

# INCIDENT COMMAND SYSTEM

## S430 Operations Section Chief - ALL RISK

---



**STUDENT  
MANUAL**  
**FIRST EDITION  
JUNE 1999**



# INCIDENT COMMAND SYSTEM

S430 OPERATIONS SECTION CHIEF – ALL RISK

## Student Manual



*published by*

California Department of Forestry and Fire Protection

4501 State Highway 104

lone, CA 95640

*June 1999*

# TABLE OF CONTENTS

CERTIFICATION STATEMENT .....	III
ACKNOWLEDGMENTS.....	IV
COURSE STRUCTURE.....	VI
TRAINEE TARGET GROUP .....	VIII
TRAINEE PREREQUISITES.....	VIII
EVALUATION.....	VIII
COURSE OUTLINE .....	X
CALENDAR OF EVENTS .....	XII
UNIT 1 – COURSE INTRODUCTION	
1: Course Introduction.....	1-1
2: Operations Section Chief Role & Responsibilities.....	1-2
UNIT 2 – PLANNING	
1: Management Cycle .....	2-1
2: Information Gathering .....	2-2
3: Strategy and Planning.....	2-3
4: Structure Protection Planning .....	2-4
5: Demobilization Planning.....	2-5
UNIT 3 – SUPERVISION	
1: Supervision and Communication .....	3-1
2: Managing and Adjusting the Operation Section .....	3-2
3: Risk Assessment and Safety Management.....	3-3
UNIT 4 – COORDINATION	
1: Personnel Interaction .....	4-1

# CERTIFICATION STATEMENT

On behalf of

FIRESCOPE

The following training material meets the minimum standards prescribed for courses developed under FIRESCOPE to meet California needs for "ALL RISK" ICS position specific training. This course is accredited by the State Board of Fire Services and approved by the FIRESCOPE Board of Directors. The curriculum is based upon NWCG training material. Agencies participating in and desiring certification from NWCG should utilize the NWCG training materials. Instructors are encouraged to use and blend specific local policies and procedures in presenting this course. The instruction is certified for interagency use and is known as:

OPERATIONS SECTION CHIEF S-430

Certified at Level I

FIRESCOPE ALL RISK Version

# ACKNOWLEDGMENTS

The CDF/State Fire Training Curriculum Development Division coordinated the development of the material contained in this guide.

**WOODY K. ALLSHOUSE**  
Chief Deputy Director

**CRAIG E. ANTHONY**  
Department Training Chief

**KEITH A. LARKIN**  
Division Chief  
Curriculum Development Division

Special acknowledgement and thanks are extended to the U.S.D.A. Forest Service for funding the development of this S-430 Operations Section Chief "ALL RISK" course. Additional acknowledgements and thanks are extended to the following members of CDF/State Fire Training Curriculum Development Division for their diligent efforts and contributions that made the final publication of this document possible.

**MARTHA PETERS**  
Office Assistant

**MARJORIE TIMMONS**  
Word Processing Technician

The material contained in this document was compiled and organized through the cooperative effort of numerous professionals within, and associated with, the California fire service. We gratefully acknowledge the following individuals who served as the principal developers for this document.

**DEVELOPERS**

**WILLIAM C. COTE, DEPUTY CHIEF**

Academy Administrator  
CA Department of Forestry and Fire Protection

**BILL PLOUGH**

CA Department of Forestry & Fire Protection

**JOHN HAWKINS**

CA Department of Forestry & Fire Protection

**KEITH LARKIN, DIVISION CHIEF**

Curriculum Development Division  
CA Department of Forestry and Fire Protection

**MARC HAWKINS**

Orange County Fire Authority

**PAT COONEY**

Office of Emergency Services

**GARY GLOTFELTY**

Office of Emergency Services

**GREG POWER**

USDA Forest Service

**SCOTT VAIL**

USDA Forest Service

**DICK MCCOMBS**

USDA Forest Service

# COURSE STRUCTURE

Operations Section Chief, S-430 ALL RISK, is a 32 hour course designed to meet the training needs of an Operations Section Chief to manage ALL RISK incidents.

The course is designed to be presented in a lecture/discussion format with group exercises. This course meets all requirements of the FIRESCOPE ALL RISK Qualifications System for the position of Operations Section Chief.

For an individual to become fully qualified as an Operations Section Chief, the individual should also meet the standards set forth in the Wildland Fire Qualifications Subsystem, 310-1.

The Wildland Fire Qualifications Subsystem, 310-1, provides guidance and a national fire standard for establishing minimum training, skills, knowledge, experience, and physical fitness requirements for the participating agencies of the NWCG.

Along with the NWCG requirements, the FIRESCOPE Task Force Subgroup recommends for an Operations Section Chief to be qualified as "ALL RISK" within California, he or she meet the following minimum training pre-requisites:

- I-400, Advanced I.C.S., is required before taking S-430 and
- Must be Division/Group Supervisor I-339 qualified and
- Command or other General Staff position training and experience is highly recommended shortly before or after successfully completing S-430 ALL RISK.

This course has been developed by an interagency development group and is based upon NWCG curriculum from the National Interagency Fire Center, National Fire and Aviation Training Support Group, under authority of the National Wildfire Coordinating Group.

Material for an "ALL RISK" course approved by FIRESCOPE is available through CDF/OSFM State Fire Training.

This course identifies the basic S-430 Operations Section Chief fundamentals. Currently, some local government agencies in California are using a certification and qualification system. Position Task Books are supplied as reference material for this course, however, they are not required for CDF/OSFM State Fire Training certification.

Additional copies of this publication may be ordered from:

The California Department of Forestry and Fire Protection  
Office of the State Fire Marshal (Training)  
P.O. Box 944246, Sacramento, CA 94244-2460

Or

Office of Emergency Services  
Document Control  
2524 Mulberry Street  
Riverside, CA 92501

- CDF/State Fire Training (916) 445-8500
- OES (FIREScope) (909) 782-4174
- OES (FAX) (909) 782-4239

This section contains instructions and information essential in making an effective presentation. This section should be read thoroughly prior to the course presentation. These instructions are specific for this course, Operations Section Chief, S-430 ALL RISK.

### Description of the Performance—Based System

The FIREScope ALL RISK Qualifications System is a "performance-based" qualifications system. In this system, the primary criteria for qualification is individual performance as observed by an evaluator using approved standards. This system differs from previous qualifications systems which have been "training based." Training-based systems use the completion of training courses or a passing score on an examination as a primary criteria for qualification.

A performance based system has two advantages over a training-based system:

1. Qualification is based upon real performance, as measured on the job, versus perceived performance, as measured by an examination or classroom activities.

The components of the FIREScope ALL RISK qualifications system are as follows:

#### FIREScope ALL RISK POSITION TASK BOOK

Position Task Books (PTB) contain all critical tasks which are required to perform the job. PTB's have been designed in a format which will allow documentation of a trainee's ability to perform each task. Successful completion of all tasks required of the position, as determined by an evaluator, will be the basis for recommending certification.

**IMPORTANT NOTE:** Training requirements include completion of all required training courses prior to certification of a PTB. Use of the suggested training courses or job aids is recommended to prepare the trainee to perform in the position.

Training Courses and Job Aids provide the specific skills and knowledge required to perform tasks as prescribed in the PTB.

Agency Certification is issued by departments and agencies that certify by FIRESCOPE standards that the individual is qualified to perform in a specified position.

A Job Aid is provided for reference and course study.

## 2. Responsibilities

The department or agency is responsible for selecting qualified trainees, initiation and proper use of task books, and certification of trainees.

### **TRAINEE TARGET GROUP**

This course is intended for individuals who have shown an interest, demonstrated the necessary skills, and met all the prerequisites, including established minimum training, skills, knowledge, experience, and physical fitness requirements for the position of Operations Section Chief ALL RISK.

### **TRAINEE PREREQUISITES**

Along with the NWCG Requirements, the FIRESCOPE Board of Directors recommends for an Operations Section Chief to be qualified as "ALL RISK" within California, he or she meet the following minimum training pre-requisites:

- I-400, Advanced I.C.S., is required before taking S-430 and
- Must be Division/Group Supervisor I-339 qualified and
- Command and General Staff I-420 is highly recommended after receiving S-430.

### **EVALUATION**

The instructor will evaluate the individual trainees as they participate as part of the group in working through exercises. This evaluation will include:

1. Participation by each individual in the group
2. Goal oriented methods of reaching the objective of the exercise
3. Knowledge of subject matter
4. Verbalizing and cooperative sharing of ideas
5. Development and discussion of alternatives
6. Demonstration of leadership vs. passive participation

The course has a final examination covering all units. A passing grade is 80%.

State Fire Training gladly accepts your  
comments and suggestions for future  
enhancements or revisions to this document.

Please forward to:

**CDF/State Fire Training**

Curriculum Development Division  
4501 State Highway 104  
Ione, California 95640-9705

# COURSE OUTLINE

COURSE TITLE: INCIDENT COMMAND SYSTEM  
S-430 Operations Section Chief – ALL RISK

COURSE OBJECTIVES: To...

- a. Describe the job of the Operations Section Chief as it applies to planning, supervision and coordination.
- b. Enable the student to assess incident assignments and determine immediate needs and actions.
- c. Enable the student to prepare for and participate in strategy meetings.
- d. Enable the student to prepare for and participate in planning meetings to develop the Incident Action Plan.
- e. Enable the student to assist in the development, approval and implementation of the Demobilization Plan.
- f. Enable the student to participate in an Operational Period Briefing.
- g. Enable the student to manage and adjust the operations organization.
- h. Provide the student with a an understanding of why and when tactics may need to be adjusted.
- i. Describe the role of the OSC in risk assessment and safety management.
- j. Demonstrate how to successfully coordinate internal relations.
- k. Demonstrate how to successfully coordinate external relations.

COURSE CONTENT: .....32:00 HOURS

## UNIT 1: COURSE INTRODUCTION

- 1. Course Introduction ..... 1:00
- 2. Operations Section Chief Role & Responsibilities ..... 2:00

UNIT 2: PLANNING

1.	Management Cycle .....	2:00
2.	Information Gathering.....	1:00
3.	Strategy and Planning .....	2:00
4.	Structure Protection Planning.....	2:00
5.	Demobilization Planning .....	0:30

UNIT 3: SUPERVISION

1.	Supervision and Communication.....	2:00
2.	Managing and Adjusting the Operations.....	2:00
3.	Risk Assessment and Safety Management.....	1:00

UNIT 4: COORDINATION

1.	Personnel Interaction .....	7:00
----	-----------------------------	------

# CALENDAR OF EVENTS

## SCHEDULE

### Day One

Date: \_\_\_\_\_

Topics: Welcome and Introduction  
OSC Roles & Responsibilities  
Management Cycle

### Day Two

Date: \_\_\_\_\_

Topics: Management Cycle (con't)  
Information Gathering  
Strategy and Planning  
Structure Protection Planning  
Demobilization  
*Optional Night Session*  
Fire Fatality Case Studies

### Day Three

Date: \_\_\_\_\_

Topics: Supervision and Communications  
Managing and Adjusting the Operations Section  
Risk Assessment and Safety  
Nance Exercise  
*Optional Night Session*  
Multimedia Interactive 215

Video: Nance Canyon Fire

## Day Four

Date: \_\_\_\_\_

Topic: Nance Exercise (con't)  
Personnel Interaction  
Internal/External Relations  
Cajon Exercise  
Review for Final

Video: Cajon Pass Train Derailment

## Day Five

Date: \_\_\_\_\_

Topic: Cajon Exercise (con't)  
Job Aide/Task Books  
Final Exam  
Wrap Up and Critique



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

COURSE INTRODUCTION

## COURSE INTRODUCTION

### COURSE INTRODUCTION

#### Slide Notes

Slide 1

**COURSE OBJECTIVE**

GIVEN SPECIFIC ALL RISK INCIDENTS,  
DESCRIBE THE ROLE OF THE  
OPERATIONS SECTION CHIEF AS IT  
APPLIES TO PLANNING,  
SUPERVISING, AND COORDINATING.

© 2000 S430  
March 10, 2000      S. R. G. G. G.      Page 1 of 1

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

OPERATIONS SECTION CHIEF  
ROLE & RESPONSIBILITIES

## OPERATIONS SECTION CHIEF ROLE & RESPONSIBILITIES

### Slide Notes

#### Slide 1

**INTRODUCTION UNIT**

OBJECTIVES...

1. Discuss the job of the Operations Section Chief as it applies to planning, supervision, and coordination.
2. Review the roles and duties of the Operations Section Chief.

SLIDES.PPT  
March 21, 1999 Appendix A  
ISM 2.1.1

---

---

---

---

---

---

---

---

#### Slide 2

**An Operations Section Chief**

Must Be:

- A Planner
- A Supervisor
- A Coordinator

SLIDES.PPT  
Mar 21, 1999 Appendix A  
ISM 2.1.1

---

---

---

---

---

---

---

---

#### Slide 3

**ROLE OF AN OSC DIFFERS FROM THAT  
OF A DIVISION SUPERVISOR**

- No longer responsible for a single geographic area
- Now responsible for an entire incident

SLIDES.PPT  
March 21, 1999 Appendix A  
ISM 2.1.1

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

OPERATIONS SECTION CHIEF  
ROLE & RESPONSIBILITIES

Slide 4

**OSC IS RESPONSIBLE FOR:**

- Tactics employed on the incident
- Gather information and formulate tactical plan for each operational period
- Supervision of operations organization
- Coordination

S4300102.PPT  
March 27, 1999 Appendix A  
Slide 13-3

---

---

---

---

---

---

---

---

Slide 5

**KEY ELEMENTS OF THE POSITION**

- Obtain and assemble information and materials
- Provide for safety/welfare of assigned resources during entire period of supervision
- Establish and maintain positive interpersonal and interagency working relationships
- Obtain information from communications center upon initial activation

S4300102.PPT  
March 27, 1999 Appendix A  
Slide 13-4

---

---

---

---

---

---

---

---

Slide 6

**KEY ELEMENTS (con't)**

- Gather information
- Obtain briefing from agency administrator or out-going IC
- Obtain briefing from your IC
- Collect information from out-going OSC or other initial attack personnel

S4300102.PPT  
March 27, 1999 Appendix A  
Slide 13-5

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

OPERATIONS SECTION CHIEF  
ROLE & RESPONSIBILITIES

Slide 7

**KEY ELEMENTS (con't)**

- Prepare for planning meeting
- Evaluate/monitor current situation
- Observe and review tactics
- Evaluate resource status and tactical needs
- Participate in preparation of incident action plan

SLIDES.PPT March 27, 1999 Appendix A Slide 13-7

---

---

---

---

---

---

---

Slide 8

**KEY ELEMENTS (con't)**

- Present operations portion of the operational period briefing
- Interact/coordinate with team members / functions
- Supervise/adjust operations organization
- Coordinate shift changes with other OSCs

SLIDES.PPT March 27, 1999 Appendix A Slide 13-8

---

---

---

---

---

---

---

Slide 9

**KEY ELEMENTS (con't)**

- Evaluate effectiveness of the IAP
- Include Technical Specialist input in planning
- Keep IC informed
- Maintain a unit log
- Ensure all personnel/equipment time records are complete

SLIDES.PPT March 27, 1999 Appendix A Slide 13-9

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

OPERATIONS SECTION CHIEF  
ROLE & RESPONSIBILITIES

Slide 10

## KEY ELEMENTS (con't)

- Consider demobilization planning early on
- Identifies excess resources (215M)
- Ensure performance evaluations are completed
- Complete demobilization and check out
- Debrief the agency administrator
- Ensure trainees position task books are completed

SL 00002.PPT  
06/21/1999

Appendix A  
06-1-0-1

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

MANAGEMENT CYCLE

## PLANNING

### MANAGEMENT CYCLE

#### Slide Notes

Slide 1

**UNIT 2 TOPIC 1  
OBJECTIVES**

- UNDERSTAND HOW MANAGEMENT CYCLE APPLIES TO OSC'S JOB
- UNDERSTAND OSC'S ROLE IN RESOURCE PLANNING
- GATHER INFORMATION PERTINENT TO INCIDENT ASSIGNMENTS/DETERMINE IMMEDIATE NEEDS/ACTIONS
- PREPARE FOR AND PARTICIPATE IN STRATEGY MEETINGS

S43001.PPT  
March 27, 1999      E. S. OGDEN  
7-0-1      Appendix A  
ISM 2-1-1

---

---

---

---

---

---

---

---

Slide 2

**UNIT 2 TOPIC 1  
OBJECTIVES (Con't)**

- DEVELOP TACTICAL PORTION OF THE INCIDENT ACTION PLAN
- ASSIST IN DEVELOPMENT, APPROVAL, AND IMPLEMENTATION OF THE DEMOBILIZATION PLAN

S43001.PPT  
March 27, 1999      E. S. OGDEN  
7-0-1      Appendix A  
ISM 2-1-2

---

---

---

---

---

---

---

---

Slide 3

**THE MANAGEMENT CYCLE**

- A THOUGHT PROCESS USED IN PROBLEM SOLVING
- SHOULD HAPPEN RAPIDLY AS A MENTAL EXERCISE
- USED AS A STEP- BY- STEP CHECKLIST
- ONCE FAMILIAR, THE STEPS BECOME AUTOMATIC

S43001.PPT  
March 27, 1999      E. S. OGDEN  
7-0-1      Appendix A  
ISM 2-1-3

---

---

---

---

---

---

---

---

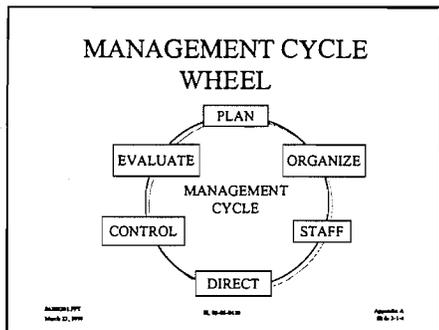


# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## MANAGEMENT CYCLE

Slide 4



---

---

---

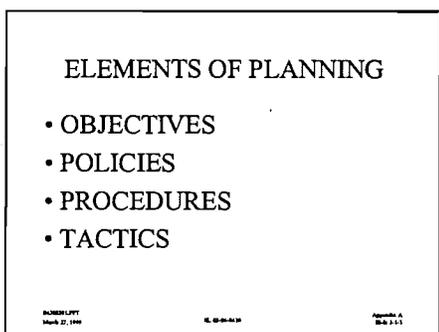
---

---

---

---

Slide 5



---

---

---

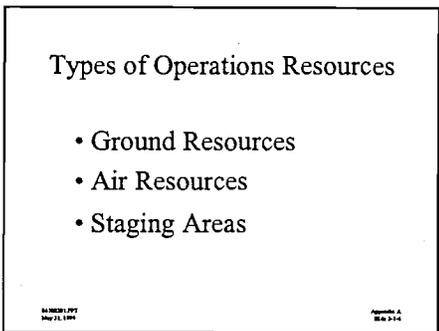
---

---

---

---

Slide 6



---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

MANAGEMENT CYCLE

Slide 7

**ORGANIZING**

- Organizing is a structured method whereby Managers bring together essential resources and incorporate them into a formalized relationship.
- The Organization established in the Incident Command System is the mechanism for grouping activities together.

SLIDES 1-11  
March 21, 1999 Appendix A  
IIS 2-1-2

---

---

---

---

---

---

---

---

Slide 8

**STAFFING**  
**RESOURCES ARE ASSIGNED BASED  
ON ORGANIZATIONAL NEEDS:**

- PERSONNEL
- APPARATUS

SLIDES 1-11  
March 21, 1999 Appendix A  
IIS 2-1-2

---

---

---

---

---

---

---

---

Slide 9

**DIRECTING**

- GUIDING, COMMUNICATING,  
SUPERVISING EFFORTS OF  
SUBORDINATES
- MOTIVATING
- LEADERSHIP STYLE
- DELEGATION

SLIDES 1-11  
March 21, 1999 Appendix A  
IIS 2-1-2

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## MANAGEMENT CYCLE

Slide 10

**CONTROLLING**

- EVALUATE AND CORRECT AS NECESSARY
- ESTABLISH CONTROL
- STRATEGIC CONTROL POINTS
- TACTICAL CONTROL POINTS

SLIDES 10-11  
March 27, 2000 Agenda A  
Slide 21-4

---

---

---

---

---

---

---

---

Slide 11

**EVALUATING**

- DETERMINING WHETHER EXISTING PLAN IS ADEQUATE BASED ON A COMPARISON OF PLANNED OBJECTIVES AND ACTUAL INCIDENT RESULTS
- MUST BE DONE OBJECTIVELY

SLIDES 10-11  
March 27, 2000 Agenda A  
Slide 21-4

---

---

---

---

---

---

---

---

Slide 12

**12 HOUR OPERATIONAL PERIOD**

SLIDES 10-11  
March 27, 2000 Agenda A  
Slide 21-4

---

---

---

---

---

---

---

---





# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

## 12 HOUR OPERATIONAL SHIFT

Each Operations Section Chief will have his/her own daily schedule which will be based on personal preference, incident situation and team dynamics. Managing your time will be critical to successful performance. What follows is an example of how an Operations Section Chief might schedule his/her day. This should not be interpreted as the only way to do business. This reflects a fire with one OSC per operational period.

- 0500 Day Operations Section Chief (OSC) on duty. Night Ops. briefs oncoming Ops. Chief. Review Incident Action Plan. Distributes IAP and conducts Operations Briefing.
- 0600-0800 Division Supervisors to line to debrief off-going Division Supervisors. Manage operational period change.
- 0800-0900 Aerial recon of incident with IC/others as required. Prepare mini 215 for Planning Meeting. Base on input from Division Supervisors and other Operations personnel.
- 0900-1000 Planning meeting for night operational period. Air tankers over fire.
- 1000-1500 Supervision – Recon incident by ground/or air. Team coordination and review performance of operations personnel.
- 1500-1700 Make updates/adjustments to IAP for briefing
- 1700-0500 Cycle repeats for night operational period.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

---

## 24 HOUR OPERATIONAL SHIFT

The information, ideas and concepts below have been developed since 1990. This shift has been used on at least a dozen different major wildland fires with great success. We all need to remember that this is but one choice of operational shifts depending on the type of incident, operational limitations or where you are in the incident progression.

1. The 24 hour shift does not require incident personnel to work constantly for 24 hours. Each worker is expected to average around 18 hours of work with 6 hours of rest.
2. There are less operational accidents and injuries because people are rested and not as inclined to do hazardous things. Line personnel can go for weeks on this type of shift because they are getting adequate rest and rehabilitation under the 24 On, 24 Off Cycle.
3. Production rates may be higher. This is a key point and should be given much consideration. Line personnel are on the line during peak burning periods and late afternoon when the time is right to do burnouts or use other control methods, not doing shift change. Crews that are well rested work harder and longer.
4. Op's Chief's have more time to be on the line since they have half as many meetings to attend. This is also true for other Command and General Staff personnel.
5. Engine companies and fire crews have more time to do preventative maintenance and fix problems without giving up their sleep time. This also makes for a safer and more productive operation.
6. Crews and engine companies are able to sleep in the dark which affords them better rest.
7. There is half the vehicle movement going to and coming from the line. This reduces the risk for a vehicle accident significantly.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

---

8. Crews on a 24 hour shift are familiar with their section of line after dark. this is a good reason to do a shift change in the morning and not at night. In addition, the BI's are lower in the morning reducing the risk of escape outside of the perimeter.

**NOTE:** May need to explain Burning Index.

9. Crews and engine companies have greater pride in ownership with their piece of line that they worked all day to secure, consequently they'll work on it at night to be sure it stays secured.

10. Travel distances to the line from Incident Base and back are no longer an issue. This also allows you to put the Incident Base at a better location with all the utilities and services.

11. Dozers and water tenders can be shifted at 12 hour or 24 hour intervals depending on need.

12. No all Branches or Divisions need to be on the 24 hour shift. As the fire starts to wind down and some areas are in mop-up stages they can work 12 hour days with just a patrol at night.

13. Command and General Staff personnel, plus their subordinate positions, work 12 hour shifts. The Operations personnel from Branch Director down would be the only exception. They would still work the same shift as line personnel.

14. The Planning Section is under less pressure since there is only one Planning Meeting, one Briefing, and one IAP to produce.

15. The 24 hour shift may cause some pay concerns with some agencies. Administrative issues should not dictate what is needed operationally.

a. Shifts in excess of 10 hours for Federal Wildland Fire Agencies will require a letter of justification signed by the IC.

16. A simple one page explanation of the 24 hour shift and how it works should be added to the IAP to avoid problems.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

---

17. Once the fire is contained, Operations will work towards a single day shift with only a patrol at night. This would be a true 12 hour day with 12 hours of rest at night.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

## WORK, REST & FATIGUE<sup>1</sup>

### Evaluation of their Relationships 1982 Fire Season

#### INTRODUCTION AND SUMMARY

#### PROBLEM STATEMENT

The standard two-shift concept, involving 16 hours on the first day and 12 hours each day thereafter (Section 410 FIRE BUSINESS MANAGEMENT HANDBOOK), is realistically unattainable for fireline personnel on most large uncontrolled fires. Travel time to and from the fireline, manning the fireline until relieved, shift briefings, and logistical complexities all combine to produce long shifts, requiring documentation and approval of the Fire Boss (FSM 5131.5). Such long shifts fail to provide adequate rest/recovery time for line personnel, resulting in excessive fatigue. This fatigue can result in injury to health, unclear thinking, poor fire management, and loss of production.

#### EXECUTIVE SUMMARY

The standard concept of two shifts every 24 hours works well on simple fires of up to two days duration through control. Where spike camps are used, or travel times from camp to the fireline are short, shift lengths can be held to reasonable periods, and adequate rest assured.

On more complex fires, the amount of off-shift rest declines. To address this concern, Region 5 experimented with a 24-hour shift on the Marble Cone Fire in 1977.<sup>2</sup> The Region requested latitude from the Washington Office to conduct further evaluation in 1978. That request was referred to the Missoula Equipment Development Center for their consideration.

MEDC prepared a report in March 1980, titled "Work, Rest and Fatigue", which focused primarily on the length of work shifts.<sup>3</sup> This initial literature review recommended controlled field trials to evaluate performance, fatigue, and recovery.

<sup>1</sup> Pacific Southwest Region, U.S. Forest Service

<sup>2</sup> "Large Fire Management – Report on Proposed Policy change to Manage Long Shifts." Bates and Nelson, April 1978

<sup>3</sup> "Work, Rest & Fatigue", MEDC No. 8051. 2802, March 1980



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

In their subsequent efforts to set up field trials, MEDC focused their attention more on the length of typical rest periods associated with the various shift alternatives rather than on the length of the work shift. MEDC did not examine the specific causes of fatigue in these studies. Previous efforts at MEDC have examined some of the causes of fatigue. In addition to lack of adequate rest, such things as carbon monoxide (CO),<sup>4</sup> smoke inhalation, heat stress due to either climatic conditions, or radiated heat, fluid replacement,<sup>5</sup> mental attitude, and physical conditions<sup>6</sup> can contribute to fatigue.

Region 5's evaluation is not examining specific causes of fatigue, but is concentrating on the relationship between rest and fatigue.

The Washington Office approved Region 5's involvement in field trials off concept, with their 5130 letter of August 10, 1981, "Trial Use of the 24 Hour Work, Rest Cycle". The letter cited four conditions to be met:

Work shifts exceeding 16 hours will continue to be documented and approved by the Fire Boss.

Workers will get at least 12 hours sleep/rest.

Crew Bosses will keep a daily log.

The best time for shift changes will be evaluated.

This approval noted that MEDC had located some excellent references on human performance in continuous operations,<sup>7</sup> which address the amount of sleep/rest time necessary to recover from arduous work before performing such work again. The following table summarizes the relationship:

---

<sup>4</sup> "Fire Fighter Response to Carbon Monoxide on the 'Deadline' and 'Outlaw' Fires" MDC No. 7551. 2219, May 1975 and "Preliminary Analysis to Fire Fighter Exposure to Carbon monoxide on Wildfires and Prescribed Burns" MEDC No. 7961. 2208, April 1979.

<sup>5</sup> "Heat Stress" MDC Pamphlet No. 7951. 2505, October 1979.

<sup>6</sup> Development of Evaluation of Muscular Fitness Tests' MEDC February 1980, and "Validation of Muscular Fitness Tests' MEDC March 1980.

<sup>7</sup> Human Performance in continuous operations - Volumes I, II and III, U.S. Army Institute for the Behavioral and Social Sciences, December 1979 and March 1980.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

Period of hours without sleep (work + travel + preparation + briefing + standby + etc.)	Recovery hours required of sleep and/or rest
12	6
16	8
18	9
24	12
28	14
30	15

From this table, it is obvious if a crew puts in a 14-hour daytime work shift, plus four hours of travel to and from the line, work assignment, briefings, debriefing, getting up and ready for work, and the various other things that consume time, the crew will spend at least 18-hours without sleep. That effort requires nine hours of sleep/rest recovery, which is unattainable if the crew is expected to return to the day shift the following day. The effect can be cumulative and compounded with successive shifts without adequate sleep/rest recovery. This situation occurs on virtually every large fire in California that remains uncontrolled for three or more days.

On the other hand, if a crew puts in a 26-hour shift, plus the same four hours of travel, etc., the required 15-hours of recovery is easily attainable, if they are not expected to return to the fireline for 24-hours. The key to the concept is the increased amount of time available for recovery under the 24-hour rest/work cycle, compared to the current method.

The concept does not require more line workers, where both day and night shifts are manned, as in Region 5. The concept may not be appropriate where no night shift is employed, as in fires in lodgepole fuel types in Montana. The concept is not a substitute for spike camps, as they offer an excellent means of reducing travel times and shift lengths, to provide recovery time between shifts.

The concept appears to offer relief in logistically complex situations. Fires that become "helicopter dependent" to transport crews to and from the fireline, or impose other barriers to reducing travel times, should be considered as suitable trials for the 24-hour rest/work cycle.

The concept produces a 50% reduction in travel costs, compared to the two-shift system, as the exchange is made once a day, rather than twice. This also reduces exposure of employees to risk, particularly in helicopter travel.

The concept produces a potential 21% savings in labor. We don't know if there are any differences in production or injury rates between the two concepts. We do know that production and safety.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

## EVALUATION OBJECTIVES

The concept of securing adequate rest for personnel engaged in arduous fireline construction is emerging as the core issue. The 24-hour rest/work cycle is only one means of accomplishing that objective. The key appears to be the 2:1 work/rest ratio that MEDC has gathered from recent research. They strongly recommend that "all Forest Service Regions take measures to insure that people receive these minimum hours of sleep/rest."

With this recommendation in mind, we have broadened the objectives to test the following hypothesis:

**HYPOTHESIS:** The concept of one hour of rest for each two hours of work, such as that provided by the 24-hour rest/work cycle, will result in less fatigued firefighters. Further, that reduction in fatigue can increase production and reduce accidents.

Our three objectives are:

Determine if the 2:1 work/rest guidelines recommended by MEDC result in less fatigued workers, compared to higher work/rest ratios.

Utilize data to refine work/rest guidelines.

Evaluate the 24-hour rest/work cycle, in comparison with historical fireline manning alternatives, to determine its effect upon:

- Short and long term fatigue
- Production of line workers
- Safety and injury frequencies
- Cost effectiveness
- Logistical support
- Exposure of personnel to risk
- Work and rest environments
- Employee morale and acceptance

## EVALUATION PROCEDURES

### PRE-SEASON TESTING AND DATA COLLECTION

MEDC will establish a baseline measurement of certain measurable factors to serve as early warning devices for fatigue. To do this, we propose utilizing all Region 5 hotshot crews in a simple pre-season testing procedure that will involve a daily log of



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

crew activity and some simple observations of designated employees. A sample of the Crew Work/Rest Log with instructions for crews and designated employees is included in Appendix B.

## NARRATIVE EVALUATION BY SAFETY CHIEF

The Safety Chief monitors the fire program for compliance with safe practices on any fire managed by a Regional Fire Team, we are asking the Fire Boss/IC to secure a written evaluation from the Safety Chief as a part of this study. The report will be submitted to A&FM, Attention: Kenton Clark, as soon as practical following release of the team. We are interested in any relevant observations in the following areas:

Crew Work/Rest Logs - Hotshot crews will retain their logs for regular submission. others will be collected and submitted with the Safety Chiefs' report. Any observations on the attitude of crews completing the logs, or any conclusions reached at the incident should be included.

Medical Unit Records - Were there any apparent correlations between the records for treatment of injuries and minor irritations such as blisters and shift lengths? Do personnel utilize off-shift time for treatment?

Accident and Injury Rates - Anything noteworthy in terms of injury frequencies?

Understanding and Support of Involved Personnel - How well received was the involvement in the evaluation? Was the Fire Evaluation, Form R5 5100-207, or some other method used to secure employee input?

Adequacy of Rest - Did the rest provided appear adequate? Consider both forms of rest:

Rest periods on-shift (compensable)  
Off-shift rest/sleep cycle (non-compensable)

Pay Problems - Were there any pay problems or disputes (secure input from Finance Chief)?

Logistical Problems - Was logistical support adequate? Consider providing meals and water to line personnel. Were personnel removed from the line and returned to sleep areas in reasonable timeframes (secure input from Logistics Section Chief)?



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

Planning Cycles - Did the Fire Boss/IC use one or two planning cycles per 24 hours? How well did it work? Any suggestions for future evaluations (secure input from Planning Section Chief)?

Off-Shift Problems - Any problems encountered with misuse or abuse of off-shift time? Did crews use it to full advantage for rest?

Security - Any problems with camp security attributable to implementation of a 24-hour rest/work cycle?

Tactical Application - What was the overall assessment of line production and securing suppression objectives? Was the operations chief satisfied).

Exposure - Was crew exposure reduced in any way, due to 24-hour rest/work cycle? Consider helicopter transportation, truck travel, etc.

Overall Impression - What was the general impression of implementation of No. 24-hour rest/work cycle?

Fire team impressions

Fireline worker impressions

## ACCOUNTABILITY AND DIRECTION

With the hotshot crews preparing daily logs, some evaluation of rest, fatigue, and shift lengths will take place on every fire. Some specific direction is needed in considering implementation of a 24-hour rest/work cycle.

