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Commissioner:	Carla Peterman
Admin. Law Judge:	Darcie Houck
ORA Project Mgr.:	Manisha Lakhanpal
ORA Expert Witness:	Quang Pham

Office of Ratepayer Advocates

California Public Utilities Commission

Office of Ratepayer Advocates Testimony Regarding Public Safety and 911 Emergency Services of Cal-Ore Telephone Company

- PUBLIC VERSION -

San Francisco, California
March 10, 2017

MEMORANDUM

This testimony was prepared by Quang Pham of the Communications and Water Policy Branch of the Office of Ratepayer Advocates ("ORA") under the general supervision of Program & Project Supervisor, Manisha Lakhanpal. A statement of qualifications from Quang Pham is presented in Attachment A to this testimony. ORA is represented in this proceeding by legal counsels, Christa Salo and Shanna Foley.

This testimony is comprised of the following chapters:

Chapter	Description
I	**Public Safety**: Discussion of Cal-Ore's emergency preparedness and response strategy and plan.
II	**911 Emergency Services:** Discussion of Cal-Ore's 911 network.

Although every effort was made to comprehensively review, analyze, and provide the Commission with recommendations on each ratemaking and policy aspect presented in the application, the absence from ORA's testimony of any particular issue does not necessarily constitute its endorsement or acceptance of the underlying request, methodology, or policy position related to that issue.

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ATTACHMENTS

EXECUTIVE SUMMARY

In response to the General Rate Case ("GRC") application cycle for the Small Local Exchange Carriers ("LECs") listed in Group B in the California Public Utilities Commission ("Commission") Decision ("D.") 15-06-048, Cal-Ore Telephone Company ("Cal-Ore") filed Application ("A.") 16-10-004 on October 3, 2016. Pursuant to D.16-12-035, Cal-Ore filed supplemental testimony on January 19, 2017. This testimony examines Cal-Ore's effectiveness in providing public safety and 911 emergency services.

Public Safety

Cal-Ore provided documentation of its Emergency Response Plan ("ERP"). Cal-Ore can improve the overall effectiveness of its ERP by adopting ORA's recommendations to: (1) Include the responsibilities of the emergency team, (2) establish a formal Mutual Aid Agreement ("MAA") between other utilities, emergency responders, and local organizations, (3) further develop the emergency response strategy for each potential disaster scenario, and (4) incorporate its recovery and restoration strategy.

911 Emergency Services

Cal-Ore provided documentation and diagrams of its 911 network. Generally, Cal-Ore has designed its network to provide reliability for 911 emergency services by deploying the network in diverse fiber and microwave routes and providing backup power for network equipment. ORA did not find any issues at this time with Cal-Ore's 911 Emergency Services.

CHAPTER 1: EMERGENCY RESPONSE PLAN

I. INTRODUCTION

This chapter presents the analyses and recommendations of the Office of Ratepayer Advocates regarding Cal-Ore Telephone Company's Emergency Response Plan.

Telecommunication companies play a critical role in ensuring public safety by providing vital voice, broadband, and 911 services. Therefore, it is important to ensure strong emergency plans are in place. Unfortunately, there are no clear regulatory guidelines against which to evaluate the overall effectiveness of a telecommunication company's safety practices and emergency planning. Consequently, ORA reviewed safety guidelines across other industries and used those industry standards to develop a set of standard guidelines to enable evaluation of Cal-Ore's emergency plan. ORA's standard guidelines are attached herein as Attachment B, the Emergency Response Plan Guidelines for Telecommunication Companies ("Guidelines").

II. SUMMARY OF RECOMMENDATIONS

The Commission should adopt ORA's Emergency Response Plan Guidelines for Telecommunications Companies as a requirement for carriers receiving subsidies from the CHCF-A program. The Guidelines will help Cal-Ore further develop its ERP and promote a culture of safety that helps to minimize hazards to life and property. Cal-Ore should make the following improvements to its ERP:

(1) Include the responsibilities of the emergency team;

(2) Establish a formal Mutual Aid Agreement[1] between other utilities, emergency responders, and local organizations;

[1] Mutual Aid Agreements and other types of assistance agreements facilitate the sharing of emergency services and resources among organizations, emergency responders, and government agencies before, during, and after an emergency event. An agreement can expedite emergency response by establishing protocols for requesting and providing assistance and address areas of concern such as reimbursement and liability.

(3) Further develop the emergency response strategy for each potential disaster scenario so that the emergency team is aware of the different factors that need to be considered before, during, and after an emergency;

(4) Incorporate its recovery and restoration strategy.

III. DISCUSSION

A. Emergency Response Plan Guidelines

Telecommunications companies play a critical role in ensuring public safety, such as (1) providing access to vital voice, broadband, and 911 services for customers and the community at large and (2) providing much needed communications services to emergency responders during an emergency. A key challenge faced by emergency responders is a lack of communication services.[2] This lack of communication services is a culmination of poor cellular reception, power outages, overload of the communication system, and lack of nearby telecommunication facilities and commercial power, especially in the mountainous or remote locations.

Edward Orsmbee states in his testimony, "Cal-Ore's territory is extremely rural, remote and sparsely populated, with heavily forested areas, wetlands, and rocky terrain."[3] Mr. Orsmbee further states, "Cal-Ore's service territory is so remote and isolated, particularly in winter, that Cal-Ore's customers rely heavily on all of Cal-Ore's communications facilities. In many cases, they have no other alternatives, making Cal-Ore's services all the more critical. Reliability of voice and emergency communications are key to public safety."[4] Telecommunication companies that provide service in remote areas, such as Cal-Ore, play an important role in providing aid to emergency responders during disaster scenarios.

Mr. Orsmbee further states, "[i]n winter, Cal-Ore's territory experiences heavy snowfall, restricting road access and increasing the cost and difficulty of remediating any facilities-related issues resulting from felled trees, downed wires, power outages or other

[2] 2012 Chips Ponderosa Fires After Action Report, Attachment J;
2013 Fire Season After Action Report, Attachment K;
2014 Bully Incident After Action Report, Attachment L.
[3] Opening Testimony of Edward Orsmbee on page 4, line 17
[4] Opening Testimony of Edward Orsmbee on page 7, line 10

issues. Forest fires, which are a common threat in the summer, pose additional challenges to Cal-Ore's facilities and put pressure on its limited resources."[5] In addition, Robert Hensley states in his testimony, "Cal-Ore's high desert climate routinely gives Cal-Ore's service territory extreme winter weather conditions … Cal-Ore routinely experiences high winds, storms, forest fires and heavy snowfall. Cal-Ore's service territory is also at high risk for earthquakes."[6] Given that Cal-Ore's service territory is subjected to storms in the winter and fire threat in the summer, it is even more important that Cal-Ore has a well-developed emergency plan in place and has employees adequately trained to respond quickly and effectively to emergencies and disasters. Having an effective emergency plan will help Cal-Ore minimize the adverse impact of a disaster and disruption to continuity of operations.

Unlike other industries regulated by the Commission, there are no clear regulatory guidelines for telecommunication companies related to the development of an emergency plan or requirements for mutual aid assistance. For example, General Order 166 covers these requirements for electrical utilities; General Order 103-A for water utilities; and General Order 112-F for gas utilities.

As shown in Attachment I, Communications Division's Safety Checklist: Summary of Telecommunication Rules, current telecommunication regulations only cover Access to Communications, Access to Facilities, Outage Reporting, and Consumer Information. General Order 95 and 128 cover construction and maintenance requirements for overhead and underground facilities, respectively. Emergency planning and mutual aid assistance are not covered by CD's Safety Checklist, GO 95, or GO 128. Because there are no clear regulatory guidelines for these specific aspects of emergency planning at the Commission, ORA developed the Guidelines here (see Table 1 and the attachments referred to therein) to use in evaluating the safety practices of telecommunication companies by focusing on safety elements in the industry and territory for these companies.

[5] Opening Testimony of Edward Orsmbee on page 7, line 19
[6] Opening Testimony of Robert Hensley on page 7, line 11

The Guidelines incorporate the important elements of an effective emergency plan: preparation, response, recovery, and review. The Guidelines formed the basis for ORA's review of Cal-Ore's ERP. In preparation of the Guidelines, ORA referenced the resources and regulations from different agencies that deal directly with emergency preparation and response shown below:

Table 1: Emergency Response Planning References

Attachment to ORA Report	Agency	Description
C	Federal Communications Commission	Emergency Planning for Wirelines Carriers
D	CalTrans	CalTrans Transit Emergency Planning Guidelines
E	Occupational Safety and Health Administration	Evacuation Plans and Procedures eTool: Emergency Action Plan – Minimum Requirements
N/A	California Public Utilities Commission	General Order 166: Standards for Operation, Reliability, and Safety During Emergencies and Disasters
N/A	Pipeline and Hazardous Material Administration	Title 49 Code of Federal Regulations §192.615: Transportation of Natural and Other Gas by Pipeline Minimum Federal Safety Standards - Emergency Plan
N/A	California Public Utilities Commission	General Order 103-A, Section VII: Operation and Maintenance
N/A	National Fire Protection Association	NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs

B. Emergency Response Plan Review

As part of the Minimum Data Request ("MDR"), Cal-Ore provided documentation of its Emergency Response Plan that provides details of the actions taken by Cal-Ore's personnel during an emergency.[7] ORA has reviewed Cal-Ore's ERP, compared the plan to the Guidelines, and makes the following observations and recommendations discussed below:

[7] Attachment M, MDR Response D.6

Emergency Preparation

Emergency Response Team – Cal-Ore's ERP designates the **<<BEGIN CONFIDENTIAL>>** [redacted] **<<END CONFIDENTIAL>>** as the first point of contact during an emergency. Their contact information is listed in the ERP. The ERP does not provide details on the responsibilities of each team member. Cal-Ore should update the ERP to include the roles of all emergency team members. It is important to clearly identify the responsibilities and have each team member properly trained for their assigned tasks prior to an emergency.

Contact List – The ERP includes a contact list of the emergency team, all employees, vendors, and local emergency services providers.

Map of System – Cal-Ore provided a copy of its facilities map as part of MDR response A.6, Attachment L. Cal-Ore maintains a detailed map of its system that includes multiple layers of different assets.

Emergency Training – The ERP is distributed to employees when changes are made to the plan. Cal-Ore provides weekly training to employees that includes First Aid/CPR, Equipment Safety, Emergency Evacuation, Fire Extinguisher, Defensive Driving, and numerous other work-related safety training topics.[8]

External and Government Coordination - In July of 2009, Cal-Ore provided DSL Internet and telephone services to the U.S. Forest Service after a forest fire in Tennant, California. Cal-Ore's Operations Manager contacted the U.S. Forest Service to offer the services.[9] Cal-Ore is not part of any Mutual Aid Agreement with any other organization or agency to provide or receive aid during an emergency. Cal-Ore should explore establishing a formal MAA with other utilities, emergency responders, and government agencies. Joining an MAA will help the different entities develop a mutual aid relationship that clearly establishes roles and responsibilities, contact information, cost-sharing agreements, and makes each member aware of the services and resources available. A good way to join an MAA is to become a member of an emergency planning organization such as the California Utilities Emergency Association ("CUEA"). CUEA is

[8] Attachment J, Data Request A.16-10-004 QAP-001 Response 1.2 (a) and (d)
[9] Attachment K, Data Request A.16-10-004 QAP-002 Response 1.1

an organization that serves as a point-of-contact for utilities and the California Office of Emergency Services ("CalOES") before, during, and after a disaster event. CUEA helps (1) facilitate communication between utilities and public agencies, (2) provide emergency response support to members, and (3) provide support in emergency planning, mitigation, training, exercises and education. Members of CUEA include water and irrigation districts, cities, municipals, various government agencies, electric utilities, gas utilities, and telecommunication utilities. An MAA provides an official framework for assistance by outlining request and response procedures and addressing areas of concern such as liability. By establishing a formal MAA, Cal-Ore can help strengthen organized response to emergency situations within and near its service territory.

