROCEDURES	
<ul style="list-style-type: none"> In the event of a line medical incident, initiate care with available resources and notify Division Supervisor. The Division Supervisor and/or Line SOF shall determine if the injury can be handled with available resources and recommend the most appropriate method of transportation (Air/Ground). For serious or life threatening injuries, the Division Supervisor and or Branch Director shall contact the Communications Unit to advise the nature and location of the incident and request appropriate additional resources. The Communications Unit shall limit all non essential traffic on command by declaring a "Medical Emergency" and shall then notify the Medical Unit, Safety Officer, and Operations Section Chief of the incident. The Division Supervisor shall coordinate the incident and direct necessary actions. 	<p>√</p> <p><input type="checkbox"/> Patient 1 of _____</p> <p><input type="checkbox"/> Emergency _____ Non Emergency _____</p> <p><input type="checkbox"/> Is a helicopter required for transportation? Yes _____ No _____</p> <p><input type="checkbox"/> Location _____</p> <p>Lat _____ Long _____</p> <p><input type="checkbox"/> Age _____ Sex _____ Weight _____</p> <p><input type="checkbox"/> Severity: Minor _____ Delayed _____</p> <p>Immediate _____</p> <p><input type="checkbox"/> Chief Complaint _____</p> <p><input type="checkbox"/> Any additional resources required _____</p>

ICS 206

9. PREPARED BY (MEDICAL UNIT LEADER)
Ken Kumpe MEDL

10. REVIEWED BY (SAFETY OFFICER)
Jim Mackensen SOF2

Injury or Incident Communications Protocol

Notify the Communications Unit (ICP) on Command Channel

Provide the following information - Do not transmit the injured persons name

Location _____

Situation _____

Any special equipment required _____

Number of injured _____ Type of injuries _____

Immediate transport required: Yes No

Best method: Ambulance Helicopter Vehicle

Closest pick up point (DP, Helispot) _____

Radio procedures for Communications Unit at ICP

1. Clear the Command or other appropriate channel for Emergency traffic
2. Communications unit will notify the DIVS, OSC, SOF, Med Unit Leader and IC. IC will notify PSC, LSC and PLAN OPS if declaring "Incident with-in an Incident."
3. Notify Air OPS if air transport is requested

Additional Patient Information:

PATIENT #1

Age _____ Gender _____ Agency/Position _____

LOC _____ Vital Signs _____

Injury _____

Weight _____ Medical History/Allergies _____

PATIENT #2

Age _____ Gender _____ Agency/Position _____

LOC _____ Vital Signs _____

Injury _____

Weight _____ Medical History/Allergies _____

ELK COMPLEX - INCIDENT RISK ANALYSIS (215a)

DIV	HAZARDS / ISSUES	MITIGATIONS / WARNINGS / REMEDIES	
ALL	SNAG HAZARDS	<ul style="list-style-type: none"> • Follow Hazard Tree Safety Guidelines (IRPG p. 80). • Limit number of personnel around snags and their exposure time; fallers must be qualified for trees being fallen. • Be especially alert around snags during wind events and after dark. • Check overhead for dead branches in sleeping areas. • Maintain Situational Awareness! 	
ALL	DRIVING HAZARDS	<ul style="list-style-type: none"> • Drive defensively at all times, drive w/headlights on, use chock blocks, use backers. • Coordinate movement of Day/Night Shift resources with Division Supervisor's • Exercise caution when driving on "out-sloped" roads. • Be alert for wildlife; slow down on washboard surfaces. • Increase following distances on dusty roads. Slow down when you meet opposing traffic. Be able to stop within one half of the visible distance on blind curves. • Watch for Deer/Elk along Hwy. 96 • Maintain Situational Awareness! 	
ALL	FIRING OPERATIONS	<ul style="list-style-type: none"> • A written guideline shall be prepared and approved for major burning ops. • Conduct thorough briefing for all personnel (inside rear cover IRPG). • Qualified personnel for all assignments. Trainees to have qualified trainers. • Utilize Risk Mgmt. Process (IRPG p. 1) for implementing the plan. • Required PPE to be worn by all personnel involved. • Establish LCES prior to implementing burning operations (IRPG p. 6). • Assign an over-all Firing Boss to coordinate ignitions when simultaneous burning operations are planned for multiple locations. 	
ALL	AIRCRAFT OPERATIONS	<ul style="list-style-type: none"> • Use risk analysis to determine if any given flight is necessary. • Keep personnel out of drop zones. • Use air-to-ground freq. to communicate with aircraft. • Use concise statements & clock directions when directing aircraft. • Maintain good separation between ground forces & aerial ignition. • Avoid "heli-mopping". Eliminate unnecessary pilot exposure. 	
ALL	FATIGUE	<ul style="list-style-type: none"> • Be alert for signs of fatigue and take breaks as necessary. Maintain 2:1 work/rest ratio. Monitor incoming resources for level of fatigue. 	
ALL	HYDRATION	<ul style="list-style-type: none"> • Encourage drinking water before, during and after shifts, up to 1.5 gal. • Be alert for signs of heat stress in yourself and others. 	
ALL	THUNDERSTORMS	<ul style="list-style-type: none"> • Chance for Dry Lightning • Review "Thunderstorm Safety" (IRPG p.75) • Allow plenty of time to get to safety due to difficult terrain 	
ALL	FOOT TRAVEL	<ul style="list-style-type: none"> • When walking through steep, rocky, and possibly wet terrain, watch footing and maintain proper spacing. • Watch for over-head hazards, carry tools downhill side. • Treat "hot spots" on feet before they become blisters.. 	
ALL	AREA YOU HAVE NOT SEEN IN DAYLIGHT	<ul style="list-style-type: none"> • All fire environment issues are even more dangerous • Use most experienced drivers • Use your available daylight to get some good SA 	
ALL	POTENTIAL FOR EXTREME FIRE BEHAVIOR	<ul style="list-style-type: none"> • Review "Severe Fire Behavior Potential" (IRPG p.76). • Monitor current weather conditions and forecasts. Make sure all personnel receive thorough briefings every shift. • Maintain adequate escape routes and safety zones. Set trigger points. • Maintain Situational Awareness! 	
8/1/2007 NIGHT		PREPARED: 08/1/2007 at 1000	Prepared by Jim Mackensen SOF2