Fire managers will make every reasonable effort to provide adequate rest for all fire personnel. The 2:1 work/rest ratio provides a good guideline, and adherence is encouraged. No specific Regional or National policy will be adopted until the results of this evaluation can be analyzed. Individual forests may elect to adopt a local version of the 2:1 work/rest ratio.

Application of the 24-hour rest/work cycle is limited to:

Wildfires managed by one of the Regional Fire Teams.

Other extra period fires, upon request of the Forest Supervisor and approval of the Director, Aviation & Fire Management.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

We are not suggesting that you abandon the standard two-shift concept and adopt the 24-hour rest/work cycle in all situations. At the Fire Boss/IC meeting in; March, we discussed the concept and encouraged the Regional Fire Bosses to consider adoption in the following typical situation:

A fire starts in the afternoon, and escapes initial attack. The local Forest Fire Team manages the fire through early evening and cannot contain it. The forest orders a Regional Fire Team and they arrive after midnight and agree to take the fire over at change of shift in the morning. Crews that made the initial attack and provided the reinforcements through the evening have worked all night. Whatever forces the Forest has ordered for the day shifts that have arrived are available for assignment.

In this situation, the crews on the night shift have worked the previous day on regular project work, and then through the night on the fire. They have been without sleep for roughly 24 hours. Rather than put out a day shift, and then expect this group of fatigued workers to report back that night with no more than 8 hours rest, we suggest you may want to run a 24-hour cycle instead. This will allow ample rest for the night crew when they report the next morning.

In addition to this situation, we offer the following conditions as reasonable indicators of situations appropriate for a 24-hour rest/work cycle.

Fires with long travel times to the fireline.

Poor spike camp opportunities.

Dependence on helicopters for movement of significant numbers of line personnel.

Complex logistical support, where one shift change rather than two per 24 hours would significantly reduce exposure to risk.

The decision whether to employ the 24-hour rest/work cycle rests with the Fire Boss/IC. He must continue to document and approve the work shifts in excess of 16-hours, and make that decision part of the daily plans records. He can order the shifts for those personnel that are obligated to participate.

Forest Service crews, including other Region's personnel and AD Hires, are obliged to participate when so directed. Pay particular attention *to* selection of overhead for supervision of 24-hour rest/work cycles to assure understanding of the concepts,



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

objectives, and obligations of the evaluations. Certain personnel are excluded, as follows:

- Pilots and other participants of the air operations organization.
- Drivers of vehicles.
- Human resources program employees with special administrative requirements.
- Contract personnel.

Other categories of personnel have length of shift limitations or they may wish not to participate. and their involvement must be negotiated:

- State of California CDC crews
- Cooperating agency personnel
- Job Corps and CCC crews

Normally the concept will be applied to line workers and their overhead. Support personnel should be accountable to get sufficient rest/recovery time on the standard two-shift concept. The 24-hour rest/work cycle would normally not be utilized for mop-up. Both shift concepts could be employed on different sectors of the fire.

Fire Teams are obligated to insure that workers receive at least the minimum required off-shift sleep/rest recovery for the time worked, according to the table. This includes travel time. This is the minimum. Optimum sleep/rest recovery times should be the majority of the 24-hour off-duty period.

Shift change times are at the discretion of the Fire Boss/IC. Experience has shown that a morning shift change established between 0700 and 0900 will provide fresh crews for the heat of the afternoon and good familiarity with the assignment before nightfall. Local situations could dictate other established times. This time also assures 8 hours of duty status each calendar day (FBMEB, Section 411.2)

Fire Boss/IC's must schedule suitable rest periods during the shift and see that they are utilized effectively. Overhead must assure at least three separate rest periods for each worker. Crews on shift must have at least one-hour rest for every four hours worked, or five hours of rest during a 25-hour shift. Crews can be staggered or split to provide rest and continuous attention to the line. Rest periods will be documented on the crew to the line. Rest periods will be documented on the Crew Log. Rest periods on the fireline are compensable.

Crews cannot effectively carry all the water and food they require for a 24-hour period. Provisions must be made to furnish meals, rations, fruit, water, juice, etc., at pre-planned locations during or prior to the shift.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

Include in the briefing the obligation for overhead to check with plans at least every six hours for altered weather forecasts or fire behavior predictions. Plans should also make arrangements for providing timely information of changes to line personnel.

When crews are off-shift, or non-pay status, we cannot control their movement. This may not be any more of a concern than it is with historical shift patterns, but it is a factor to be evaluated. Base/Camp locations near Metropolitan areas may be a factor in electing to utilize the 24-hour rest/work cycle.

Fire Bosses will want to establish some control to assure that tired crews who have already put in long hours are not assigned to long shifts without rest before assignment. Also, crews must not be released to drive home after a long shift without prior rest. This is not different than current concerns, but it could become more critical with 24-hour shifts.

The Safety Chief's Fire Job Description, FSE 5109.32 Fireline Handbook, states:

"Analyze the fire operation for existing and potential risks and hazards from both inside and outside influences;

Monitor the overall fire program for compliance with safe practices".

The Safety Chief is concerned with the adequacy of rest and its effects upon fatigue. Logically, the Safety Chief should monitor the progress of the evaluations in conjunction with the "Work, Rest and Fatigue" study. In complex situations the Fire Boss/IC may elect to provide some assistance for this task. The Safety Chief will assure completion and collection of Crew Work/Rest Logs.

Fire Boss/IC's will determine whether to continue the standard planning cycle for Day shift and Night shift, or convert to a single shift plan for a 24-hour period. Either concept is acceptable for utilization of a 24-hour rest/work cycle, and the Fire Boss will pick the planning cycle that best suits the situation. Either cycle must provide for periodic updates as discussed in item C-11.

## PAY CONSIDERATIONS

A number of questions and concerns will arise involving pay, payroll procedure, and policy. This section attempts to anticipate these questions and address them.

No new policy on pay is anticipated. The procedures outlined in the Fire Business management Handbook FSH 5109.13, apply.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

Will as little as one hour of hazard pay conditions, for example, qualify an individual for 24 hours of hazard pay?

Answer: "Yes." Hazard pay for GS employees is addressed in FBMEB, Section 418. It states in part, "All hazard pay differential for GS employees is based on a 24-hour day, from 0001 to 2400 hours. When an employee performs duty for which hazard pay differential is authorized, he shall be paid the hazard differential for all hours in pay status during the calendar day in which the hazardous duty is performed".

Are employees in pay status during rest breaks?

Answer: "Yes". No special facilities for rest and recuperation are provided, so time spent resting on the fireline is compensable. The employees have a work assignment and are not free to leave the area or pursue activities of a personal nature. They are directed to rest in place, similar to ordered standby, FBMEB, Section 413. They are fully outfitted, held in a specific location, and ready for immediate assignment.

Are employees in pay status during meal periods on the fireline?

Answer: "Yes". Fireline construction workers and their overhead are not free from duty during their assignment. They must remain at their post and be prepared to drop their meal and respond to an emergency. Meal breaks will be considered compensable for fireline workers and their overhead on uncontrolled portions of fire. For camp personnel, helicopter support, and personnel on mop-up or controlled portions of the fire, meal breaks are normally not compensable.

Are Fire Time Report Forms, FS 6200-59, adequate to accommodate 24-hour rest/work cycles?

Answer: "Yes". The forms are adequate. No special training of time recorders is required, as long as they are cognizant of the policies described herein.

Does this concept alter our ability to control off-duty activities of employees?

Answer: "No". Control ramifications have been discussed in recent correspondence.

We cannot control movements of off-duty personnel unless we place them in ordered standby status (Section 413), Employees are personally accountable for their actions off-shift, and expected to report fit for duty for their next shift.

Are injuries sustained in fire camp, during off shift chargeable?



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

Answer: “Yes”. If the injury occurs on Government controlled property such as fire camp. If the injury occurred in a laundromat or country store during off-shift, it probably would not be chargeable (FBMEF 417.7).

Are employees working under a 24-hour rest/work cycle guaranteed 8 hours of pay for each calendar day?

Answer: “Yes”. Section 411.2, Fire Business Management Handbook, covers multiple-day assignments on fires. Employees are converted to the nonstandard first 8-hour tour, at the start (0001) of the second continuous calendar day. The use of a 24-hour rest/work cycle does not alter this policy. Sound cost-effective principles would support a change in shift around 0700 or 0900, to assure completion of 8 hours of pay status for crews engaged in fireline activity for each calendar day.

## UNION INVOLVEMENT

The National Federation of Federal Employees (NFFE) in Region 5 has participated in the development of the evaluation since shortly after the WO approved it on August 10, 1981. NFFE circulated information on the evaluation in its national publication, "The Forest Service Monitor," and requested input to the evaluation from its Region 5 membership. Gentry Rowsey, the Regional NFFE Representative, was involved in drafting the 1981 "Trial Evaluation Procedures" and in the procedures described in this document.

If crews or individuals involved and represented by NFFE Locals have questions about the evaluations or concerns with a fire's management which they prefer not to address to the team managing the fire they should contact the Regional NFFE Representative. (Gentry Rowsey, Fiscal Management, R.O. (415) 556-5670). Strict confidentiality will be maintained in the conveyance of such concerns to AAFM.

If crews or individuals involved and represented by Local 3198 of the American Federation of Government Employees, on the Sierra National Forest, have concerns with a fire's management they prefer not to address to the team managing the fire, they should contact the President of Local 3198 (John Guyer, work phone number (209) 855-8321, home phone number (209) 855-8227).

## UNDERSTANDING AND SUPPORT OF THE CONCEPT

The key to a successful evaluation of the relationships between rest and fatigue is the understanding and support of the people involved. Misconceptions about the 2:1 work/rest ratio, the 24-hour rest/work cycle, or the objectives of the evaluation can prejudice the outcome. Line workers, Fire Management personnel, cooperating agencies, the public, and



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

---

to some extent the news media, all have an interest in this evaluation. To assure some common level of understanding, we offer some observations:

## EMPLOYEE NOTIFICATION

The Regional Forester advised all Region 5 employees of the evaluation with his 5100 letter of November 12, 1981, "24-hour Work/Rest Cycle Experiment for Fireline Personnel." The letter asked for comments, and those suggestions have been incorporated into this document.

## EMPLOYEE INPUT

Employee input will be solicited during the evaluation. The Crew Work/Rest Log provides some vital information and perceptions. Individual input is encouraged. The Fire Evaluation, Form R5 5100-207 is a convenient way to solicit input. Blank forms can be made available in camp, or issued with shift plans. A copy of the form is included in the Appendix. Direct input is encouraged at the incident, as it could alter the management of the evaluation at that incident.

## SUPPORT OF COOPERATORS

Aviation & Fire Management has informed the CDF and other cooperating agencies of our intent to conduct the evaluation in 1982. Their participation is encouraged but it will be each agency's decision to make, regarding the extent of their participation. This could complicate evaluations if an incident relies heavily on CDC crews for line construction.

## MEDIA COVERAGE

Fire managers will advise the media of evaluations when they are in progress. The evaluation is unusual enough to be newsworthy in itself. The media may wish to highlight its use and objectives, conceivably with interviews of fireline personnel on their reactions, etc. it is possible that the concept may convey the impression of more idle workers in camp, as off-shift personnel will not all be sleeping during the day. Full explanations to the media will reduce the likelihood of adverse coverage of "off-shift personnel relaxing while the fire rages uncontrolled."

## OVERTIME CONPARISONS

Concerns may surface over the amount of overtime individuals might earn compared to past practices. This is an issue that will require some subjective evaluation over the season. Conceivably a crew might earn less overtime over three or four shifts on a 24-hour rest/work cycle, than they might have on long day shifts for the same period. on the other hand, they might also be more rested and available for reassignment to another incident, or



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

might not require a short shift of "R&R" to overcome their fatigue. This is an issue that will require some analysis throughout the season.

## OFF-SHIFT CONSIDERATIONS

No special provisions for off-shift recreation are envisioned for any 24-hour rest/work shift personnel. Employees can sleep, rest, eat, and to a limited degree pursue activities of a personal nature. How effectively employees utilize the off-shift time to overcome fatigue will be evaluated.

## APPENDIX

Regional Forester Zane Smith's letter to all Region 5 Employees, "24-Hour Work/Rest Cycle Experiment" November 12, 1981.

Crew Work/Rest Log  
Fire Evaluation Form R5 5100-207

Acting Deputy Chief Cargill's 5130 letter of August 10, 1981. "Trial Use of the 74--ffour Work/Rest Cycle."

MEDC Director Northcult's 7120 letter of July 2, 1981, ED&T 7021 Fire Hand Tool improvement (Continued Investigation of Twenty-four Hour Work/Rest Cycle)

Operations Research Analyst McConnells' 7120 letter of July 2, 1981, ED&T 7021 Cost Analysis of 24-Hour Work/Rest Cycle."

Summary of Obligations



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

INFORMATION GATHERING

## INFORMATION GATHERING

### Slide Notes

#### Slide 1

**INFORMATION GATHERING**

- Develop a mental picture
- Current incident conditions
- Consider resources
- Plan ahead
- Maintain information flow

SLIDES.PPT March 21, 1999 Agenda A 06-7-01

---

---

---

---

---

---

---

#### Slide 2

**SOURCES OF INFORMATION**

- Agency Administrator Briefing
- Becomes your marching orders
- Debrief initial attack IC
- Technical Specialists
- Completed ICS 201
- Incident Briefing Form

SLIDES.PPT May 11, 1999 Agenda A 06-7-01

---

---

---

---

---

---

---

#### Slide 3

**The  
Incident Commander  
is Responsible and Reports  
to the Agency Administrator**

SLIDES.PPT May 11, 1999 Agenda A 06-7-01

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

## INFORMATION GATHERING

Slide 4

**IC BRIEFING**

- IC sets incident priorities
- Identifies deficiencies in incident intelligence
- Sets time frames for meetings
- Sets broad strategic objectives
- Establishes operational period schedules
- Makes special assignments

IN INCIDENT  
March 27, 1999 Appendix A  
Slide 3-3-1

---

---

---

---

---

---

---

---

Slide 5

**SOURCES OF INFORMATION**

- Division/group debriefing form
- Local agency representatives
- Line personnel, field observers
- Ground and aerial reconnaissance
- Briefing from other functions

IN INCIDENT  
March 27, 1999 Appendix A  
Slide 3-3-1

---

---

---

---

---

---

---

---

Slide 6

**Sample Debriefing Form Page 1**

DIVISION/GROUP OPERATIONAL PERIOD DEBRIEFING FORM			
<b>DIVISION/GROUP GENERAL INFORMATION</b>			
ACCIDENT NAME	DIVISION/GROUP	ADDRESS NUMBER	
BRANCH	DIVISION/GROUP	DIVISION/GROUP SUPERVISOR NAME	
REPORT FOR OPERATIONAL PERIOD	DATE	COMMAND UNIT	TACTICAL UNIT
<b>GENERAL ISSUES - ACCOMPLISHMENTS - PROBLEMS/AREAS</b>			
<b>AGENCY RESOURCES COMMITTED TO OPERATIONAL PERIOD</b>			
ENGINE	TRUCK	FLIGHT UNIT	DOZER/GRADER UNIT
<b>PRIVATE PROPERTY EQUIPMENT &amp; PERSONNEL COMMITTED TO DIVISION/GROUP</b>			
TYPE - UNIT	OWNER	LIST OF PERSONS	CONTACT INFORMATION

IN INCIDENT  
March 27, 1999 Appendix A  
Slide 3-3-1

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

INFORMATION GATHERING

Slide 7

**Sample Debriefing Form Page 2**

NEXT OPERATIONAL PERIOD SITUATION & RESOURCE STATUS INFORMATION	
STATUS	INITIALIAL FORM #
DURING HEAD OF RISK/UNIT NEEDS FOR NEXT OPERATIONAL PERIOD	
STATUS	
UNIT	
TYPE	
LOCATION	
ACTIVITY	
INITIALS	
DURING GROUP ASSIGNMENTS, SPECIAL NEEDS FOR NEXT OPERATIONAL PERIOD	
CONTROL METHOD / DATA COMMENTS	
MISC. NOTES	
MAP OF CURRENT & PROPOSED SITUATION	

FORM I-201  
March 21, 1999 Appendix A  
Form I-20-2

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

## Escaped Fire Situation Analysis

---

---

### EFSA Information

---

<b>EFSA Number:</b> 1	<b>Jurisdiction(s):</b> CDF/BLM/PRA
<b>Fire Name:</b> Nance	<b>Geographic Area:</b> BTU
<b>Incident Number:</b> BTU-12345	<b>Unit:</b> BTU
<b>Date/Time Prepared:</b> 08/15/XX 23:00	<b>Management Code:</b> P11111

---

### Fire Situation

---

<b>Start Date/Time:</b> 08/15 1300	<b>Current Fire Size:</b> 4000 acres
<b>Fuel Conditions:</b> Mixed chaparral, grass, oak woodland. Fuel Moisture 2-3%	<b>Weather – Current and Forecast:</b> 100+ degree temperatures Relative Humidity 10-17% Winds 5-10 SW
<b>Fire Behavior – Current and Forecast:</b> Extreme rates of spread ½ mile spotting distance Runs up steep slopes in heavy fuels will be extremely rapid Look for crowing and torching in pine and oak.	
<b>Suppression Resource Availability:</b> Good availability because of minimal activity and no completion for resources.	



**INCIDENT COMMAND SYSTEM**  
 S430 Operations Section Chief – ALL RISK

**EFSA NO. 1**

**NANCE**

**Evaluation Criteria**

<b>Criterion</b>	<b>Priority</b>	<b>Contribution</b>	<b>Overall</b>	<b>Explanation</b>
<b>Safety</b>	8		0.31	Numerous structures
Firefighter Safety	10	0.50	0.154	Fast moving fire
Firefighter Safety	10	0.50	0.154	Threatening Community
<b>Economic</b>	6		0.23	Damage to community
Structure Timber	10	0.45	0.105	Residences and other structures
Recreation	1	0.05	0.010	Area is vacation and rec area
Wildlife	3	0.14	0.031	Salmon habitat
Water	6	0.27	0.063	Water supply for part of Butte county could be threatened
Forage	2	0.09	0.021	Grazing occurs on part of this area
<b>Environment</b>	5		0.19	T&E species in Little Chico Creek
Air	10	0.50	0.096	Retirement area could have respiratory effects
Visual	5	0.25	0.048	Lots of charred area visible from major highway
T&E Species	5	0.25	0.048	Steelhead/Salmon in proximity
<b>Social</b>	7		0.27	Damage to community
Employment	4	0.29	0.077	Could effect peoples businesses
Public Concern	10	0.71	0.192	Destruction of community

**Alternatives**

<b>Alternative A Direct</b>		
<b>Primary Strategy</b> Follow fire perimeter, burning out where possible . Hold fire at Foster Road , Roe Rd., Indian Springs and Neal Roads.	<b>Fallback Plan</b> Back off to Nance Canyon	<b>Worst Case Scenario</b> Fire burns through Paradise and catch it when it changes fuel type.
<b>Successful Outcome</b> Probability: 60% Final Fire Size: 7000 acres Time to Contain: 2 days Time to Control: 4 days	<b>Successful Fallback Outcome</b> Probability: 32% Final Fire Size: 8000 acres Time to Contain: 2 days Time to Control: 4 days	<b>Worst Case Outcome</b> Probability: 8% Final Fire Size: 12000 acres Time to Contain: 4 days Time to Control: 6 days

<b>Alternative B Indirect</b>		
<b>Primary Strategy</b> Hold fire at Skyway , & Roe Rd. let fire back to the West into the grass to the Hwy 99 , hold fire at the intersection of Foster Rd. and Neal Rd.	<b>Fallback Plan</b> Back off to Little Chico Creek Back off to Berry Cyn	<b>Worst Case Scenario</b> Fire burns into steep Cyn with difficult access
<b>Successful Outcome</b> Probability: 70% Final Fire Size: 11000 acres Time to Contain: 2 days Time to Control: 4 days	<b>Successful Fallback Outcome</b> Probability: 27% Final Fire Size: 13000 acres Time to Contain: 4 days Time to Control: 6 days	<b>Worst Case Outcome</b> Probability: 3% Final Fire Size: 15000 acres Time to Contain: 5 days Time to Control: 7 days

**Suppression Costs**

<b>Alternative A Direct</b>		
<b>Successful Outcome</b>	<b>Fallback Outcome</b>	<b>Worst Case Outcome</b>
Suppression cost: \$4,900,000	Suppression cost: \$5,600,000	Suppression cost: \$7,200,000

<b>Alternative B Indirect</b>		
<b>Successful Outcome</b>	<b>Fallback Outcome</b>	<b>Worst Case Outcome</b>
Suppression cost: \$6,600,000	Suppression cost: \$7,800,000	Suppression cost: \$9,000,000

## Resource Value Losses

## Alternative A Direct

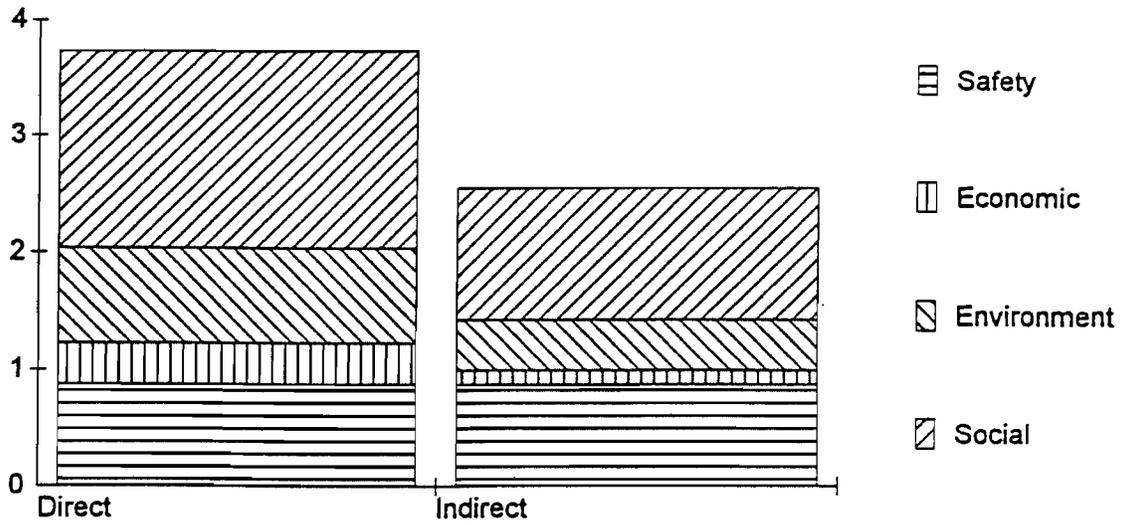
Item	Successful Outcome	Fallback Outcome	Worst Case Outcome	Expected Impact
Mature Timber	-\$17,500,000	-\$20,000,000	-\$30,000,000	
Seed and Saplings	-9,100,000	-10,400,000	-15,600,000	
Recreation - Disp/Dev	-273,000	-312,000	-468,000	
Total	-\$26,900,000	-\$30,700,000	-\$46,100,000	-\$29,700,000

## Alternative B Indirect

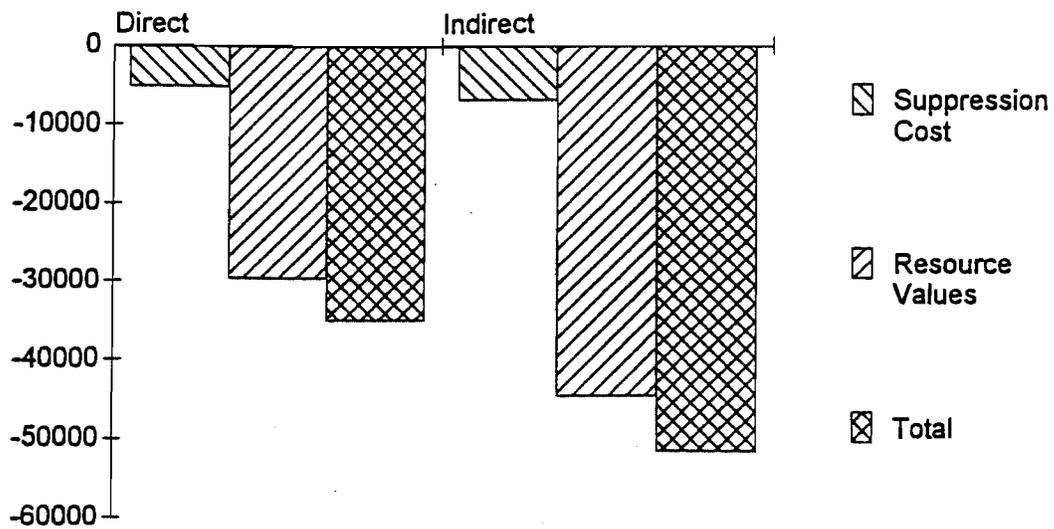
Item	Successful Outcome	Fallback Outcome	Worst Case Outcome	Expected Impact
Mature Timber	-\$27,500,000	-\$32,500,000	-\$37,500,000	
Seed and Saplings	-14,300,000	-16,900,000	-19,500,000	
Recreation - Disp/Dev	-429,000	-507,000	-585,000	
Total	-\$42,200,000	-\$49,900,000	-\$57,600,000	-\$44,700,000

### Comparison of Alternatives

Evaluation Criteria (0=worst, 10=best)



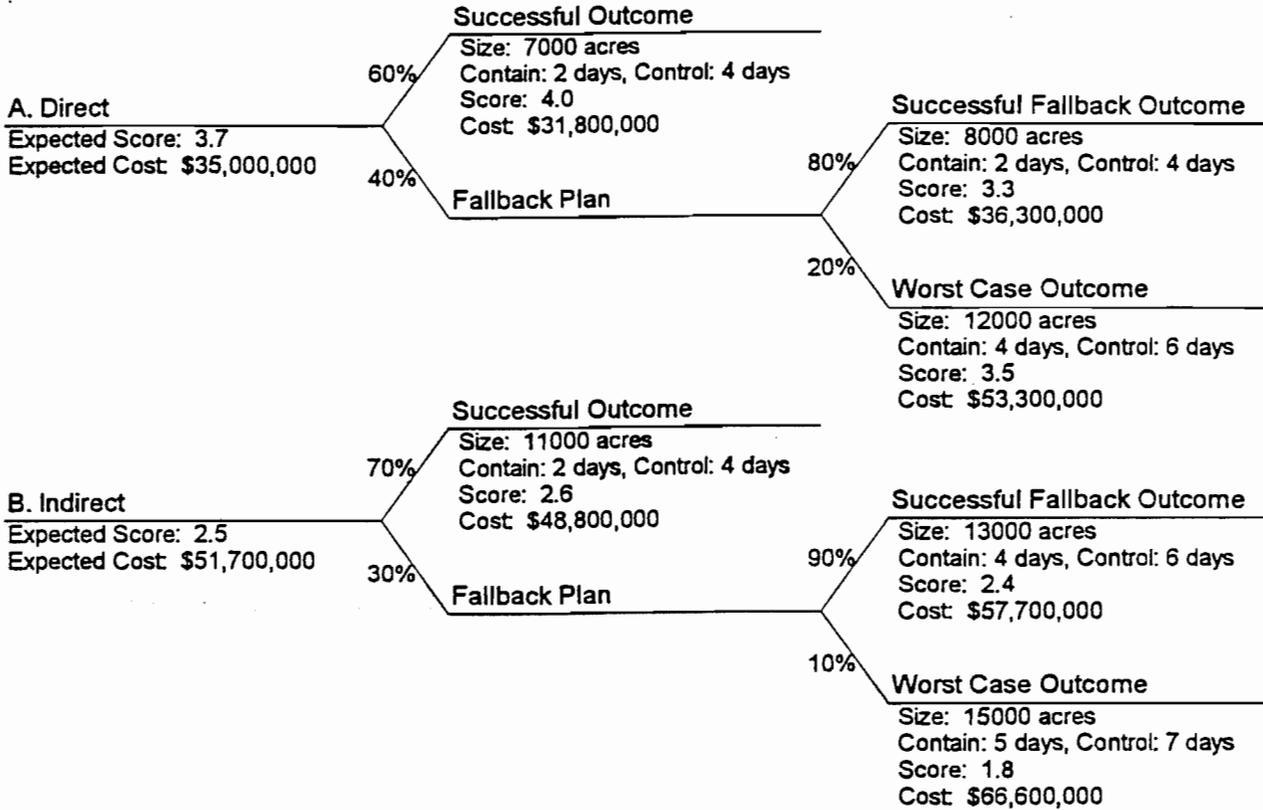
Financial impact (in \$000)



**Comparison of Alternatives**

		Alternatives							
		A. Direct				B. Indirect			
<b>Suppression Costs</b>		-\$5,310,000				-\$7,000,000			
<b>Resource Values</b>		-\$29,700,000				-\$44,700,000			
<b>Total Financial Impact</b>		-\$35,010,000				-\$51,700,000			
<b>Total Score</b>		3.7				2.5			
		Outcomes				Outcomes			
					Alt. A				Alt. B
		A1	A2	A3		B1	B2	B3	
Probability (%)		60	32	8		70	27	3	
<b>Criteria</b>	<b>Wgt</b>								
<b>Safety</b>	<b>0.31</b>								<b>2.8</b>
Firefighter Safety	0.50	6	5	6	5.7	6	5	3	5.6
Firefighter Safety	0.50	0	0	0	0.0	0	0	0	0.0
<b>Economic</b>	<b>0.23</b>								<b>1.5</b>
StructuesTimber	0.45	0	0	0	0.0	0	0	0	0.0
Recreation	0.05	0	0	0	0.0	0	0	0	0.0
Wildlife	0.14	0	0	0	0.0	0	0	0	0.0
Water	0.27	6	5	5	5.6	2	2	2	2.0
Forage	0.09	0	0	0	0.0	0	0	0	0.0
<b>Environment</b>	<b>0.19</b>								<b>4.2</b>
Air	0.50	6	5	5	5.6	3	3	2	3.0
Visual	0.25	0	0	0	0.0	0	0	0	0.0
T&E Species	0.25	6	5	5	5.6	3	3	2	3.0
<b>Social</b>	<b>0.27</b>								<b>6.3</b>
Employment	0.29	6	5	5	5.6	5	4	2	4.6
Public Concern	0.71	7	6	6	6.6	4	4	4	4.0

### Decision Tree



**Decision Summary**

**Strategy:**

Direct

**Description**

Follow fire perimeter,  
burning out where possible .  
Hold fire at Foster Road , Roe Rd.,  
Indian Springs and Neal Roads.

**Rationale**

Save largest number of structures, less smoke, less exposure of public  
and firefighters.l

**Special Considerations**

If this doesn't show progress reevaluate at next shift.

**Information Policy**

Information will be handled by the Incident Team.

\_\_\_\_\_  
Agency Administrator Signature

\_\_\_\_\_  
Date/Time

### Daily Review

Date	Time	By	Preparedness Level (1-5)	Incident Priority	Weather Forecast (Yes/No)	EFSA Valid (Yes/No)

### Final Review

The elements of the selected alternative were met on:

Date: \_\_\_\_\_ Time: \_\_\_\_\_

By: \_\_\_\_\_  
Agency Administrator

### Incident Complexity Analysis

**Incident Complexity Rating: Type 1**

**Rationale:** Fire Complexity, Urban Interface-local area team can handle until T1 arrives

NO	YES	FACTOR
		<b>Change in Strategy</b>
-		Change in strategy to control from confine or contain.
	X	Large amounts of unburned fuel within planned perimeter.
-		EFSA invalid or requires updating.
		<b>Existing Overhead</b>
-		Worked two operational periods without achieving initial objectives.
-		Existing management organization ineffective.
-		Overhead overextended themselves mentally and/or physically.
-		Incident action plans, briefings, etc. missing or poorly prepared.
		<b>Fire Behavior</b>
	X	Burning index predicted to be above the 90% level.
	X	Potential exists for "blowup" conditions (fuel moisture, winds, etc.).
	X	Crowning, profuse or long-range spotting.
	X	Weather forecast indicating no significant relief or worsening conditions.
		<b>Resources Committed</b>
	X	200 or more personnel assigned.
-		Three or more divisions.
	X	Wide variety of special support personnel.
-		Substantial air operation which is not properly staffed.
	X	Majority of initial attack resources committed.
		<b>Resources Threatened</b>
	X	Urban interface.
	X	Developments and facilities.
	X	Restricted, threatened or endangered species habitat.
-		Cultural sites.
-		Unique natural resources, special designated zones or wilderness.
-		Other special resources.
		<b>Safety</b>
-		Unusually hazardous fire line conditions.
-		Serious accidents or fatalities.
	X	Threat to safety of visitors from fire and related operations.
	X	Restrictions and/or closures in effect or being considered.
-		No night operations in place for safety reasons.
		<b>Ownership</b>
	X	Fire burning or threatening more than one jurisdiction.
	X	Potential for claims (damages).
-		Different or conflicting management objectives.
-		Disputes over suppression responsibility.
	X	Potential for unified command.
		<b>External Influences</b>
-		Controversial fire policy.
-		Pre-existing controversies/relationships.
	X	Sensitive media relationships.
	X	Smoke management problems.
	X	Sensitive political interests.
	X	Other external influences.



**INCIDENT COMMAND SYSTEM**  
S430 Operations Section Chief – ALL RISK

PLANNING

---

**DELEGATION OF AUTHORITY**

Date: August 15, XXXX

To: Bill Holmes, Incident Commander

Subject: Delegation of Authority

As Incident Commander, you are hereby delegated full responsibility and authority for suppression activities on the Bureau of Land Management lands within the Nance Fire perimeter.

I expect this suppression effort to be conducted in accordance with the WFSA which will be reviewed by you and your Incident Management Team.

All available firefighting methods are authorized.

Your main objectives are:

Protect Life and Property.

Firefighter Safety.

Cost expenditures should be commensurate with values at risk.

As much as possible, utilize local personnel in training positions or elsewhere in you organization.

From a BLM standpoint keeping the fire out of Little Butte Creek Canyon is a significant issue.

Jay Hastings of my staff will be my main contact with you. he is authorized to speak for me in the event an administrative decision is needed.