Emergency Equipment – The ERP includes a list of equipment including heavy duty vehicles, power actuated equipment, snow capable vehicles, generators, internal communication equipment, and fuel source locations. The generators are programmed for weekly automatic generator exercise to ensure that they will work during an emergency. All the offices, shops, and vehicles are equipped with fire extinguishers and fire aid supplies. Fire extinguishers are tested and maintained regularly.

System Resiliency - The network is built in a self-healing fiber ring so that services can still be provided in the event of a fiber cut in one location. All central offices are backed up with battery backup and diesel generators in case of an outage. All remote cabinets have battery backup and can be hooked up to a portable generator in the case of an extended outage. **<<BEGIN CONFIDENTIAL>>** [redacted] **<<END CONFIDENTIAL>>**

Emergency Response

Cal-Ore provided the evacuation plans for the Dorris and Tulelake offices as part of ORA's Data Request A.16-10-004 QAP-001 (Safety) Response 1.9, Attachment J. The evacuation plans provide detailed maps of the office, routes for evacuation, and define the method in which employees are alerted during an emergency. Although Cal-Ore's ERP has identified hazards that could potentially impact its service territory such as earthquakes, snow, ice, hail, landslides, mudslides, wind storms, illnesses, and human-

caused events, Cal-Ore has not identified the response actions or things to consider during each different scenario. Cal-Ore should further analyze each potential disaster scenario and include in the ERP details regarding: (1) identifying and classifying the emergency scenario, (2) strategy for checking the network operational status, (3) availability of tools and resources, (4) internal communication strategy, and (5) external communication and notification strategy. Although it may be difficult to account for all aspects of an emergency situation, it is imperative that Cal-Ore thoroughly assess and develop a strong emergency response strategy for each potential scenario prior to the actual emergency. Attempting to develop a response plan during an actual emergency is significantly more difficult due to the chaotic nature and time constraints of the situation.

Recovery and Restoration

Cal-Ore provided its service restoration strategy as part of ORA's Data Request A.16-10-004 QAP-001 (Safety) Response 1.8, Attachment J, which states, **<<BEGIN CONFIDENTIAL>>** [redacted] **<<END CONFIDENTIAL>>** Cal-Ore should include its recovery and restoration strategy as part of its ERP. It is important for all emergency team members to know the recovery strategy that will be used by the company.

Plan review and update

Cal-Ore's Emergency Response Plan (ERP) is reviewed on an annual basis by **<<BEGIN CONFIDENTIAL>>** [redacted] **<<END CONFIDENTIAL>>** The ERP is then updated on an as-needed basis.[10]

[10] Attachment J, Data Request A.16-10-004 QAP-001 Response 1.1

IV. CONCLUSION

Cal-Ore's communications services play a critical role in ensuring public safety within the communities that it serves. It is important that Cal-Ore has a well-developed emergency plan and adequately trained staff to deal with the different potential disaster scenarios within its service territory. Cal-Ore can improve the overall effectiveness of its ERP by adopting ORA's recommendations to: (1) include the responsibilities of the emergency team, (2) establish a formal Mutual Aid Agreement between other utilities, emergency responders, and local organizations, (3) further develop the emergency response strategy for each potential disaster scenario, and (4) incorporate its recovery and restoration strategy.

CHAPTER 2: 911 EMERGENCY SERVICES

I. INTRODUCTION

This chapter presents the Office of Ratepayer Advocates' analysis and recommendations regarding Cal-Ore's 911 Emergency Services.

II. SUMMARY OF RECOMMENDATIONS

ORA did not find any issues at this time with Cal-Ore's 911 Emergency Services.

III. DISCUSSION

Cal-Ore has four exchanges: Dorris, Tulelake, Macdoel, and Newell. **<<BEGIN CONFIDENTIAL>>** [redacted] **<<END CONFIDENTIAL>>** The 911 routing for Cal-Ore's 911 emergency services is diverse and redundant.

Intrado[13] maintains the 911 database for Cal-Ore's subscribers.[14] Enhanced 911 ("E-911")[15] is available throughout all of Cal-Ore's service territory. Calaveras does not have any Public Safety Answer Point within its service territory.[16] ORA did not find any issues at this time with Calaveras's 911 Emergency Services.

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[11] Attachment N, MDR Response D.10
[12] Attachment K, Data Request A.16-10-004 QAP-002 Response 1.3 and 1.4
[13] Intrado Systems Corp. provides 9-1-1 and emergency communications infrastructure, systems and services to telecommunication service providers and government agencies.
[14] MDR Response to Question D. 11
[15] Enhanced 911 automatically report the telephone number and location of the 911 calls made from wireline phones.
[16] MDR Response to Question D.7

IV. CONCLUSION

Generally, Cal-Ore has designed its network to provide reliability for 911 emergency services. Whenever possible, Cal-Ore network is deployed in diverse and redundant routes using fiber rings and microwave radios. All central offices and remote nodes are equipped with backup power to sustain service during power outages. ORA did not find any issues at this time with Cal-Ore's 911 emergency services.

ATTACHMENTS

ATTACHMENT A

Statement of Qualifications and Experience

Q1. Please state your name and business address

A1. My name is Quang Pham. My business address is 505 Van Ness Avenue, San Francisco, CA 94102

Q2. By whom are you employed and in what capacity?

A2. I am employed by the California Public Utilities Commission – ORA Communications and Water Policy Branch as a Senior Utilities Engineer.

Q3. Please briefly describe your educational background and work experience.

A3. I have a Bachelor of Science in Mechanical Engineering from San Francisco State University. I also have a Master of Science in Systems Engineering and a Master of Business Administration from San Jose State University. I am a licensed professional Mechanical Engineer.

I have been employed by the California Public Utilities Commission since 2011. From 2011 to 2016, I was a Utilities Engineer for the Gas Safety and Reliability Branch in the Safety and Enforcement Division. During this time I served as lead investigator on numerous gas safety incidents, customer complaints, whistleblower, and safety condition reports. I also lead safety audits and field investigation of numerous gas utilities. I provided consultation in Commission hearings and proceedings and participate in enforcement proceedings to litigate against non-compliant utilities.

Q4. What are your responsibilities in this proceeding?

A4. I am responsible for Safety and the 911 system.

Q5. Does this conclude your prepared testimony?

A5. Yes, it does.

Attachment B

Emergency Response Plan Guidelines

Emergency Response Plan Guidelines for Telecommunication Companies

The Telecommunication Company's written emergency plan should contain, at a minimum, the following items:

A. Classification

Define what situations qualify as an emergency and when the emergency response plan should be activated. Be sure to define who has the authority to initiate the plan. Outline what possible hazards the company could face, including natural, human-caused, and technology related incidents. Rank which hazards are most likely to occur within the service area and which hazards pose the most danger to the network infrastructure.

B. Preparation

1. **Emergency Response Team**
   Develop an internal team that will take action during and following an emergency. The plan should describe how the team will gather, process, and disseminate information, set priorities, allocate resources and coordinate activities.
2. **Contact/Notification List**
   Develop a notification list of the emergency response team, first responders, local government agencies, and anyone whose service may be necessary in an emergency. Develop a contact list of employees, critical customers, and service providers. Critical customers include organizations like: Public Safety Answering Points, Law Enforcement Offices, Fire Stations, Hospital, Schools, Etc.
3. **Map of System**
   Maintain an updated map of the company's system including all critical infrastructures that can be used or will need to be protected during an emergency. Ensure maps can be accessed and available in the event of complete system or power loss.
4. **Emergency Training**
   Conduct training exercise at least once a year using the emergency response plan developed as part of this guideline. The communications company should coordinate with first responders, local government agencies, and key stakeholders to be involved in the training. The training exercise will help identify gaps in the emergency plan.
5. **External and Government Coordination (Mutual Aid Agreement)**
   Enter into mutual aid or lend-lease agreements with other local utilities, first responders, and government agencies to provide and receive assistance during an emergency. The agreement should detail the resources available to be shared, procedures for requesting and providing assistance, financial arrangements, and activation and deactivation criteria. Establish a relationship with other members of the mutual aid agreement prior to an actual emergency; the company and members should be acquainted with the responsibilities and resources of each other.

6. **Emergency Equipment**
   Maintain a list of emergency equipment that will be available during an emergency including the locations of the equipment. Ensure that equipment will work in an emergency and personnel are properly trained to use the equipment by performing periodic testing.
7. **Redundant/Back-up Communications**
   Assess the communication system to determine if a system requires redundancy. Examine the vulnerability of each communication system and consider the use of alternative solutions. Consider the availability of emergency services, such as 911, to customers during a disaster. Periodically test the back-up systems to ensure that it will work in an emergency.

C. Response

Develop a response plan for different disaster scenario. Identify which potential hazards are most likely to occur and which will have the biggest consequences if they occur. The response plan should provide the following details on actions taken to minimize hazards to life and property during an emergency:

1. Activation of the Emergency Response Procedure - Identify how the emergency response team will learn of what they need to do and where they need to report
2. System Operational Status - Assessment of the infrastructures, equipment and tools including damages, availability, usage, and traffic loads. Determine the level of support the system and equipment can provide.
3. Communication Strategy – Encompasses internal communications within the company and external with public officials, customers, and those with special needs.
4. Emergency Notifications – develop a plan for notification of emergency situation to the appropriate fire, police, public officials, company personnel, and customers.
5. Company Specific Evacuation Plan – safe evacuation locations identified on map with routes clearly shown, methods of informing personnel, identifying personnel with special needs, verification that all personnel have been secured and evacuated.

D. Recovery and Restoration

Develop guidelines for assessing damage and setting priorities for service restoration. Priorities should be set to restore service first to critical and essential customers.

E. Emergency plan review and update

The plan should be reviewed and updated annually to ensure it is up to date with relevant information. Emergency plan should be distributed to company personnel and provide training to assure that they are knowledgeable of the emergency procedures. The emergency plan should also be reviewed after an incident to determine the effectiveness of the procedures.

Detailed Guidelines

A. Classification:

1) Defining Emergency Situations

a) Define what situation warrants activation of the emergency response plan
   i) Consider what situations pose a threat to facilities, infrastructure, customers, and the public
   ii) Consider which of these situations will require an organized response or preparation
   iii) It is up to the company to determine what circumstances necessitate activation of the emergency plan
   iv) Specify who has the authority to activate the emergency response plan

b) Identify what hazards might be present within the service area
   i) Consider which hazards are most likely to occur and make note of them
   ii) Consider which hazards pose the most danger to facilities, network infrastructure and employees and identify them.
   iii) Consider natural hazards such as fire, earthquakes, and floods, human caused dangers such as domestic terrorism or hazardous material spills, and technology related issues such as computer or power failure. These examples are not exhaustive and hazards will vary from company to company.