Today's discussion is from the
Miscellaneous Category.

[Six Minutes Home Page](#)

Fatigue/Stress

Accumulated (Chronic) Fatigue is defined as fatigue from which normal rest does not produce recovery. Accumulated fatigue is often caused by extended periods of stress with inadequate recovery periods, which results in decreased productivity, compromised immune function, and reduced alertness. Fatigued workers perform poorly, behave carelessly, tolerate greater errors and become inattentive. Chronic fatigue often results in increased stress, which may present itself through certain behavioral and physiological indicators, such as those described below:

- Decreased motivation and low morale.
- Increased irritability and depression.
- Confused, poor problem solving.
 - Poor abstract thinking
 - poor attention/decisions
 - poor concentration/memory
- Altered state of alertness.
 - A marked increased or decreased awareness of surroundings.
- Physical reactions (any of these symptoms may indicate need for medical evaluation. When in doubt, contact a medical professional).
 - chills
 - thirst
 - nausea
 - fainting
 - twitches
 - vomiting
 - dizziness
 - weakness
 - chest pain
 - headaches
 - elevated blood pressure
 - rapid heart rate
 - muscle tremors
 - profuse sweating
 - difficulty breathing

● Extreme emotional responses.

- fear
- panic
- intense anger
- emotional outbursts
- feeling overwhelmed
- loss of emotional control
- inappropriate emotional response

● Social/behavioral changes.

- withdrawn
- antisocial acts
- erratic movements
- change in speech patterns
- change in usual communications
- alcohol or substance abuse

● Recommendations for chronic fatigue/stress are:

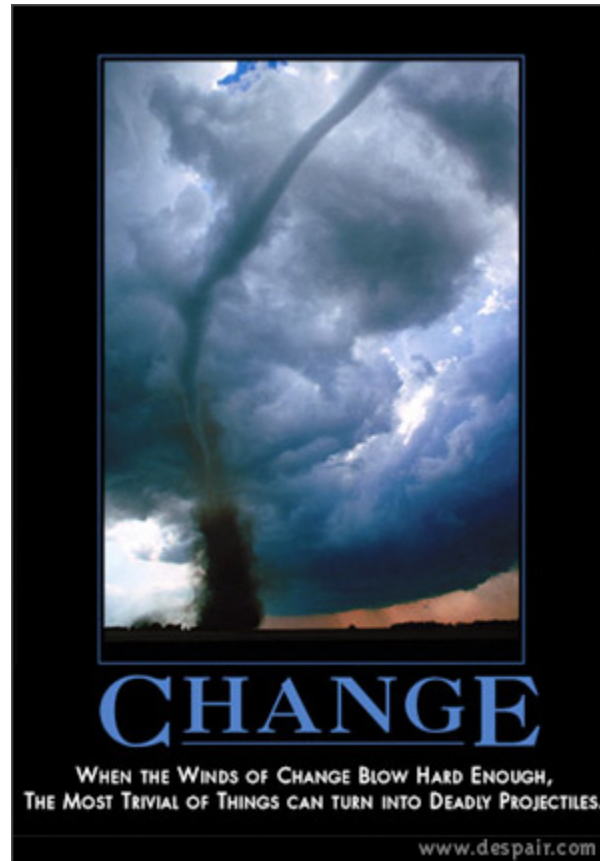
- Take longer periods of rest/recovery
- Ensure that workers are adequately rested before they begin workshifts
- Slow the work pace to a moderate level on physically demanding tasks
- Provide periodic rest breaks to allow physical and mental recovery
- Alternate between heavy and light tasks
- Change assignments to prevent boredom
- Provide breaks, naps, or time off after tasks have been completed
- Eat well-balanced meals regularly, with energy supplements during periods of high exertion.
- Maintain hydration
- Ensure workers maintain good personal hygiene
- maintain high standards of physical fitness and work capacity
- Seek medical attention when in doubt of symptoms
- In extreme cases, personnel may need to be relieved of their duties.

References:

Wildland Firefighter Health & Safety Report, USFS-Missoula Technology & Development Center

CISM Information Pamphlet, International Critical Incident Stress Found., <http://www.icisf.org/>

HUMAN RESOURCE MESSAGE



If there is anyway I can assist you, please do not hesitate to contact me.



**Your Human Resource Specialist,
Mike Baines**