/s/Jim Brown  
Acting District Manager



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

PLANNING

## AGENCY ADMINISTRATOR'S BRIEFING

Fire Name \_\_\_\_\_ Agency \_\_\_\_\_

Date \_\_\_\_\_ Team Assigned \_\_\_\_\_

1. General

- a. Name of fire:
- b. Initial attack taken:
- c. Approximate size of fire \_\_\_\_\_ acres.
- d. Name of present Incident Commander
- e. General weather conditions (present and predicted):
- f. Fire behavior:
- g. Fuel types:
- h. Is it an air tanker operation?
- i. Is it a helicopter operation?
- j. ICP and incident base:
- k. Other fire agency:

2. Delegation of authority and assignment of responsibility

Agency advisor

3. Cause of fire:

- a. Investigation required:
- b. Name of investigator:

4. Ownership involved and coordination:

- a.
- b.

5. Name of resource advisor assigned to fire:

6. Local fire policy:

7. Resource values, wilderness, roadless areas, rare and endangered species

8. Priorities



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

---

9. Local unusual fire behavior and fire history in area of fire:
10. Money limitations and constraints:
11. Legal considerations (current investigation in action):
12. Pre-attack plans \_\_\_\_\_ yes \_\_\_\_\_ no.
13. Media relations:  
Information organization  
Report to incident commander \_\_\_\_\_  
Report to agency supervisor \_\_\_\_\_
14. known local safety hazards:
15. Local political considerations, attitudes of local residents:
16. Procurement unit leader assigned  
Pay rules peculiar to agency:
17. Other agencies on fire:  
Agency representative:
18. Transportation routes:
19. Air operations:
  - a. Air tankers assigned:
  - b. Effectiveness of air tankers to date:
  - c. Helicopters assigned:
20. Personnel on fire (general):
21. Equipment on fire (general)
22. Supply system to be used (local supply, cache, procedures):
23. Land status:
24. Physical condition of present suppression resources:
25. Agency personnel available (condition):
26. Rehabilitation policies (anything the team may need to know about);
27. Estimated time when team will assume command:
28. Medical emergencies:



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PLANNING

---

- a. Nearest hospital:
  - b. Nearest burn center
  - c. Life Flight available:
  - d. Procedures:
29. Law enforcement coordination:



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## STRATEGY AND PLANNING

### STRATEGY AND PLANNING

#### Slide Notes

##### Slide 1

**STRATEGY**

The overall objectives for managing the incident given the directions from the Agency Administrator/IC

SLIDES.PPT  
March 21, 1999 Agenda 2  
Slide 2-1

---

---

---

---

---

---

---

---

##### Slide 2

**OSC Role in Strategy Meeting**

- Be well prepared
- Present summary of current situation
- Review expected:
  - Location of control lines
  - Size
  - Resources needed
  - Anticipated problems
  - Fire behavior
- Review safety issues
- Review expected duration/time frame to control

SLIDES.PPT  
March 21, 1999 Agenda 2  
Slide 2-2

---

---

---

---

---

---

---

---

##### Slide 3

**PLANNING MEETING**

A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning

- Generally held for each planned Operational Period

SLIDES.PPT  
March 21, 1999 Agenda 2  
Slide 2-3

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## STRATEGY AND PLANNING

Slide 4

**PLANNING**

- Ordered sequence of Events over a specific time period to meet the Objectives of the Incident.
- The Incident Commander develops the broad strategic objectives based on direction from the Agency Administrator.

SLIDES/PTT  
May 21, 1999 Appendix A  
8.6.2-1

---

---

---

---

---

---

---

---

Slide 5

**OSC Role Prior to Planning Meeting**

- Complete ICS 215
- Works jointly with Safety Officer to develop ICS 215A
- Develop mitigation alternatives for any safety concerns
- Ensure air operations and other functions can support planned tactical operations

SLIDES/PTT  
May 21, 1999 Appendix A  
8.6.2-1

---

---

---

---

---

---

---

---

Slide 6

**OSC May Be Asked to Present**

• Current location/ status of resources	• Safety concerns
• Current and anticipated accomplishments	• Resource needs
• Division/Branch boundaries	• Special risks and values
• Identify helispots and drop-points	• Need for Technical Specialists
	• Need for unified command

SLIDES/PTT  
March 27, 1999 Appendix A  
8.6.2-1

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## STRATEGY AND PLANNING

Slide 7

OPERATIONAL PLANNING WORK SHEET									
UNIT	OPERATIONS	STRATEGY	ACTIVITIES	RESOURCES	STATUS	START TIME	END TIME	COMMENTS	APPROVAL
IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1
IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2
IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3
IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4
IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5
IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6
IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7
IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8
IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9
IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10

IC 1000 PPT  
March 21, 1999  
Appendix A  
Slide 2-1

---

---

---

---

---

---

---

---

Slide 8

**LCES**

LCES, Hazardous Conditions, and Safety Concerns are analyzed and mitigated on the ICS 215A.

Once Hazards and Mitigation Measures are identified, they must be documented on the ICS 204's, which is the Responsibility of the Planning Section.

IC 1000 PPT  
March 21, 1999  
Appendix A  
Slide 2-2

---

---

---

---

---

---

---

---

Slide 9

LOSS ANALYSIS OF TACTICAL APPLICATIONS									
UNIT	OPERATIONS	STRATEGY	ACTIVITIES	RESOURCES	STATUS	START TIME	END TIME	COMMENTS	APPROVAL
IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1	IC 1
IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2	IC 2
IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3	IC 3
IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4	IC 4
IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5	IC 5
IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6	IC 6
IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7	IC 7
IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8	IC 8
IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9	IC 9
IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10	IC 10

IC 1000 PPT  
March 21, 1999  
Appendix A  
Slide 2-3

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

## STRATEGY AND PLANNING

Slide 10

### Review OSC's Responsibilities for Development of the IAP

- Review common responsibilities
- Establish division boundaries
- Identify staging area locations
- Identify transportation needs
- Identify drop-off/pick-up points
- Establish work assignments and strike team needs
- Develop special instructions
- Ensure completion of ICS-220
- Ensure completion of ICS-215A, in conjunction with Safety Officer
- Review and recommend releases of resources
- Review communication plan: Compare plan to division assignment sheet ICS-209 & 204
- Report special events to IC

INCIDENT SYSTEM  
May 11, 1997

Appendix A  
Page 3-10

---

---

---

---

---

---

---

---

Slide 11

### OSC MONITORS THE IAP FOR:

- Accuracy
- Efficiency
- Effectiveness

INCIDENT SYSTEM  
May 11, 1997

Appendix A  
Page 3-11

---

---

---

---

---

---

---

---







# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

STRUCTURE PROTECTION  
PLANNING

## STRUCTURE PROTECTION PLANNING

### Slide Notes

#### Slide 1

TWO GENERAL  
MODES OF OPERATION

- IMMEDIATE ATTENTION,  
SHORT PREPARATION TIME
- PLANNED EVENT

S4300204.ppt  
March 12, 1999 Page 6 of 6  
2-6-2-1

---

---

---

---

---

---

---

---

#### Slide 2

FIND AND MEET  
LOCAL COOPERATORS

- LOCAL FIRE  
DEPARTMENTS/FIRE DISTRICTS
- LAW ENFORCEMENT
- UTILITIES

S4300204.ppt  
March 12, 1999 Page 6 of 6  
2-6-2-2

---

---

---

---

---

---

---

---

#### Slide 3

SURVEY THE  
AREA OF CONCERN

- UTILIZE LOCAL PERSONNEL AS  
ESCORTS/DRIVERS
- OBTAIN LOCAL AREA MAPS
- SURVEY THREATENED AREAS
- INCLUDE RESOURCE INFORMATION  
ON ICS 215

S4300204.ppt  
March 12, 1999 Page 6 of 6  
2-6-2-3

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

STRUCTURE PROTECTION  
PLANNING

Slide 4

**PAY ATTENTION TO:**

- AREAS OF REFUGE
- SAFETY ZONE
- TRIAGE STRUCTURES, IMPROVEMENTS, STREETS
- ADDITIONAL RESOURCES AVAILABLE

S430204.ppt  
March 12, 1999 Page 16 of 24

---

---

---

---

---

---

---

Slide 5

**PRODUCE A THREAT ANALYSIS**

- UTILIZE INPUT FROM TECHNICAL SPECIALISTS
- MAP THREATENED AREAS
- DEVELOP CONTINGENCY PLANS
- DETERMINE TRIGGER MECHANISM
- REQUIRED RESOURCES
- CONSIDER ASSIGNING STRUCTURE PROTECTION BRANCH DIRECTOR ON COMPLEX INCIDENT

S430204.ppt  
March 12, 1999 Page 17 of 24

---

---

---

---

---

---

---

Slide 6

**STRUCTURE PROTECTION PLAN FORMAT**

- PROBLEM STATEMENT
- OBJECTIVES OF PLAN
- PRE-SUPPRESSION ACTIONS
- TACTICS
- TACTICAL GUIDELINES
- APPENDICES
  - MAPS, TRIAGE GUIDES, SEARCH MARKING SYSTEMS, SAFE REFUGE AREAS, ESCAPE ROUTES

S430204.ppt  
March 12, 1999 Page 18 of 24

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

STRUCTURE PROTECTION  
PLANNING

Slide 7

Consider Sensitivity in regard to Terminology used to describe Indefensible Structures

Avoid such terms as:

- Losers
- Write-Offs
- Hopeless
- History

SL 300-000000  
March 12, 1999 Appendix A  
SL 300-2-7

---

---

---

---

---

---

---

Slide 8

OBTAIN IC APPROVAL AS TO FORM/CONTENT OF STRUCTURE PLAN

SL 300-000000  
March 12, 1999 Appendix A  
SL 300-2-7

---

---

---

---

---

---

---

Slide 9

INVOLVE FINANCE

- COST
- CLAIMS
- COMPENSATION

SL 300-000000  
March 12, 1999 Appendix A  
SL 300-2-7

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

STRUCTURE PROTECTION  
PLANNING

Slide 10

**INVOLVE LOGISTICS**

- PARKING
- SUPPORT
- FEEDING
- REHAB OF PERSONNEL
- TRAFFIC

SLIDES10.ppt March 12, 1999 Page 10 of 11

---

---

---

---

---

---

---

Slide 11

**INVOLVE PLANS**

- RESOURCE STATUS
- SITUATION STATUS
- POTENTIAL DEMOBILIZATION

SLIDES11.ppt March 12, 1999 Page 11 of 11

---

---

---

---

---

---

---

Slide 12

**INVOLVE COMMAND STAFF**

- LIAISON
- SAFETY
- INFORMATION

SLIDES12.ppt March 12, 1999 Page 12 of 11

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## STRUCTURE PROTECTION PLANNING

Slide 13

**ORDER OVERHEAD FOR  
ADVANCED PLANNING**

- CONDUCT STRUCTURAL TRIAGE
- CONDUCT SURVEY OF WATER SUPPLY
- LCES
- EVACUATION ROUTES
- RESOLVE IDENTIFIED PROBLEMS:
  - HAZMAT
  - ACCESS
- USE TO FINE TUNE STRUCTURAL PROTECTION PLAN

S430204.ppt  
March 12, 2000 Appendix A  
Slide 24-13

---

---

---

---

---

---

---

Slide 14

**FAMILIARIZE YOURSELF WITH  
MUTUAL AID AGREEMENTS**

- IDENTIFY JURISDICTIONAL  
MUTUAL AID COORDINATOR
- PRE-PLAN NOTIFICATION  
PROCESS AND CHANNELS

S430204.ppt  
March 12, 2000 Appendix A  
Slide 24-14

---

---

---

---

---

---

---

Slide 15

**MEDIA COORDINATION**

- STRUCTURES THREATENED EQUALS  
MEDIA EVENT
- ANTICIPATE HIGH MEDIA PRESENCE
- PARKING/CONGESTION
- UNSUPERVISED/UNPROTECTED MEDIA  
PERSONNEL
- MEDIA HELICOPTERS/AIRCRAFT  
VIOLATING INCIDENT AIRSPACE

S430204.ppt  
March 12, 2000 Appendix A  
Slide 24-15

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

STRUCTURE PROTECTION  
PLANNING

Slide 16

**COORDINATE WITH UTILITIES**

- WATER
- ELECTRIC
- GAS/PROPANE
- PHONES
- CABLE TV
- WASTE WATER TREATMENT (SEWAGE)

© 2000 by S430 Operations Section Chief - ALL RISK

---

---

---

---

---

---

---

Slide 17

**PROBLEMS COORDINATING WITH LAW ENFORCEMENT**

- OBTAINING COOPERATION/AGREEMENT MAY BE DIFFICULT
- UNFAMILIAR WITH ICS
- THEY'RE NOT IN CHARGE
- TOO BUSY FOR A POTENTIAL THREAT

© 2000 by S430 Operations Section Chief - ALL RISK

---

---

---

---

---

---

---

Slide 18

**BUILD GOOD WORKING RELATIONSHIP WITH LAW ENFORCEMENT**

- RESPONSIBLE FOR EVACUATION
- GIVE THEM AN ASSIGNMENT AND FEELING OF IMPORTANCE
- INCORPORATE THEM INTO THE INCIDENT STRUCTURE
- MAINTAIN CONTACT
- UTILIZE LIAISON OFFICER AND AGENCY REPRESENTATIVES TO ASSIST
- PROVIDE THEM THE OPPORTUNITY FOR INPUT

© 2000 by S430 Operations Section Chief - ALL RISK

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

## STRUCTURE PROTECTION

### I. TRIAGE

The goal is to do the most good with what you have and not waste limited resources or time

Three categories:

- ✓ Needing little or no attention for now
- ✓ Needing protection but savable
- ✓ Indefensible

Five factors that should be considered during triage:

#### 1. The Structure

- Roof
- Siding
- Open gables
- Vents without screens
- Overhanging decks
- Windows
- Position on slope

#### 2. Surrounding Fuels

- Type
- Size and arrangement
- Age
- Proximity
- Wood piles
- Defensible space
- LPG, diesel, gas storage

#### 3. Fire Behavior

- Rate of spread and direction
- Topographic influence
- Weather influence
- Flame length
- Spotting fire brands
- Timing



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

---

- Natural or other barriers

## 4. Resources – What is Available and When

- On site
- Kind and type available
- Number
- Where they are
- Response time
- Capabilities (mobility/foam/retardant)

## 5. Firefighter Safety

- Ingress/egress routes
- Power lines
- Smoke visibility
- Hazardous materials
- LPG or fuel storage

## II. INTERFACE OPERATIONS

Problems commonly encountered:

Traffic congestion

- ❖ Turn traffic problem over to law enforcement or
- ❖ Formulate traffic plan

Concerned or panicky residents

- ❖ Advise them on evacuation routes
- ❖ Only law enforcement can make someone leave
- ❖ Remaining residents should be advised on safety considerations

Lack of information on access and/or number of structures

- ❖ Recon the area, establish priorities

Structure triage

- ❖ Each arriving unit may have to perform structure triage



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

## III. STRUCTURE PREPARATION

Clear roof area

Remove or separate intermediate fuels

- Move wood piles
- Remove flammable awnings
- Remove fence connected to house

Cover exterior openings or potential openings

- Vents and ducts
- Windows
- Large openings-doorways or breezeways
- Cooler pads – cover or turn on water pump only

Prepare interior of structure

- Remove lightweight curtains
- Close heavyweight curtains, blinds, or drapes
- Close interior doors
- Turn off fans and coolers
- Turn off gas
- Leave electricity on
- Leave porch light and central interior light on
- Do not lock doors

Vehicle and miscellaneous preparations

- Place homeowner ladder on side away from fire
- Park private vehicles in sheltered location
- Park vehicle headed out – with keys in it



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

## SETTING UP FOR DEFENSE

- ◆ Spot engine in protected area
- ◆ Do not block access or exits
- ◆ Consider using 1 ½" hose lines
- ◆ Use smaller hose only if certain it will be adequate
- ◆ Deploy two lines, one around each side of the structure
- ◆ Try to keep lines shorter than 200 feet
- ◆ have additional line available for roof fires
- ◆ Always keep engine protection line available
- ◆ When fires on the roof are small – attack quickly!
- ◆ If fire has spread across the roof, the structure is seriously threatened; if you are not trained or equipped for interior firefighting, the structure is essentially lost
- ◆ Wise water use is critical to the success of structure protection efforts
- ◆ Always keep 100 gallons in reserve for your protection



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

---

## STRUCTURE PROTECTION

Structures exposed to wildland fire in the urban interface can and should be considered as another fuel type. Size-up and tactics should be based upon fuels, weather, and topography, just as those criteria would be applied to a wildland fire.

### I. ADDITIONAL GENERAL SAFETY CONSIDERATIONS

- A. Protect your engine as well as structure. Keep the hose bed covered, compartments closed, and windows rolled up.
- B. Park your engine in a safe area, with your front always toward the escape route. Don't block escape routes. Back into driveways or narrow access roads.
- C. Avoid excessive idling with lights, radios, etc., on unless you can maintain adequate RPMs with a hand throttle.
- D. When moving around in smoky conditions, keep your headlights and red lights on.
- E. Keep at least one length of charged 1 ½" line looped on top of the engine for protection of your engine and your crew.
- F. Never pass up an available water source when your tank is less than full.
- G. Never leave your equipment unattended, unless you are parked in a safe area such as the burn, cleared areas, or paved, gravel openings, etc.
- H. Maintain control of your people. Keep calm; display a positive attitude and maintain communications.
- I. Attempt to remain out of the smoke from burning structures or vehicles (possibly toxic).
- J. Post lookouts; watch for downwind roof fires on unexposed houses.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

## K. Stay out of possible lethal areas.

- ✓ Saddles
- ✓ Chimneys
- ✓ Chutes
- ✓ Extraordinary fuel buildups
- ✓ Area where you would not position your personnel or public
- ✓ Structure collapse zones

## II. IF TRAPPED BY FIRE

Take refuge in the structure. It doesn't burn instantly and provides protection from the fire outside. If you leave your engine, park it in as safe a place as possible.

Or

Take refuge in your engine. If it is in a good location, stay there! If not, keep moving and seek a place where the fire is less intense. Be aware that visibility will be poor.

1. Keep the pump running and use the looped 1 ½" line to deploy a fog pattern over the cab.
2. If available, take SCBA into the cab and use them as necessary to protect yourself from smoke.
3. Use fire shelters or salvage covers to reflect radiant heat from the windows.
4. Request airdrops.
5. Stay inside the cab until you are sure it is safe to go outside. If the engine is catching fire, so will you if you go outside. The cab will normally burn last, and may buy you time until things outside start to cool down.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

---

Ensure everyone has a fire shelter and is properly trained to use it. This is your last resort!

- Time water application with the passage of the heat wave
- Wetting down is usually a waste of time – it can, in some instances, reduce ignition but should only be done if water supply is not a problem
- Water can be used to reduce or limit the potential buildup of heat
- Water can knock down the fire in surface fuels
- Water can prevent fire from getting into heavy troublesome fuels such as wood piles
- Remain as mobile as possible
- Use “hit and run” tactics as much as possible

During the peak of the heat and smoke it is very tempting to squirt water at the wall of flames, hoping that it will somehow improve things; but it will probably do little good and will waste water.

Wait until you have an opportunity to do some good with your water.

To summarize, when the fire is controllable, limit the heat buildup by keeping fire out of heavier fuels. Work on the fire where it has moved into lighter fuels. At the other extreme, wait until the worst of the heat wave passes, then put water on the structure or on threatening fuels. In between the extremes, apply water only if it significantly reduces the heat impinging on the structure.

### III. WHEN IS IT TIME TO WITHDRAW

No simple rule will tell you when to try, or at what time to discontinue a structure defense effort. Listed below are some factors or conditions worth noting. If any of these apply, then the attempt to save that structure deserves careful consideration before continuing.

A. The fire is making significant runs (not just isolated flare-ups) in the standing live fuels, e.g., brush or tree crowns, and the structure is within 1 or 2 flame lengths of those fuels.

B. Spot fires are igniting around the structure or on the roof and beginning to grow faster than you can put them out.

C. Your water supply will not allow you to continue firefighting until the threat subsides.

D. You cannot safely remain at the structure and your escape route could become unusable (blocked by fire, traffic, falling or rolling obstacles, etc.)



## INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

---

E. The roof is more than  $\frac{1}{4}$  involved, in windy conditions, and other structures are threatened or involved.

F. Interior rooms are involved and windows are broken, in windy conditions, and other structures are threatened or involved.

If things change, or if you are losing the battle, rethink your plan, but do not continually question or regret your decisions. Time wasted in indecision is very costly. This is not a situation that allows lengthy deliberations. The situation does not allow more than a best judgement and a good effort.

Make decisive judgements and make them without undue delay. Then, go to work.



## California Fire Services User's Guide To:

- Disaster Declarations
- Agreements for Cooperation

### KEY TERMS

- Mutual Aid
  - Assistance By Hire
  - Local Agreements
    - Cooperative Fire Protection Agreement (4 Party Agreement)
    - Direct Protection Area (DPA)
    - Cooperative Agreement For Local Government Fire Suppression Assistance (5 Party Agreement)

### INTENT

*This document is designed to familiarize the fire agencies statewide with various means of sending and receiving aid to wildland fire incidents and some examples of how reimbursement may or may not occur. This is not intended to define the only means by which this may occur or to set policy on these issues.*

### DISASTER DECLARATIONS

There are several levels of disaster declarations and each level presents different possibilities of response, fiscal responsibilities and reimbursements (if any).

**Local Declaration.** A local disaster can be declared by the local governing body, such as but not limited to the Mayor, City Council, County Board of Supervisors. A local declaration will suspend the rules with respect to bidding of short-term contracts for services required to assist in mitigating the emergency and provide temporary relief from the California Environmental Quality Act (CEQA) and other items as specified in your local ordinances. Should this be the highest level of declaration, there is no reimbursement from the next level of government.

**Gubernatorial Declaration.** Prior to the Governor of the State declaring a disaster, the local government must show evidence that local resources are expended and that the capabilities of the resources will not provide timely relief. Declarations from the Governor may provide qualifying State funds to local governments and assisting agencies for overtime and mileage cost directly attributable to the responses. At this level of declaration, the State may reimburse 75% of the eligible costs and other expenses, the remaining 25% is the fiscal responsibility of the local government.

**Presidential Declaration.** Prior to a Presidential Declaration of Disaster being issued the same basic criteria must be met by the State. A Presidential Declaration may provide qualifying Federal funds to State and local governments. The funds may provide a wide variety of relief, depending on the extent and types of disaster. At this level of declaration, the Federal Government may reimburse 75% of costs associated with overtime, mileage, and other expenses directly attributable to responses. The State is responsible for reimbursing 75% of the remaining 25% (18.75%) and the local government is responsible for the remaining 6.25%.

## Agreements for Cooperation

It's in the best interest of both State, Federal, and local government agencies to cooperate to achieve objectives of common interest and concern. The concept of a functionally integrated fire protection system, involving Federal, State and local government resources, is the most effective method of delivering fire protection where life, property and natural resource values are at risk.

There is an array of agreements at various levels of governments and between agencies that allow for and provide assistance during times of emergencies. These agreements may provide assistance in the form of **MUTUAL AID**, where assistance is rendered free of charge (non-reimbursable, generally a short duration assignment) or **ASSISTANCE BY HIRE** where the assistance will be paid for (reimbursed) by the user.

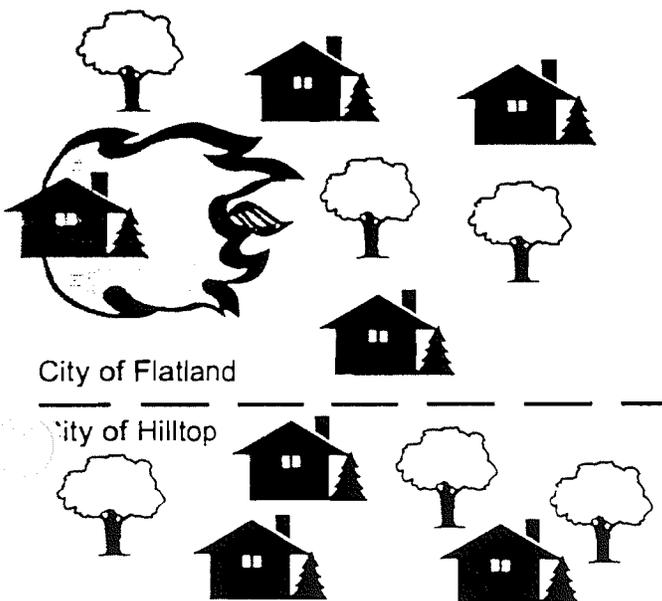
**LOCAL AGREEMENTS** are voluntary agreements between two or more local entities that describe the initial responses to incidents occurring within adjoining areas or in areas of close proximity. The agreements will determine whether the responses are mutual aid, or assistance by hire.

The **COOPERATIVE FIRE PROTECTION AGREEMENT**, referred to as the **4 PARTY AGREEMENT**, is an agreement between the California Department of Forestry and Fire Protection, U.S. Forest Service, Bureau of Land Management and the National Park Service (collectively known as Forest Agencies). The Forest Agencies acknowledge that differences exist between agency missions, but that each will represent the other agency's interests and must possess the recognition, knowledge and understanding of each other's mission objectives, authorities and policies. Wildland fires on intermingled or adjacent lands, managed by State and Federal Agencies, present a threat to the lands of the other. State and Federal Agencies have recognized a need to assist each other on suppression of wildland fires on lands adjacent to each other. These lands are commonly referred to as **DIRECT PROTECTION AREA (DPA)**. Basically, DPA is described as an area delineated by boundaries regardless of statutory responsibility and the protection is assumed by administrative units of either the Federal Agencies or the State. The agency with the direct protection responsibility, known as the Protecting Agency, has assumed both fire suppression and fiscal responsibilities as agreed.

However, at times of severe wildland fire conditions the Forest Agencies may have a need of local government apparatus to provide structural protection or to supplement their respective agency-controlled resources to aid in the suppression effort. The **COOPERATIVE AGREEMENT FOR LOCAL GOVERNMENT FIRE SUPPRESSION ASSISTANCE**, referred to as the **5 PARTY AGREEMENT**, is the instrument that endorses this cooperation. The agreement makes California Office of Emergency Services and/or various local government jurisdictions emergency apparatus, in the spirit of cooperation, available for dispatch and use through the STATE FIRE & RESCUE MUTUAL AID SYSTEM, to the Forest Agencies. Reimbursement begins 12 hours after the initial dispatch and is retroactive to the time of the initial dispatch. If the duration of the assignment less than 12 hours, there is no reimbursement.

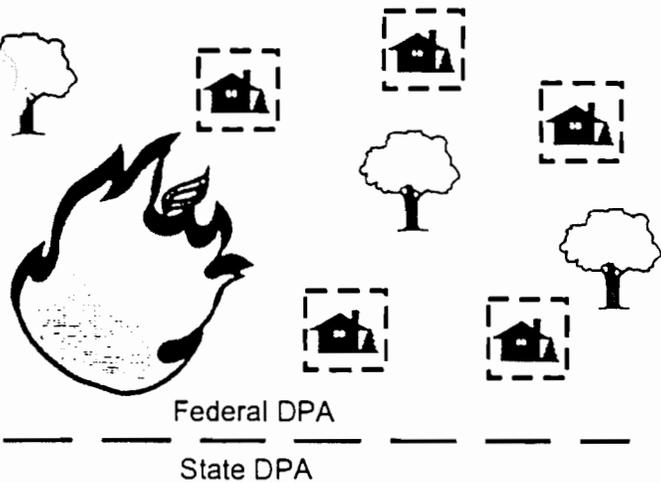
In other words, the 5 PARTY AGREEMENT allows the Forest Agencies to tap into the pool of available resources through the STATE FIRE & RESCUE MUTUAL AID SYSTEM. In the truest of terms Forest Agencies are not signatory to the STATE FIRE & RESCUE MUTUAL AID SYSTEM, and do not actively participate by providing resources but are frequent users of the systems.

THE FOLLOWING SIX SCENARIOS DO NOT SET PRECEDENT.  
Each real incident will have its own unique decisions.



The Cities of Hilltop and Flatland are adjacent neighbors. A structure fire in Flatland, close to the boundary with Hilltop, has spread into the surrounding wildlands of the city LRA. *The location of the incident is covered by a local Voluntary Mutual Aid Agreement developed by both cities during joint emergency operations planning.* Both cities respond with significant fire fighting resources to deal with the threat. There is no involvement from wildland (forest) agencies. Eventually the wildland fire is successfully controlled before actually burning into Hilltop's jurisdiction. The City of Hilltop incurred unbudgeted expenditures associated with their response to assist their neighbor. This expense happened in spite of the fact that Hilltop did not suffer any loss within their area. *The City of Hilltop was not reimbursed for these unplanned costs.*

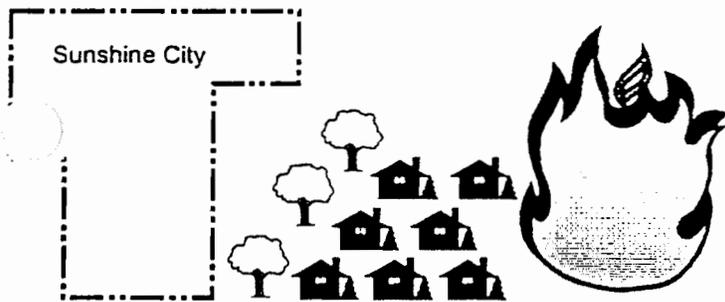
Mutual Aid at the local government level, occurs daily throughout the State. This process is designed to provide assistance from one neighboring jurisdiction to another, related to numerous fire service activities. The premise is that no community has the resources sufficient to cope with all emergencies for which potential exists. In the spirit of cooperation Hilltop assisted Flatland without reimbursement. Next time it may be the other way around.



The scattered houses are on SRA land totally within the Federal DPA. The Federal agency (FED) has wildland fire protection responsibility for all federal lands, private lands in this area are SRA. The county fire department (CTY) has structure protection responsibility in this area. The fire is managed by a Unified Command with county fire department concerns being met by participating as a member of this Unified Command. The IC's jointly agreed to order five (5) strike teams of engines for structure protection through the Unified Ordering Point to assist in perimeter control. The strike teams come under the 5 Party Agreement. The strike teams are reimbursed under this agreement by the federal agency who ordered them. Any County fire department resources responding as part of these strike teams are not reimbursed.

Example of the request for 5 strike teams would be Incident #FED-12345, Request FED-E-10 through FED-E-14 for 1 each S/T Engine Type 1 or Type 2 per request number.

Sunshine City is an incorporated city with its own fire department (SSC). The structures located outside the city are protected by the county (CTY), but are on SRA lands within the federal DPA. The fire is managed as a Unified Command between the federal agency, county fire, and the city. The joint decisions was for the federal agency to order one strike team of engines to protect the structures in close proximity to the wildland fire and assist with perimeter control and the city to order 10 strike teams of engines to protect the city. The federal order is through the 5 Party Agreement, and the city order is under State Master Mutual Aid Agreement. The one strike team is reimbursed by the federal agency and the 10 strike teams are furnished at no cost to the city. The county resources that assist in the effort will not be compensated by the Federal agency.



Example of the federal request for 1 strike team would be Incident #FED-12345, Request FED-E-10 for 1 each S/T Engine Type 1 or Type 2 per request number.

Example of the city request for 10 strike teams would be Incident #FED-12345, Request SSC-E-11 through SSC-E-20 for 1 each S/T Engine Type 1 or Type 2.

*(In this scenario it is important to recognize that it is a unified command and it was a joint decision for the city to order the engines to protect the city through State Master Mutual Aid.)*

CDF has six (6) contract counties (LAC, KRN, ORC, VNC, SBC, & MRN) to provide wildland fire protection for State responsibility lands in their counties.



A fire is burning SRA land in Los Angeles County (LAC) and an area of LRA needs protection. The CDF Agency Representative and the Incident Commander have negotiated that 5 strike teams of engines will be ordered under Master Mutual Aid and 5 strike teams of engines ordered under the 5 Party Agreement.

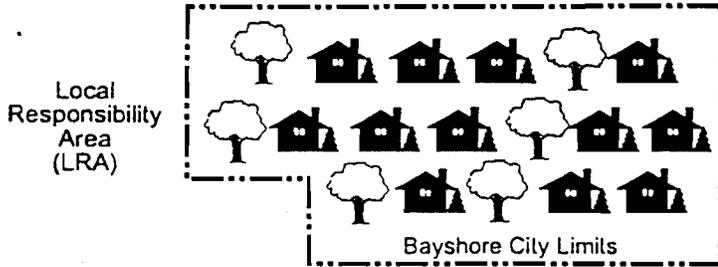
Example of the request for 5 strike teams of engines, Master Mutual Aid, is Incident #LAC-1234, Request LRA-E-1 through LRA-E-5 for 1 each S/T Engine Type 1 or Type 2 per request number.

Example of the request for 5 strike teams of engines, 5 Party Agreement, is Incident #LAC-1234, Request SRA-E-6 through SRA-E-10 for 1 each S/T Engine Type 1 or Type 2 per request number.

*(Local government resources ordered by Forest agencies for assistance may not always be under the provisions of the 5 Party Agreement. Resources may be provided to the Forest Agencies through local Assistance by Hire or Mutual Aid agreements.)*



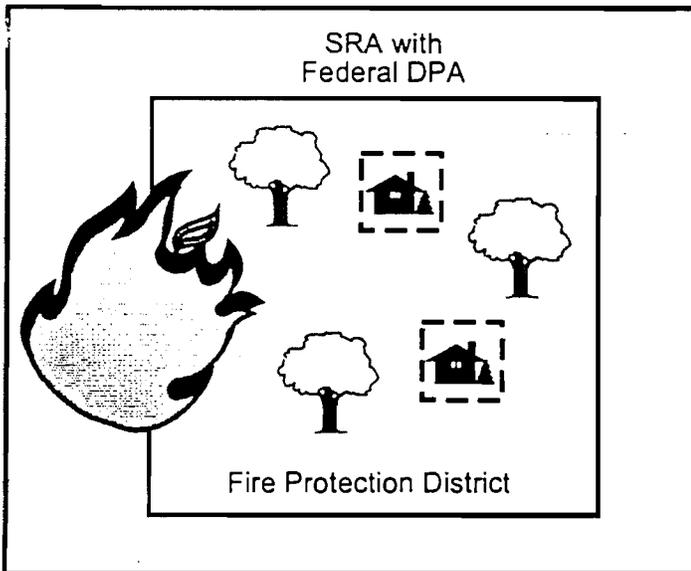
National Forest Boundary  
Federal DPA



The City of Bayshore (BAF) is an incorporated city and contracts with the County for structural fire protection. The Bayshore city limits stop at the USFS Direct Protection Area (DPA) boundary. A wildland fire starts on Forest Service land protected by the Forest Service (FED). The fire spreads rapidly and is threatening the City of Bayshore. A unified command is established between the Forest Service and the County Fire Department (CTY). A joint decision by the Incident Commanders is made to order 10 strike teams of engines for structure protection through the 5 Party Agreement for perimeter control. Because of the threat and risk to the Bayshore City LRA, there is joint IC's agreement to share the cost of the 10 strike teams equally, 50%/50%.