B. Preparation:

1) Employee Contact List and Notifications

a) A master contact list of Employees and leadership should include:
   i) Work Email, Office and Cellphone numbers
   ii) Home contact information such as email, phone, and address
   iii) Include special accommodations for people with disabilities
   iv) Keep Information up to date and maintain a paper physical copy

b) Include external contact information with internal information:
   i) Fire
   ii) Law Enforcement
   iii) Vendors
   iv) Critical Customers (Such as Public Safety Answering Points, Hospitals, Schools, Etc)
   v) Local radio broadcasters
   vi) Service Providers
   vii) Government Officials
   viii) Keep this information up to date and maintain a paper physical copy

c) Establish a number of possible notification systems (Building intercom, email, wireless phone messages) in the event one system fails.
   i) Ensure at least one system can function in the event of a power outage
   ii) Identify employees with disabilities and plan how to keep them informed in an emergency

2) System Architecture Map and Inventory

a) Identify communications and information systems that are critical to continued operations
   i) Include procedures to back up data on critical systems to off-sight databases
   ii) Keep important equipment in secure locations, accessible only with authorization
   iii) Analyze the redundancy and resiliency of the system infrastructure
   iv) Identify single points of failure within networks and facilities

b) Consider ranking these critical assets according to the impact their loss will have on the ability to operate. Three commonly used ranks follow:
   i) Mission Critical, which indicates a catastrophic breakdown in ability to respond which could result in major loss of life, property, and a system breakdown. The situation requires immediate restoration efforts.
   ii) Important, which indicates a severe decrease in the ability to respond to emergencies; there could be loss of life or property associated with loss of this asset.
   iii) Minor, which states that full capabilities could be available to the public with modifications or repair to the systems.

c) Specify procedures used to protect paper files, computers, and equipment in an emergency
   i) Identify which data bases should be backed up if possible
   ii) Identify when these data bases should be backed up

3) Designating an Emergency Response Team

a) Establish a clear chain of command and/or emergency response team that will act during the emergency
   i) Consider using the Incident Command System (ICS) to establish the emergency response plan. The ICS is a component of the National Incident Management System (NIMS)
   ii) Ensuring proper passing of leadership in the event Incident commanders are indisposed
   iii) Specify who has the authority to declare a situation an emergency and implement the emergency response plan
   iv) Include gathering locations and evacuation routes for staff and where the incident commanders will meet in the event of an emergency
   v) Outline expected response team tasks prior to the emergency

b) To be compliant with NIMS the emergency plan must identify individuals who have active roles in the following areas:
   i) Incident response leadership – Who is leading emergency response efforts
   ii) Public Information Disclosure – Who is sharing outage information with the public
   iii) Staff and Public Safety – Who is in charge of keeping people safe in an emergency
   iv) Incident planning documentation – Who is maintaining maps and emergency plans
   v) Logistics for response activities – Who is stocking and looking after emergency equipment
   vi) Financial accounting for incident response and possible losses – Who is keeping track of emergency expenses or losses
   vii) A single individual can fill multiple roles

c) Designate an alternate operations sites in the event the primary site is compromised
   i) Ensure the designated location is able to support critical communications functions

d) NIMS training and resources are available online at the NIMS Integration Center and from the California Governor's Office of Emergency Services. A link to FEMA's NIMS page follows: http://www.fema.gov/national-incident-management-system

4) Emergency Training Procedures

a) Run occasional drills to ensure their staff knows what to do in an emergency. Ensure the staff is familiar with the equipment used in an emergency. The Department of Homeland Security established a doctrine called the Homeland Security Exercise Evaluation Program (HSEEP) there are seven steps involved in the training process:

i) Seminars use presentations and studies to discuss response resources, policies, and procedures. This is recommended for organizations that are developing or making major changes to their emergency response plan

ii) Workshops develop incident response resources. Workshops are used to establish exercise objectives and elements of standard performance expectations.

iii) Tabletop Exercises involve key personnel in discussions about realistic disaster scenarios. Tabletop exercises are used to assess preparedness, prevention, and response. Basic tabletop exercises introduce a disaster scenario for participants to discuss and resolve. Advanced exercises introduce complications that force participants to adapt their response to changing disaster conditions.

iv) Games provide scenario analysis and discussion in a time-restricted environment, holding participants to previous decisions. Games are used to evaluate the decision-making process and do not involve actual deployment of resources.

v) Drills develop and maintain skills in a single response procedure, such as evacuation. Designed to measure operational performance.

vi) Functional Exercises are interdisciplinary exercises focused on executing plans and policies under time constraints with the simulated movement of personnel and equipment.

vii) Full-Scale Exercises field multiple test response functions in a time-pressured environment including mobilization of personnel and resources. These measure emergency response plans in conditions as real to an emergency incident as possible. These can either be pre-scripted or be driven entirely by participant actions.

viii) For companies with a small staff Seminars and Workshops can be combined into single safety meetings. A link to the HSEEP guideline follows: https://www.fema.gov/media-library/assets/documents/32326

b) Include local first responders and officials in large scale plans and drills so they are aware of what they may need to protect and how they can protect it during an emergency. Ensure to discuss:

i) What dispatchers need to obtain from staff so that they ensure first responders receive the information they need to know

ii) Familiarization with facilities and evacuation procedures

iii) Opportunities to train staff in local disaster preparedness

iv) Any special tools that first responders might need to assist in emergency situations concerning facilities or infrastructure

v) Expectations for who your staff should expect to work with on a local disaster incident and what they may need to do

c) Review and improve emergency plan to address gaps discovered in preparedness
   i) Update the plan after every emergency incident with the new information learned
   ii) Review the plan periodically, at minimum once a year, and adjust the plan as needed

5) External Coordination Efforts

a) Maintain a list of contact information for important external organizations and keep physical copies on site. The list should include name, email and phone contact information. These include:
   i) Internet Service Provides
   ii) Companies who maintain off-site databases
   iii) Local community leaders such as the Mayor and County Commissioners
   iv) Local Emergency Operations Centers or County Office of Emergency Services
   v) Emergency Responders such as Law Enforcement, Fire, and Medical

b) Form a mutual aid or lend-lease agreement with similar utilities or first responders to strengthen organized responses to emergency situations
   i) Maintain a list of contact information for important personnel. Meet and get to know these people before an emergency incident
   ii) Discuss the company's role as a first responder resource during emergencies
   iii) Familiarize local law enforcement, fire, and medical service personnel with your facility
   iv) Provide and attain regular and after-hours contact information
   v) Consider opportunities to include these personnel in training and drills
   vi) Consider opportunities for staff to be trained on how to respond to a facilities fire or other incidents
   vii) The California Utility Emergency Association is one such organization for utilities

c) First responder and emergency manager coordination should be documented in a Memorandum of Understanding or a Mutual Assistance Agreement that details roles, responsibilities, and cost-sharing agreements. The following conditions should be outlined:
   i) Conditions under which the agreement is activated
   ii) Who is authorized to activate the agreement
   iii) Who controls deployed assets
   iv) Who is responsible for repairing or replacing damaged assets
   v) Terms of reimbursement
   vi) When resources are released at the end of the incident
   vii) Who is authorized to deploy resources

6) Emergency Equipment and Resources

a) Include procedures and contracts with appropriate vendors to quickly acquire critical telecommunications systems, such as fixed and mobile satellite systems
   i) Maintain some means of acquiring a last resort communication solution such as a satellite or wireless connection

b) Maintain backup generator, batteries and/or fuel cells that can ensure continued operations in a power outage.

i) Ensure generators and any fuel are stored in a safe location
ii) Test generators regularly, about once a month, to ensure they still operate. Check and top off fuel levels as generators are tested.

c) Include small items such as portable hand radio sets, flash lights, food, blankets, and other items in the event staff need to stay in the facility.
i) Keep a supply of batteries on site for radios and flash lights; test them regularly

d) Test emergency equipment, including generators and alternate communications systems, regularly and ensure the staff that will be operating the systems are familiar with them

e) Consider insuring important equipment and facilities in the event they sustain damage

f) Maintain important prevention systems such as fire sprinklers and alarms

7) System Redundancy

a) Ensure there are multiple (at least two) routes and connections to Public Safety Answering Points (PSAPs) to ensure continuation of 9-1-1 services.
i) Ring architecture can provide multiple routes for calls to take within a network. Not every node needs to be connected on a ring, but aim for multiple paths for calls or data to reach the central office
ii) Is PSAP service is provided through another carrier, provide multiple (at least two) connections to the exchange point
iii) Keep these routes in different locations to ensure a single incident does not disable both connections. These connections can be wired or wireless.

b) Ensure there are multiple (at least two) connections to external networks to ensure service continuation in the event one is disrupted.
i) Keep these routes in different locations to ensure a single incident does not disable both connections. These connections can be wired or wireless.

C. Response:

1) Activate the Emergency Response Procedure

a) A critical incident, one that threatens your network or your community, requires that decisions be made quickly and under stressful conditions. Incident response objectives can help focus efforts. Common incident response objects are, in priority order:
i) Preservation of Self
ii) Protection of others
iii) Protection of property
iv) Stabilization of the incident

b) Contact and bring together the emergency response team
i) Do a head count of staff who responded
ii) Assign an incident commander based on the planned hierarchy
iii) Assess the extent and severity of the incident
iv) Brief the emergency team on their response tasks

c) When activating members of the response team be sure to communicate the following:
i) A brief description of the incident

ii) If and where the response member is expected to report and what is expected of them
iii) The status of other team members (if known)
iv) How to reach the team leader

d) Consider letting Employees work from home or off site if possible if reporting to work would be dangerous
i) Encourage employees to consider safety plans for their own homes and families

2) System Operational Status

a) Perform an assessment of the operational status of the communications equipment. These plans should include examining:
i) Inventory of Assets
ii) Infrastructure maintenance and state (including current usage and traffic)
iii) Current disaster recovery plans
iv) Current emergency personnel
v) The level of support the available system can give you

b) Activate needed backup or redundant systems to ensure continued operation
c) Repair communications systems that staff are capable of repairing on their own
d) Document what needs to be done and what is being done, Make notes and short descriptions that can help in reviewing the incident
i) Focus on what was damaged and where problems arise
ii) Take pictures of damaged equipment and property

3) Communications Strategy

a) Develop written strategy for how the company will communicate. Make plans for internal and external communication needs.
i) Consider how Employees will learn of the incident, what is going on, and what they need to do.
ii) Plan to keep Employees up to date through company-wide notifications
iii) Consider using press releases or company websites to communicate information that customers and local officials need to know.

4) Outreach and Notification

a) Contact and Coordinate with first responders and emergency personnel
i) Communicate what assistance both staff and first responders need

b) Consider what audiences, organizations, and stakeholders are important to communicate with during an emergency situation
i) Important stakeholders can be considered based upon what organization is important to the operation of the business or who would be hurt by the loss of business operations.

c) Prepare an initial statement that will outline the basic details of the incident that can be supplied to customer service representatives, the media, and other stakeholders.

5) Evacuation Plan

a) Develop a company specific evacuation plan; the plan should include:
i) Identification of the safe evacuation locations
ii) Evacuation routes clearly shown on map
iii) Notification to personnel when evacuation is needed

iv) Identify personnel who have special needs and are accounted for in the evacuation
v) Verification that all personnel have been secured and evacuated

D. Recovery:

1) Restore Operations

a) Have a means of identifying personnel and assistants from mutual aid agencies
   i) Wrist Bands or Name tags. Know who is helping with your recovery process.
b) Determine the operation status of telecommunications lines, communications equipment, and IT systems
   i) What is still working
   ii) What can be repaired
   iii) What needs to be replaced
   iv) Take photos of equipment and facilities damaged by the disaster and notify Insurance providers
c) Debrief the involved emergency staff once the incident has been resolved
   i) Discuss response activities and any emotional issues, take time to recover from the stress of the incident
d) Outline procedures to cover bringing all critical and important systems back into operation
   i) Repair and Restoration process
   ii) Replacement contracts and vendors
   iii) Any alternate equipment or systems that can be used
   iv) Include financial costs or replacing or repairing these systems and know what you will need to continue operations

E. Update and Review:

1) After Action Report

a) Creating an After Action Report is an optional step that can help clarify and analyze the emergency response effort. Compiling and reviewing notes and accounts of the incident could be sufficient; every report doesn't need to follow the formal format.
b) Once the incident has been resolved, complete a report assessing the response during the incident, include and discuss:
   i) Compile a summary and timeline of events
   ii) An assessment of what went right, what went wrong, and what lessons were learned
c) Focus the report on addressing issues with:
   i) Emergency notification process
   ii) Establishing incident command
   iii) Communication
   iv) Strength and weaknesses of the response effort
d) This information should be used to identify training needs and update the emergency response plan
e) An After Action Report has the following structure:

i) Executive Summary
ii) Overview
iii) Goals and Objectives
iv) Event Synopsis
v) Analysis of Mission Outcomes
vi) Analysis of Critical Task Performance
vii) Conclusions
viii) Improvement Plan

f) If a formal report is excessive, consider compiling notes and pictures of the incident for review

2) Update Emergency Plan

a) Schedule post-incident meetings to address issues that arose in the emergency situation
   i) Use a lesson learned approach to address outstanding issues with the emergency plan
   ii) Hold a debriefing session with employees or visitors with disabilities to determine how the emergency procedures worked for them and what, if anything, can be improved
   iii) Meet with first responders to discuss any unmet needs or issues that arose

b) Incorporate information from the After Action Report and meetings to improve and update the emergency plan
   i) Address problems that arose during the incident that were not covered by the action plan
   ii) Improve sections of the plan that were covered but were inadequate or inaccurate during the emergency
   iii) Identify were training and drills can be improved to more accurately reflect the situation

References

- Caltrans Transit Emergency Planning Guidelines

  http://dot.ca.gov/hq/MassTrans/Docs-Pdfs/Caltrans%20Planning%20Guidance.pdf

- Caltrans Transit Emergency Planning Guidance Technical Appendix

  http://dot.ca.gov/hq/MassTrans/Docs-Pdfs/CPG%20Technical%20Appendices.pdf

- FEMA's NIMS page

  https://www.fema.gov/national-incident-management-system

- FEMA's Homeland Security Exercise and Evaluation Program

  https://www.fema.gov/media-library/assets/documents/32326

- California General Order 166: Standards for Operation, Reliability, and Safety During Emergencies and Disasters

  http://www.cpuc.ca.gov/gos/GO166/GO166_startup_page.html

- Title 49 Code of Federal Regulations §192.615: Transportation of Natural and Other Gas by Pipeline Minimum Federal Safety Standards – Emergency Plan
- California General Order 103-A, Section 3: Emergency/Disaster Response Plan
- FCC Guidelines for Emergency Planning

  https://transition.fcc.gov/pshs/emergency-information/guidelines/

- U.S. DHS Local Exchange Carrier Mutual Aid Agreement
- 2016 NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs
- Department of Homeland Security Ready Campaign: Preparedness Planning for Your Business https://www.ready.gov/business

Attachment C

FCC Wireline Carriers Guidelines

Emergency Planning: Wireline Carriers

Disaster preparedness and recovery planning is designed to reduce the disruption of essential services when an emergency situation occurs. Emergency communications planning is key component of any disaster plan. Disaster plans should be flexible enough to be adapted to particular emergency situations.

The following guidelines are intended to help Wireline Carriers ensure their continuity of operations and manage the security and operability of their communications systems and networks during emergencies. You may voluntarily choose to use these guidelines to further develop, enhance and expand their current emergency and disaster preparedness, response and recovery plans to build in a more comprehensive strategic approach to their overall emergency communications plans.

In formulating your plans, the goal is to develop and implement strategies that ensure the continued operation of facilities before, during, and after an incident. Hence, the main steps are ***preparation***, ***response***, and ***recovery***.

Preparation

Communications and Continuity of Operations (COOP)

- **Operational processes.** Identify those with key communications and information technology (IT) components that are critical to the continuation of essential services in an emergency. Also specify any procedures to be followed in the hours preceding a storm to protect computers, paper records, e.g., securing equipment, placing garbage bags over files, or moving files upstairs. Identify which, if any, databases should be backed up at the last possible moment.
- **Recovery processes.** Develop processes to be used during the recovery. They should include procedures for impact assessment, repair/restoration, alternate solutions, post-incident analysis, and the updating of the emergency management plan. Pre-emergency procurement processes/contracts should be in place with appropriate industry partners/vendors that will enable the rapid acquisition of critical telecommunications equipment/services such as fixed and mobile satellite systems which may not be a capability in daily use by critical entities.
- **Communications response team.** Develop a team that will take action during and following an emergency. This task must clearly define employee roles and responsibilities and establish a chain of command for operational functions and maintenance of communications infrastructure and IT services.
- **Employee training exercises.** Conduct training for all phases of an emergency. Where feasible, consider doing cross training between communications team members to be able to compensate for personnel shortages that may occur. Include specialized training for employees with disabilities and those who work with them.
- **Communications leader training.** Conduct training for those responsible for coordinating communications operations during major emergency events.
- **Employee contact lists.** Develop lists that include office telephone numbers, work cell phone and blackberry contact numbers, and office email addresses. Also include personal home and cellular telephone numbers and personal email addresses. Continually update the lists to ensure that complete and current emergency contact information is on file and accessible. In addition, maintain the lists in paper format and on removable media such as USB drives that are stored off site. Also develop a list of employees with disabilities, giving instructions on how to contact them in an emergency (e.g., how to send a text message to a deaf employee's pager). In addition, develop a plan for how to keep people with disabilities informed in case of an emergency.
- **Service provider contact lists.** Prepare contact information for IT, Internet, and telecommunications services. Include circuit numbers, Diagrams and TSP codes (see below).

- **Priority services.** Three key federal programs are available that allow for priority call queuing and the priority provisioning or restoration of key communications circuits (see Network Reliability and Interoperability Council Best Practice 7-7-1011). The programs are:
    - TSP, or the Telecommunications Service Priority Program, provides organizations engaged in national security and emergency preparedness (NS/EP) functions with priority provisioning and restoration of telecommunications services that are vital to coordinating and responding to crises. Telecommunications service vendors prioritize service requests by identifying those services critical to NS/EP. A telecommunications service user with a TSP assignment is assured of receiving service by the service vendor before a non-TSP service user.
    - GETS, or the Government Emergency Telecommunications Service Program, provides emergency access and priority processing in the local and long distance segments of the Public Switched Network (PSN). It is intended to be used in an emergency or crisis situation during which the probability of completing a call over normal or other alternate telecommunication means has significantly decreased.
    - WPS, or the Wireless Priority Service Program, improves connection capabilities for a limited number of authorized national security and emergency preparedness (NS/EP) cell phone users. In the event of congestion in the wireless network, an emergency call using WPS will have priority queuing for the next available channel.

- **Alternate operations site.** Such an alternative is essential in times of emergency. The designated location must be able to support critical IT and communications functions.

Redundant/Back-up Communications

Assess communication systems in order to determine which systems and/or databases require redundancy.

- Identify and establish safe locations for communications systems that require redundancy and back-up configurations.
- Have a tested backup plan for satellite telemetry and control.
- Perform periodic testing of systems to make sure they will work in an emergency.
- Identify specific vulnerabilities (i.e., power outages, high wind, flooding, etc.) that are most likely to occur in that specific region and provide resources to overcome them.
- Evaluate the resiliency, redundancy, and interoperability of the system while performing your inventory and risk assessment analysis. These steps should consider:
    - Diversity of communications systems (see below),
    - Last Mile Connectivity,
    - Facility Hardening and Alternate Routing,
    - Internal Building Infrastructure,
    - Hardware Back-up,
    - Un-interrupted Power supplies/Internal Reserve Power,
    - Availability of replacement parts, on-hand and in the market,
    - Redundant Paths and Physical Routes, and
    - Switching and packet re-route capabilities.

- Learn the capabilities of the system so as to maximize the value of the plan. If you do not know these systems well and do not use them prior to an emergency, they are likely to fail during a major event due to lack of knowledge or readiness.
- Obtain a last-resort backup means of communication (such as Wireless, WIFI, satellite) in response to adverse conditions, even if technical signal quality is substantially degraded under such conditions, for communicating with employees, police, fire department officials, emergency medical personnel and others in the community as needed.
- Consider HF radio as an option, recognizing that HF usually requires a skilled operator such as a licensed HAM radio operator. It is advisable to identify and include HAM radio operators in your emergency operations plan and when activated, identify where they will be assigned. It is important to include all known HAM, Amateur Radio

Emergency Service (ARES), and SHARES operating personnel in the area to maximize their assistance during critical times.

- Preplan when known events are forecasted. This allows you to implement a preparation plan that institutes a procedure for readiness and testing of all frontline and redundant equipment. Preplanning includes topping off fuels, recharging batteries, adjusting work schedules, and notifying standby staff. Make sure all critical communications facilities are on the plan, as well as other private networks that are key in supporting emergency communications operations.

Diversity of Communications System

Examine the vulnerability of each communications service provider's infrastructure and facilities and consider the use of alternate providers.

- Periodically test all redundant communications systems.
- Consider the use of divergent routes, such as an office across the street that may be fed from a different cable or transformer. This is best accomplished in a discussion with your telecommunications service provider.
- Even in those cases where end-to-end diversity is not available (perhaps because there is only one loop route to the PSAP), the PSAP should consider obtaining interoffice diversity from its provider.
- The PSAP should also consider arranging with another PSAP for backup and support in the event of total failure or abandonment of the PSAP.

Emergency Notifications

Have policies and protocols in place to ensure that all personnel have access to emergency notifications, via various communications devices.

- Consider using a number of notification systems such as building-wide intercom, wireline phone messages, email notifications, and person-to-person communications for crisis management instructions (e.g., for full evacuation or relocation to a designated area of the building.
- Ensure that notification systems can function in the event of a power failure. Although consideration often is given to lighting, public address or other notification systems sometimes are overlooked.
- Identify employees with disabilities and special needs and work with these employees to develop strategies for keeping them informed during an emergency. Some employees, for example, may be unable to see or hear workplace announcements.
- Develop plans for evacuating employees with special needs, such as those in wheelchairs.