Example of the federal request for 5 strike teams of engines would be Incident #FED-12345, Request FED-E-10 through FED-E-14 for 1 each S/T Engine Type 1 or Type 2 per request number.

Example of the county request for 5 strike teams of engines would be Incident #FED-12345, Request BAF-E-15 through BAF-E-19 for 1 each S/T Engine Type 1 or Type 2 per request number.



A wildland fire is burning on SRA lands within Federal DPA. The fire is also within a Fire Protection District. Forest Agencies normally will not enter into a Unified Command with a Fire Protection District unless there is an agreement to share costs; or if there are other reasons for the Fire Protection District to enter into a unified command.

Incident Command has made a decision to order resources through the 5 Party Agreement consistent with Forest Agency's agreements of structure protection on SRA lands. Local agency resources ordered under the 5 Party Agreement will be reimbursed within the terms of the agreement. If the Fire Protection District chooses not to be a part of the Incident Command and they order local government resources via independent dispatch channels the costs of those resources will not be the responsibility of any agency involved in the management of the incident.

*This document is not policy. It is each fire agencies responsibility to understand the many procedures of providing and receiving assistance. The financial obligations when involved with emergency/disaster responses are variable. If you have other questions you should contact your agency administrators.*



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

DEMOBILIZATION PLANNING

## DEMOBILIZATION PLANNING

### Slide Notes

#### Slide 1

**DEMOBILIZATION**

- RESOURCES MAY BE DEMOED PRIOR TO THE COMPLETION OF THE INCIDENT
- DEMOB PROCEDURES/PRIORITIES MUST BE UNDERSTOOD EARLY IN THE INCIDENT
- PLAN AHEAD
- OBTAIN JURISDICTION AGENCY INPUT
- DEVELOP INCIDENT RESOURCE PROJECTION MATRIX (ICS 215M)
- OCCURS THROUGHOUT THE INCIDENT

SLIDES1.ppt  
March 21, 1999 Page 1 of 4  
03-21-99

---

---

---

---

---

---

---

---

#### Slide 2

**THE DEMOBILIZATION PLAN**

- DEVELOPED BY PLANNING SECTION CHIEF AND APPROVED BY IC
- IDENTIFIES PROCEDURES/PRIORITIES FOR DEMOB
- PRIORITIES SHOULD NOT BE CONSIDERED DEMANDS

SLIDES2.ppt  
March 21, 1999 Page 1 of 4  
03-21-99

---

---

---

---

---

---

---

---

#### Slide 3

**OSC'S RESPONSIBILITIES FOR DEMOBILIZATION**

- PROVIDE INPUT
- IDENTIFY EXCESS RESOURCES
- IDENTIFY TIME/DATE OF AVAILABILITY FOR RELEASE
- REVIEW DEMOB PLAN FOR ACCURACY
- CANCEL/DELAY DEMOB IF SITUATION CHANGES
- ENSURE SUBORDINATES ARE INFORMED AND FOLLOW DEMOB PROCEDURES

SLIDES3.ppt  
March 21, 1999 Page 1 of 4  
03-21-99

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

DEMOBILIZATION PLANNING

Slide 4

## CONSIDERATIONS IN PLANNING FOR DEMOBILIZATION

- BANDING OF RESOURCES
- RESOURCE COST
- PERFORMANCE OR EFFECTIVENESS OF PERSONNEL OR EQUIPMENT
- AGENCY POLICY AND MOU'S
- FATIGUE AND LENGTH OF ASSIGNMENT
- OBTAIN INPUT FROM AGENCY REPRESENTATIVES

SLIDES.GRP  
JANUARY 27, 2000

SLIDES.GRP  
SLIDE 4

---

---

---

---

---

---

---

---



## **INCIDENT RESOURCE PROJECTION MATRIX**

### **ICS Form 215M**

The Incident Resource Projection Matrix, ICS Form 215M, is used to project resource needs by Operational Period. It is valuable to use during mobilization, continued static operations and during demobilization. The form is designed to be a resource projection matrix that provides a general idea of critical resources (like kind and type) needed by Operational Period.

Steps to use the Incident Resource Projection Matrix, ICS Form 215M:

1. Complete the top incident information on the form.
2. Determine what are critical resource kinds and types and enter the same, one resource kind and type per line, in the critical resource column.
3. Determine the length of Operational Period and enter the same information with one Operational Period per column.
4. Estimate the number of critical resources needed per Operational Period and enter under the appropriate Operational Period date and time.
5. Update the form every Operational Period by revising critical resource needs.
6. When nearing the demobilization phase of an incident, use the form to estimate critically needed operational resources. Those resources, in addition to those identified for each future Operational Period, can be identified and their identifications provided the Demobilization Unit Leader for consideration for incident release.





**ICS FORM 215M  
COMPLETION EXAMPLE**

Complete general information.

Show expected operational periods

Show critical resources by kind and type expected per operational period.

Show special events & probable containment & control times

INCIDENT RESOURCE PROJECTION MATRIX		1. INCIDENT NAME		2. DATE PREPARED						
		MIDDLEBURY BTU-01234		JANUARY 4, 1998						
CRITICAL RESOURCE (List by individual kind/type)		OPERATIONAL PERIOD (Show date/time of operational period)								
		1/4/98 DAY	1/4/98 NIGHT	1/5/98 DAY	1/5/98 NIGHT	1/6/98 DAY	1/6/98 NIGHT	1/7/98 DAY		
BRANCHES	NEED	3	1	3	1	0	0	0		
DIVISIONS/GROUPS	NEED	11	4	11	3	7	3	2		
ENGS, TYPE 1	NEED	12	5	15	3	9	3	4		
TRUCKS, TYPE 1	NEED	6	3	6	2	2	0	1		
RESCUES, TYPE 2	NEED	5	2	5	1	2	0	1		
USAR TEAMS, TYPE 1	NEED	3	1	3	1	2	1	1		
CREWS, TYPE 1	NEED	8	4	8	2	6	1	6		
BREATHING SUPPORT UNITS	NEED	0	4	2	1	1	1	1		
	NEED									
	NEED									
215M ICS 12-97	NOTES FOR EACH OPERATIONAL PERIOD	X START RESCUE			START DEMOB				LAST DAY	PREPARED BY (NAME & POSITION) JOHN R. HAWKINS OPS SECTION CHIEF JAN 4, 1998, 1430 HRS.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SUPERVISION AND  
COMMUNICATION

## SUPERVISION

### SUPERVISION AND COMMUNICATION

#### Slide Notes

Slide 1

**UNIT 3 OBJECTIVES**

- DEMONSTRATE THE OSC'S ROLE IN THE OPERATIONAL PERIOD BRIEFING
- DESCRIBE HOW TO MANAGE AND ADJUST THE OPERATIONS ORGANIZATION
- DESCRIBE WHY AND WHEN TACTICS MAY NEED TO BE ADJUSTED
- DESCRIBE THE ROLE OF THE OSC IN RISK ASSESSMENT AND SAFETY MANAGEMENT

S430031.ppt  
March 11, 1999 Appendix A  
Slide 21-2

---

---

---

---

---

---

---

---

Slide 2

**DEFINITION OF SUPERVISOR**

SUPERVISOR MEANS ANY INDIVIDUAL, REGARDLESS OF THE JOB DESCRIPTION OR TITLE, HAVING AUTHORITY, IN THE INTEREST OF THE EMPLOYER, TO DIRECT HUMAN RESOURCES

S430031.ppt  
March 11, 1999 Appendix A  
Slide 21-2

---

---

---

---

---

---

---

---

Slide 3

**INSTRUCTIONS  
EXPECTATIONS**

- MUST COMMUNICATE INSTRUCTIONS AND EXPECTATIONS WELL
- MUST DELEGATE EFFECTIVELY

S430031.ppt  
March 11, 1999 Appendix A  
Slide 21-2

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SUPERVISION AND  
COMMUNICATION

Slide 4

## EFFECTIVE DELEGATION

- EMPOWER SUBORDINATES
- LISTEN TO AND USE YOUR PEOPLE
- ASSIGN PERSONNEL ACCORDING TO THEIR QUALIFICATIONS, EXPERIENCE, AND ABILITY

S43001.sm  
March 10, 1999

Agenda A  
S430 21.2

---

---

---

---

---

---

---

Slide 5

## PHYSICAL ARRANGEMENTS

- AWAY FROM NOISE
- GOOD LIGHTING
- PA SYSTEM
- POSTING OF MAPS
- ELEVATED PLATFORM

S43001.sm  
March 10, 1999

Agenda A  
S430 21.2

---

---

---

---

---

---

---

Slide 6

## IAP'S AND MAPS

- ADEQUATE COPIES OF IAP'S
- HAND OUT IAP'S TO THOSE WHO ARE FILLING CRITICAL POSITIONS
- DISPLAY LARGE MAP OF INCIDENT
- POST COPIES OF CURRENT IAP AT INCIDENT BASE

S43001.sm  
March 10, 1999

Agenda A  
S430 21.2

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SUPERVISION AND  
COMMUNICATION

Slide 7

**PREPARATION AND  
PRESENTATION**

- REVIEW IAP AHEAD OF TIME
- BE ON TIME
- SPEAK CLEARLY
- REPEAT QUESTIONS FROM THE GROUP
- AVOID DISRUPTION OF BRIEFING

SI 000011.ppt  
March 10, 1999 Agenda A  
Slide 7-14

---

---

---

---

---

---

---

Slide 8

**PLANNING SECTION CHIEF  
FACILITATES**

PLANNING SECTION CHIEF  
FACILITATES THE  
OPERATIONAL PERIOD  
BRIEFING, AS WELL AS, ALL  
FORMAL MEETINGS IN ICS

SI 000011.ppt  
March 10, 1999 Agenda A  
Slide 7-14

---

---

---

---

---

---

---

Slide 9

**SITUATION UPDATE**

PRESENTED BY PREVIOUS  
OPERATIONAL PERIOD OSC  
AND/OR SITUATION UNIT  
LEADER

SI 000011.ppt  
March 10, 1999 Agenda A  
Slide 7-14

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SUPERVISION AND  
COMMUNICATION

Slide 10

## WHAT OSC COVERS

- GIVE OVERALL DIVISION/GROUP ASSIGNMENTS
- HAVE DIVISION/GROUP SUPERVISORS RAISE HAND
- ALLOW QUESTIONS
- FINISH WITH POSITIVE, MOTIVATING COMMENTS
- REFER BRANCH/DIVISION SUB-BRIEFINGS TO ANOTHER SITE

IS 100000.pdf  
March 11, 1999

Appendix A  
IS 100 211-10

---

---

---

---

---

---

---

Slide 11

## SUB-BRIEFING

- DONE AFTER OPERATIONAL PERIOD BRIEFING
- SPECIFIC DIRECTIONS GIVEN
- SPECIFIC QUESTIONS ANSWERED
- ADVISE EXPECTED TIMELINES

IS 100000.pdf  
March 11, 1999

Appendix A  
IS 100 211-11

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

MANAGING AND ADJUSTING  
THE OPERATIONS SECTION

## MANAGING AND ADJUSTING THE OPERATIONS SECTION

### Slide Notes

#### Slide 1

#### MULTIPLE OPERATIONS SECTION CHIEFS

- Work for IC as Equals
- One OSC supervises Tactical Operations
- One OSC does Planning and Coordination
- Only one OSC implements the IAP

S4300302.ppt  
March 17, 1999

Appendix A  
S430-2-2-1

---

---

---

---

---

---

---

#### Slide 2

#### PLANNING TIPS

- ORDER RESOURCES SUFFICIENT TO STAFF ALL OPERATIONAL PERIODS
- CHECK BACK ORDERS
- PLAN FOR DEMOBILIZATION EARLY
- UTILIZE AND STAFF STAGING AREAS

S4300302.ppt  
March 17, 1999

Appendix A  
S430-2-2-1

---

---

---

---

---

---

---

#### Slide 3

#### DEFINITION OF STAGING AREA

FORWARD LOCATION FOR  
TEMPORARY RESOURCE  
POSITIONING. RESOURCES  
ON MAXIMUM 3 MINUTE  
AVAILABILITY

S4300302.ppt  
March 17, 1999

Appendix A  
S430-2-2-1

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

MANAGING AND ADJUSTING  
THE OPERATIONS SECTION

Slide 4

**STAGING AREAS**

- ASSIGN A STAGING AREA MANAGER
- OSC CONTROLS RESOURCES
- SET MINIMUM DRAW DOWN LEVELS
- ORDER REPLACEMENT RESOURCES
- MAY BE MULTIPLE STAGING AREAS
- STAGING AREA MANAGER IS RESPONSIBLE FOR STAGING AREA LOGISTICS

INCIDENT.ppt  
March 17, 1999 Appendix A  
Slide 3-2-1

---

---

---

---

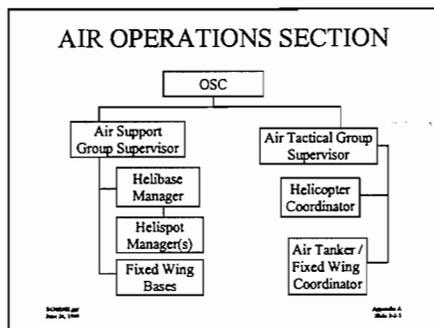
---

---

---

---

Slide 5




---

---

---

---

---

---

---

---

Slide 6

**AIR OPERATION  
BRANCH DIRECTOR**

- REPORTS TO OSC
- TRACK PILOT AND AIRCRAFT DUTY HOURS
- MANAGE AGENCY RESTRICTIONS
- MANAGE AIR TACTICS AND AIR RESOURCES
- GROUND BASED
- MAINTAINS CONSTANT COMMUNICATION WITH OSC
- PREPARES ICS 220
- MAINTAINS CONTACT WITH COMMUNICATIONS CENTER

INCIDENT.ppt  
March 17, 1999 Appendix A  
Slide 3-2-1

---

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

MANAGING AND ADJUSTING  
THE OPERATIONS SECTION

Slide 7

**NEED FOR  
ADJUSTMENTS**

- Sudden change in weather
- Present tactics ineffective
- Safety
- Resource availability/capability
- Political/social events
- Significant events (injuries)
- Cost

SLIDES 7-8  
Jan 7, 2000 Appendix A  
18.0 3-24

---

---

---

---

---

---

---

Slide 8

**MAKING ADJUSTMENTS**

- Don't hesitate to adjust if changes are needed
- Involve others in decision making
- Clear with IC in advance of change
- Notify incident personnel of change
- Monitor any changes
- Contingency plan

SLIDES 7-8  
Jan 7, 2000 Appendix A  
18.0 3-24

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

RISK ASSESSMENT AND  
SAFETY MANAGEMENT

## RISK ASSESSMENT AND SAFETY MANAGEMENT

### Slide Notes

#### Slide 1

**OSC'S RESPONSIBILITIES**

- SAFETY IS EVERYONE'S BUSINESS
- ARE OBJECTIVES SAFELY OBTAINABLE
- PLANNING PROCESS UTILIZING ICS 215-A
- PAY ATTENTION TO ESTABLISHED SAFETY GUIDELINES

SLIDE 1

---

---

---

---

---

---

---

#### Slide 2

**SAFETY GUIDELINES**

- TEN STANDARD FIREFIGHTING ORDERS
- EIGHTEEN WATCHOUT SITUATIONS
- COMMON DENOMINATORS
- LCES
- DEPARTMENT SOP'S
- INDUSTRY STANDARDS

SLIDE 2

---

---

---

---

---

---

---

#### Slide 3

**USE OTHERS TO ASSESS RISK AND SAFETY**

- WORK WITH SAFETY OFFICER
- BRANCH DIRECTORS, DIVISION SUPERVISORS
- TECHNICAL SPECIALISTS
- LAW ENFORCEMENT
- LOGISTICS
- LIAISON

SLIDE 3

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

RISK ASSESSMENT AND  
SAFETY MANAGEMENT

Slide 4

**OSC SAFETY COMMITMENT**

- OSC MUST SHOW A PERSONAL COMMITMENT TO SAFETY
- HOW CAN THIS BE DONE?

Appendix A  
S430 0-1

---

---

---

---

---

---

---

Slide 5

**OSC SAFETY EXAMPLES**

- STRESS SAFETY IN BUSINESS
- LISTEN TO SAFETY CONCERNS OF INCIDENT PERSONNEL
- ENSURE SUBORDINATES UNDERSTAND THEIR RESPONSIBILITY FOR SAFETY
- VISIT DIVISIONS AND INCIDENT FACILITIES
- SET EXAMPLES BY WEARING APPROPRIATE P.P.E.
- EXPECT THE UNEXPECTED
- CONSIDER PERSONNEL WELFARE NEEDS

Appendix A  
S430 0-1

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

PERSONNEL INTERACTION

## PERSONNEL INTERACTION

### Slide Notes

#### Slide 1

**UNIT 4 OBJECTIVES**

- DEMONSTRATE HOW TO SUCCESSFULLY COORDINATE INTERNAL RELATIONS
- DEMONSTRATE HOW TO SUCCESSFULLY COORDINATE EXTERNAL RELATIONS

© 2000 FireScope, Inc. All Rights Reserved.

---

---

---

---

---

---

---

#### Slide 2

**INTERNAL COOPERATION**

- INTERACTION WITH IC
- INTERACTION WITH OTHER FUNCTIONS
- COORDINATION WITH OTHER FUNCTIONS

© 2000 FireScope, Inc. All Rights Reserved.

---

---

---

---

---

---

---

#### Slide 3

**SIGNIFICANT EVENTS**

- High Media Interest
- Serious Injury or Damage
- High Profile Political Issue
- Any Event that Changes Incident Objectives

© 2000 FireScope, Inc. All Rights Reserved.

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

## PERSONNEL INTERACTION

Slide 4

**OSC COORDINATION**

- SET PRIORITIES AND DELEGATIONS FOR BRANCHES/DIVISIONS
- ESTABLISH AIR OPERATION PRIORITIES
- FINANCE AND ADMINISTRATION SECTIONS
- LOGISTICS
- INFORMATION OFFICER
- BE AWARE OF ENABLING AUTHORITY

S430041.ppt Appendix A 08-01-00-1

---

---

---

---

---

---

---

Slide 5

**ENABLING AUTHORITY**

- CA PC 409.5 - EXCLUSION OF THE MEDIA FROM AN INCIDENT AREA
- CA PC 409.6 - EXCLUSION OF THE PUBLIC FROM AN INCIDENT AREA

S430041.ppt Appendix A 08-01-00-1

---

---

---

---

---

---

---

Slide 6

**EXTERNAL COOPERATION**

- LOCAL RESIDENT KNOWLEDGE
- LOCAL LAW ENFORCEMENT
- LOCATE VALUES AT RISK
- SENSITIVITY TO LOCAL RESIDENTS
- MEDIA MANAGEMENT
- COORDINATE WITH AGENCY ADMINISTRATORS REPRESENTATIVE

S430041.ppt Appendix A 08-01-00-1

---

---

---

---

---

---

---



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 2-3-1  
SCENARIO EXERCISES

## SCENARIO EXERCISE NO. 2-3-1

TIME: 4 - 5 Hours

### MATERIALS NEEDED:

- Pen or pencil
- Scenario Exercise (NANCE)
- Nance Canyon Fire Exercise Instruction
- Nance Canyon Fire Incident History
- Nance Canyon Fire Incident Briefing Form (ICS 201)
- Nance Canyon Fire Incident Objectives (ICS 202)
- Nance Canyon Fire Incident Status Summary (ICS 209)
- Completed WFSA for Nance Incident
- Nance Canyon Fire 7.5' Incident Map
- Video providing general overview of fire area
- Air Operation Summary Worksheet (ICS 220)
- Division Assignment List (ICS 204)
- Easel, easel paper, and marking pens

### INTRODUCTION:

This exercise, in conjunction with the Cajon exercise, is intended to pull the entire course together for the students. The instructor cadre needs to be prepared ahead of time to produce the maximum benefit from this portion of the class. It will take at least 20 minutes to review and explain the exercise to the students. Show the Nance video during this information sharing to set the scene. It will take another 10 minutes for the various student groups to move to their designated work locations and set up. Allow at least 4 to 5 hours (including the time frames already discussed) to complete the exercise. If the groups are successful, they will be able to: 1. Present the Operations portion of the Planning Meeting for a day operational period utilizing a wall mounted ICS 215 (Operational Planning Worksheet); 2. Present the Operations portion of the operational period briefing from ICS 204's (Division Assignment Lists) and an Operation Briefing Map, which will have been prepared based on their 215G or 215W. Have all designated "Operations Section Chiefs" explain how they arrived at their conclusions.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 2-3-1  
SCENARIO EXERCISES

---

The goal is for each group to assume the role of an Operations Section Chief doing his/her part of both:

1. Completing the ICS 215 and participate in a Planning Meeting;
2. Understand how the information from the ICS 215 is used in the development of the Incident Action Plan;
3. Participate as an Ops Chief in an Operational Period Briefing.

## DIRECTIONS:

1. Remove Scenario Exercise 2-3-1 from the Scenario Exercises section of the Student Manual.
2. Within your individual work groups, select members to function as Operations Section Chiefs and group spokesperson. (1 person to participate in Planning Meeting, 1 person to participate in Operational Briefing.)
3. Review all provided information.
4. Conduct a formal planning process including information gathering, assimilation and projection to develop a tactical plan, tactical organization, and projected resource needs.
5. Complete an Operations Planning Worksheet (ICS 215W or ICS 215G).
6. Complete at least two Division Assignment Lists (ICS 204)
7. Using flip chart pad paper, develop a tactical operations briefing map showing incident organization and facilities including drop points and staging areas.
8. Using flip chart pad paper, develop an organization chart for the Operations Section.
9. When requested, provide Ops Chief input to a Planning Meeting and Operational Briefing.
10. You will have 2 hours to prepare for Part 1 and 1 hour to prepare for Part 2. Each group will be allowed 15 minutes for their presentations for each part.



## **SCENARIO EXERCISE – NO. 2-3-1**

Current Date/Time - August 16, 0100 hours.

Fire Start - Fire started August 15th, at approximately 1500 hours, from a tracer. It spread quickly into the town of Paradise. Weather at the time the fire started was Dry Bulb 105 degrees F., Relative Humidity 12%, and Wind SW @ 9 MPH (1400' elevation on Skyway).

Fire Spread - The fire reached the intersection of Neal and Foster Roads at 1500 on August 15th. Residential structures were lost along Neal Road between 1600 and 1800. The fire reached the 90 degree curve on Foster Road at 1900 and the upper end of Berry Canyon in Section 27 (refer to topographic map) at 2100 on August 15th. The fire remains uncontained and is spreading slowly in Sections 4, 5, 28, 29, and 34. Three spot fires have occurred and are contained. Fire size is 4,000 acres as of 0100 on August 16th.

### Actions Taken -

1. Dozer lines are established and holding as shown on topographic map.
2. Considerable structure protection activity has occurred in the Paradise area (30 structures lost).
3. Hand crews are working with dozers to construct line where dozers are unable to work.
4. Air operations have been effective and have included fixed-wing and helicopter drops.
5. Initial Incident Objectives were very general:
  1. SAVE LIFE AND PROPERTY
  2. STOP HEAD WEST OF FOSTER ROAD
  3. KEEP FIRE SOUTH OF ROE ROAD
  4. KEEP SOUTH FLANK FROM DROPPING OFF BLUFFS
  5. KEEP FIRE AS SMALL AS POSSIBLE WITH DIRECT ATTACK
6. The fire was divided into two divisions for the Operational Period of August 15th, from initial attack to present time.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 2-3-1  
SCENARIO EXERCISES

---

Predicted Situation - The fire is expected to become active during the afternoon. If not contained in the Paradise and Skyway areas; additional structures may be lost and the fire could burn into Little Butte Creek Canyon, further complicating control efforts. The south flank will continue to burn toward structures in the Clear Creek School area. Additional spot fires may occur. Predicted weather conditions are not favorable.

## Resource Status -

1. Currently on incident - Refer to completed ICS Form 201, Incident Briefing.
2. Resources available for the August 16th Day Operational Period:

Ground Resources - 6 Division Supervisors, 12 Strike Team/Task Force Leaders, 6 Type 1 Engine Strike Teams, 4 Type 3 Engine Strike Teams, 4 Type 2 Dozer Strike Teams, 8 Type 1 Hand Crew Strike Teams, and 6 Type 1 Water Tenders.

Air Resources - 1 Air Tactical Group Supervisor; 5 Air Tankers (Type 1,2, or 3) at Chico Air Attack Base; 4 Helicopters, 1 Type 3 for recon, 3 Type 2 with buckets, at Nance Helibase.



## **NANCE CANYON WILDLAND EXERCISE INSTRUCTIONS**

### **EXERCISE OBJECTIVES**

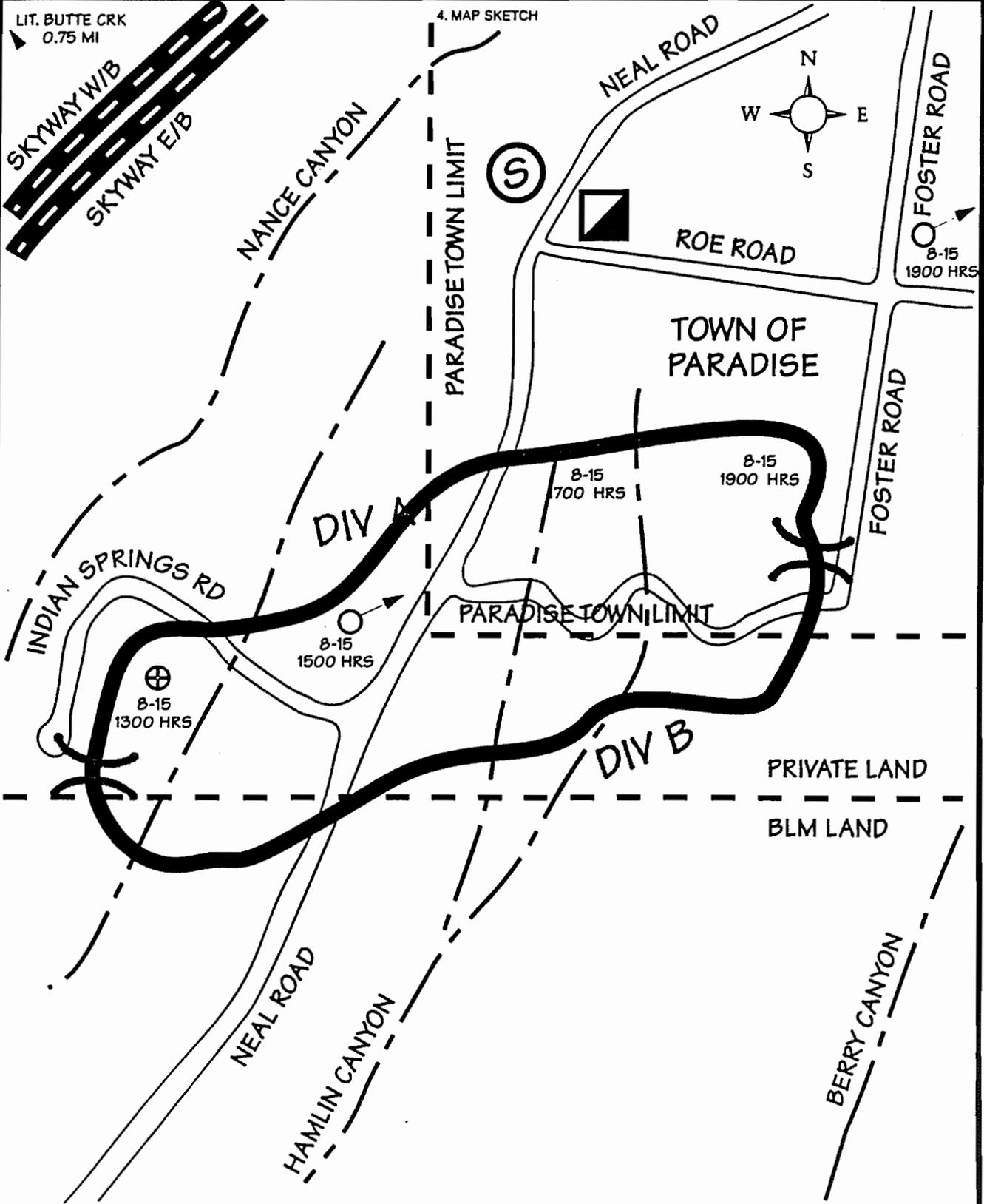
1. Complete the operational planning process for the Day Operational Period of August 16th, 0600-1800 hours (assimilate Ops Section input from Branches, Divisions and other sources). Develop an Operational Planning Worksheet (ICS 215W or 215G), Division Assignment Sheets(ICS 204's) for at least 2 selected divisions or groups and an Operations Briefing Map.
2. Participate as an Ops Section Chief in developing an IAP at a planning meeting. (Need to discuss ICS 220 in the planning process also)
3. Conduct the Ops Chief portion of an operational briefing for assigned resources.