Security

Secure communications and IT systems/facilities from physical and cyber attacks.

- Maintain vital communications and IT equipment in protected locations with only authorized access.
- Secure key facilities with experienced personnel and/or video surveillance cameras.
- Limit access to IT systems to appropriate staff using login/password and other security measures.
- Protect communication and IT systems from malicious cyber attacks and viruses by implementing security measures such as the regular updating of virus protection and other software security programs.

Power

Have plans in place that account for commercial power disruptions for extended times during and following an emergency.

Actions to take:

- Activate backup power automatically through the use of a power source having a low risk of being interrupted during a power outage to maintain continuity of operations (i.e. a power generator).
- Deploy power generators at secure, elevated locations in cases where it is essential to maintaining daily operations. Generators should be maintained by frequently testing them.
- Ensure that sufficient levels of fuel are available at all times and periodically check those levels. When ordering a new installation, consider using dual fuel, such as Natural Gas and Diesel.

- Ensure that power batteries are available for critical communications in case the power generators fail to function. Consider installing solar power or fuel cells where applicable. It is important to note that batteries are good for short term outages but often do not power the air conditioning equipment and do not adequately cool the other equipment (especially computers) which may be damaged or shutoff when overheated.
- Consider purchasing new radios that can be powered by off-the-shelf alkaline batteries using appropriate adapters. Note, however, that batteries are only short term fixes and are depleting commodities that present a HAZMAT issue in disposal. Moreover, they will not power critical HVAC and environmental systems necessary for the operation of your facilities.
- Establish sources for obtaining fuel to refill generators.
- Make sure that batteries for radios, flashlights, fire detectors and other communications and safety devices are working, charged, and ready. Develop a daily, weekly or monthly schedule for periodically testing them.
- Keep additional supplies of batteries at the worksite and at the alternative operational site. Rechargeable batteries should be tested in appropriate equipment and replaced periodically based on manufacturers' requirements.

Test Equipment

Verify the availability of technician test equipment that may be needed when an emergency occurs. Also verify that test equipment works with both commercial and battery power when applicable.

Mutual Aid Agreements

Enter into mutual aid or lend-lease agreements with similar organizations inside and outside of your area. In some cases, these agreements will enable organizations to share specialized resources rather than duplicate them in every jurisdiction.

- Work with local public utilities (e.g., telephone, wireless phone, electric, and water) to develop a critical infrastructure priority restoration plan for your locality.
- Establish a procedure and determine "emergency" contact telephone numbers with each of these agencies.
- Meet and get to know these critical players before the need arises.

Things To Consider

Response

Activate the ***Emergency Response Process*** which includes procedures for impact assessments, repairs and implementation of alternate communications solutions. Entities should:

- Contact and bring together emergency staff members to brief them on response tasks.
- Complete a communications system assessment to determine the operational status of your various communications systems: land mobile radio system, repeaters, PBX, LAN or data network, and email (incoming, outgoing, and internal). During the assessment, examine the following areas:
    - Inventory of assets, in use, in maintenance, on loan, and in back-up;
    - Infrastructure maintenance, performance against standards, system saturation, usage, and traffic loads;
    - Current Disaster Recovery Plan;
    - Current emergency support personnel;
    - Current Service Level Agreements and response time from vendors;
    - Current priority of service on all forms of service provided;
    - Communications and system repairs;
    - Current network resiliency, redundant paths, and primary/secondary fail over systems; and
    - Most current vendor, service provider, and State and Federal contacts.
- After establishing what is in inventory and available, determine the level of support the system can give you. Establish a three-tiered priority list that will help you know the impact of losing a given asset and will allow you to

better communicate your needs for assistance when necessary. Three levels of criticality are commonly used:

- ***Mission Critical*** indicates a catastrophic breakdown in response ability which could result in major loss of life, property, and system trust breakdown. This situation requires an immediate effort to target restoration.
- ***Important*** indicates a severe decrease in the ability to respond to emergency needs. There could be excessive loss of life or property associated with this type of outage. Only critical responses could be met.
- ***Minor*** indicates that full capabilities could be apparent to the public with modifications to the systems and its architecture or software.

- Perform a communications line assessment to determine the operational status of telecommunications lines connecting your organization to the outside world.
  - Activate backup systems to compensate for failed communications systems or lines and make sure that the backups have kicked in.
  - Complete repairs of those communications systems that the IT/telecom department can repair on its own. In addition, contact commercial vendors for repairs (including telephone companies if any of their lines or services have been impacted by the emergency).
  - Conduct situational awareness surveys/analyses and provide updates and reports to the organization's leadership and emergency management team, and, when appropriate, to the public.
  - Develop risk modeling against your first responder infrastructure and your response, based upon the top disasters your area is prone to. The analysis should run the gauntlet of issues including total loss of systems.
  - Use inclusions that test fail over for lost facilities, loss of human services, current structure and building designs, tower locations, and National Institute of Standards for Technology.
  - Perform an analysis that includes a steady and repeatable result and allows for a gap analysis of the systems and their functions. Areas of single point of failure should be identified and prioritized as tactions mitigating the impact of failure.
  - Include studies of current design and standards, as well as recovery based upon current service level agreement response intervals.
  - Also include the cost associated with the infrastructure, system, and personnel loss, as well as a mitigation study of liability impacts and supplemental loss.

Things To Consider

Recovery

Activate the Emergency Recovery Process which includes procedures for conducting impact assessments, making repairs or restoration, establishing alternate solutions, performing post-incident analysis, and updating the emergency management plan.

- Develop a means of personnel identification to insure access during these critical times. Do the same for any mutual aid agencies that may be helping.
- Contact and gather emergency staff to review impact assessments to complete repairs and restoration of communications systems.
- Complete a communications system assessment to determine the operational status of communications systems such as PBX, LAN or data networks, and the incoming, outgoing, and internal email system.
- Perform a communications line assessment to determine the operational status of telecommunications lines connecting your business to the outside world.
- Conduct an IT system assessment to determine the operational status of key computer systems for continuity of operations.
- Complete all repairs and a post-incident analysis and utilize a lessons learned approach to emergencies.

Update the organization 's emergency management plan as necessary. Schedule post-incident follow-up meetings and drills to address any outstanding emergency preparedness, response and recovery issues within 60 days of the incident.

- Consider holding a debriefing session with employees or visitors with disabilities or special needs to determine how well emergency procedures worked for them and what, if anything, can be improved.
- Remember that **failing to plan is planning to fail**.

Things To Consider

Attachment D

CalTrans

Transit Emergency Planning Guidance

Transit Emergency Planning Guidance

California Department of Transportation

Division of Mass Transportation

July 2007

Table of Contents

Additional details at http://www.dot.ca.gov/hq/MassTrans/Safety-Security.html

Comments from the Director

Safety has always been a top priority at the California Department of Transportation for all modes of transportation. As a result of the events of September 11, and the terrorist attacks on public transportation systems worldwide, our focus on transit security has been elevated to a level unmatched in the agency's long history.

This Transit Emergency Planning Guidance document is a synthesis of industry best-practices for transit emergency preparedness, prevention, response and recovery. Our goal is to help California to be better prepared for emergencies of all kinds.

We recognize the need for improved planning, communication and coordination between transit systems, first responders and emergency managers statewide. This document was created to help fill that planning need, and thereby reduce risks to our state's critical infrastructure generally, and transit resources in particular.

You are being asked to examine with a critical eye the emergency response plans for your agency and your community. We can, and we must, strive for continual improvement. This is what the public expects of us, and what I believe each of us expects of ourselves.

Thank you for your commitment to this issue, and your day-to-day efforts that ensure the safety, security and mobility of The Golden State.

Sincerely,

Will Kempton, Director
California Department of Transportation

Executive Summary

Providing safe, reliable transportation has long been a priority at all levels of the transit industry including the Federal Transit Administration (FTA), state Departments of Transportation and individual transit providers. Over the last decade, transit's traditional focus on safety has been expanded to include system security, even in rural communities. And in the aftermath of recent natural disasters, there is a heightened awareness of the importance of mobility during times of crisis.

The model supported by industry leaders includes transit's role as:

- ***First Preventer*** – recognizing hazards and threats before they become major incidents
- ***First Responder –*** supporting evacuations, transport of first responders, providing mobile shelter, and otherwise supporting emergency response activities
- ***First on Scene*** – responding appropriately to accidents and incidents, acts of nature, loss of organizational infrastructure, hazmat spills, criminal activity and even acts of domestic or international terrorism. Regardless of the cause, critical incidents require swift decisive action to protect life and property.

Recognizing the significant risks facing the transit industry, and the importance of transportation infrastructure to the vitality of the state, Caltrans has launched an aggressive program focused on the emergency management needs of California transit systems. This program has included basic awareness training for transit managers; interagency training and tabletop exercises for transit staff, first responders and emergency managers; and this Transit Emergency Planning Guidance document helping to shape transit systems' approach to emergency preparedness on a statewide basis.

This Transit Emergency Planning Guidance document details industry best practices, using the cornerstones of emergency planning doctrine:

- **Prepare**
  - Identify assets essential to your mission
  - Assess hazards and threats facing your agency and your community
  - Train staff on how to prevent, respond to and recover from prime risks
  - Coordinate with other emergency response stakeholders

- **Prevent**
  - Take steps to eliminate threats where possible

- Institute policies and procedures that reduce the likelihood of incidents occurring
- Take steps that reduce the impact when incidents do occur

- **Respond**
  React quickly and decisively to critical incidents focusing on:
  - Life Safety
  - Property Protection
  - Stabilization of Incident
- **Recover**
  - Resume service delivery based on availability of resources
  - Repair and replace critical assets
  - Assess incident response and make changes based on lessons learned

In addition to this four-chapter Transit Emergency Planning Guidance document, Caltrans has developed a Technical Appendices containing forms, checklists and templates vital to the emergency planning process. Together these materials will help industry professionals understand how to minimize risk, determine what sort of outreach to first responders and other partner agencies may be needed, and be as prepared as possible for crisis. The ultimate outcome will be a safer, more secure California transportation network.

1 Prepare

Safety has always been a priority for local community transportation providers, Caltrans and the Federal Transit Administration. As a result of 9/11, and the transit attacks in Spain, England and India, there are heightened concerns for transit security even in rural communities. The destruction wrought by Hurricanes Katrina, Rita and other acts of nature have broadened that awareness to the role that public transportation can play as a first responder resource. Every transit system - whether a large fixed-route bus system or a small rural provider – is being asked to designate safety, security and emergency preparedness as a top priority, and to prepare to manage critical incidents for the wide array of hazards that transit may face.

Critical Incidents could include accidents, natural disasters, sabotage, civil unrest, hazardous materials spills, criminal activity, or acts of terrorism. Regardless of the cause, critical incidents require swift, decisive action to protect life and property. Critical incidents must be stabilized prior to the resumption of regular service or activities. Successful resolution of critical incidents typically requires cooperative efforts by a variety of responding agencies.

IMPORTANT DEFINITIONS:

- **System Safety** – The application of operating policies and procedures to reduce vulnerability to safety-related hazards
- **System Security** – The application of operating policies and procedures to reduce vulnerability to security threats
- **Emergency Preparedness** – The system of policies and procedures that assure rapid, controlled, and predictable response to a wide variety of safety and/or security incidents

Every transit system should strive to:

- Ensure that system safety, security and emergency preparedness are addressed during all phases of operations including hiring and training of personnel; procurement and maintenance of equipment; development of policies and procedures; delivery of service; and coordination with local emergency management and first responder agencies.
- Ensure that appropriate disability expertise and experience is integrated into all aspects of emergency preparedness; development of policies and procedures; and coordination with local emergency management and first responder agencies.

IMPORTANT DEFINITIONS:
Transit assets can be broadly defined as ***People, Information,*** and ***Property***:

- **People** – Passengers, employees, visitors, contractors, vendors, community members, and others who come into contact with the system
- **Information** – Employee and customer information, computer network configurations and passwords, ridership, revenue and service statistics, operating and maintenance procedures, vehicle identification systems
- **Property** – Revenue vehicles, non-revenue vehicles, storage facilities, passenger facilities, maintenance facilities and equipment, administrative offices, computer systems and communications equipment

- Create a culture that supports employee safety and security through the appropriate use and operation of equipment and resources.
- Promote analysis tools and methodologies that identify changing threat conditions and bolster agency response capabilities.
- Ensure that the agency achieves a level of security performance and emergency readiness that meets or exceeds the operating experience of similarly-sized agencies.
- Identify and pursue grant funding opportunities at the state and federal level to support safety, security and emergency preparedness efforts.
- Make every effort to ensure that, if confronted with a safety or security event or major emergency, personnel will respond effectively, using good judgment and building on best practices identified in policies and procedures and exercised through drills and training.

A. Hazard and Threat Assessment

Most transit systems define their mission in terms of mobility: providing safe, reliable transportation to those who do not have other mobility options, and/or those who choose transit. Defining your mission helps determine what assets are most critical.

Assets include people, information, and property, each of which are designed to help fulfill the mission. Assets are critical when their loss either endangers human life or impacts your ability to meet your mission. Those assets whose loss would have the greatest impact on your ability to meet your mission may require special protection.

By analyzing the threats and hazards faced by your agency and community, you can better prioritize emergency preparedness activities. Hazard and risk assessment is a comprehensive study of a system to identify those components most vulnerable to disruption or destruction and to assess the likely impact that such disruption or destruction would have on passengers, employees, and the transit system. It considers the likelihood of hazards and threats damaging critical assets based upon:

- Historical analysis
- Physical surveys
- Expert evaluation
- Scenario analysis

Historical Analysis
Historical Analysis evaluates threats and hazards based on historical trends for your agency and like-sized agencies. External information resources may include Federal, state and local agencies, other public and private organizations and peer transit agencies. Internal information resources include accident/incident reports, vehicle maintenance records, insurance claims, human resource records, and staff and passenger input.

Physical Analysis
Physical and visual inspection is another essential method for identifying hazards and threats to your critical assets. Physical surveys should consider:

- Location of facilities and operational service areas relative to hazards and threats
- Exposure to natural hazards including acts of nature
- Exposure to potential toxic release
- Exposure of assets to fire risk
- Value of assets to criminals and as terrorist targets
- Fencing and perimeter security
- Lighting, surveillance, and monitoring capabilities
- Facility access control and intrusion security
- Life safety equipment and supplies

Expert Evaluation
Historical analysis and physical analysis can be conducted by agency staff, consultants, and/or partner agencies such as local police, fire, and emergency medical services. Regardless of who assesses your vulnerabilities, it is essential to:

- Identify each hazard and threat that your transit system faces
- Evaluate each in terms of their potential impact on your critical assets, and
- Prioritize which of those threats and hazards pose the greatest risk to your core mission.

Scenario Analysis
Scenario Analysis provides an estimate of the probability of the risk occurring and damage attributable to any hazard or threat if it does occur. Transit risks can be framed in six key categories:

- Accidents and incidents
- Acts of nature
- Loss of organizational infrastructure
- Hazardous materials
- Criminal activity
- Domestic and international terrorism

An index of the most common hazards and threats faced by transit operators in each of the six broad categories identified above can be found in Technical Appendix B.

See Technical Appendix B for sample Hazard and Threat Assessment Forms.

B. Communicating About Risk

The goal of emergency preparedness is to reduce your agency's risk experience. As risk is endemic to transportation it is recommended that transit systems establish a system by which to communicate when risk is low and when it is high.

The U.S. Department of Homeland Security (DHS) utilizes a Security Advisory System for threats to critical infrastructure. The most visible piece of that strategy is the ***Color-coded Threat Level System.*** This system is designed to communicate with public safety officials and the public at-large about threats and the appropriate readiness posture. Similarly, the U.S. Forest Service uses a color-coded warning system to inform users on public lands about current wildfire hazards.

Transit Threat Alert System
The Federal Transit Administration has developed a transit ***Threat Condition Model*** that parallels that of the Department of Homeland Security. The FTA model progresses from green through red to indicate threat levels from low to severe. It also includes purple designating disaster recovery. General guidelines applying to each successive hazard and threat level can be found in Technical Appendix F.

C. Emergency Planning

It is vital that California transit systems be able to mobilize quickly in case of an emergency. That requires planning and organization. Some of the planning elements most essential to effective incident response include identification of your internal emergency response team, contact information for all staff and partner agencies, and drills and exercises by which to evaluate preparedness and identify vulnerabilities. Other planning challenges, some of which are of particular concern to California, include:

- Overcoming language and cultural barriers
- Coordinating evacuation of special needs populations (e.g. people with disabilities and elderly)
- Mass evacuation and mass care following major (e.g. earthquake) incidents
- Protocols for sweeping and clearing transit equipment following any sort of transit attack such as the incidents in Madrid or London

Internal Contact Information
Every transit system should maintain accurate and up-to-date contact lists for all staff. Contact lists should include work number, home number, cell phone number, email address and home address. It is particularly important to have this information for key staff such as Emergency Response Team personnel, board members, insurance carriers, legal counsel, claims/risk management staff and executive staff.

External Contact Information
It is important to maintain accurate and up-to-date contact information for community

emergency management personnel, first responders and partner organizations to be notified in the case of safety and security emergencies. Typically this list will include work number, home number, cell phone number, email address and home address for the following:

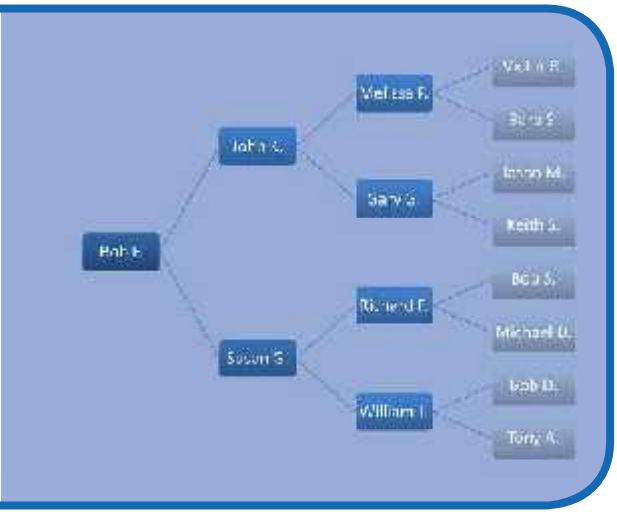
- Police Chief/Sheriff
- Fire Chief/deputy
- Emergency Medical Services
- Local and State Emergency Operations Centers
- Mayor/County Commissioners
- Local City DOT/Traffic Departments
- Freight rail dispatch centers
- Passenger rail systems
- Local hospital emergency room(s)
- Local Public Health Director/Deputy
- Transportation providers for people with disabilities (i.e., Paratransit, Dial-A-Ride)
- Independent Living Centers
- Regional Centers
- Local media

Emergency Response Teams

It is essential that transit systems create a roster that includes contact information of the transit incident management team in advance of any incident. This team should include representation from each area of the organization. Technical Appendix A contains sample transit emergency response team roster based on the Incident Command System (ICS) discussed in Chapter 3. Smaller agencies may need to assign team members multiple responsibilities, and/or look to partner agencies to help fulfill emergency response roster demands.

Phone Trees

A communications tool that has proven simple yet effective for mobilization and staff accountability is a call tree. A call tree is a structured document of names and phone numbers that resembles a competition elimination bracket, but in reverse. This enables your entire organization to be contacted quickly, with each staff member having to make no more than a couple of calls. Details on *use* of the call list are included in Chapter 3 – Response. This chapter attends to assembly of the list in preparation for any sort of emergency incident.



Note that call trees can also be used to communicate with staff about unexpected and important operational changes, such as changes in where employees should report to work.

A call tree is typically created by human resources, and updated on a quarterly basis. It is worth running quarterly exercises using the phone tree so all members

of the team are familiar with its use and application, and to identify incorrect and outdated numbers.

In addition to the call-tree, it is recommended that every organization establish a hotline where staff can call in for instructions before, during and after a critical incident. In addition to crisis situations, this is useful for changes in day-to-day operations.

Loss of communication can be a major issue during a crisis, and cellular communications are particularly vulnerable. Since large-scale disasters often overwhelm local telecommunications systems, it is recommended that your organization establish an out-of-state hotline/answering service number where staff can call following any major emergency where they are unable to make contact on local lines. Additionally, the Government Emergency Telecommunications Service (GETS) provides emergency phone service and priority processing in the event of a network outage. GETS is a free service for Transit, and it is suggested that all organizations set up access at http://gets.ncs.gov/.

Delegation of Authority

It is important to have a plan to ensure continuity of management throughout any emergency incident. The succession plan provides for automatic delegation of authority in cases where:

- A member of the incident response team is no longer able to perform incident-related duties due to injury or illness
- A member of the incident response team is temporarily unable to perform incident-related duties due to loss of communications, competing priorities, or mandated rest and recuperation
- Regular members of the agency incident response team are unavailable due to travel (e.g., vacation, professional development, etc.) or are unable to access an incident location or agency facility

The delegation of authority plan designates the next most senior leader required to manage temporary duties normally assigned to higher-level personnel.

D. Coordinating with Stakeholders

Traditionally transit has not been considered a first responder organization. This disconnect was probably never more clear than in the aftermath of Hurricane Katrina, where thousands of transit dependent and special needs populations were not considered until too late in the game. Transit is also dependent upon traditional first responder organizations – police and fire in particular – to help with emergency response and emergency response planning. One of the desired outcomes of this Planning Guidance is to bridge the gap between transit and local emergency planning committees who are responsible for a coordinated and integrated approach to community incident response.

Coordination with Emergency Management

It is vitally important that the identification of stakeholders take place at the beginning of the planning process. Effective emergency response does not happen by accident. It is the result of planning, training, exercising, and intra/interagency cooperation. It is recommended that transit representatives regularly participate on their Local Emergency Planning Committee (LEPC) which meets monthly or quarterly in most communities. The U.S. Environmental Protection Agency (EPA) maintains an updated listing of LEPCs through the country. A link to the EPA website can be found in Technical Appendix D.