**INCIDENT BRIEFING**

1. INCIDENT NAME  
**NANCE  
BTU-12345**

2. DATE  
COMPLETED  
**8-15-XX**

3. TIME  
COMPLETED  
**1500 HRS**



201

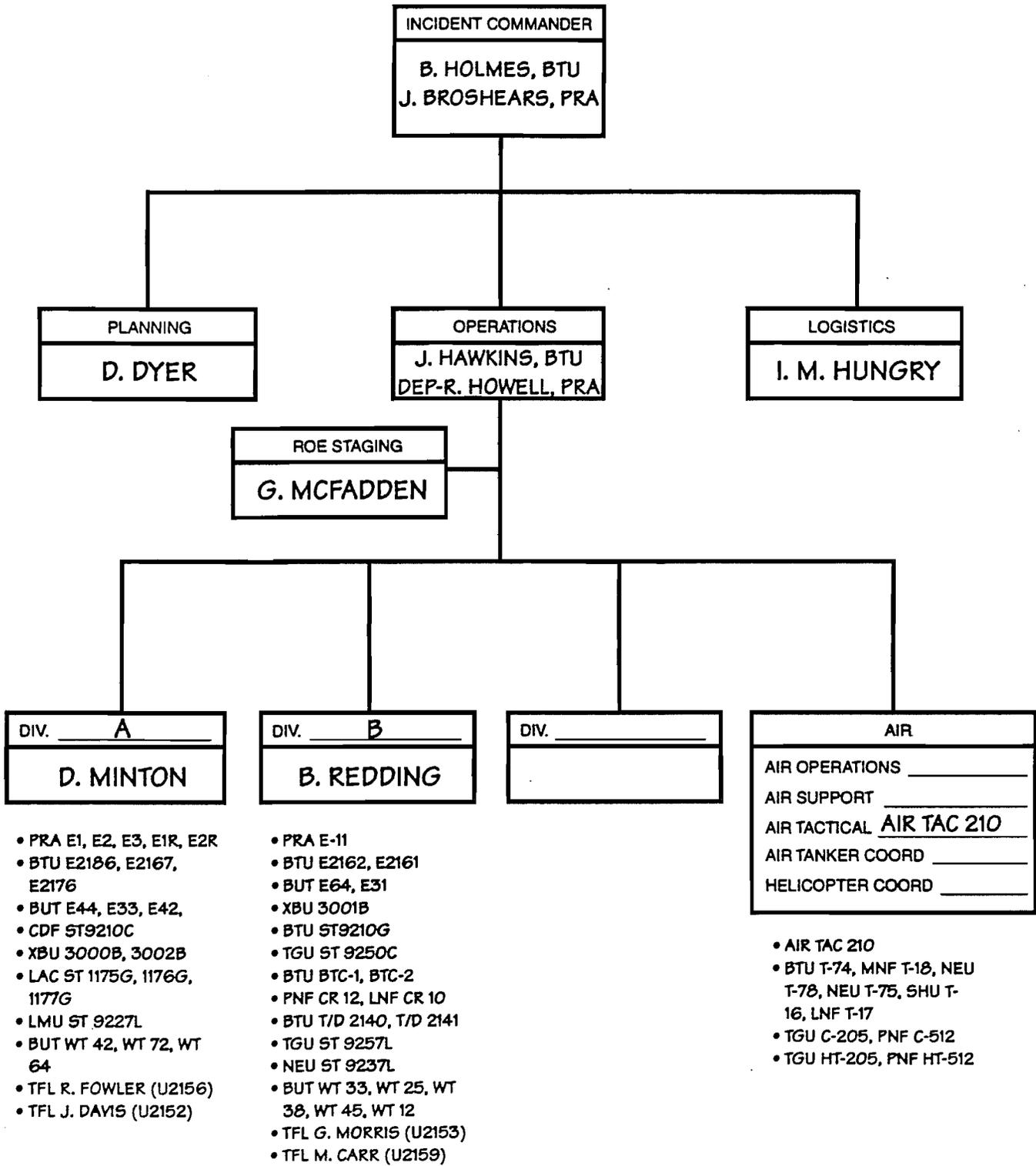
ICS  
3-82

PAGE 1

8. PREPARED BY (NAME AND POSITION)  
B. REDDING, IA IC  
B. HOLMES & J. BROSHEARS—UNIFIED IC'S (1400)

7540-130-0282

## 6. CURRENT ORGANIZATION



## 5. RESOURCES SUMMARY

RESOURCES ORDERED	RESOURCE IDENTIFICATION	ETA	ON SCENE	LOCATION/ASSIGNMENT
INITIAL DISPATCH	BTU B2114		X	INITIAL IC->DIV A (1400)
	BTU D2104		X	IC (1400)
	BTU E2186		X	DIV A
	BTU E2167		X	DIV A
	BTU E2162		X	DIV B
	BTU E2176		X	DIV A
	BTU E2161		X	DIV B
	BUT E44		X	DIV A
	BUT E33		X	DIV A
	BUT E42		X	DIV A
	BUT E64		X	DIV B
	BUT E31		X	DIV B
	BTU T/D 2140		X	DIV B
	BTU T/D 2142		X	DIV B
	BTU AIRTAC210		X	"NANCE AIR TAC"
	BTU T74		X	
	MNF T18		X	
	TGU COP205		X	
	TGU HT205		X	
	BTU BT CR 1		X	DIV B
	BTU BT CR 2		X	DIV B
PRA 1ST ALARM	PRA CHF 1		X	UNIF COMM IC (1400)
	PRA BATT 3		X	DEP OSC (1400)
	PRA E-1		X	DIV A
	PRA E-2		X	DIV A
	PRA E-3		X	DIV A
PRA 2ND (1315)	PRA E-1R		X	DIV A
	PRA E-11		X	DIV B
TYPE 3 COPT (1330)	PNF COPT512		X	
	PNG HT512		X	
OPS CHIEF (1330)	BTU D2103		X	OSC (1400)
DIV SUP (1330)	BTU B2112		X	DIVISION B SUPERVISOR (1400)
ST AR MGR (1330)	BTU T2107		X	STAGING AREA: ROE RD @ NEAL RD (1400)
4 AIR TANKERS	NEU T78		X	
(1335)	NEU T75		X	
	SHU T16		X	
201	ICS 3-82	PAGE 4		

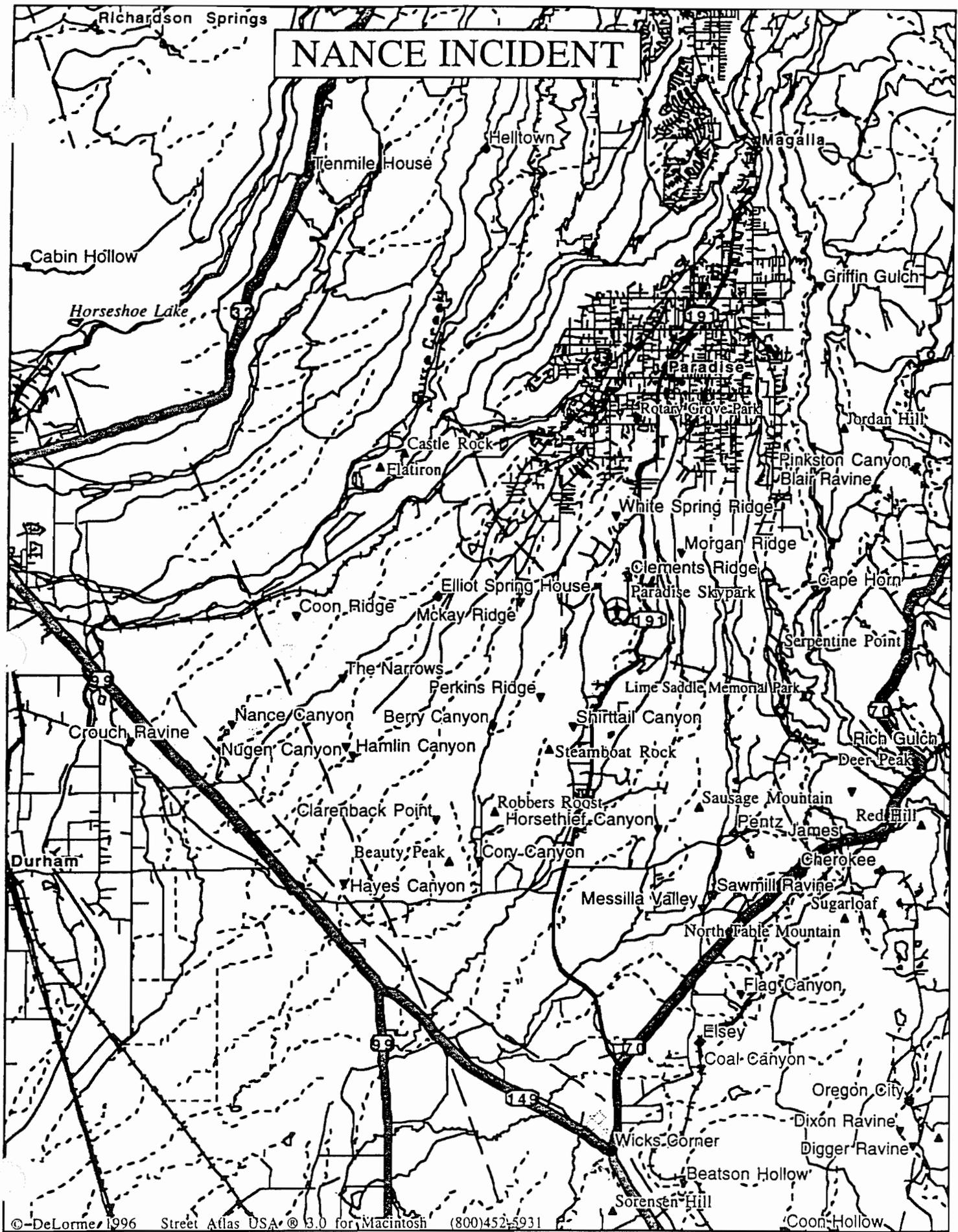
### 5. RESOURCES SUMMARY

RESOURCES ORDERED	RESOURCE IDENTIFICATION	ETA	ON SCENE	LOCATION/ASSIGNMENT
	LNF T17		X	
1-TYPE 3 ENG ST (1347)	TGU ST9250C	1500	X	DIV B
4-TFL'S W/VEH'S	BTU FC R. FOWLER		X	DIV A (U2156)
	BTU FC J. DAVIS		X	DIV A (U2152)
	BTU FC G. MORRIS		X	DIV B (U2153)
	BTU FC M. CARR		X	DIV B (U2159)
4-ST TYPE 1 OR 2 E (1405)	XBU ST3000B		X	DIV A (CHI E2, E4; ORO E111, E112; EMD E312)
	XBU ST3001B		X	DIV B (BUT E63, E41, E45, E72; GRD E74)
	BTU ST9210C		X	DIV A (BTU E2166, E2184, E2163, E2164, E2180)
	XBU ST3002B		X	DIV A (BUT E21, E37, E61, E271, E73)
8-TYPE 1 WT'S	BUT WT 33		X	DIV B
	BUT WT 42		X	DIV A
	BUT WT 25		X	DIV B
	BUT WT 38		X	DIV B
	BUT WT 45		X	DIV B
	BUT WT 72		X	DIV A
	BUT WT 12		X	DIV B
	BUT WT 64		X	DIV A
3-ST TYPE 2 DOZ (1405)	LMU ST9227L	1800	X	DIV A (DT2240, T/D2240, T/D2242)
	TGU ST9257L	1700	X	DIV B (DT2540, T/D2540, T/D2542)
	NEU ST9237L	1700	X	DIV B (DT2340, T/D2340, T/D 2342)
1-TYPE 2 ENG	PRA E2R		X	DIV A
5-TYPE 1 CR ST (1405)	PNF CR 12	1600	X	DIV B
	LNF CR 10	1600	X	DIV B
	LAC ST1175G	2400	X	DIV A
	LAC ST1176G	2400	X	DIV A
	LAC ST1177G	2400	X	DIV A
1-PSC TYPE 1 (1500)	BTU B2116	1700	X	ICP (1700)
300 COLD DRKS	BTU S2110	1530	X	ICP
1-PARA PD AGY REP	PPD THOMAS	1330	X	ICP
1-BCSO AGY REP	BCSO LT. SMITH	1530	X	ICP
1-OES AGY REP	OES MARQUIS	1630	X	ICP (CHF 5212)
CLOSE NEAL RD & ADJOINING STREETS		1400	X	CHP & PARADISE PD
1-CDF IMT T-1 (1600)	RCC ICT 5	0300		ICP
201	ICS 3-82	PAGE 4		

<b>INCIDENT OBJECTIVES</b> ICS 202	1. INCIDENT NAME NANCE, CA-BTU-12345	2. DATE PREP 8-15-XX	3. TIME PREP 1500 HRS												
4. OPERATIONAL PERIOD (DATE/TIME) <b>AUGUST 16, 0600 TO 1800 HOURS</b>															
5. GENERAL CONTROL OBJECTIVES FOR THE INCIDENT (INCLUDE ALTERNATIVES) <ol style="list-style-type: none"> <li>1. PROTECT LIFE AND PROPERTY (STRUCTURES).</li> <li>2. CONTAIN FIRE ON NORTH SIDE (PARADISE) IN UPPER BERRY CANYON AND WEST OF FOSTER ROAD.</li> <li>3. CONTAIN FIRE ON NORTHWEST SIDE NEAR SKYWAY.</li> <li>4. CONTAIN SOUTHEAST SIDE OF FIRE.</li> <li>5. PATROL AND HOLD DOZER LINE WEST OF SR 191 TO NEAR PARADISE AIRPORT.</li> <li>6. PATROL AND HOLD DOZER LINE IN SOUTHWEST CORNER OF FIRE.</li> </ol> <p>ALTERNATE PLAN: HOLD FIRE SOUTH OF ROE ROAD, EAST OF SKYWAY, WEST OF SR 191 AND NORTH OF PENTZ ROAD AND SR 99.</p>															
6. WEATHER FORECAST FOR THE OPERATIONAL PERIOD HIGH PRESSURE WELL ESTABLISHED FOR VERY HOT TEMPS & LOW RH'S. PREDICTED DB 105°F, RH 10-17%, 10 HR FUEL 3.0, & WIND SW/5-8 MPH.															
7. GENERAL SAFETY MESSAGE <b>FIRE IS BURNING IN STEEP CANYONS WITH HEAVY BRUSH. FOLLOW LCES. DRINK WATER. WATCH BLUFFS, CLIFFS AND SNAKES.</b>															
8. ATTACHMENTS (CHECK IF ATTACHED) <table border="0" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> ICS-202, INCIDENT OBJECTIVES</td> <td><input type="checkbox"/> ICS-220, AIR OPERATIONS SUMMARY</td> </tr> <tr> <td><input type="checkbox"/> ICS-203, ORGANIZATIONAL ASSIGNMENT LIST</td> <td><input type="checkbox"/> WEATHER FORECAST</td> </tr> <tr> <td><input type="checkbox"/> ICS-204, DIVISION ASSIGNMENT LIST</td> <td><input type="checkbox"/> SAFETY MESSAGE</td> </tr> <tr> <td><input type="checkbox"/> ICS-205, RADIO COMMUNICATIONS PLAN</td> <td><input checked="" type="checkbox"/> INCIDENT MAP</td> </tr> <tr> <td><input type="checkbox"/> ICS-206, MEDICAL PLAN</td> <td><input type="checkbox"/> TRANSPORTATION PLAN/MAP</td> </tr> <tr> <td><input type="checkbox"/> ICS-208, SITE SAFETY AND CONTROL PLAN</td> <td><input type="checkbox"/></td> </tr> </table>				<input checked="" type="checkbox"/> ICS-202, INCIDENT OBJECTIVES	<input type="checkbox"/> ICS-220, AIR OPERATIONS SUMMARY	<input type="checkbox"/> ICS-203, ORGANIZATIONAL ASSIGNMENT LIST	<input type="checkbox"/> WEATHER FORECAST	<input type="checkbox"/> ICS-204, DIVISION ASSIGNMENT LIST	<input type="checkbox"/> SAFETY MESSAGE	<input type="checkbox"/> ICS-205, RADIO COMMUNICATIONS PLAN	<input checked="" type="checkbox"/> INCIDENT MAP	<input type="checkbox"/> ICS-206, MEDICAL PLAN	<input type="checkbox"/> TRANSPORTATION PLAN/MAP	<input type="checkbox"/> ICS-208, SITE SAFETY AND CONTROL PLAN	<input type="checkbox"/>
<input checked="" type="checkbox"/> ICS-202, INCIDENT OBJECTIVES	<input type="checkbox"/> ICS-220, AIR OPERATIONS SUMMARY														
<input type="checkbox"/> ICS-203, ORGANIZATIONAL ASSIGNMENT LIST	<input type="checkbox"/> WEATHER FORECAST														
<input type="checkbox"/> ICS-204, DIVISION ASSIGNMENT LIST	<input type="checkbox"/> SAFETY MESSAGE														
<input type="checkbox"/> ICS-205, RADIO COMMUNICATIONS PLAN	<input checked="" type="checkbox"/> INCIDENT MAP														
<input type="checkbox"/> ICS-206, MEDICAL PLAN	<input type="checkbox"/> TRANSPORTATION PLAN/MAP														
<input type="checkbox"/> ICS-208, SITE SAFETY AND CONTROL PLAN	<input type="checkbox"/>														
<b>ICS 202</b>	9. PREPARED BY (PLANNING SECTION CHIEF) <b>BC DAN DYER</b>	10. APPROVED BY (INCIDENT COMMANDER) <b>DC BILL HOLMES</b>													

1. INCIDENT NAME NANCE		2. INCIDENT NO. CA-BTU-12345		3. INC. COMMANDER Holmes/Broshears		4. JURISD. BTU/PRA		5. COUNTY Butte		INCIDENT STATUS SUMMARY ICS 209(1-81)														
6. TYPE INCIDENT Wildfire		7. LOCATION SW Corner of Paradise, CA and Butte County						8. STARTED(DATE/TIME) 8-15-XX/1300 HRS																
9. CAUSE Tracer		10. AREA INVOLVED 4,000 acres		11. % CONTAIN 30%		12. EXPECT. 8-16 CONTAIN 1200		13. % CONTROL 10%		14. EXP. DATE: UNK CONTR. TIME:														
15. CURRENT THREAT Structures in Paradise and unincorporated local areas						16. CONTROL PROBLEMS Structures, steep topography, heavy brush fuels, dry fuels																		
17. EST. LOSS \$9,000,000		18. EST. SAVINGS \$10,000,000		19. INJ: DEATHS: 5		20. LINE BUILT 0 8 miles		21. LINE TO BUILD 4 miles																
22. CUR.WEATHER WS 9 MPH WD SW		TEMP 105°F RH 12%		23. PREDICTED WEAT WS 5-8 MPH WD SW		HER NEXT PERIOD TEMP 100-110°F RH 10-17%		24. INCIDENT COSTS PREVIOUS DAY UNK		25. TOTAL COST TO DATE \$150,000														
26. AGENCIES 27. RESOURCES		CDF		BUT		PRA		XBU		PNF		LNF		MNF		PRI		GFD		LAC		TOTALS		
KIND OF RESOURCE		SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	SR	ST	
ENGINES/ PATROL UNIT		5	2	5	9	6		5										1				22	11	
DOZERS/ LAW 4X4		8																				8		
CREWS/ PATROL OFFICER		2								1	1									3		4	3	
HELICOPTERS			1							1													2	
TANKERS			3									1	1										5	
TRUCK COS.																								
RESCUE/MED																								
WATER TENDERS					8											4							12	
OVERHEAD PERSONNEL			12		6	4		1											5				28	
TOT. PERSON.			113		181	22		16		35		16	1		8		3		113				508	
28. COOPERATING AGENCIES BCSO, PARADISE PD, CHP, RED CROSS, OES, BU CO PUBLIC WORKS, PARADISE PUBLIC WORKS, SALVATION ARMY																								
29. REMARKS Fire started 8/15, 1300 hrs, 0.5 miles south of Paradise, CA, from a tracer bullet. By 1500 hrs., the fire had burned into Paradise and began burning residential structures by 1600 hours. Estimate that 30 structures have burned in the Neal and Foster Road areas. Many more structures have serious damage. Unified command between CDF and Paradise Fire Dept. A roof ordinance in the Town of Paradise helped reduce the loss of structures. Very heavy brush and steep topography are limiting suppression efforts in the canyons. Expecting serious fire spread on the afternoon of August 16 with the fire expected to run more into Paradise and into unincorporated, residential areas off State Route 191 (Clark Road) in the Clear Creek-Butte College area. The Incident Command Post (ICP) is located at Paradise Fire Station #1 (767 Birch St) with the base located at the Paradise High School, Maxwell Drive at Elliott Road.																								
30. PREPARED BY Dan Dyer, PSC						31. APPROVED BY B. Holmes/J. Broshears						32. DATE: TIME:			33. I: U: F:			34. SENT TO: DATE: TIME: BY:						

# NANCE INCIDENT







SAMPLE ICS FORM 220

### AIR OPERATIONS SUMMARY

1. INCIDENT NAME		2. OPERATIONAL PERIOD				3. DISTRIBUTION				
		DATE		TIME		HELIBASES		FIXED WING BASES		
4. PERSONNEL & COMMUNICATIONS		NAME	AIR/AIR FREQUENCY	AIR/GROUND FREQUENCY	6. REMARKS (Specific Instructions, Safety Notes, Hazards, Priorities)					
AIR OPERATIONS DIRECTOR										
AIR TACTICAL SUPERVISOR										
HELICOPTER COORDINATOR										
AIR TANKER/FIXED WING COORDINATOR										
6. LOCATION/ FUNCTION	7. ASSIGNMENT		8. FIXED WING		9. HELICOPTERS		10. TIME		11. AIRCRAFT ASSIGNED	12. OPERATING BASE
			NO.	TYPE	NO.	TYPE	AVAILABLE	COMMENCE		
		13. TOTALS								
14. AIR OPERATIONS SUPPORT EQUIPMENT				15. PREPARED BY				DATE	TIME	



## SCENARIO EXERCISE NO. 2-4-1

TIME: 1 Hour

### MATERIALS NEEDED:

- Map of general area
- Pen or pencil
- Scenario Exercise No. 2-4-1



### INTRODUCTION:

Structure protection planning is an important part of the Operations Section Chief's role in mitigating hazards at risk in urban interface situations. This scenario requires you to analyze a given situation and develop a structure protection plan.

### DIRECTIONS:

1. Remove Scenario Exercise 2-4-1 from the Scenario Exercises section of the Student Manual.
2. You have 30 minutes to develop a structure protection plan for the scenario.
3. At the end of 30 minutes, there will be a class discussion on the case scenario.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SCENARIO 2-4-1  
SCENARIO EXERCISES

## SCENARIO EXERCISE NO. 2-4-1

You are the Operations Section Chief on a Type II Incident Management team assigned to a wildland fire with structure protection problems. The fuels, structures, and burning conditions are depicted in the slides to be viewed.

See following weather and fire behavior forecasts.

You have the following resources:

XSI 3175C

XSI 3176C

XTB 4235C

OES 3800A

XNE 4101A

XTB 4237B

SIERRA TASK FORCE #1 (Mixed Type 1 & 2 w/Water Tender)(E2, E3, #15, E13, E16)

2 DIVISION SUPERVISORS

1 STAGING AREA MANAGER

2 FIELD OBSERVERS

ETA OF 2 ½ HOURS:

XPL 4125C

XTE 3250C

XSA 4162C

Based on the information you have been provided and the maps included in this scenario develop a structure protection plan for the "Sierra Brooks Subdivision". The fire is 11,300 acres with a rapid rate of spread approaching the subdivision from the southwest. The fire is expected to reach the subdivision in approximately 2 hours from the south and west.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SCENARIO 2-4-1  
SCENARIO EXERCISES

## FIRE WEATHER FORECAST

FORECAST NO. 05

NAME OF FIRE: COTTONWOOD

UNIT: \_\_\_\_\_

TIME AND DATE:

FORECAST ISSUED: 1800 PDT 08/19/94

---

## WEATHER FORECAST

WEATHER: Sunny and Breezy

TEMPERATURES: High at 5000 Feet 85-88  
at 6500 Feet 80-85

HUMIDITY: Min at 5000 Feet 14-19%  
at 6500 Feet 10-14%

EYE LEVEL WINDS:

Ridgetop – SW-W 6-11 MPH until 1000 PDT. Winds increasing 10-16 MPG with gusts to 28 MPH especially over exposed ridge tops around noon.

Slope/Valley – Light and variable winds on the valley floor 'til 1100 PDT. Winds gradually increasing to 6-12 MPH with gusts to 18 MPH through open valleys by 1300 PDT.

STABILITY/INVERSION: Weak Valley inversion mixing out between 11000 and 1200 PDT.

---

OUTLOOK FOR SATURDAY NIGHT SHIFT: Breezy west winds diminishing and becoming 3-6 MPH over the valley floor by 2100 PDT. Winds continuing mid-slope to ridgetop 7-13 MPH with gusts to 25 MPH over the higher peaks until 0400 PDT. Weak valley inversion developing towards morning. Overnight lows ranging from 41 in the Valley to 44 at mid-slope. Maximum relative humidities near 63% on the Valley floor and 48% at mid-slope.

---

EXTENDED FORECAST: Sunday through Wednesday..upper low lifting slightly Northeast into Western Canada, then shearing East across the Pacific Northwest. Slightly cooler with breezy winds switching to the W-NW by Monday. Thursday, Aug. 25 through Monday Aug. 29...little change as an upper trough remains positioned off the Pacific Northwest Coast and high pressure continues over the Southern States. Dry, breezy, and stable west flow to continue over the fire.

---

OBSERVED WEATHER:



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 2-4-1  
SCENARIO EXERCISES

FIRE BEHAVIOR FORECAST: 6

SIGNED: \_\_\_\_\_

NAME OF FIRE COTTONWOOD

Fire Behavior Analyst

FORECAST ISSUED: 1930 8/19/94

PREDICTED FOR DAY SHIFT

SHIFT DATE: 8/20/94

## WEATHER SUMMARY:

See Attached weather forecast

## FIRE BEHAVIOR:

GENERAL: Slightly windier conditions and lack of a strong inversion will lead to earlier active burning. The weather and fuels remain generally stable in the active burning areas, therefore, expect fire behavior to be very similar to yesterday. 1330 has been a dependable hour marking the start intense burning activity. This may be earlier today as the inversion will be weak.

## SPECIFIC:

Divisions V & W – Firing operation in Badnaugh and Trosi Canyon are aligned against the wind. Any spots will establish with upslope runs and a supporting wind. division to be active by 1230 hours, but fire will carry all hours.

Divisions C/B/D – Any burning out will be supported by the SW flow intensity, can be modified by firing technique. Some potential for spotting exists as turbulence at the ridgeline, this potential can be mitigated controlling intensity of the burning.

Division E/F/G – Most potential for intense fire activity as large push so strongly against the fireline today as the fire as the Mill area was most directly aligned to the SW flow. Intense spotting and fire whirls developed on the afternoon of 8/19 with similar activity expected again today.

AIR OPERATIONS: The morning inversion will not be as well developed as the previous days as mixing through the night prevented a strong inversion. Northeast corner will still be smoked in, especially when active burning begins.

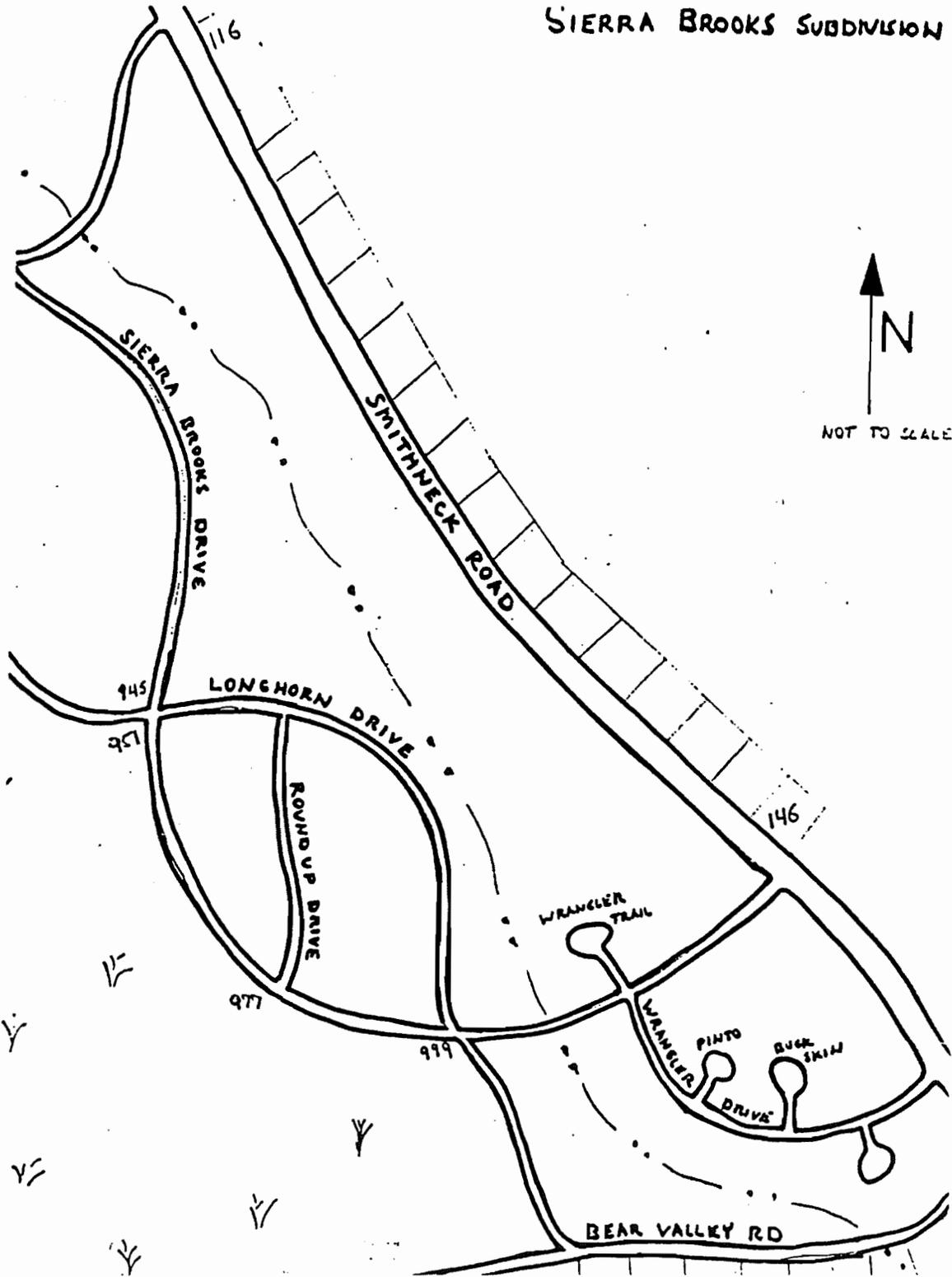
SAFETY: 1330 is the magic hour for active fire to begin. Crews should have escape routes and safety zones verified by this time. Crowning and spotting will continue through the afternoon hours of the shift.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SCENARIO 2-4-1  
SCENARIO EXERCISES

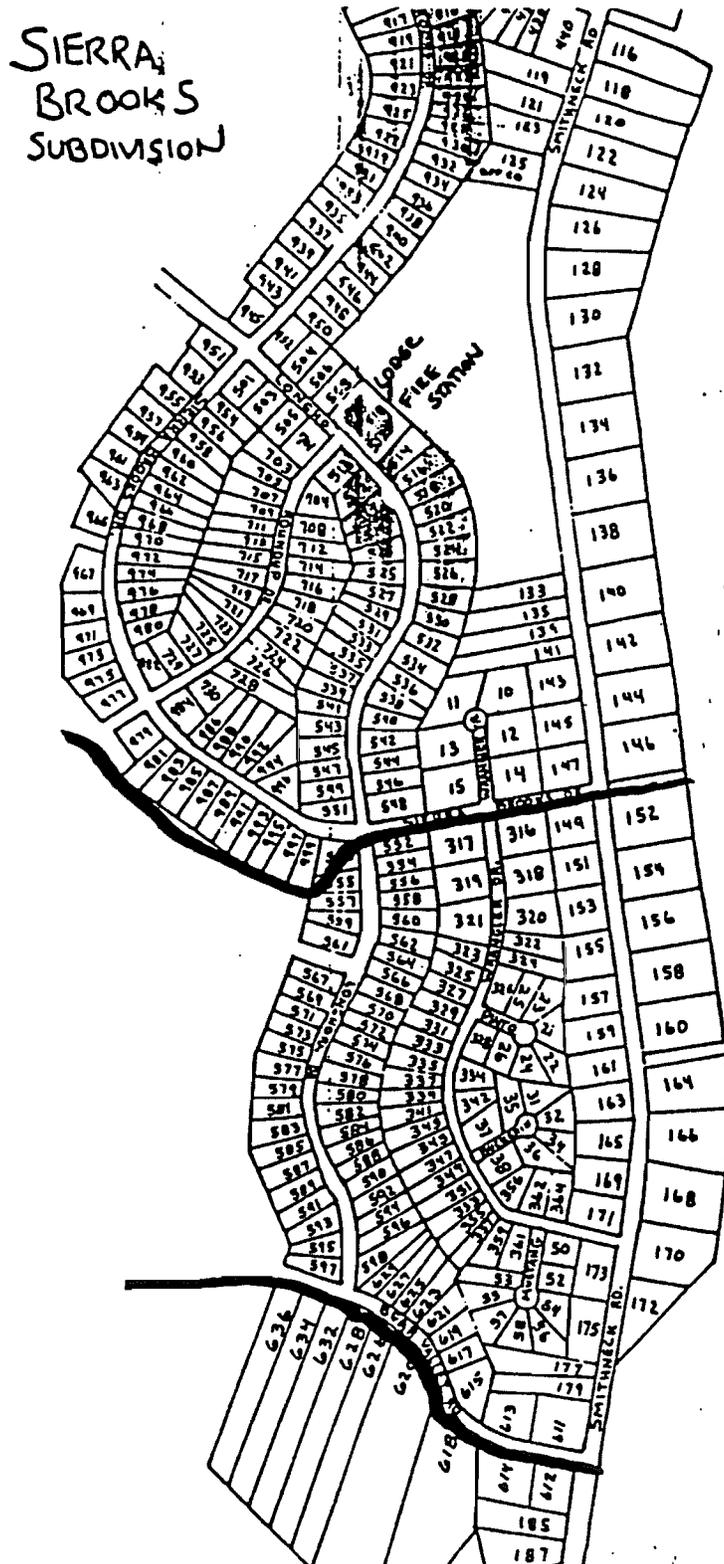




# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief - ALL RISK

SCENARIO 2-4-1  
SCENARIO EXERCISES





## **SCENARIO EXERCISE 3-3-1**

TIME: 30 Minutes

### **MATERIALS NEEDED:**

- Pen or pencil
- Scenario Exercise 3-3-1

### **INTRODUCTION:**

This Scenario Exercise is intended to allow students an opportunity to apply risk and safety mitigation measures to an ALL RISK situation.

### **DIRECTIONS:**

1. Have students remove Scenario Exercise 3-3-1 from the Scenario Exercises section of the Student Manual.
2. Break the students into groups of 4 to 5 and ask them to complete the Scenario Exercise on Risk Assessment and Safety Management as presented in the Handout. Allow 15 minutes for discussion.
3. At the end of 15 minutes, have each group appoint a spokesperson and present how their group proposed to handle the situation. Allow 15 minutes for group presentations.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO EXERCISES

---

## SCENARIO EXERCISE 3-3-1

You are the Operations Section Chief on A Type II Incident Management Team assigned to a flood incident. Your team has been on the incident for two days now and at the planning meeting for tonight's Operational Period you learn that heavy rains are predicted for tomorrow afternoon. Your priority is to reinforce the levee system so that it withholds under these predicted weather conditions. Currently, a dozer is working on a 600 foot break in the levee that threatens a sub-division.

Three Type I handcrews and one Type II handcrew are available. Your plan is to use them during tonight's Operational Period to do boil mitigation, strengthen and raise levees. The crews are ready and eager to work on the levee tonight, but the Safety Officer is concerned that another break in the levee may isolate crews and equipment. You have talked to the Division A Supervisor and he says he won't be able to get much work done before dark due to the weakened levee on his division. A Swift Water Rescue Team is on order, but won't be on scene until 1200 hours tonight.

The Division B Supervisor says he thinks crews can work safely on the levee in his division with no problems tonight. The crews will need to post lookouts and watch where they are working.

Discuss this situation in your group and decide how you would handle it as the OSC.

### YOUR ACTIONS:



## SCENARIO EXERCISES NO. 4-1-1 THROUGH 4-1-5

TIME: 2 Hours

MATERIALS NEEDED:

- Pen or pencil
- Scenario Exercises No. 4-1 through 4-5

INTRODUCTION:

Skill in internal and external communications is essential to effectively perform as an Operations Section Chief. These Scenario Exercises give the student an opportunity to develop strategies to effectively deal with interpersonal conflicts.

DIRECTIONS:

1. Remove Scenario Exercises 4-1 through 4-5 from the Scenario Exercises section of the Student Manual.
2. You have 1 hour to describe your actions as an Operations Section Chief for all five scenarios.
3. At the end of one hour, a spokesperson for each group will present their recommendations on one or more of the scenarios.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1 THROUGH 4-5  
SCENARIO EXERCISES

---

## SCENARIO EXERCISE NO. 4-1-1

Assume the following occurred as you review this exercise. You, the Operations Section Chief, immediately call the Logistics Section Chief and complain that the orders submitted by your Division Supervisors are not being given proper attention. The Logistics Section Chief assures you that he will get right on it and insure that the Supply Unit has filled those orders. During the evening, you find that Division B did not receive an order to be delivered by helicopter long line that was placed at 0935 this morning. The Division Supervisor assures you that they would have completed and held the line had they received the order. Your first stop is to let the Supply Unit know that they screwed up and therefore we didn't meet our mission. Later, the Logistics Section Chief finds you and suggests that you were out of line by jumping all over Supply Unit personnel.

**WHAT WAS WRONG WITH THE WAY THIS SITUATION WAS DEALT WITH AND HOW COULD IT HAVE BEEN BETTER HANDLED?**



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1 THROUGH 4-5  
SCENARIO EXERCISES

---

## SCENARIO EXERCISE NO. 4-1-2

You are the Operations Section Chief assigned to an Incident Management Team. Your team has been deployed to manage a bombing incident. The site is a four-story office building with a sizable collapse of all four stories.

Two Federal Emergency Management Agency (FEMA) USAR Task Forces are working the collapsed section where they have been successful in making live victim rescues.

You are familiar with USAR Task Forces and how they operate. This is your first practical experience in working an incident with these specialized resources.

After the Operational Period Briefing, you are personally observing the progress of the rescue and the recovery effort. You want to meet with one of your Branch Directors face to face, but cannot locate him. You ask one of the Division Supervisors where the Branch Director might be. He responds, "Branch is over at the rubble pile operating a hydraulic breaker."

The individual is not a regularly assigned member of your team, but was a mutual-aid resource request based on his t USAR expertise.

**HOW DO YOU HANDLE THIS SITUATION? WHAT DO YOU DO IF IT CONTINUES?**



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1 THROUGH 4-5  
SCENARIO EXERCISES

---

## SCENARIO EXERCISE NO. 4-1-3

You are assigned as the Operations Section Chief on a 3-division vegetation fire in the backcountry of your county. You immediately become aware that the access to the fire is on one-lane roads.

The Initial Attack Units have experienced problems; not being able to pass one another, resulting in traffic jams of fire resources.

Once you have been successful in correcting this situation, you want to insure that it doesn't occur again during the next Operational Period.

**HOW DO YOU CORRECT THIS? WHO WOULD YOU NEED TO COORDINATE WITH?**



## **SCENARIO EXERCISE NO. 4-1-4**

You are assigned as an Operations Section Chief at the Yodkin Fire. You receive a message from the Sheriff's Office that the fire is threatening structures in Cote River Valley and is only a ¼ mile away. A strike team of engines that was ordered has not arrived. Three single increment engines arrived about 1400 hours after driving for 14 hours. Personnel have been resting in camp. When you left the fire, about 1700, it was burning away from the structures into the mountains. Due to the shortage of personnel and safety concerns, you did not staff a night shift. Earlier in the day you met with the Under-sheriff who lives in the Cote River Valley about concerns for structure protection. You assured him that the fire was spreading away from the valley and posed no threat to structures at that time.

**WHAT WOULD YOU DO NEXT?**



## **SCENARIO EXERCISE NO. 4-1-5**

You are assigned as Operations Section Chief on the Larkin Fire. The previous day when your fire team took over the fire, the fire blew out of a major drainage and 15 structures were lost. The area where the structures were lost lacked any defensible space, water systems, and contained a heavy dead fuel load. The fire had started in a remote area as one of numerous small lightning fires. Due to its location, the fire was low priority and was not aggressively attacked for several days.

The local volunteer Fire Chief blames your agency for the loss of structures and many of the residents support his view. The IC has agreed to a meeting with the local community and has asked you to explain the events that occurred the previous day.

**HOW WOULD YOU PREPARE FOR THIS MEETING AND WHAT INFORMATION WOULD YOU PRESENT?**



## SCENARIO EXERCISE NO. 4-1-6

TIME: 4-5 Hours

### MATERIALS NEEDED:

- Pen or pencil
- Scenario Exercise (CAJON)
- Cajon Pass Train Derailment Incident History.
- Cajon Pass Train Derailment Exercise Instructions.
- San Bernardino County Sheriff's Office-Burlington Northern Santa Fe Railroad Release from Liability and Hold Harmless Agreement to Reimburse for Actual Costs of Materials Supplied
- Cajon Pass Train Derailment Maps (2)
- Cajon Pass train Derailment Santa Fe Pacific Organizational Structure (ICS 213 message)
- Cajon Pass Train Derailment ECC Gas Pipeline information (ICS 213 message)
- Cajon Pass Train Derailment Hazmat Site Safety and Control Plan. (ICS 208)
- Cajon Pass Train Derailment Incident Objectives (ICS 202)
- Cajon Pass Train Derailment chemical information
- Showing of Cajon Pass Train Derailment video tape
- Division Assignment List (ICS 204)
- Incident Resource Projection Matrix (ICS 215M)
- Air Operations Summary Worksheet (ICS 220)
- Operations Planning Worksheets (ICS 215G/215W)
- Easel, easel paper, and marking pens



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1-6  
SCENARIO EXERCISES

---

## INTRODUCTION:

This exercise, in conjunction with the Nance exercise, is intended to pull the entire course together for the students. The instructor cadre needs to be prepared ahead of time to produce the maximum benefit from this portion of the class. It will take at least 20 minutes to review and explain the exercise to the students. Show the Cajon video during this information sharing to set the scene. It will take another 10 minutes for the various student groups to move to their designated work locations and set up. Allow at least 6 hours (including the time frames already discussed) to complete the exercise. If the groups are successful, they will be able to: 1. Present the Operations portion of the Planning Meeting for a day operational period utilizing a wall mounted ICS 215 (Operational Planning Worksheet) and 2. Present the Operations portion of the operational period briefing from ICS 204's (Division Assignment Lists) and an Operation Briefing Map, which will have been prepared based on their 215G.

The goal is for each group to take on the role of an Operations Section Chief doing his/her part of both: 1. Completing the ICS 215G and participate in a Planning Meeting; 2. Understand how the information from the ICS 215G is used in the development of the Incident Action Plan; and 3. Participate as an Ops Chief in an Operational Period Briefing.

## DIRECTIONS:

1. Within your individual groups, select members to function as Operations Section Chiefs and group spokesperson. (1 person to participate in Planning Meeting, 1 person to participate in Operational Briefing, and 1 person to present Demobilization Plan Outline.
2. Review the Incident Objectives (ICS 202), Incident History Information Sheet and the provided incident maps.
3. Conduct a formal planning process including information gathering, assimilation and projection to develop a tactical plan, tactical **organization**, and projected resource needs.
4. Complete an Incident Resource Projection Matrix (ICS 215M) for the probable duration of fire department involvement at the incident.
5. Complete an Operations Planning Worksheet (ICS 215W or ICS 215G).



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1-6  
SCENARIO EXERCISES

---

6. Complete at least two Division Assignment Lists (ICS 204)
7. Using easel paper, develop a tactical operations briefing map showing incident organization and facilities including drop points and staging areas.
8. Using easel paper, develop an organization chart for the Operations Section.
9. When requested, provide Ops Chief input to a Planning Meeting and Operational Briefing.
10. When requested present demobilization outline and how conclusions were reached.

**NOTE:**

There are no absolute answers for these case scenarios. They are intended to allow the student to start to apply the concepts learned from the lesson.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

SCENARIO 4-1-6  
SCENARIO EXERCISES

---

## Scenario Exercise No. 4-1-6

### EXERCISE OBJECTIVES

1. Complete the operational planning process for the Day Operational Period of August 4th, 0600-1800 hours (assimilate Ops Section input from Branches, Divisions and other sources). Develop an Incident Resource Projection Matrix (ICS 215M), Operational Planning Worksheet (ICS 215G), Division Assignment Sheets (ICS 204's) for at least 2 selected divisions or groups and an operations briefing map.
2. Participate as an Ops Section Chief in developing an IAP at a planning meeting.
3. Conduct the Ops Chief portion of an operational briefing for assigned resources.
4. Prepare a demobilization outline using ICS 215M and explain how conclusions were reached.



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

CAJON PASS EXERCISE

## CAJON PASS TRAIN DERAILMENT INCIDENT HISTORY

### INCIDENT

The Cajon Pass Derailment (Cajon Incident) occurred on August 3 at 2345 in the upper end of Cajon Pass. A Santa Fe freight train with approximately 50 cars experienced a brake failure, and derailed on a sharp curve. This location is near the junction of Interstate 15 (I-15) and State Route 138 (SR 138). Refer to the attached map. A fire developed from the accident. Within the burning wreckage are 15 tank cars containing various flammable liquids. As the four locomotives at the head of the train left the tracks, their fuel tanks ruptured, causing an estimated 15,000 gallons of diesel fuel to be released and flow down a dry creek bed. The fuel from the locomotives is also on fire. The remaining freight cars were loaded with assorted building products and household goods.

The three-member train crew (engineer, conductor and brakeman) are missing. It is unknown if they jumped clear of the train, or are in the wreckage.

### THE FIRE

The fire involving the train and the cargo is extensive. A small wildland fire (approximately 10 acres of grass and brush) occurred, but has basically contained itself within pre-existing natural and man-made barriers. The train fire is being fed by thousands of gallons of flammable liquids and thousands of tons of other combustibles. Access is extremely difficult and the toxicity of the smoke is unknown. Darkness has made an accurate appraisal impossible.

### PREDICTION

The wildland fire may or may not hold itself to its present containment. The railroad cars and cargo are predicted by Santa Fe officials to continue burning intensely throughout the next 2-3 days.

### THE WEATHER

The weather forecast for August 4 is:  
Temperature 92 degrees  
Relative Humidity 18%  
Wind Direction and Speed S/SE, 10-18 MP  
No rain is predicted through the period



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

CAJON PASS EXERCISE

---

## **EXPOSURES**

Cajon Pass is a mountain pass that connects the high desert (primarily a bedroom community) and the urban areas of San Bernardino. The Pass is a major utility and transportation corridor. The subdivision of Oak Hill, at the top of the Pass, is in the direct path of the predicted wind flow. Due to the topography, other exposures must be considered.

- 3 Major rail lines
- 2 Major petroleum pipe lines (8" & 14")
- Interstate 15
- State Route 138
- Local residences
- Local businesses
- 280 KV powerlines
- Major population areas both north and south of the crash site
- Impacts for transportation and utility routes
- Resource values, wildlife, soil, air, etc.

## **SITUATION & RESOURCE**

### **STATUS**

You have arrived at the scene as the Operations Section Chief. The resources listed below are also at the scene and have been functioning in an initial attack capacity with little progress being made. The jurisdictional agency has ordered an Incident Management Team. The team is enroute due to arrive at 1000 hours. There are no other outstanding or unfilled orders. Battalion Chief, current IC.

- 5 Single resource Type I engines
- 8 Single resource Type III engines
- 2 BLS ambulances
- 2 Paramedic units
- 3 Type I handcrews
- 1 Safety Officer
- 3 Division Group/Supervisors
- 1 Planning Section Chief
- 1 Battalion Chief, current IC
- 1 Haz Mat team Type I



# INCIDENT COMMAND SYSTEM

S430 Operations Section Chief – ALL RISK

CAJON PASS EXERCISE

---

## RELEASE FROM LIABILITY AND HOLD HARMLESS AGREEMENT, AND AGREEMENT TO REIMBURSE FOR ACTUAL COSTS OF MATERIALS SUPPLIED

WHEREAS emergency conditions have existed since August 3, in West Cajon Valley near the junction of Interstate 15 and Highway 138, in San Bernardino County, California, and a proclamation of a local emergency was declared on August 3, by the Chairman of the San Bernardino County Board of Supervisors, resulting from the multi-car derailment of a train carrying hazardous chemicals, and the release of hazardous materials into the atmosphere at that location, and because an imminent threat of an uncontrolled explosion currently exists concerning an overheating double-jacketed railroad tanker car that was part of the derailed train, which might be mitigated by an emergency controlled explosion;

THEREFORE, in consideration of receiving a quantity of C-4 explosive and detonation cord from the San Bernardino County Sheriff's Department for an emergency controlled explosion of a valve of an overheating double-jacketed railroad tanker car, the Burlington Northern Santa Fe Railway hereby agrees to release from all liability and to indemnify and defend and hold harmless the County of San Bernardino and its governing Board of Supervisors, employees, and agents, and the San Bernardino County Sheriff's Department. Sheriff Gary S. Perrod, and their officers, employees, and agents from all claims for personal injuries and property; damage and other loss, liabilities, costs, and expenditures, including attorney's fees and costs of defense, which may arise from the detonation of the C-4 explosive being supplied to the Burlington Northern Santa Fe Railway for the purpose of creating an emergency controlled explosion to avert a threatened explosion deemed to be greater in intensity than the planned controlled explosion.

The Burlington Northern Santa Fe Railway further agrees that the C-4 explosive and detonation cord are only being provided for the purpose of conducting an emergency controlled explosion of an overheating double-jacketed railroad tanker car, and will not be used for any other purpose. The Burlington Northern Santa Fe Railway further agrees to promptly return to the San Bernardino County Sheriff's Department any unused materials supplied to it under this agreement, and to reimburse the County of San Bernardino and the San Bernardino County Sheriff's Department for the actual cost of all materials supplied and used in the emergency operation.



**INCIDENT COMMAND SYSTEM**  
S430 Operations Section Chief – ALL RISK

CAJON PASS EXERCISE

I attest that I have the authority to enter into and sign this release and agreement on behalf of the Burlington Northern Santa Fe Railway, and that this agreement is being entered into freely and voluntarily.

DATE:

Burlington Northern Santa Fe Railway

By:  
Superintendent

I agree to release a quantity of C-4 explosive and detonation cord to the Burlington Northern Santa Fe Railway for the sole purpose of the conducting of an emergency explosion by their employees, consultants, and agents under the terms and conditions just described.

DATE:

San Bernardino County Sheriff's Department

By:

# GENERAL MESSAGE

<b>TO:</b>		<b>POSITION</b>	
<b>FROM</b>		<b>POSITION</b>	
<b>SUBJECT</b>	Santa Fe Railroad Organizational Structure	<b>DATE</b>	

**MESSAGE:**

DAVE DEALY  
Resources  
Steve Cutright  
Dick Dennison  
Mark Stelly      Blair Wallace                      Dave Gunther  
Nick Hardin                                      Safety Office  
La Donna Williams   Mechanical Employees  
Consultants

**SIGNATURE/POSITION**

**REPLY**

<b>DATE</b>	<b>TIME</b>	<b>SIGNATURE/POSITION</b>
-------------	-------------	---------------------------

## GENERAL MESSAGE

<b>TO:</b>	<b>POSITION</b>	<b>OPERATIONS SECTION CHIEF</b>
<b>FROM</b>	<b>POSITION</b>	<b>DISPATCH</b>
<b>SUBJECT</b> Gas Pipeline	<b>DATE</b>	

**MESSAGE:**

Please be aware that CALNEV pipeline is operational. Lines are at 500 PSI and located 300 feet north of incident.

Lines are marked with yellow markers and barricades have been placed 30 feet between the lines and incident. No

equipment is allowed past the barricades without notification to CALNEV personnel. CALNEV personnel are located at

ICP and directly above incident on the hill below the power transmission lines.

**SIGNATURE/POSITION**

**REPLY**

<b>DATE</b>	<b>TIME</b>	<b>SIGNATURE/POSITION</b>
-------------	-------------	---------------------------

# ICS 202 - INCIDENT OBJECTIVES

1. INCIDENT NAME

CAJON INCIDENT CA-BDF-12345

2. DATE PREPARED

AUG 4, xxxx

3. TIME PREPARED

0200 HRS.

## 4. OPERATIONAL PERIOD (DATE/TIME)

AUGUST 4TH, xxxx, 0700 - 1900 HRS, DAY OPERATIONAL PERIOD

### GENERAL CONTROL OBJECTIVES FOR THE INCIDENT (INCLUDE ALTERNATIVES)

1. ISOLATE AND DENY ENTRY TO EMERGENCY WORKERS & PUBLIC.
2. PROVIDE FOR SAFETY OF EMERGENCY WORKERS & PUBLIC.
3. DETERMINE NEED FOR POSSIBLE EVACUATIONS.
4. SECURE CRASH SCENE.
5. CONTAIN CONTAMINANTS (AIR & GROUND).
6. CONTAIN WILDLAND FIRE.
7. MITIGATE INCIDENT SUFFICIENTLY TO REOPEN INTERSTATE 15 (I-15)
8. LOCATE THREE (3) MISSING MEMBERS OF TRAIN CREW.

## 6. WEATHER FORECAST FOR OPERATIONAL PERIOD

-- SEE ATTACHED NATIONAL WEATHER SERVICE FORECAST.

## 7. GENERAL/SAFETY MESSAGE

-- SEE ATTACHED ICS 208, SITE SAFETY AND CONTROL PLAN & SAFETY MESSAGE.

-- MONITOR AIR QUALITY & ASSURE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

## 8. ATTACHMENTS (✓ IF ATTACHED)

- ORGANIZATION LIST (ICS 203)
- DIVISION ASSIGNMENT LISTS (ICS 204)
- COMMUNICATIONS PLAN (ICS 205)

- MEDICAL PLAN (ICS206)
- SITE SAFETY & CONTROL (ICS208)
- AIR OPERATIONS (ICS 220)
- WEATHER FORECAST

- SAFETY MESSAGE
- INCIDENT MAP
- TRANSPORTATION PLAN / MAP
- 

**ICS -202**

## 9. PREPARED BY (PLANNING SECTION CHIEF)

CHIEF JEFF JONES

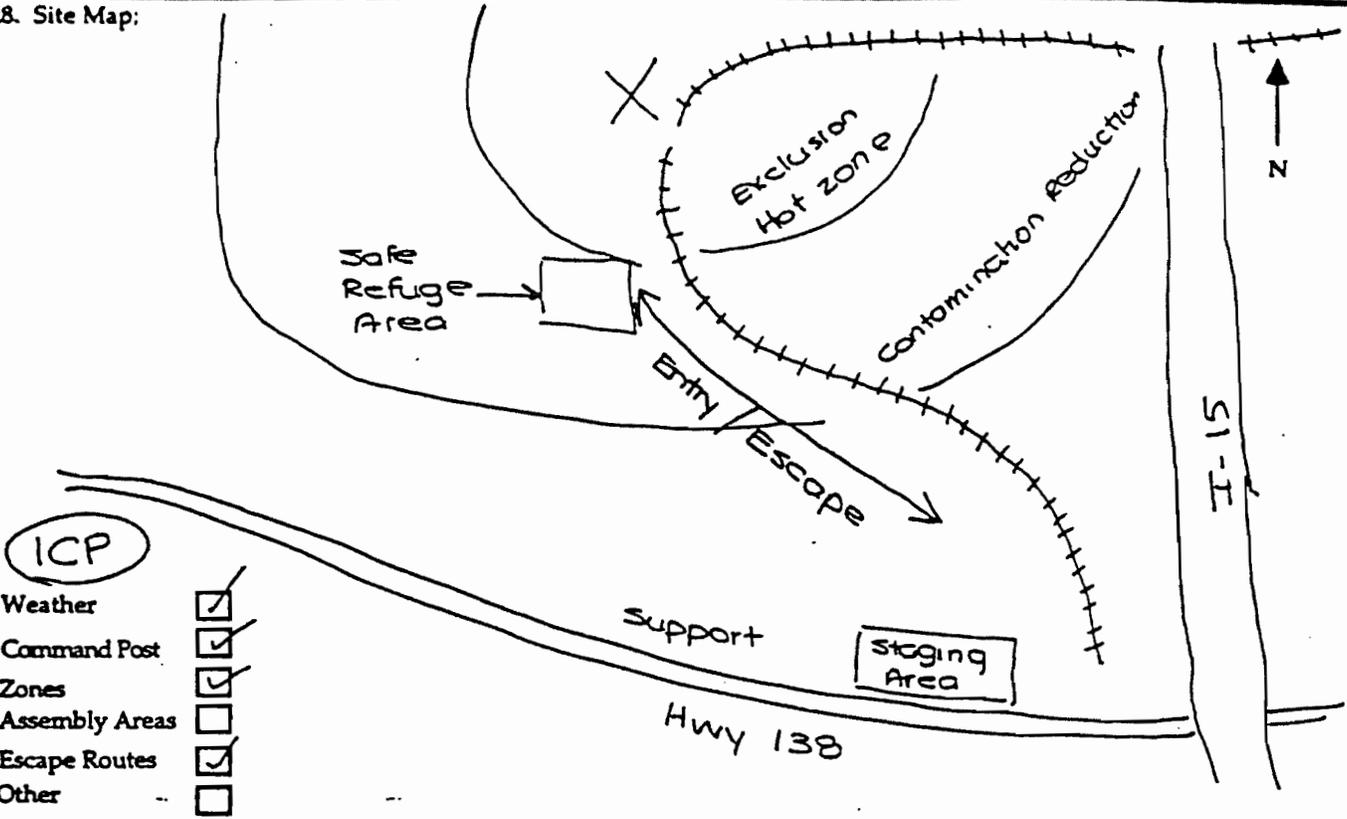
## 10. APPROVED BY (INCIDENT COMMANDER)

CHIEF PAT COONEY

SITE SAFETY AND CONTROL PLAN		1. Incident Name: Cajon			2. Date Prepared: 8/4			3. Operational Period Time: Day 1000 hrs				
Section I. Site Information												
4. Incident Location: Hwy 138 west of I-15												
Section II. Organization												
5. Incident Commander: Tim Sappock / Mike Conrad				6. HM Group Supervisor: Larry Katulus				7. Tech. Specialist - HM Reference:				
8. Safety Officer: Tim Kochen				9. Entry Leader:				10. Site Access Control Leader: DIV A & DIV B				
11. Asst. Safety Officer - HM: Doug Lawson				12. Decontamination Leader:				13. Safe Refuge Area Mgr:				
14. Environmental Health:												
15. Entry Team (Buddy System)						16. Decontamination Element						
Name:			Level:			Name:			Level:			
Entry 1 see Entry Locations			B			Decon 1 see Entry Locations			B			
Entry 2						Decon 2						
Entry 3						Decon 3						
Entry 4						Decon 4						
Section III. Hazard/Risk Analysis												
17. Material	Container type	Qty.	Phys. State	pH	IDLH	FP.	LT.	VP.	V.D.	S.G.	LEL	UEL
Trimethyl Phosphite	Rail Car	unk	liq	-	N/A	100°F		24	1.87		?	?
Butyl Acrylate	Ball car	unk	liq	-	-	105° 534°		3.2	4.4	.90	1.3	9.9
Denatured Alcohol	Rail Car	unk	liq	-	1000ppm		750°		1.6	.80		
Methyl Ethyl Ketone	Rail car	unk	liq	-	N/A	24°F	961°	71.2	2.5	.80	1.8	11.5
Comment: Due to inability to assess damage to rail cars, actual released materials unknown.												
Section IV. Hazard Monitoring												
18. LEL Instrument(s): GX 86 intermittent (4-5% LEL)						19. O <sub>2</sub> Instrument(s): GX 86 intermittent						
20. Toxicity/PPM Instrument(s): Droeger Tubes						21. Radiological Instrument(s): None						
Comment: 18% O <sub>2</sub> lowest reading detected												
Section V. Decontamination Procedures												
22. Standard Decontamination Procedures:			YES:	NO:	Comment: Modified to needs							
Plain water to be used												
Support 151.445						Section VI. Site Communications OES Tactical 154.280						
23. Command Frequency 151.265			24. Tactical Frequency: 154.325			25. Entry Frequency: 154.325						
Section VII. Medical Assistance												
26. Medical Monitoring			YES: <input checked="" type="checkbox"/>	NO:	27. Medical Treatment and Transport In-place			YES: <input checked="" type="checkbox"/>	NO:			
Comment: Located at staging @ Div A @ Div B												

Section VIII. Site Map

28. Site Map:



Section IX. Entry Objectives

29. Entry Objectives:

Damage assessment & fire control

Section X. SOP'S and Safe Work Practices

30. Modifications to Documented SOP's or Work Practices      YES:      NO:

Comment: Level B protection while working near liquids, Level D & SCBA during fire control. Be alert around heavy equipment. Stay away from cables. Be alert to cold or heat exposure. Any pooling and/or mixing of chemicals will be evaluated before entry.

Section XI. Emergency Procedures

31. Emergency Procedures:

Signal will be yelp siren or air horn blasts. Personnel will move upwind & away from hazard into safe Refuge Area. Notify safety officer of equipment failures.

Section XII. Safety Briefing

32. Asst. Safety Officer HM Signature:

Safety Briefing Completed (Time):

33. HM Group Supervisor Signature:

34. Incident Commander Signature:

**FAX**

**County Sheriff's  
Department**

**John Smith, Sheriff**

**Facsimile Transmission**

---

---

**Voice:** 909 555-1234

**Facsimile:** 909 555-4321

---

---

**To:** ATTORNEY FOR SANTA FE RAILROAD  
CAJON INCIDENT COMMAND POST

**From:** CLARENCE DARROW, LEGAL COUNCIL  
SHERIFF'S DEPARTMENT

**Date:** August 4      **Number of Pages:** Cover + 2

**Comments:** PROPOSED DRAFT FOR YOUR REVIEW & DISCUSSION IF  
NEEDED. ALSO, F.Y.I. CLARENCE DARROW WILL BE FLYING TO THE COMMAND POST  
LATER TODAY.

**RELEASE FROM LIABILITY & HOLD HARMLESS  
AGREEMENT AND AGREEMENT TO REIMBURSE FOR  
ACTUAL COSTS OF MATERIALS SUPPLIED**

WHEREAS emergency conditions have existed since August 3, in West Cajon Valley near the junction of Interstate 15 and Highway 138, in the County, and a proclamation of a local emergency was declared by the Chairperson of the Board of Supervisors, resulting from the multi-car derailment of a train carrying hazardous chemicals, and the release of hazardous materials into the atmosphere at that location, and because an imminent threat of an uncontrolled explosion currently exists concerning an overheating double-jacketed railroad tanker car that was part of the derailed train, which might be mitigated by an emergency controlled explosion;

THEREFORE, in consideration of receiving a quantity of C-4 explosive and detonation cord from the County Sheriff's Department for an emergency controlled explosion of a valve of an overheating double-jacketed railroad tanker car, the Santa Fe Railway hereby agrees to release from all liability and to indemnify and defend and hold harmless the County and its governing Board of Supervisors, employees, and agents, and the County Sheriff's Department, Sheriff John Smith, and their officers, employees, and agents from all costs from personal injuries and property damage and other loss, liabilities, costs, and expenditures, including attorney's fees and costs of defense, which might arise from the detonation of the C-4 explosive being supplied to the Santa Fe Railway for the purpose of creating an emergency controlled explosion to avert a threatened explosion deemed to be greater in intensity than the planned controlled explosion.

The Santa Fe Railway further agrees that the C-4 explosive and detonation cord are only being provided for the purpose of conducting an emergency controlled explosion of an overheating double-jacketed railroad tanker car, and will not be used for any other purpose. The Santa Fe Railway further agrees to promptly return to the County Sheriff's Department any unused materials supplied to it under this agreement, and to reimburse the County and the Sheriff's Department for the actual cost of all material supplied and used in the emergency operation. I attest that I have the authority to enter into this release and agreement on behalf of the Santa Fe Railway, and that this agreement is being entered into freely and voluntarily.

DATE: \_\_\_\_\_

Santa Fe Railway

BY: \_\_\_\_\_

Superintendent

I agree to release a quantity of C-4 explosive and detonation cord to the Santa Fe Railway for the sole purpose of the conducting of an emergency explosion by their employees, consultants, and agents under the terms and conditions just described.

DATE: \_\_\_\_\_

County Sheriff's Department

BY: \_\_\_\_\_

NORMAL TRANSPORTATION. IT IS REACTIVE WITH STRONG OXIDIZING MATERIALS, AND WILL DISSOLVE OR SOFTEN SOME PLASTICS. TOXICITY IS LOW TO MODERATE VIA THE VARIOUS POTENTIAL ROUTES OF EXPOSURE. VAPORS ARE IRRITATING TO NOSE, EYES, AND THROAT. PRODUCTS OF COMBUSTION MAY INCLUDE TOXIC CONSTITUENTS. IT WEIGHS 6.7 LBS/GALLON.

---

ARS FROM HEAD END GATX 37310

CLASSIFICATION: ( FLAMMABLE LIQUID )  
COMMODITY NUMBER IS: 4910185  
FLAMMABLE LIQUIDS, N.O.S.  
( FLAMMABLE LIQUID )  
CLASS 3 (FLAMMABLE LIQUID)

UN1993

( FLAMMABLE LIQUID )

FLAMMABLE LIQUIDS, N.O.S. IS THE PROPER SHIPPING NAME FOR THOSE MATERIALS HAVING A CLOSED CUP FLASH POINT OF LESS THAN 141 DEG. F. AND NOT SPECIFICALLY MENTIONED IN THE HAZARDOUS MATERIALS REGULATIONS.

---

33 CARS FROM HEAD END NATX 82129

CLASSIFICATION: ( COMBUSTIBLE LIQUID )  
COMMODITY NUMBER IS: 4912215  
BUTYL ACRYLATE  
( COMBUSTIBLE LIQUID )  
CLASS 3 (FLAMMABLE LIQUID)

UN2348

( COMBUSTIBLE LIQUID )

BUTYL ACRYLATE IS A CLEAR COLORLESS LIQUID WITH A SHARP, BITING CHARACTERISTIC ODOR. IT IS USED FOR MAKING PAINTS, COATINGS, CAULKS, SEALANTS, ADHESIVES, OTHER CHEMICALS, AND A VARIETY OF OTHER PRODUCTS. THE SUBSTANCE IS VERY SLIGHTLY SOLUBLE IN WATER AND SOMEWHAT LIGHTER SO MAY BE EXPECTED TO FORM A SLOWLY DISSOLVING SURFACE SLICK. ITS FLASH POINT OF 75 DEG. F. INDICATES THAT BUTYL ACRYLATE MUST BE MODERATELY HEATED TO BE EXPOSED TO HIGH AMBIENT TEMPERATURES BEFORE IGNITION MAY OCCUR EASILY. EMULSIONS OF VAPOR IN CONFINED SPACES SUCH AS BUILDINGS OR SEWERS MAY RESULT IN EXPLOSIONS IF IGNITED. IT WEIGHS 7.5 LBS/GALLON.

---

31 CARS FROM HEAD END ACPX 79907

CLASSIFICATION: ( COMBUSTIBLE LIQUID )  
COMMODITY NUMBER IS: 4914256  
PETROLEUM DISTILLATES, N.O.S. <OR> PETROLEUM PRODUCTS, N.O.S.  
( COMBUSTIBLE LIQUID )  
COMBUSTIBLE LIQUID  
UN1268

PETROLEUM DISTILLATES, N.O.S. IS A CLEAR COLORLESS TO VARIABLE COLORED LIQUID HYDROCARBON MIXTURE WITH PROPERTIES, INCLUDING ODOR, BETWEEN GASOLINE AND KEROSENE. IT'S FLASH POINT CAN BE EXPECTED TO BE ABOVE 100 DEG F. IT IS BARELY SOLUBLE IN WATER AND LIGHTER THAN WATER. IT WILL FORM A FLOATING SURFACE SLICK. IT'S VAPORS ARE HEAVIER THAN AIR. IT CAN BE TOXIC BY ABSORPTION, INHALATION OR SKIN ABSORPTION.

---

## n-BUTYL ACRYLATE RAILCAR (105-J) RECOMMENDATIONS

SITUATION I: RAILCAR HAS RUPTURED AND MATERIAL HAS SPILLED.

RECOMMENDATION: APPROACH WITH CAUTION TO FIGHT FIRE AND/OR MITIGATE SPILL.

DANGER IS ENVIRONMENTAL/PERSONNEL EXPOSURE ONLY

SITUATION II: RAILCAR TANK IS INTACT WITH FIRE ON OR NEAR IT.

RECOMMENDATION: DO NOT APPROACH! DANGER OF CATASTROPHIC TANK FAILURE IS SMALL, BUT ACTUAL.

EVACUATE ONE-HALF MILE.

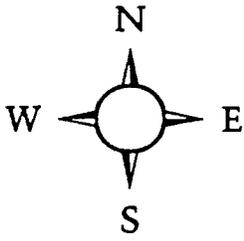
### KNOWN PROPERTIES OF n-BUTYL ACRYLATE:

- (a) IF INTERNAL (MATERIAL) TEMPERATURE REACHES 125°C (DUE TO SURROUNDING FIRE), THE SHIPPING STABILIZER IS NO LONGER FUNCTIONAL.
- (b) IF A RUNAWAY POLYMERIZATION ENSUES, EXOTHERMIC TEMPERATURE RISE MAY WELL REACH 147°C.
- (c) IF INTERNAL (MATERIAL) TEMPERATURE REACHES 147°C (THE NORMAL BOILING POINT), THE RAILCAR WILL BEGIN TO VENT VAPOR WHICH IS UNSTABILIZED.
- (d) IF UNSTABILIZED VAPOR CONDENSATE POLYMERIZES, PRESSURE RELIEF MAY BE COMPROMISED, LEADING TO RAPID INTERNAL PRESSURIZATION OF THE RAILCAR.
- (e) IF THE INTERNAL PRESSURIZATION EXCEEDS THE MAXIMUM OPERATING PRESSURE OF THE TANK, CATASTROPHIC RUPTURE (EXPLOSION) MAY OCCUR.