At a minimum, you should meet annually with your city and/or county emergency management coordinator to discuss:

- Transit's role as a first-responder resource on community disaster incidents
- The need to familiarize your local police, fire and emergency medical services (EMS) personnel with your facilities and your equipment
- Opportunities for training of transit staff in Incident Command, the National Incident Management System (NIMS), and local disaster preparedness issues
- Strategies to identify individuals with specialized needs, their locations, and their requirements for transportation assistance
- Regular and after-hours contact information for your agency
- Opportunities to integrate transit into local disaster drills and exercises

Coordination with First Responders

In addition to fostering relationships with the local emergency management coordinator, it is recommended that transit build relationships directly with local law enforcement, fire and EMS leadership to ensure transit issues are understood. At a *minimum*, you should meet annually with local first responders to discuss:

- Critical information that your dispatcher(s) must obtain from your bus/train operator to ensure that first responders receive the most useful information possible if/when something occurs requiring their help
- Regular and after-hours contact information for transit incident response point people
- Transit-specific issues (e.g., evacuation of transit vehicles, considerations for people with disabilities) that first responder agencies need to understand
- Familiarization with equipment, facilities, and evacuation procedures including:
  - Vehicle and facility entry
  - Recommended facility escape routes and safety zones
  - Hazardous materials in facilities and on vehicles
  - Fuel shut-off valves
  - Equipment shutdown
  - Railroad right-of-way access
  - Emergency dump valves
  - Battery cut-off switches

  - Lift equipment operations
  - Communications compatibility
- Any special tools/equipment first responders might need to address transit emergencies, particularly items that they would not normally possess
- Opportunities for transit staff to be trained by law enforcement on responding to violent perpetrators and vehicle (accidents?)
- Opportunities for transit staff to be trained by fire personnel on responding to vehicle and facility fire situations
- Opportunities for transit staff to be trained by organizations providing services to people with disabilities on evacuating and transporting to shelters
- Opportunities for law enforcement to be trained on how to safely fire their weapons on a CNG bus
- Appropriate first responder unit jurisdictions
- Transfer of Command at any transit disaster
- Expectations for who your staff should expect to interface with on a local disaster incident
- Opportunities for basic awareness training on local safety and security issues

First responder and emergency manager coordination meetings should be documented in the form of a Memorandum of Understanding or Mutual Assistance Agreement that details roles, responsibilities and cost-sharing agreements between the participating agencies. Any agreement should address the following issues:

- Conditions under which the agreement is activated
- Who is authorized to activate the agreement
- Who controls deployed assets
- Who is responsible for repairing or replacing damaged or destroyed transit vehicles
- Who is responsible for support of deployed transit vehicles
- Terms of reimbursement
- Who is authorized to direct deployment of transit resources
- Under what conditions and by whom are transit resources released at the end of the incident.

The agreements should include the utilization of resources specific to the transporting of people with disabilities.

See Technical Appendix A for sample MOU agreements

E. Drills and Exercises

In crisis management, as in sports or music, you play the way you practice. That is why it is essential that transit managers test emergency preparedness plans through disaster drills and exercises that are increasingly challenging over time. Implementation of such a program allows your staff to achieve and maintain competency in the skills necessary to effectively respond to the risks you face.

The U.S. Department of Homeland Security has established guidance doctrine known as the Homeland Security Exercise Evaluation Program (HSEEP) by which to enhance your preparedness for disaster incidents. There are seven steps to the HSEEP training and exercise process:

Discussion-Based Exercises:

1. ***Seminars*** utilizing lecture, multi-media presentations, case studies, and expert testimony to orient participants to response resources, strategies, policies, and procedures. Seminars are recommended for organizations and jurisdictions that are developing or making major changes to their emergency response plans.
2. ***Workshops*** to develop specific incident response products, typically using break-out sessions followed by plenary review and discussion. Workshops are frequently used to establish exercise objectives, develop exercise scenarios, and identify elements of standard performance.
3. ***Tabletop Exercises*** involving key personnel in discussions about realistic disaster scenarios. Tabletop exercises are used to assess and enhance preparedness, prevention, response and recovery plans, policies and procedures. Basic tabletop exercises introduce a complete disaster scenario for participants to discuss and resolve. Advanced tabletop exercises introduce scenario components incrementally forcing participants to adapt their response strategies to changing disaster conditions.
4. ***Games*** provide scenario analysis and discussion in a competitive, time-restricted environment, holding participants to the consequences of previous decisions. Games are used primarily to evaluate decision-making processes, and do not involve actual deployment of operational resources.

Operations-Based Exercises:

5. ***Drills*** that develop and maintain skills in a single response procedure (e.g., evacuation procedures, notification, etc.). Drills are designed to measure performance of operational activities against established response standards with immediate player feedback.
6. ***Functional Exercises*** are full-scale interdisciplinary exercises focused on exercising plans, policies, and procedures in coordination, under time constraints, with simulated movement of personnel and equipment.
7. ***Full-Scale Exercises*** are full-scale interdisciplinary events that field test multiple response functions in a time-pressured environment including mobilization of response personnel and equipment. Full-scale exercises measure the operational capability of emergency response plans in an interactive manner resembling a real emergency incident as closely as possible. Although pre-scripted events may be used, full-scale exercises are primarily driven by player actions and decisions.

See Technical Appendix B for examples of tabletop exercises.

F. Safety, Security, & Emergency Preparedness Plan (SSEPP)

To establish the importance of safety, security, and emergency preparedness in all aspects of your transit organization, a formal Safety, Security, and Emergency Preparedness Plan (SSEPP) should be developed and adopted by your agency's oversight board. This plan should outline the processes by which your agency prepares for, prevents, responds to and recovers from critical incidents. The activities documented in your SSEPP should clearly identify your methodology for documenting and analyzing potential safety hazards and security threats and clearly assign responsibility for addressing these threats.

Go to http://www.dot.ca.gov/hq/MassTrans/Safety-Security.html for a Safety, Security, and Emergency Preparedness Plan template.

Summary of Critical Steps for Emergency Preparation

Identify assets essential to transit mission
Identify emergency response leadership
Assess potential safety hazards and security threats
Train staff how to respond to potential hazards and threats
Establish protocols for communicating about risk
Develop and adopt an emergency plan (SSEPP)
Identify and coordinate with **all** stakeholders (including representation of people with disabilities and the elderly)
Conduct drills and exercises

2 Prevent

Risk is inherent in public transportation for many reasons: weather conditions, unmarked obstacles/road hazards, drivers of other vehicles, and societal ills, to name a few. When faced with hazards or threats, an agency must ***eliminate, control/mitigate***, or ***transfer*** the risk. ***Risk elimination*** implies changes to equipment, facilities, training or operational implementation in order to limit or no longer be exposed to the hazard (e.g. moving the bus maintenance facility out of the floodplain). ***Risk control/mitigation*** implies changes in policies, procedures or training that reduce the likelihood of an event, or reduce its impact on critical assets (e.g. defensive driving training***).*** ***Risk transference*** implies that the risk exposure is borne by someone else (e.g. hazard and liability insurance or contractual hold harmless clauses).

A. Risk Reduction

Recommended strategies to reduce vulnerability include:

- Involve staff in the identification of hazards and threats
- Involve staff in creating strategies that prevent or mitigate unwanted incidents
- Provide training that raises staff awareness, across all departments, about agency-specific hazards and threats
- Use tabletop exercises to establish, assess and improve emergency response protocols
- Conduct drills that raise staff proficiency in reacting to unwanted incidents, including proper use of emergency equipment and communication technologies
- Participate in exercises that improve coordination across departments and between responding agencies for any sort of critical incident

The goal is to protect critical assets – people, information and property – by recognizing environmental changes and operational trends that increase vulnerability. Following is a summation of industry best practices for vulnerability reduction.

Transit Facility Safety and Security Review

The concept of Crime Prevention through Environmental Design (CPTED) has evolved as a means to reduce the opportunities for crimes to occur. This is accomplished by employing physical design features that discourage crime, while at the same time encouraging legitimate use of the environment. CPTED design considerations, which have been employed in recent

years by transit agencies in the design of safer public facilities, such as transit stations and bus stops, are transferable to endeavors to secure and harden elements of an agency's infrastructure from hazards and threats. Major elements of the CPTED concept are defensible space, territoriality, surveillance, lighting, landscaping, and physical security planning. These facilities include transit stops, transit stations and vehicle storage yards.

Access Management

Controlling who (or what) may access restricted areas and assets in the system plays an important role in protecting transit infrastructure from all of the major threats identified in this section. A core principle of access management is that valuable assets are protected behind multiple "layers" of secure spaces, with security measures becoming more stringent for deeper layers. Access control may focus on discerning between employees and visitors, on maintaining locks, on screening for weapons, or on barring unauthorized vehicle entry to a transit property. Access management techniques may include procedures and policies, physical barriers, identification and credentialing technology, security personnel, communications systems, surveillance, and intrusion-detection systems.

Surveillance

Surveillance can include closed-circuit televisions, security personnel, or vigilant Bus Operators/Drivers or station clerks, who are often the first line in security defense. The presence of agency staff can deter an attack. The presence of surveillance equipment acts as a deterrent not only because an area is being watched remotely, but also because activities are recorded and intruders are aware of the possibility of detection and capture. Surveillance is also useful in warding off attacks upon remote, unmanned infrastructure, such as communications towers and power substations. Transit agencies should consider what combination of equipment and personnel are needed to achieve optimal security coverage. Placement should be based on the volume of human and vehicular traffic, the layout of the watched or guarded asset, as well as the location of any blind spots resulting from overlapping or peripheral areas.

Facility Inspection

Safety and security reviews should also include inspection of all facilities with special attention directed to:

- Hazardous material storage, securement and record-keeping
- Fuel storage and servicing
- Personnel safety equipment (e.g. automatic defibrillators, eye wash stations, first aid and bloodborne pathogen kits)
- Fire prevention (e.g., fire extinguishers, alarms, sprinklers)
- Maintenance infrastructure (e.g., pits, lifts, electrical feeds, no-walk areas, parts storage)
- Lighting
- Entrances, exits, intrusion detection, CCTV

- Communication equipment
- Sensitive employee and customer information
- High-risk facilities and activities near transit facilities and operations
- Emergency supply cabinet or shed (food, water, medical, generator)
- Perimeter fencing, physical barriers, barricades
- Utility mains/shutoffs
- Traffic calming

OSHA Requirements

Your facilities and staff working conditions should be periodically inspected in order to ensure that the agency is compliant with all applicable Occupational Safety and Health Administration (OSHA) requirements.

Alternate Business Locations

Plans should be established for alternate facilities, equipment, personnel, and other resources necessary to maintaining service during crisis, or to resume service as quickly as possible following disaster. Typically organizations will identify and pre-contract for alternate facilities in the event of catastrophic infrastructure loss. Facilities should meet accessibility standards to ensure an employee or contractor with a disability can affectively perform their duties.

See Technical Appendix A for an example of an Alternative Facility and Certification checklist

Network/Computer Security

Transit systems rely on computerized networks to facilitate operations and enhance efficient service delivery which makes them vulnerable to network failure and cyber attacks. Network failure may be caused by faulty or damaged internal components, direct cyber attack to the agency's network, direct attack to a peripheral system or network, or even a blanket computer virus. The result may be loss of communications or operations capabilities as well as misinformation by hacking into a website or server.