### POSSIBLE WARNING SIGN:

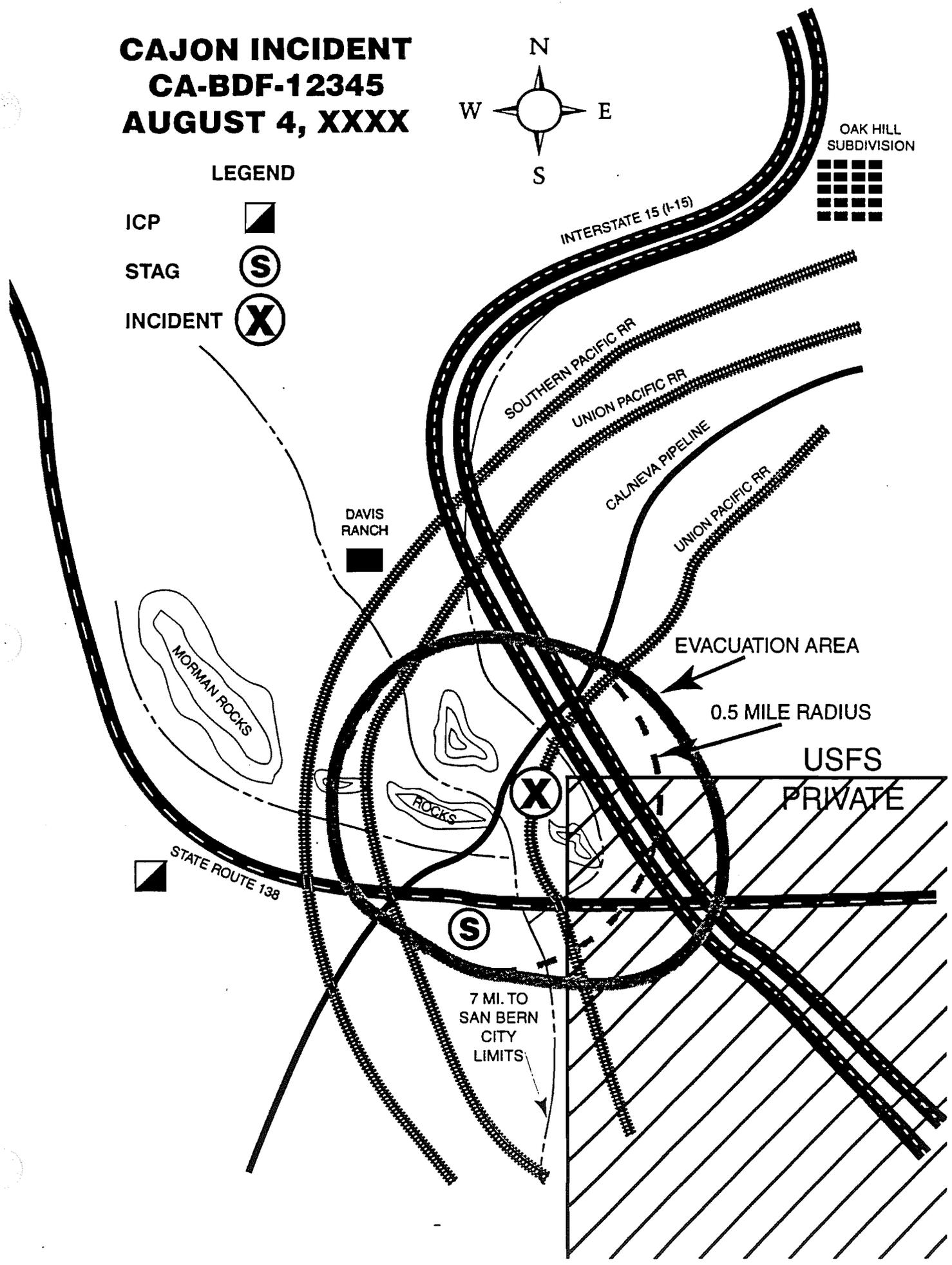
IF PRESSURE VENTING HAS BEEN OBSERVED (VAPOR CLOUD) AND SUBSEQUENTLY STOPS, PRESSURE RELIEF SYSTEM HAS LIKELY BEEN COMPROMISED.

# CAJON INCIDENT CA-BDF-12345 AUGUST 4, XXXX



## LEGEND

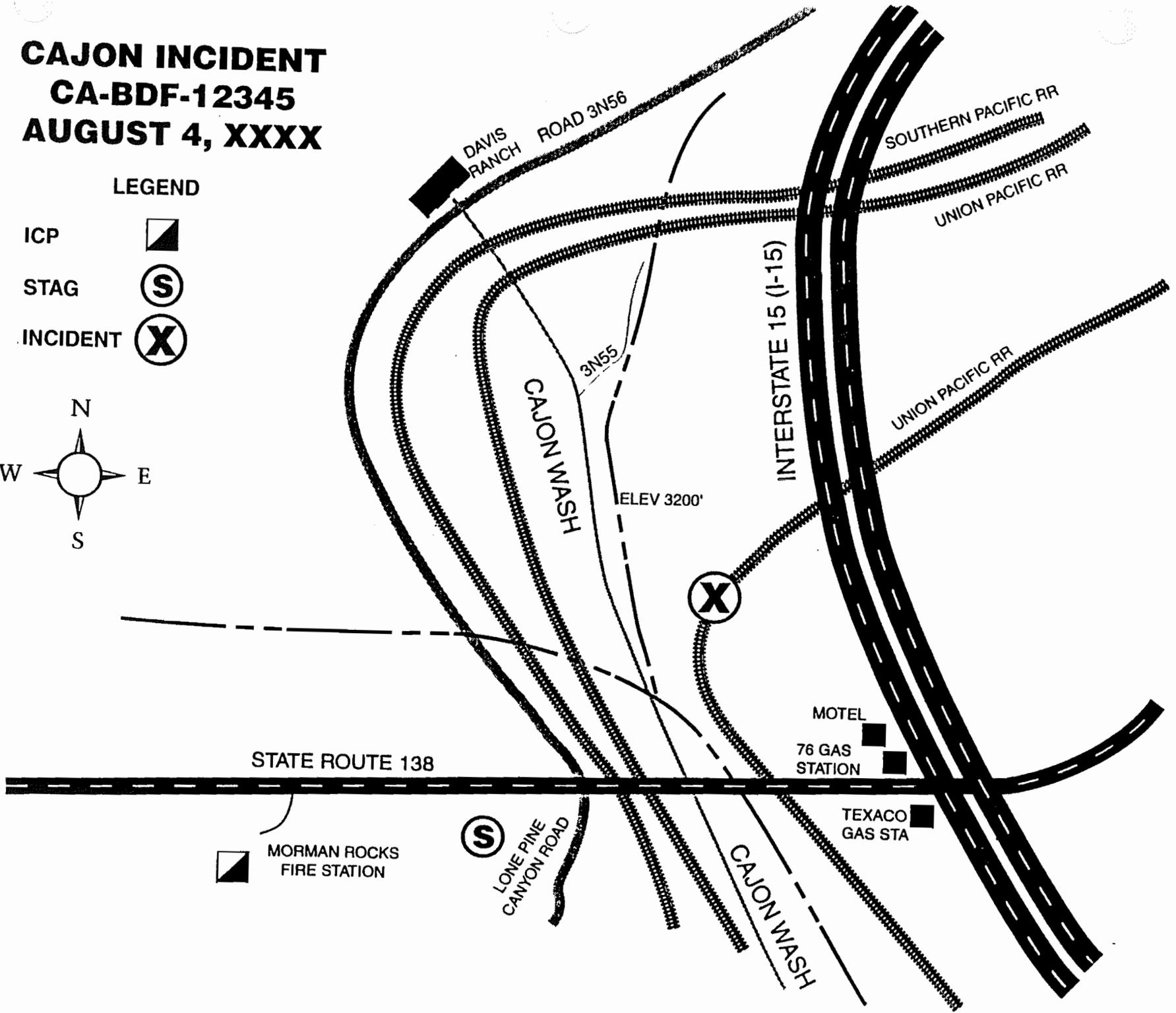
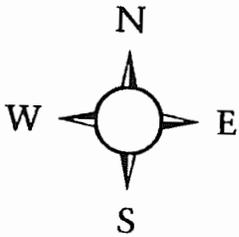
- ICP
- STAG
- INCIDENT



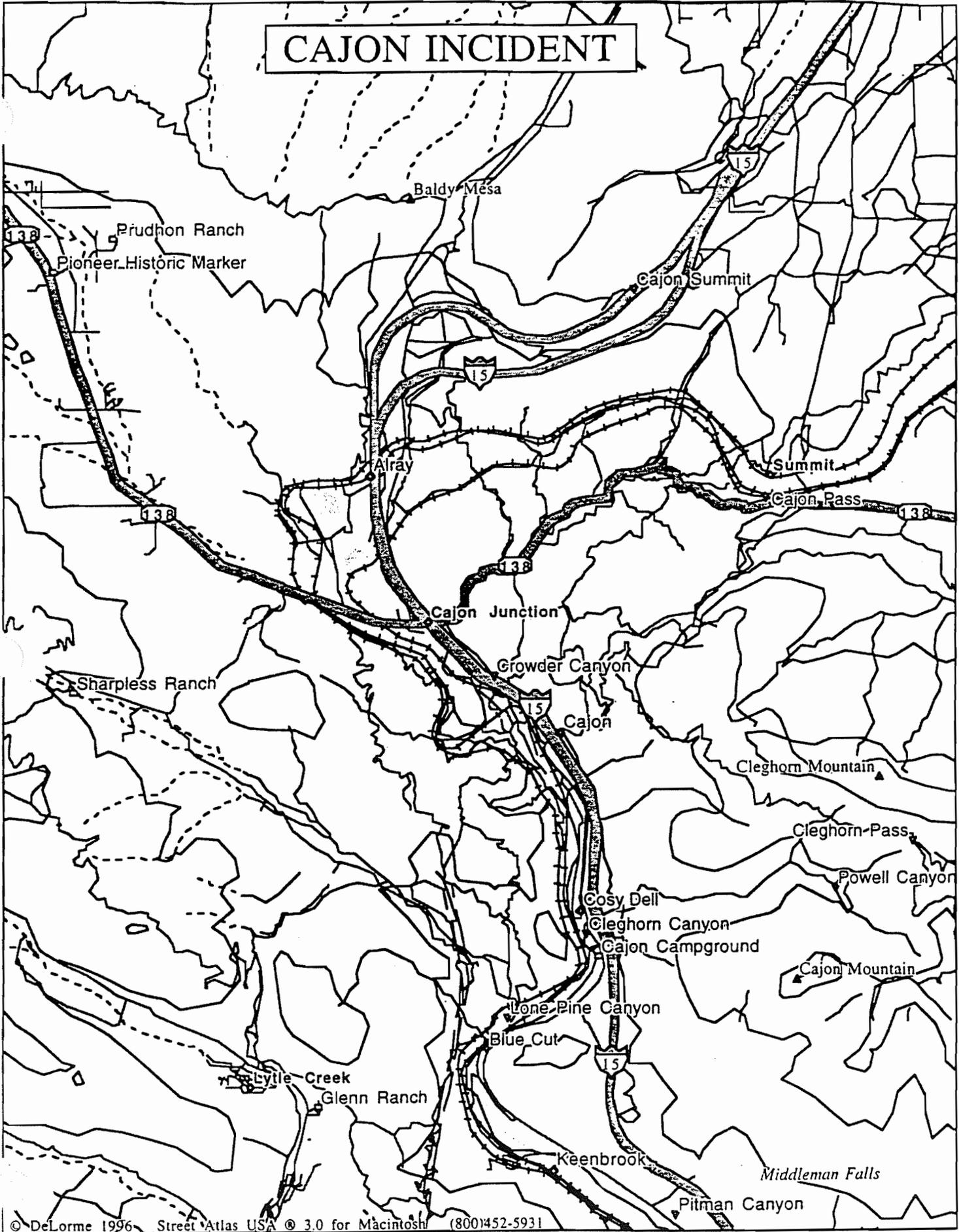
# CAJON INCIDENT CA-BDF-12345 AUGUST 4, XXXX

## LEGEND

- ICP 
- STAG 
- INCIDENT 



# CAJON INCIDENT



2020 LAXFWFUCR ECW  
TTAA00 KUCR DDHMM  
GEOGRAPHICAL AREA COMMAND CENTER  
OPERATIONS AND COORDINATION CENTER  
INTERAGENCY FIRE/FORECAST WARNING UNIT  
RIVERSIDE, CALIFORNIA  
FIRE WEATHER FORECAST  
0930 PDT MONDAY AUGUST 4

SOUTHERN CALIFORNIA

SYNOPSIS...

HIGH PRESSURE ALOFT, CONTINUING ITS WESTWARD MOVEMENT TOWARD CALIFORNIA, WILL MAINTAIN HOT TEMPERATURES OVER THE AREA THROUGH MUCH OF THE WEEK. TROPICAL MOISTURE MOVING OVER THE AREA FROM MEXICO, WILL PRODUCE A FEW THUNDERSTORMS THIS AFTERNOON AND TONIGHT OVER MOUNTAINS AND DESERTS AS WELL AS SOME VALLEY FOOTHILL LOCATIONS. ENOUGH MOISTURE WILL LIKELY REMAIN FOR A FEW AFTERNOON THUNDERSTORMS OVER MOUNTAINS AND DESERTS THROUGH TUESDAY, THEN BECOMING ISOLATED WEDNESDAY, AS HIGH PRESSURE ALOFT BECOMES CENTERED CLOSE TO SOUTHERN CALIFORNIA.

\*\*\*\*\*VENTURA COUNTY\*\*\*\*\*  
ALL AREAS OF THE COUNTY EXCLUDING THE LOS PADRES NATIONAL FOREST. NFDR ZONES 504 AND 508.

TODAY...

SUNNY. HIGHS IN THE UPPER 70S TO THE 80S IN THE COASTAL AREAS, WITH 90S TO NEAR 105 IN THE INLAND VALLEYS. MINIMUM HUMIDITY 45-60% NEAR THE COAST, TO 15-25% INLAND. LIGHT OFFSHORE WINDS OR CALM THIS MORNING, BECOMING SOUTHWEST TO WEST 10 TO 15 MPH THIS AFTERNOON.  
TRENDS: TEMP LC, RH UP 3-5, WIND LC, FM LC, LAL 1.

TONIGHT...

PATCHY FOG ALONG THE COASTLINE, OTHERWISE CLEAR. LOWS MOSTLY IN THE 60S. MAXIMUM HUMIDITY 80-90% ALONG THE COAST TO 50-60% INLAND. SOUTHWEST TO WEST WINDS 8 TO 15 MPH EARLY THIS EVENING, BECOMING LIGHT OFFSHORE OR CALM AFTER SUNSET.

\*\*\*\*\*LOS ANGELES COUNTY\*\*\*\*\*  
ALL AREAS OF THE COUNTY EXCLUDING NATIONAL FORESTS AND THE ANTELOPE VALLEY. NFDR ZONES 505, 508 AND WESTERN 509.

TODAY...

SUNNY. HIGHS IN THE UPPER 70S TO THE 80S NEAR THE COAST, WITH 90S TO 106 IN THE INLAND VALLEYS. MINIMUM HUMIDITY 50-60% ALONG THE COAST, TO 10-25% IN THE INLAND VALLEYS. LIGHT OFFSHORE WINDS OR CALM THIS MORNING, BECOMING SOUTH TO WEST 10 TO 15 MPH THIS AFTERNOON.  
TRENDS: TEMP UP 2, RH UP 3-5, WIND LC, FM LC, LAL 1.

TONIGHT...

CLEAR. LOWS MOSTLY IN THE 60S TO LOW 70S. MAXIMUM HUMIDITY 80-90% NEAR THE COAST TO 40-60% INLAND. SOUTH TO WEST WINDS 8 TO 15 MPH EARLY THIS EVENING, BECOMING LIGHT OFFSHORE OR CALM AFTER SUNSET.

\*\*\*\*\*ORANGE COUNTY\*\*\*\*\*  
ALL AREAS OF THE COUNTY EXCLUDING THE CLEVELAND NATIONAL FOREST. NFDR ZONE 508.

TODAY...

SUNNY. HIGHS IN THE UPPER 70S TO THE 80S IN THE LOWER COASTAL AREAS WITH 90S INLAND. MINIMUM HUMIDITY 40-55% NEAR THE COAST, TO 15-25% INLAND. LIGHT OFFSHORE WINDS OR CALM THIS MORNING, BECOMING SOUTH TO SOUTHWEST 10 TO 15 MPH THIS AFTERNOON.  
TRENDS: TEMP UP 2, RH UP 3-5, WIND LC, FM LC, LAL 1.

TONIGHT...

CLEAR. LOWS MOSTLY IN THE 60S TO LOW 70S. MAXIMUM HUMIDITY 80-100% ALONG THE COAST TO 60-70% INLAND. SOUTH TO SOUTHWEST WINDS 10 TO 15 MPH EARLY THIS EVENING, BECOMING LIGHT OFFSHORE OR CALM AFTER SOON AFTER SUNSET.

\*\*\*\*\*SAN DIEGO COUNTY\*\*\*\*\*  
ALL AREAS EXCLUDING THE MOUNTAINS AND DESERTS. NFDR ZONES 508 AND SOUTHERN  
509.

TODAY...

PATCHY MORNING FOG ALONG THE COAST, SUNNY. HIGHS IN THE UPPER 70S TO THE 80S  
NEAR THE COAST, WITH 90S TO NEAR 103 INLAND. MINIMUM HUMIDITY 40-55% NEAR THE  
COAST, TO 15-25% INLAND. LIGHT OFFSHORE WINDS OR CALM THIS MORNING, BECOMING  
WEST 10 TO 15 MPH THIS AFTERNOON.  
TRENDS: TEMP UP 2, RH UP 3-5, WIND LC, FM LC, LAL 1.

TONIGHT...

SOME PATCHY FOG NEAR THE IMMEDIATE COAST, OTHERWISE CLEAR. LOWS IN THE 60S TO  
LOW 70S. MAXIMUM HUMIDITY 80-100% NEAR THE COAST TO 50-70% INLAND. WESTERLY  
WINDS 7 TO 15 MPH EARLY THIS EVENING, BECOMING LIGHT OFFSHORE OR CALM SHORTLY  
AFTER SUNSET.

\*\*\*\*\*INLAND EMPIRE\*\*\*\*\*  
ALL AREAS OF WESTERN SAN BERNARDINO AND WESTERN RIVERSIDE COUNTY EXCLUDING  
THE NATIONAL FORESTS. NFDR ZONES 510, 512 AND CENTRAL 509.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A SLIGHT CHANCE  
OF THUNDERSTORMS NEAR THE FOOTHILLS. HIGHS FROM THE UPPER 90S TO NEAR 107.  
MINIMUM HUMIDITY 15-25%. LIGHT OFFSHORE WINDS OR CALM THIS MORNING, BECOMING  
SOUTH TO SOUTHWEST 10 TO 15 MPH THIS AFTERNOON. STRONG AND ERRATIC WINDS NEAR  
ANY THUNDERSTORMS.  
TRENDS: TEMP LC, RH UP 3-5, WIND LC, FM LC, LAL 1-2.

TONIGHT...

CLEAR. LOWS MOSTLY IN THE 60S. MAXIMUM HUMIDITY 50-60%. SOUTHWEST TO WEST  
WINDS 8 TO 15 MPH EARLY THIS EVENING, THEN BECOMING LIGHT OFFSHORE OR CALM  
AFTER SUNSET.

\*\*\*\*\*LOS PADRES NATIONAL FOREST\*\*\*\*\*  
FROM THE SANTA BARBARA COUNTY LINE TO THE ANGELES NATIONAL FOREST BOUNDARY.  
NFDR ZONES 502 AND 503.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON. HIGHS MOSTLY IN  
THE 80S TO LOW 90S. MINIMUM HUMIDITY 10-20%. RIDGETOP WINDS, SOUTH TO  
SOUTHWEST 10 TO 15 MPH. ALONG THE SLOPES, UPSLOPE/UPCANYON 7 TO 15 MPH.  
TRENDS: TEMP LC, RH LC, WIND LC, FM LC, LAL 1.

TONIGHT...

CLEAR. LOWS MOSTLY IN THE 60S TO LOW 70S. MAXIMUM HUMIDITY 35-50%. RIDGETOP  
WINDS, VARIABLE WINDS 5 TO 10 MPH. ALONG THE SLOPES, LIGHT  
DOWNSLOPE/DOWNCANYON.

\*\*\*\*\*ANGELES NATIONAL FOREST\*\*\*\*\*  
NFDR ZONES 505, 506 AND 507.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF  
THUNDERSTORMS. HIGHS MOSTLY IN THE MID 80S TO THE 90S. MINIMUM HUMIDITY  
8-18%. RIDGETOP WINDS, SOUTH TO SOUTHWEST 10 TO 15 MPH. ALONG THE SLOPES,  
UPSLOPE/UPCANYON 7 TO 15 MPH. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.  
TRENDS: TEMP LC, RH LC, WIND LC, FM UP 1-2, LAL 2-3.

TONIGHT...

PARTLY CLOUDY EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 60S TO  
LOW 70S. MAXIMUM HUMIDITY 25-40%. RIDGETOP WINDS, VARIABLE 5 TO 10 MPH. ALONG  
THE SLOPES, LIGHT DOWNSLOPE/DOWNCANYON.

\*\*\*\*\*SAN BERNARDINO NATIONAL FOREST\*\*\*\*\*  
NFDR ZONES 511, NORTHERN 513, AND WESTERN 516.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF  
THUNDERSTORMS. HIGHS MOSTLY IN THE MID 80S TO THE 90S. MINIMUM HUMIDITY

10-25%. RIDGETOP WINDS, SOUTHEAST TO SOUTHWEST 10 TO 15 MPH. ALONG THE SLOPES, UPSLOPE/UPCANYON 8 TO 15 MPH. STRONG AND ERRATIC WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP DN 3, RH UP 3-5, WIND LC, FM UP 1, LAL 2-3.

TONIGHT...

PARTLY CLOUDY EARLY THIS EVENING, OTHERWISE CLEAR. LOWS IN THE 60S TO LOW 70S, EXCEPT 50S IN THE HIGHER ELEVATION VALLEYS. MAXIMUM HUMIDITY 25-40%. RIDGETOP WINDS, VARIABLE WINDS 5 TO 10 MPH. ALONG THE SLOPES, LIGHT DOWNSLOPE/DOWNCANYON.

\*\*\*\*\*CLEVELAND NATIONAL FOREST AND SURROUNDING MOUNTAINS\*\*\*\*\*  
NFDR ZONES SOUTHERN 513, AND WESTERN 515.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS MOSTLY IN THE UPPER 80S TO THE 90S. MINIMUM HUMIDITY 15-25%. RIDGETOP WINDS, SOUTHEAST TO SOUTHWEST 10 TO 15 MPH. ALONG THE SLOPES, UPSLOPE/UPCANYON 7 TO 15 MPH. STRONG AND ERRATIC WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP DN 3, RH UP 3-5, WIND LC, FM UP 1, LAL 3.

TONIGHT...

PARTLY CLOUDY EARLY THIS EVENING, OTHERWISE CLEAR. LOWS IN THE 60S TO LOW 70S. MAXIMUM HUMIDITY 30-50%. RIDGETOP WINDS, VARIABLE 5 TO 10 MPH. ALONG THE SLOPES, LIGHT DOWNSLOPE/DOWNCANYON.

\*\*\*\*\*ANTELOPE VALLEY\*\*\*\*\*  
WEST OF HWY 395 AND SOUTH OF THE KERN COUNTY LINE. NFDR ZONES 519 AND WESTERN 514.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS FROM THE UPPER 90S TO 105. MINIMUM HUMIDITY 10-20%. WINDS VARIABLE 5 TO 10 MPH THIS MORNING, BECOMING SOUTHWEST 10 TO 15 MPH THIS AFTERNOON. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.

TRENDS: TEMP LC, RH UP 3-5, WIND LC, FM LC, LAL 1-2.

TONIGHT...

PARTLY CLOUDY EARLY THIS EVENING WITH A CHANCE OF A FEW THUNDERSHOWERS, OTHERWISE CLEAR. LOWS MOSTLY IN THE MID 60S TO LOW 70S. MAXIMUM HUMIDITY 30-45%. WINDS MOSTLY LIGHT AND VARIABLE, EXCEPT STRONG AND ERRATIC NEAR ANY THUNDERSTORM.

\*\*\*\*\*EASTERN KERN COUNTY DESERT\*\*\*\*\*  
DESERT PORTIONS OF KERN COUNTY. NFDR ZONE 519.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS IN THE UPPER 90S TO NEAR 108. MINIMUM HUMIDITY 12-25%. WINDS VARIABLE 5 TO 10 MPH THIS MORNING, BECOMING SOUTHEAST TO SOUTHWEST 10 TO 20 MPH THIS AFTERNOON. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.

TRENDS: TEMP LC, RH UP 3-5, WIND LC, FM LC, LAL 1-2.

TONIGHT...

PARTLY CLOUDY WITH A CHANCE OF A FEW THUNDERSHOWERS EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE MID 60S INTO THE 70S. MAXIMUM HUMIDITY 40-55%. WINDS SOUTHWEST 10 TO 20 MPH, DECREASING LATE NIGHT. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.

\*\*\*\*\* JOSHUA TREE NATIONAL PARK \*\*\*\*\*  
INCLUDING SURROUNDING AREAS SUCH AS TWENTYNINE PALMS AND YUCCA VALLEY.  
NFDR ZONES 519 AND EASTERN 516.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS IN THE 80S HIGHER ELEVATIONS, WITH UPPER 90S TO NEAR 105 IN THE LOWER ELEVATIONS. MINIMUM HUMIDITY 15-30%. VARIABLE WINDS LESS THAN 10 MPH THIS MORNING. WINDS BECOMING SOUTHEAST TO SOUTHWEST 10 TO 15 MPH THIS AFTERNOON. WITH A LITTLE STRONGER WINDS HIGHER ELEVATIONS. STRONG AND ERRATIC

WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP LC, RH UP 5-10, WIND LC, FM UP 1-2, LAL 2-3.

TONIGHT...

PARTLY CLOUDY WITH A CHANCE OF A FEW THUNDERSHOWERS EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 60S TO MID 70S. MAXIMUM HUMIDITY 35-50%. WINDS BECOMING MOSTLY LIGHT AND VARIABLE, EXCEPT STRONG AND ERRATIC WINDS NEAR THUNDERSTORM.

\*\*\*\*\*CENTRAL MOJAVE DESERT\*\*\*\*\*  
INCLUDING DEATH VALLEY NATIONAL PARK. NFDR ZONE 519.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS MOSTLY 102 TO 112, EXCEPT NEAR 120 IN DEATH VALLEY. MINIMUM HUMIDITY 10-20%. WINDS EAST TO SOUTH 10 TO 15 MPH, EXCEPT STRONG AND ERRATIC NEAR THUNDERSTORMS.

TRENDS: TEMP LC, RH UP 3-4, WIND LC, FM UP 1, LAL 3.

TONIGHT...

PARTLY CLOUDY WITH A FEW THUNDERSHOWERS EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 80S. MAXIMUM HUMIDITY 40-50%. VARIABLE WINDS 5 TO 10 MPH, EXCEPT STRONG AND ERRATIC NEAR ANY THUNDERSTORM.

\*\*\*\*\*EASTERN MOJAVE DESERT\*\*\*\*\*  
INCLUDING THE MOJAVE NATIONAL PRESERVE AND THE LOWER COLORADO RIVER NORTH OF BLYTHE. NFDR ZONE 519.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS 103 TO NEAR 113. MINIMUM HUMIDITY 20-30%. WINDS BECOMING SOUTHEAST TO SOUTHWEST WINDS 5 TO 15 MPH. STRONG AND ERRATIC WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP UP 3, RH LC, WIND LC, FM UP 1, LAL 3.

TONIGHT...

PARTLY CLOUDY WITH A FEW THUNDERSHOWERS EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 80S. MAXIMUM HUMIDITY 40-60%. WINDS BECOMING VARIABLE 5 TO 10 MPH, EXCEPT STRONG AND ERRATIC NEAR ANY THUNDERSTORM.

\*\*\*\*\*COACHELLA VALLEY\*\*\*\*\*  
FROM THE VICINITY OF PALM SPRINGS SOUTHEASTWARD TO THE IMPERIAL COUNTY LINE.  
NFDR ZONE 519

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS FROM 102 TO 112. MINIMUM HUMIDITY 15-25%. NORTHWEST TO NORTH 5 TO 10 MPH THIS MORNING, BECOMING SOUTHEAST TO SOUTHWEST 8 TO 12 MPH THIS AFTERNOON, EXCEPT 15 TO 20 MPH LATE AFTERNOON WESTERN PORTIONS. STRONG AND ERRATIC WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP UP 2, RH LC, WIND LC, FM UP 1, LAL 2-3.

TONIGHT...

PARTLY CLOUDY WITH A CHANCE OF A THUNDERSHOWER EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 80S. MAXIMUM HUMIDITY 45-65%. WEST TO NORTHWEST WINDS 10 TO 15 MPH THIS EVENING WESTERN PORTIONS, DIMINISHING OVERNIGHT. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.

\*\*\*\*\*IMPERIAL VALLEY\*\*\*\*\*  
ALL OF IMPERIAL COUNTY INCLUDING THE ANZA-BORREGO AREA, AND THE LOWER COLORADO RIVER VALLEY FROM BLYTHE SOUTH. NFDR ZONES EASTERN 515 AND SOUTHERN 519.

TODAY...

SUNNY THIS MORNING, BECOMING PARTLY CLOUDY THIS AFTERNOON WITH A CHANCE OF THUNDERSTORMS. HIGHS FROM 104 TO NEAR 114. MINIMUM HUMIDITY 15-25%. WINDS BECOMING SOUTHEAST TO SOUTHWEST 8 TO 15 MPH. STRONG AND ERRATIC WINDS NEAR THUNDERSTORMS.

TRENDS: TEMP UP 2, RH LC, WIND LC, FM UP 1, LAL 3.

TONIGHT...

PARTLY CLOUDY WITH A FEW THUNDERSHOWERS EARLY THIS EVENING, OTHERWISE CLEAR. LOWS MOSTLY IN THE 80S. MAXIMUM HUMIDITY 40-60%. WINDS SOUTH TO WEST 5 TO 15 MPH, EXCEPT STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORM.

\*\*\*\*\*

THE FORECAST FOR TUESDAY...

PATCHY FOG ALONG THE COASTLINE. A FEW AFTERNOON THUNDERSTORMS OVER THE MOUNTAINS AND DESERTS. OTHERWISE MOSTLY SUNNY. CONTINUED HOT. HIGHS IN THE UPPER 70S TO THE 80S ALONG THE COAST, UPPER 90S TO NEAR 110 INLAND VALLEY AREAS, MID 80S TO THE 90S MOUNTAINS, 100-110 NORTHERN DESERTS, AND 105 TO 115 SOUTHERN DESERTS. AFTERNOON WINDS EAST TO SOUTH 5 TO 15 MPH OVER THE MOUNTAINS AND DESERTS, WITH ONSHORE AFTERNOON WINDS 10 TO 15 MPH IN THE COASTAL BASIN. STRONG AND GUSTY WINDS NEAR THUNDERSTORMS.

\*\*\*\*\*

THE OUTLOOK FOR WEDNESDAY THROUGH FRIDAY...

PATCHY MORNING FOG ALONG THE IMMEDIATE COASTLINE. ISOLATED AFTERNOON MOUNTAIN AND DESERT THUNDERSTORMS. OTHERWISE MOSTLY SUNNY. CONTINUED ABOVE NORMAL TEMPERATURES, BUT COOLING DOWN BY FRIDAY WITH A LITTLE HIGHER HUMIDITY. NORTHEAST TO SOUTHEAST WINDS 10 TO 15 MPH OVER THE MOUNTAINS AND DESERTS, WITH AFTERNOON ONSHORE WINDS 10 TO 15 MPH IN THE COASTAL BASIN. STRONG AND ERRATIC WINDS NEAR ANY THUNDERSTORMS.

\*\*\*\*\*

THE EXTENDED OUTLOOK FOR SATURDAY, AUG 9TH THRU WEDNESDAY, AUG 13TH...

TEMPERATURES.....ABOVE NORMAL.

PRECIPITATION.....A CHANCE OF MOUNTAIN AND DESERT THUNDERSTORMS.

END/

NNNN











SAMPLE ICS FORM 220

### AIR OPERATIONS SUMMARY

1. INCIDENT NAME		2. OPERATIONAL PERIOD				3. DISTRIBUTION				
		DATE		TIME		HELIBASES		FIXED WING BASES		
4. PERSONNEL & COMMUNICATIONS		NAME	AIR/AIR FREQUENCY	AIR/GROUND FREQUENCY	6. REMARKS (Specific Instructions, Safety Notes, Hazards, Priorities)					
AIR OPERATIONS DIRECTOR										
AIR TACTICAL SUPERVISOR										
HELICOPTER COORDINATOR										
AIR TANKER/FIXED WING COORDINATOR										
6. LOCATION/ FUNCTION	7. ASSIGNMENT		8. FIXED WING		9. HELICOPTERS		10. TIME		11. AIRCRAFT ASSIGNED	12. OPERATING BASE
			NO.	TYPE	NO.	TYPE	AVAILABLE	COMMENCE		
		13. TOTALS								
14. AIR OPERATIONS SUPPORT EQUIPMENT				15. PREPARED BY				DATE	TIME	

**INCIDENT BRIEFING**

1. INCIDENT NAME

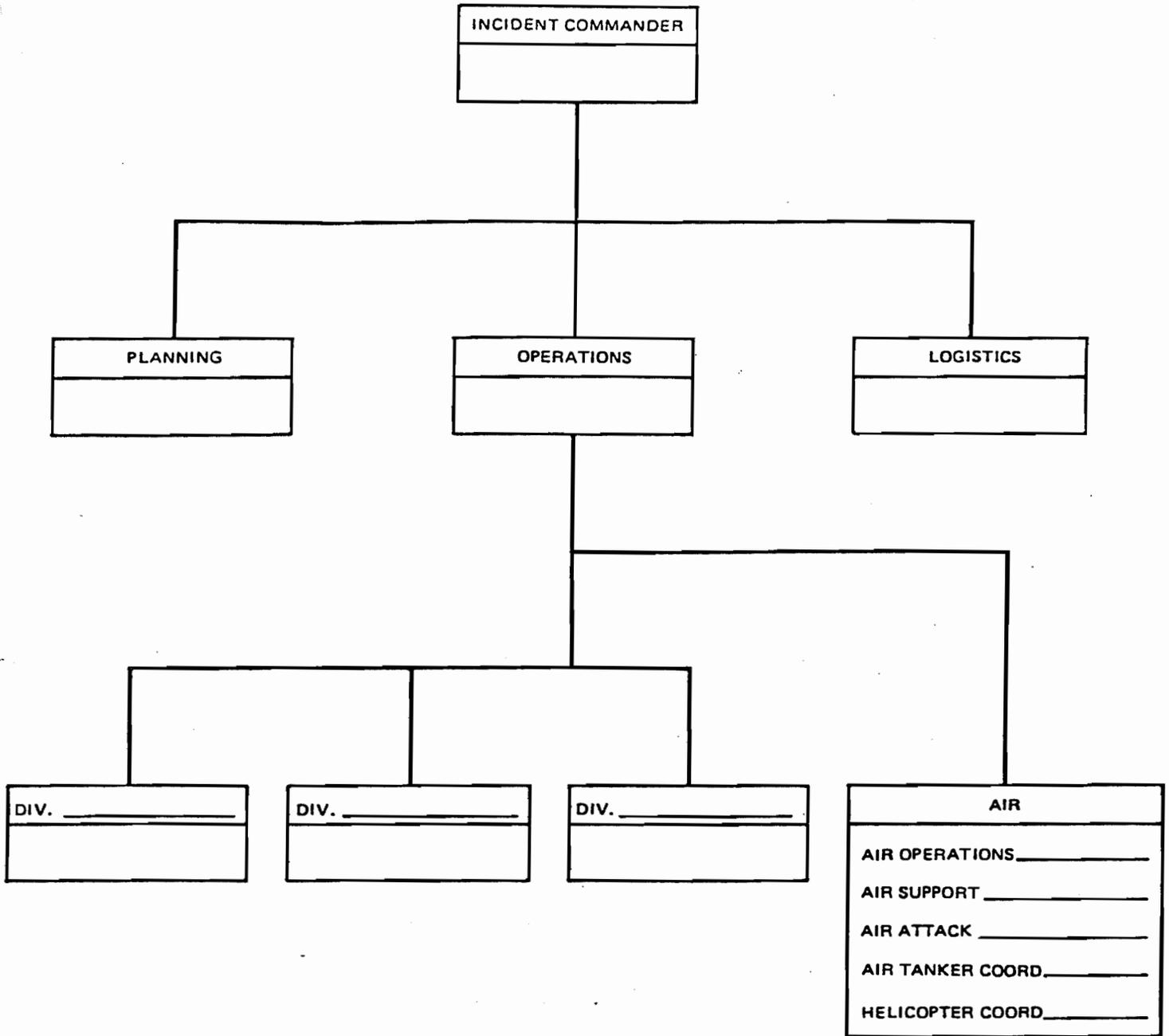
2. DATE  
PREPARED

3. TIME  
PREPARED

4. MAP SKETCH



6. CURRENT ORGANIZATION





# INCIDENT OBJECTIVES

ICS 202

1. INCIDENT NAME

2. DATE  
PREPARED

3. TIME  
PREPARED

4. OPERATIONAL PERIOD (DATE/TIME)

5. GENERAL CONTROL OBJECTIVES FOR THE INCIDENT (INCLUDE ALTERNATIVES)

6. WEATHER FORECAST FOR OPERATIONAL PERIOD

7. GENERAL/SAFETY MESSAGE

8. ATTACHMENTS ( / IF ATTACHED)

- |  |   |                                |
|--|---|--------------------------------|
| <input type="checkbox"/> ORGANIZATION LIST (ICS 203)         | <input type="checkbox"/> MEDICAL PLAN (ICS 206) | <input type="checkbox"/> _____ |
| <input type="checkbox"/> DIVISION ASSIGNMENT LISTS (ICS 204) | <input type="checkbox"/> INCIDENT MAP           | <input type="checkbox"/> _____ |
| <input type="checkbox"/> COMMUNICATIONS PLAN (ICS 205)       | <input type="checkbox"/> TRAFFIC PLAN           | <input type="checkbox"/> _____ |

202

ICS  
3-00

9. PREPARED BY (PLANNING SECTION CHIEF)

10. APPROVED BY (INCIDENT COMMANDER)

**ORGANIZATION ASSIGNMENT LIST ICS-203**

1/82

1. INCIDENT NAME      2. DATE PREPARED      3. TIME PREPARED

**5. INCIDENT COMMANDER AND STAFF**

POSITION	NAME
INCIDENT COMMANDER	
DEPUTY	
SAFETY OFFICER	
INFORMATION OFFICER	
LIAISON OFFICER	

**6. AGENCY REPRESENTATIVES**

AGENCY	NAME

**7. PLANNING SECTION**

CHIEF	
DEPUTY	
RESOURCES UNIT	
SITUATION UNIT	
DOCUMENTATION UNIT	
DEMOBILIZATION UNIT	
TECHNICAL SPECIALISTS	

**8. LOGISTICS SECTION**

CHIEF	
DEPUTY	
<b>a. SUPPORT BRANCH</b>	
DIRECTOR	
SUPPLY UNIT	
FACILITIES UNIT	
GROUND SUPPORT UNIT	
<b>b. SERVICE BRANCH</b>	
DIRECTOR	
COMMUNICATIONS UNIT	
MEDICAL UNIT	
FOOD UNIT	

**4. OPERATIONAL PERIOD (DATE/TIME)**

**9. OPERATIONS SECTION**

CHIEF	
DEPUTY	

**a. BRANCH I - DIVISIONS/GROUPS**

BRANCH DIRECTOR	
DEPUTY	
DIVISION/GROUP	

**b. BRANCH II - DIVISIONS/GROUPS**

BRANCH DIRECTOR	
DEPUTY	
DIVISION/GROUP	

**c. BRANCH III - DIVISIONS/GROUPS**

BRANCH DIRECTOR	
DEPUTY	
DIVISION/GROUP	

**d. AIR OPERATIONS BRANCH**

AIR OPERATIONS BR. DIR.	
AIR ATTACK SUPERVISOR	
AIR SUPPORT SUPERVISOR	
HELICOPTER COORDINATOR	
AIR TANKER COORDINATOR	

**10. FINANCE SECTION**

CHIEF	
DEPUTY	
TIME UNIT	
PROCUREMENT UNIT	
COMPENSATION/CLAIMS UNIT	
COST UNIT	















**BLANK ICS FORM 215M**  
 (change to clean copy)

# INCIDENT RESOURCE PROJECTION MATRIX

1. INCIDENT NAME

2. DATE PREPARED

TIME PREPARED

CRITICAL RESOURCE (List by individual kind/type)	OPERATIONAL PERIOD (Show date/time of operational period)									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
	N E E D									
215M ICS 12-97	NOTES FOR EACH OPERATIONAL PERIOD	X								
PREPARED BY (NAME & POSITION)										

## AIR OPERATIONS SUMMARY

1. INCIDENT NAME		2. OPERATIONAL PERIOD				3. DISTRIBUTION			
		DATE		TIME		HELIBASES		FIXED WING BASES	
PERSONNEL & COMMUNICATIONS	NAME	AIR/AIR FREQUENCY	AIR/GROUND FREQUENCY	5. REMARKS <i>(Specific Instructions, Safety Notes, Hazards, Priorities)</i>					
AIR OPERATIONS DIRECTOR									
AIR ATTACK SUPERVISOR									
HELICOPTER COORDINATOR									
AIR TANKER COORDINATOR									
6. LOCATION/ FUNCTION	7. ASSIGNMENT	8. FIXED WING		9. HELICOPTERS		10. TIME		AIRCRAFT ASSIGNED	OPERATING BASE
		NO.	TYPE	NO.	TYPE	AVAILABLE	COMMENCE		
13. TOTALS									
14. AIR OPERATIONS SUPPORT EQUIPMENT					15. PREPARED BY			DATE	TIME

# DEMOBILIZATION CHECKOUT

ICS-221

1. INCIDENT NAME/NUMBER	2. DATE/TIME	3. DEMOB. NO.
-------------------------	--------------	---------------

4. UNIT/PERSONNEL RELEASED

5. TRANSPORTATION TYPE/NO.

6. ACTUAL RELEASE DATE/TIME	7. MANIFEST YES NO
_____	NUMBER _____

8. DESTINATION	9. AGENCY/REGION/AREA NOTIFIED
_____	NAME _____
	DATE _____

10. UNIT LEADER RESPONSIBLE FOR COLLECTING PERFORMANCE RATING

11. UNIT/PERSONNEL      YOU AND YOUR RESOURCES HAVE BEEN RELEASED SUBJECT TO SIGNOFF FROM THE FOLLOWING:  
(DEMOB. UNIT LEADER CHECK  APPROPRIATE BOX)

LOGISTICS SECTION

SUPPLY UNIT \_\_\_\_\_

COMMUNICATIONS UNIT \_\_\_\_\_

FACILITIES UNIT \_\_\_\_\_

GROUND SUPPORT UNIT LEADER \_\_\_\_\_

PLANNING SECTION

DOCUMENTATION UNIT \_\_\_\_\_

FINANCE SECTION

TIME UNIT \_\_\_\_\_

OTHER

\_\_\_\_\_

\_\_\_\_\_

12. REMARKS

\_\_\_\_\_

\_\_\_\_\_

**INSTRUCTIONS FOR COMPLETING THE DEMOBILIZATION CHECKOUT  
(ICS FORM 221)**

Prior to actual Demob Planning Section (Demob Unit) should check with the Command Staff (Liaison Officer) to determine any agency specific needs related to demob and release. If any, add to line Number 11.

Item Number	Item Title	Instructions
1.	Incident Name/No.	Print Name and/or Number of incident.
2.	Date & Time	Enter Date and Time prepared.
3.	Demob No.	Enter Agency Request Number, Order Number, or Agency Demob Number if applicable.
4.	Unit/Personnel Released	Enter appropriate vehicle or Strike Team/Task Force I.D. Number(s) and Leader's name or individual over-head or staff personnel being released.
5.	Transportation	Method and vehicle I.D. Number for transportation back to home unit. Enter N/A if own transportation is provided. *Additional specific details should be included in Remarks, block #12.
6.	Actual Release Date/Time	To be completed at conclusion of Demob at time of actual release from incident. Would normally be last item of form to be completed.
7.	Manifest	Mark appropriate box. If yes, enter manifest number. Some agencies require a manifest for air travel.
8.	Destination	Location to which Unit or personnel have been released, i.e., Area, Region, Home base, Airport, Mobilization Center, etc.
9.	Area/Agency/Region Notified	Identify Area, Agency, or Region notified and enter date & time of notification.
10.	Unit Leader Responsible for Collecting Performance Ratings	Self-explanatory. Note, not all agencies require these ratings.
11.	Resource Supervision	Demob Unit Leader will identify with a check in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release.  Blank boxes are provided for any additional check, (unit requirements as needed), i.e. Safety Officer, Agency Rep., etc.
12.	Remarks	Any additional information pertaining to demob or release.

A Publication of the  
National Wildfire  
Coordinating Group

Sponsored by  
United States  
Department of Agriculture

United States  
Department of the Interior

National Association of  
State Foresters

**NATIONAL INTERAGENCY  
INCIDENT MANAGEMENT SYSTEM**

**TASK BOOK FOR THE POSITION OF**

**OPERATIONS SECTION CHIEF TYPE 1  
(OSC1)  
OPERATIONS SECTION CHIEF TYPE 2  
(OSC2)**

**(WILDFIRE ASSIGNMENT REQUIRED)**



**PMS 311-08  
NFES 2309**

**August 1993**

<b>TASK BOOK ASSIGNED TO:</b>
INDIVIDUAL'S NAME, DUTY STATION, AND PHONE NUMBER
<b>TASK BOOK INITIATED BY:</b>
OFFICIAL'S NAME, TITLE, DUTY STATION, AND PHONE NUMBER
LOCATION AND DATE THAT TASK BOOK WAS INITIATED

*The material contained in this book accurately defines the performance expected of the position for which it was developed. This task book is approved for use as a position qualification document in accordance with the instructions contained herein.*

**VERIFICATION / CERTIFICATION OF COMPLETED TASK BOOK  
FOR THE POSITION OF**

---

**FINAL EVALUATOR'S VERIFICATION**

I verify that all tasks have been performed and are complete with signatures. I also verify that

---

has performed as a trainee and should therefore be considered for certification in this position.

---

**EVALUATOR'S SIGNATURE AND DATE**

---

**EVALUATOR'S PRINTED NAME, TITLE, DUTY STATION, AND PHONE NUMBER**

**AGENCY CERTIFICATION :**

I certify that \_\_\_\_\_

has met all requirements for qualification in this position and that such qualification has been issued.

---

**CERTIFYING OFFICIAL'S SIGNATURE AND DATE**

---

**CERTIFYING OFFICIAL'S NAME, TITLE, DUTY STATION, AND PHONE NUMBER**

Additional copies of this publication may be ordered from:

National Interagency Fire Center

ATTN: Supply

3905 Vista Avenue

Boise, Idaho 87305

Order NFES # 2309

## NATIONAL WILDFIRE COORDINATING GROUP POSITION TASK BOOK

Position Task Books (PTB) have been developed for designated positions within the National Interagency Incident Management System. Each PTB lists the performance requirements (tasks) for the specific position in a format that allows a trainee to be evaluated against written guidelines. Successful performance of all tasks, as observed and recorded by an evaluator, will result in a recommendation to the agency that the trainee be certified in that position.

Evaluation and confirmation of the individual's performance of all the tasks may involve more than one evaluator and can occur on incidents, in classroom simulation, and in other work situations. Designated PTBs require position performance during which the majority of required tasks are demonstrated on a single incident. Some positions also required that specific tasks be performed on a wildland fire—performance of these tasks on other types of incidents are NOT qualifying. It is important that performance be critically evaluated and accurately recorded by each evaluator. All tasks must be evaluated. All bullet statements within a task which require an action (contain an action verb) must be demonstrated before that task can be signed off.

A more detailed description of this process, definitions of terms, and responsibilities are included in the Wildland Fire Qualification Subsystem Guide 310-1. A brief list of responsibilities also appears below.

### RESPONSIBILITIES:

1. The **Local Office** is responsible for:
  - Selecting trainees based on the needs of the local office and the geographic area.
  - Ensuring that the trainee meets the training and experience requirements included in the Wildland Fire Qualification Subsystem Guide 310-1.
  - Issuing PTBs to document task performance.
  - Explaining to the trainee the purpose and processes of the PTB as well as the trainee's responsibilities.
  - Providing opportunities for evaluation and/or making the trainee available for evaluation.
  - Providing an evaluator for local assignments.
  - Tracking progress of the trainee.
  - Confirming PTB completion.
  - Determining certification per local policy.
  - Issuing proof of certification.
  
2. The **individual** is responsible for:
  - Reviewing and understanding instructions in the PTB.
  - Identifying desired objectives/goals.

- Providing background information to an evaluator.
- Satisfactorily demonstrating completion of all tasks for an assigned position within three years.
- Assuring the Evaluation Record is complete.
- Notifying local office personnel when the PTB is completed and providing a copy.
- Keeping the original PTB in personal records.

3. The **Evaluator** is responsible for:

- Being qualified and proficient in the position being evaluated.
- Meeting with the trainee and determining past experience, current qualifications, and desired objectives/goals.
- Reviewing tasks with the trainee.
- Explaining to the trainee the evaluation procedures that will be utilized and which objectives may be attained.
- Identifying tasks to be performed during the evaluation period.
- Accurately evaluating and recording demonstrated performance of tasks. Satisfactory performance shall be documented by dating and initialing completion of the task. Unsatisfactory performance shall be documented in the Evaluation Record.
- Completing the Evaluation Record found at the end of each PTB.
- Signing the verification statement inside the front cover of the PTB when all tasks have been initialed.

4. The **Training Specialist** is responsible for:

- Identifying incident evaluation opportunities.
- Identifying and assigning an evaluator that can provide a positive experience for the trainee, and make an accurate and honest appraisal of the trainee's performance.
- Providing PTBs to approved trainees on the incident when local agency was unable to provide them.
- Documenting the assignment.
- Conducting progress reviews.
- Conducting a close-out interview with the trainee and evaluator and assuring that documentation is proper and complete.

QUALIFICATION RECORD

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p><b><u>GENERAL</u></b></p> <p>1. <u>Obtain and assemble information and materials needed for kit.</u> Kit will be assembled and prepared prior to receiving an assignment. Kit will contain critical items needed for the assignment and items needed for functioning during the first 48 hours. Kit will be easily transportable and within agency weight limitation (per National Mobilization Guide). The basic information and materials needed are:</p> <ul style="list-style-type: none"> <li>• ICS Form 213, General Message.</li> <li>• ICS Form 214, Unit Log.</li> <li>• ICS Form 215, Operation Planning Worksheet.</li> <li>• ICS Form 220, Air Ops Summary Worksheet.</li> <li>• Agency specific forms appropriate to the function.</li> <li>• ICS 420-1, Field Operations Guide.</li> <li>• ICS 410-1, Fireline Handbook.</li> <li>• Position Manuals for the section.</li> <li>• Individual checklists/reminders.</li> <li>• Pens/pencils/note paper/etc.</li> <li>• Office supplies appropriate to the function.</li> </ul>	O		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>2. <u>Provide for the safety and welfare of assigned personnel during the entire period of supervision.</u></p> <ul style="list-style-type: none"> <li>• Recognizes potentially hazardous situations.</li> <li>• Informs subordinates of hazards.</li> <li>• Controls positions and function of resources.</li> <li>• Ensures that special precautions are taken when extraordinary hazards exist.</li> <li>• Ensures adequate rest and hydration is provided to all operations personnel.</li> </ul>	I		
<p>3. <u>Follow the Standard Fire Orders, Watch Out Situations, and agency policy.</u></p> <ul style="list-style-type: none"> <li>• Develop plans based on safety guidelines.</li> <li>• Spot check tactical operations to ensure compliance with safety guidelines.</li> <li>• Ensures all tactical operations comply with the principles of LCES.</li> </ul>	W		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>4. <u>Establish and maintain positive interpersonal and interagency working relationships.</u></p> <ul style="list-style-type: none"> <li>• Through briefings, discuss EEO, civil rights, sexual discrimination and other sensitive issues, with assigned personnel.</li> <li>• Recognize cultural language difficulties as it impacts work output and expectations.</li> <li>• Provide equal assignment opportunities based on individual skill level.</li> <li>• Monitor and evaluate progress based on expected work standards not race, color or creed.</li> <li>• Individual agency values and policies are addressed throughout the tenure of the incident.</li> <li>• Differences in agency values and policies that affect the operation are arbitrated in a manner that fosters continuous positive working relationships.</li> <li>• Integrate cultural resource considerations into all management activities.</li> </ul>	O		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p><b><u>MOBILIZATION</u></b></p> <p>5. <u>Obtain complete information from dispatch upon initial activation.</u></p> <ul style="list-style-type: none"> <li>• Incident name.</li> <li>• Incident order number.</li> <li>• Request number.</li> <li>• Reporting location.</li> <li>• Reporting time.</li> <li>• Transportation arrangements/travel routes.</li> <li>• Contact procedures during travel (telephone/radio).</li> </ul>	I		
<p>6. <u>Gather information necessary to assess incident assignment and determine immediate needs and actions.</u></p> <ul style="list-style-type: none"> <li>• Incident Commander's name and address.</li> <li>• Type of incident.</li> <li>• Current resource commitments.</li> <li>• Current situation.</li> <li>• Expected duration of assignment.</li> <li>• Terrain.</li> <li>• Weather.</li> <li>• Agency administrator's briefing requirements (as appropriate).</li> </ul>	I		
<p><b><u>INCIDENT ACTIVITIES</u></b></p> <p>7. <u>Arrive at incident and check in.</u> Arrives properly equipped at incident assigned location within acceptable time limits. Checks in according to agency guidelines.</p>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>8. <u>Obtain briefing from the agency administrator or outgoing incident commander.</u> Receive Incident Commander's ICS Form 201 (Incident Briefing). Receive special instructions.</p> <ul style="list-style-type: none"> <li>• Complete appropriate checklist for takeover of large incidents.</li> </ul>	W		
<p>9. <u>Obtain briefing from your Incident Commander. May be one-on-one or in an Incident Management Team Meeting.</u></p> <ul style="list-style-type: none"> <li>• Receive Incident Commander's priorities, goals and objectives for the Incident Management Team.</li> <li>• Receive Incident Commander's priorities, goals and objectives for the incident.</li> <li>• Obtain initial instructions concerning the tasks expected of the Planning Section.</li> <li>• Receive expected time frames for briefings, planning meetings and team meetings.</li> </ul>	I		
<p>10. <u>Collect information from outgoing Operations Section Chief, Initial Incident Commander or other personnel responsible for incident prior to your arrival.</u></p> <ul style="list-style-type: none"> <li>• Obtain status of incident and assigned resources.</li> <li>• Obtain status of existing operations section.</li> <li>• Order personnel necessary to staff section units prior to publication of your first incident action plan.</li> </ul>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
11. <u>Evaluate and share with incident management team members, all information for your section and what is anticipated for incident operations based on expected duration, size and type of incident.</u>	I		
12. <u>Evaluate and monitor current situation.</u>  <ul style="list-style-type: none"> <li>• Determine if present plan of action will meet incident objectives.</li> <li>• Determine if the present plan is congruent with the incident strategic plan (Escaped Fire Situation Analysis (EFSA) for wildfire incident).</li> <li>• Identify problems and concerns.</li> <li>• Advise Incident Commander and other appropriate Incident Management Team personnel.</li> </ul>	I		
13. <u>Personally observe and review current operations to prepare tactics for the next operational period planing meeting considering:</u>  <ul style="list-style-type: none"> <li>• Resource status.</li> <li>• Situation status.</li> <li>• Weather.</li> <li>• Communications capability.</li> <li>• Environmental impact.</li> <li>• Cost constraints.</li> </ul>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
W = task must be performed on a wildfire incident  
/R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>14. <u>Periodically evaluate resource status and tactical needs to determine if resource assignments are appropriate.</u></p> <ul style="list-style-type: none"> <li>• Determine kind and number of resources required to complete tactics.</li> <li>• Assign single resources, task forces or strike teams depending on the needs of the division/group supervisors.</li> <li>• Approve assembly and disassembly of strike teams and task forces.</li> </ul>	I		
<p>15. <u>Participate in preparation of Incident Action Plan.</u></p> <ul style="list-style-type: none"> <li>• Review proposed tactics for next operational period or periods.</li> <li>• Advise on current capabilities, limitation.</li> <li>• Determine additional resources needed.</li> <li>• Discuss long range plans and identify potential or future requirements.</li> <li>• Prepare or review applicable portions of the IAP.</li> <li>• Complete operational portion of Incident Action Plan as part of ICS Form 215 (Operational Planning Worksheet).</li> <li>• Establish branches, divisions/groups and staging areas on incident base map.</li> </ul>	I		
<p>16. <u>Ensure that ICS Form 220 (Air Operations Summary Worksheet) is completed.</u></p>	O		
<p>17. <u>Participate in the operational period briefing, particularly emphasizing any changes from the written Incident Action Plan.</u></p>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>18. <u>Interact and coordinate with all command and general staff.</u></p> <ul style="list-style-type: none"> <li>• Receive and transmit current and accurate information.</li> </ul>	I		
<p>19. <u>Supervise and adjust operations organization and tactics as needed, based on changes in incident situation and resource status.</u></p> <ul style="list-style-type: none"> <li>• Organization provides for functional and geographical supervision as needed.</li> <li>• Organization maintains appropriate span of control.</li> <li>• Organization includes staging areas as needed.</li> </ul>	I		
<p>20. <u>Debrief the Operations Section Chief you are replacing as to previous operational period situation and resource status.</u></p>	I		
<p>21. <u>Evaluate overall effectiveness of Incident Action Plan and adjust as necessary for next operation period.</u></p> <ul style="list-style-type: none"> <li>• Evaluate progress of operations by division/group or branch based on situation reports and evaluations from operations personnel.</li> <li>• Estimate immediate and long-range operational resources and logistical requirements.</li> <li>• Order additional resources as needed to provide lead time for meeting incident objectives.</li> </ul>	W		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>22. <u>Use fire behavior prediction information to plan/organize tactical operations.</u></p> <ul style="list-style-type: none"> <li>• Evaluate/adjust tactics based on changing fire behavior to predicted information.</li> <li>• Compare actual fire behavior to predicted behavior at the end of each operational period and advise the fire behavior analyst.</li> </ul>	W		
<p>23. <u>Ensure that incident communications and resources unit are advised of all changes in status of resources assigned to the operation.</u> Keep status current.</p>	O		
<p>24. <u>Interact and coordinate with all command and general staff.</u></p> <ul style="list-style-type: none"> <li>• Receive and transmit current and accurate information.</li> </ul>	I		
<p>25. <u>Update incident commander on current accomplishments and/or problems.</u> Verbally inform incident commander as soon as possible on problems and accomplishments.</p>	W		
<p>26. <u>ICS Form 214.</u></p> <ul style="list-style-type: none"> <li>• Submit completed and legible unit logs containing pertinent information to the documentation unit for each operational period.</li> </ul>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>27. <u>Report special events, i.e., incidents, accidents, political contacts.</u> Obtain information about special events from subordinates, personal observation, ground and air operations personnel.</p> <p>Standard information shall contain nature of event, location, magnitude, personnel involved (do not release names of victims or agency over radio), initial action taken; e.g., helicopter picking up injured, appropriate subsequent action.</p>	O/R		
<p>28. <u>Brief the replacement Operations Section Chief as to operational period situation and resource status.</u></p>	I		
<p>29. <u>Ensure all personnel and equipment time records are complete and have been submitted to the time unit leader at the end of each operational period.</u></p>	I		
<p><b><u>DEMOBILIZATION</u></b></p> <p>30. <u>Consider demobilization early enough during the incident so that an adequate demobilization plan is in place prior to the actual need to release resources.</u></p>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>31. <u>Assist in development, approval and implementation of Incident Demobilization Plan.</u></p> <ul style="list-style-type: none"> <li>• Coordinate with the Demobilization Unit Planning/Section Chief during development and implementation of Demobilization Plan.</li> <li>• Coordinate during development and implementation with local agency concerning functional demobilization procedures.</li> <li>• Brief staff on demobilization responsibilities.</li> </ul>	I		
<p>32. <u>Identify excess section resources.</u> Coordinate with subordinates and provide Planning Section Chief a list of excess personnel and other resources. List will include:</p> <ul style="list-style-type: none"> <li>• Name/type.</li> <li>• Quantity.</li> <li>• Time/date of available release.</li> <li>• Review the list daily for accuracy.</li> <li>• Ensure that all units are demobilized in a timely and complete manner.</li> </ul>	I		
<p>33. <u>Ensure that performance ratings are completed as required by the incident commander.</u></p>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

QUALIFICATION RECORD  
Continuation Sheet

POSITION: OPERATIONS SECTION CHIEF TYPE 1/2 (OSC1/2)

TASK	C O D E*	EVALUATION RECORD #	EVALUATOR: Initial & date upon completion of task
<p>34. <u>Demobilization and check-out.</u></p> <ul style="list-style-type: none"> <li>• Receive demobilization instructions from work supervisor.</li> <li>• Subordinate staff are briefed on demobilization procedures and responsibilities.</li> <li>• Ensure that incident and agency demobilization procedures are followed.</li> <li>• If required, ICS Form 221 (Demobilization Check-Out) is completed and turned in to the appropriate person.</li> <li>• Brief Replacement, if necessary.</li> </ul>			
<p>35. <u>Debrief Agency Administrator.</u></p> <ul style="list-style-type: none"> <li>• Participate in debriefing.</li> </ul>	I		

\*Code: O = task can be completed in any situation (classroom, simulation, prescribed fire, daily job, etc.)  
 I = task must be performed on an incident (flood, fire, search & rescue, etc.)  
 W = task must be performed on a wildfire incident  
 /R = Rare event—the evaluation assignment may not provide opportunities to demonstrate performance. The evaluator may be able to determine skills/knowledge through interview or the home office may need to arrange for another assignment or a simulation.

## INSTRUCTIONS for EVALUATION RECORD

There are four separate blocks allowing evaluations to be made. These evaluations may be made on incidents, by simulation in classroom, or in daily duties, depending on what the position task book indicates. This should be sufficient for qualification in the position if the individual is adequately prepared. If additional blocks are needed, a page can be copied from a blank task book and attached.

**Evaluator's name, incident/office title & agency:** List the name of the evaluator, his/her incident position (on incidents) or office title, and agency.

**Evaluator's home unit address & phone:** self explanatory

**#:** The number in the upper left corner of the experience block identifies a particular experience or group of experiences. This number should be placed in the column labeled "Evaluation Record #" on the Qualification Record in order to indicate the circumstances under which a particular task was performed.

**Location of Incident/Simulation:** Identify the location where the tasks were performed by agency and office.

**Incident Type:** Enter type of incident, e.g., wildfire, search and rescue, flood, etc.

**Number and Type of Resources:** Enter the number of resources and types assigned to the incident pertinent to the trainee's task book position.

**Duration:** Enter inclusive dates during which the individual was evaluated. This block may indicate a span of time covering several small and similar incidents if the individual has been evaluated on that basis, i.e., several initial attack fires in similar fuel types.

**Mgt. Level:** Indicate ICS organization level, i.e., Type 4, Type 3, Type 2, Type 1 or Area Command.

**NFFL Fuel Model:** For wildfire experience, enter number (1-13) of the fuel model in which the incident occurred and under which the individual was evaluated.

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. Short Grass (1 foot)         | 8. Closed Timber Litter        |
| 2. Timber (grass & understory)  | 9. Hardwood Litter             |
| 3. Tall grass (2 1/2 feet)      | 10. Timber (litter understory) |
| 4. Chaparral (6 feet)           | 11. Light Logging Slash        |
| 5. Brush (2 feet)               | 12. Medium Logging Slash       |
| 6. Dormant brush-Hardwood Slash | 13. Heavy Logging Slash        |
| 7. Southern Rough               |                                |

**Recommendation:** Check as appropriate and/or make comments regarding the future needs for development of this trainee.

**Date:** List the date the record is being completed.

**Evaluator's initials:** Initial here to authenticate your recommendations and to allow for comparison with initials in the Qualifications Record.

**Evaluator's relevant red card rating:** List your certification relevant to the trainee position you supervised.

## Evaluation Record

TRAINEE NAME		TRAINEE POSITION			
<b>#1</b>	Evaluator's name, incident/office title & agency:				
Evaluator's home unit address & phone:					
Location of Incident or Simulation (agency & area)	Incident Type (wildfire, search & rescue, etc.)	Number & Type of Resources Pertinent to Trainee's Position	Duration (inclusive dates in trainee status)	Mgt. Level (Area Command, Type 1, 2, 3, or 4)	NFFL Fuel Model
			to		
<p>The tasks initialed &amp; dated by me have been performed under my supervision and in a satisfactory manner by the above named trainee. I recommend the following for further development of this trainee:</p> <p>_____ The individual has successfully performed all tasks for the position and should be considered for certification.</p> <p>_____ The individual was not able to complete certain tasks (comments below) or additional guidance is required.</p> <p>_____ Not all tasks were evaluated on this assignment and an additional assignment is needed to complete the evaluation.</p> <p>_____ The individual is severely deficient in the performance of tasks for the position and must complete all training (both mandatory &amp; suggested) prior to further assignment as a trainee.</p> <p>Recommendations: _____</p>					
Date: _____ Evaluator's initials: _____ Evaluator's relevant red card (or agency certification) rating: _____					

<b>#2</b>	Evaluator's name, incident/office title & agency:				
Evaluator's home unit address & phone:					
Location of Incident or Simulation (agency & area)	Incident Type (wildfire, search & rescue, etc.)	Number & Type of Resources Pertinent to Trainee's Position	Duration (inclusive dates in trainee status)	Mgt. Level (Area Command, Type 1, 2, 3, or 4)	NFFL Fuel Model
			to		
<p>The tasks initialed &amp; dated by me have been performed under my supervision and in a satisfactory manner by the above named trainee. I recommend the following for further development of this trainee:</p> <p>_____ The individual has successfully performed all tasks for the position and should be considered for certification.</p> <p>_____ The individual was not able to complete certain tasks (comments below) or additional guidance is required.</p> <p>_____ Not all tasks were evaluated on this assignment and an additional assignment is needed to complete the evaluation.</p> <p>_____ The individual is severely deficient in the performance of tasks for the position and must complete all training (both mandatory &amp; suggested) prior to further assignment as a trainee.</p> <p>Recommendations: _____</p>					
Date: _____ Evaluator's initials: _____ Evaluator's relevant red card (or agency certification) rating: _____					

**Evaluation Record  
(Continuation Sheet)**

**TRAINEE NAME**

**TRAINEE POSITION**

<b>#3</b>	Evaluator's name, incident/office title & agency:				
Evaluator's home unit address & phone:					
Location of Incident or Simulation (agency & area)	Incident Type (wildfire, search & rescue, etc.)	Number & Type of Resources Pertinent to Trainee's Position	Duration (inclusive dates in trainee status)	Mgt. Level (Area Command, Type 1, 2, 3, or 4)	NFFL Fuel Model
			to		
<p>The tasks initialed &amp; dated by me have been performed under my supervision and in a satisfactory manner by the above named trainee. I recommend the following for further development of this trainee:</p> <p>_____ The individual has successfully performed all tasks for the position and should be considered for certification.</p> <p>_____ The individual was not able to complete certain tasks (comments below) or additional guidance is required.</p> <p>_____ Not all tasks were evaluated on this assignment and an additional assignment is needed to complete the evaluation.</p> <p>_____ The individual is severely deficient in the performance of tasks for the position and must complete all training (both mandatory &amp; suggested) prior to further assignment as a trainee.</p> <p>Recommendations: _____</p>					
<p>Date: _____ Evaluator's initials: _____ Evaluator's relevant red card (or agency certification) rating: _____</p>					

<b>#4</b>	Evaluator's name, incident/office title & agency:				
Evaluator's home unit address & phone:					
Location of Incident or Simulation (agency & area)	Incident Type (wildfire, search & rescue, etc.)	Number & Type of Resources Pertinent to Trainee's Position	Duration (inclusive dates in trainee status)	Mgt. Level (Area Command, Type 1, 2, 3, or 4)	NFFL Fuel Model
			to		
<p>The tasks initialed &amp; dated by me have been performed under my supervision and in a satisfactory manner by the above named trainee. I recommend the following for further development of this trainee:</p> <p>_____ The individual has successfully performed all tasks for the position and should be considered for certification.</p> <p>_____ The individual was not able to complete certain tasks (comments below) or additional guidance is required.</p> <p>_____ Not all tasks were evaluated on this assignment and an additional assignment is needed to complete the evaluation.</p> <p>_____ The individual is severely deficient in the performance of tasks for the position and must complete all training (both mandatory &amp; suggested) prior to further assignment as a trainee.</p> <p>Recommendations: _____</p>					
<p>Date: _____ Evaluator's initials: _____ Evaluator's relevant red card (or agency certification) rating: _____</p>					