Back-up files should be kept for key financial records, vehicle maintenance records, and details about customers and personnel. Most computer network professionals recommend daily back-ups for daily users, and weekly back-ups for less occasional computer users. Back-up technologies include magnetic tape, zip drives, DVDs, jump-drives and external hard-drives. Backup files should be stored in a fireproof and secured location. An additional copy of computer backups, along with duplicate hard copies of important documents, should be kept off-site in a secured location. A regular schedule should be established for off-site record storage to ensure that those records remain up-to-date. Computer file passwords and firewalls may also be indicated, depending upon the nature of your organization.

Operator Vehicle Inspection

Transit/rail vehicle operators must complete a vehicle safety pre-trip inspection before placing any vehicle into service. From a security perspective, this inspection should cover:

- Vehicle emergency supplies and required security equipment
- Sweep of vehicle interior to detect unauthorized objects or tampering
- Checking of interior lights to make sure they are operational
- Inspection under the vehicle to detect items taped or attached to the frame
- Gas cap for signs of tampering or unusual items
- Engine compartment for signs of tampering or unusual items
- Exterior of the vehicle for scratches or marks, or signs of tampering such as unusually clean or dirty compartments or items attached using magnets or duct tape

Vehicle inspections should be documented in writing. It is recommended that such inspection procedures also be conducted periodically throughout the bus operator/driver's shift. Bus operator/drivers should immediately notify a supervisor in the case of a suspicious package(s) or any evidence of tampering.

Vehicle Maintenance

Unsafe vehicles present unnecessary hazards to the bus operator/driver, passengers and other vehicles on the road. Proper maintenance of vehicles and equipment is critical to the continued safe operation of the transit system. Your agency should have an established plan to address the maintenance requirements of your vehicles and equipment for the following categories:

- **Daily servicing needs** – Vehicle cleanliness, fueling, checking and maintaining proper fluid levels (oil, water, etc), tire pressure and tread wear, and maintaining operational records and procedures.
- **Periodic inspection –** Activities scheduled to detect and repair damage or wear conditions before major repairs are necessary. Inspection items include suspension elements, hoses, belts, electrical connections and tire wear.
- **Interval related maintenance** – Preventative repair or replacement of parts or fluids for wear, alignment, or deterioration from use. Replacement intervals of these items are determined through transit agency experience and manufacturer recommendations.
- **Failure maintenance** – Repair or replacement of parts that fail in-service. When a failure is encountered that makes the vehicle unsafe or unable to continue operation, the vehicle should be removed from service and returned to the garage for repair.

A separate, distinct file must be kept for each vehicle in revenue service from the time of acquisition of a vehicle until the vehicle is disposed of. All maintenance documentation pertinent to a vehicle, including work orders, purchase orders, and/or invoices, needs to be entered into that file.

Vehicle Readiness

It is imperative that on-board life-safety equipment be fully checked periodically, and re-supplied after use. Required on-board life-safety equipment includes:

- Fire Extinguisher
- First Aid Kit
- Bio-hazard Kit
- Seat Belt Cutter
- Reflective Triangles

Though not required, additional recommended equipment includes a working flashlight, a drag blanket (for warmth, evacuations and fire suppression) and emergency instructions for high-probability incidents. On-board personnel should be fully trained in the use of all on-board life-safety equipment.

Operator Selection

The operator of a transit vehicle is directly responsible for the safety of his or her passengers and equipment, so careful consideration should be given to hiring qualified people. Depending on job classification or expected duties of the prospective employee, the employment screening process may include:

- Verification of social security number
- Verification of highest level of education or professional certifications
- Residence/employment checks
- Motor vehicle check or bus operator/drivers license history
- Criminal background check
- Previous employer drug and alcohol history
- Pre-employment drug tests
- Physical strength, body mechanics, language skills, and manual dexterity
- Medical examination

Drug & Alcohol Testing

It is essential that transit managers take all reasonable steps to ensure that employees are not impaired due to the use of alcohol, illegal drugs, prescription drugs or over-the-counter medication. Your agency must follow the requirements mandated by the FTA under ***49CFR Part 655*** and ***49CFR Part 40 Amended*** for testing of all safety-sensitive positions for drug and alcohol use/abuse.

B. Training and Development

Proper training and certification of personnel is a vital part of a safe and secure transit environment. Once qualified candidates are selected and hired, initial and ongoing refresher training should be provided to ensure adherence to agency policies and procedures. Training should address specific safety and security related issues appropriate to the type of vehicle and work assignment.

Vehicle Operator/Driver Training

At a minimum, the following should be included in your vehicle operator training program:

- ***Traffic Regulations*** – Training must address state and local traffic rules and regulations, traffic signs and signals, and proper vehicle operations (including proper use of hand signals).
- ***Defensive Driving and Accident Prevention*** – Training must stress driving with the vehicle under control at all times, within the applicable speed limits and dictates of conditions, anticipating possible unsafe actions of other drivers. Special attention should be given to hazardous conditions.
- ***Vehicle Orientation and Inspection*** – Training should include all core driving maneuvers and equipment-specific functions. Training should focus on the type of vehicle that will be used in service, as significant differences can exist between manufacturers and even between different bus models, and pre- and post-inspection of the vehicle.
- ***Behind-the-wheel Training*** – Training should include coaching, counseling, and evaluation of bus operator/driver skills by a Supervisor or experienced peer.
- ***Assisting People with Disabilities*** – Training should include managing assistive technology (i.e., wheelchair, walker), and the proper securing of the devices and individuals with disabilities.
- ***Passenger Sensitivity and Assistance***
  Training should be provided on how to safely and sensitively serve the diverse needs of transit riders including those with special needs. This include:
  - Customer relations
  - Awareness of the needs of people with disabilities and elderly during transport
  - Wheelchair management
  - **Radio Usage**

Normal Communications

To ensure the safety of your vehicle operators and passengers, and to enhance the performance of your operations, it is important that all agency employees are familiar with two-way radio operations. Basic procedures are as follows:

- All base stations and vehicle units shall be tuned to the appropriate assigned frequency at all times.
- All communications are initiated by first stating who they are calling, then who is making the call, and (if appropriate) their location. At the completion of the transmission both parties will indicate that the transmission is completed by stating their call sign and "clear".

Emergency Communications

- In the event of an emergency, caller will establish communications on the primary frequency, asking recipient to shift to secondary frequency so that emergency information is not broadcast throughout the entire transit fleet.
- Emergency calls must state the nature of the emergency, precise location of emergency, and what assistance is required.
- Normally, the Dispatch/Supervisor is the only unit authorized to communicate with transit vehicle operators requesting assistance until the crisis is resolved.

It is important to practice normal and emergency communications with driving staff as a part of initial and refresher training.

Crisis Management
Training must cover emergencies the vehicle operator may face while out on the bus/train including:

- Vehicle accidents
- Passenger falls
- Ill and injured passengers
- Lift operations
- Fire safety
- Vehicle evacuation
- Bloodborne Pathogens (bodily fluid spills and clean-up procedures)
- Handling conflict
- Recognizing and communicating about transit security risks
- Securing the vehicle

CPR/First Aid/Triage

Policies on First Aid and CPR training vary from agency to agency and state to state. The decision about providing this training may also depend on distance from hospitals/traditional first responders. All transit vehicle operators should be trained on basic triage procedures for mass casualty incidents focusing on:

- Clearing air passages
- Controlling bleeding
- Handling shock victims
- Reacting to seizures

Training of Other Personnel

At a minimum, the following should be part of the training curriculum for agency personnel not directly involved in revenue service:

Maintenance

- Mechanic Skill Development
- Defensive Driving
- CPR/First Aid/Triage
- Incident response protocols

Scheduling and Dispatching

- Scheduling and Dispatching Skill development
- Customer Relations
- Radio Usage
- Crisis Management
- Incident response protocols

Management and Supervision

- Leadership Skills
- Coaching, Counseling and Discipline
- Crisis Management
- Accident Investigation
- Crime scene Preservation and evidence collection requirements

Training Documentation

Employees are required to demonstrate performance competency in the type of vehicle and operating environment to which they are assigned. Ongoing/recurring training is necessary to reinforce policies and procedures, as well as to brief employees on new policies, procedures and/or regulations.

It is critical that all classroom and "hands-on" training be documented, including a reference to either lesson plans or topics covered, evaluation or testing instruments, certifications, dates and times of training, and signatures of trainer and trainee. This documentation should be kept in individual training files for each and every employee for initial and refresher training. It is strongly encouraged that experts on assisting people with disabilities consult on the training curriculum and participate in the "hands-on" training of personnel.

C. Security Awareness

Management must provide clear direction to staff regarding safety, security, and incident management watches and warnings. This includes awareness for crisis preparedness procedures, special safety and security measures involving buses and other vehicles, heightened awareness of suspicious persons and activities, and verifying the identify of service and delivery personnel.

Transit Watch

Transit Watch, a Federal Transit Administration (FTA) public awareness campaign, focuses on enhancing transit riders' and employees' safety and security awareness levels. Developed in 2003, FTA developed recognizable logos and slogans for Transit Watch. The goal of Transit Watch is to provide transit agencies of all sizes with a uniform public awareness campaign, including materials that reinforce safety and security messages for passengers and enlist the support of transit employees. Building upon transit agencies' existing safety and security programs, the campaign encourages active participation of riders in reporting unsafe behavior and any suspicious activity to transit officials or uniformed security officers. Additionally, the campaign is aimed at fostering a feeling of partnership among riders and employees as they work together to ensure safety and security within respective transit regions.

Suspicious Items, Vehicles, People and Activities

Suspicious Items Recognition and Reporting

Public transportation systems frequently encounter items left unattended in stations and on vehicles. These unattended packages impose a tremendous burden on security. Although unattended packages seldom turn out to be bombs or other weapons of terror, they all represent a potential threat and need to be examined systematically. Packages and devices should be considered suspicious if they meet any of the following criteria:

- Common objects in unusual locations
- Uncommon objects in common locations
- A threatening message is attached
- Unusual wires or batteries are visible
- Stains, leaks or powdery residue are evident
- Sealed with excessive amounts of tape or string
- Lopsided or lumpy in appearance
- Tanks, bottles or bags are visible
- A clock or timer is attached
- A strange odor, cloud, mist, vapor or sound emanates from it
- Addressed with cut and paste lettering and/or common words misspelled
- Have excessive postage attached
- Abandoned by someone who quickly leaves the scene
- No one in the immediate area claims it as theirs
- An active attempt has been made to hide it (i.e. Placed in an out-of-the-way locations)

If an item, package or device is determined to be suspicious:

- The item should not be touched or moved
- The area and/or vehicle should be immediately evacuated uphill and upwind
- Radio and cell phones should not be used within 300 feet of the suspicious package
- System management should be immediately notified
- Appropriate action should be taken (i.e., notifying of bomb analysis team).

If an unattended package is deemed not suspicious, it should be treated as lost property and handled according to agency protocol.

Suspicious Vehicles Recognition and Reporting

Vehicles (cars, trucks, boats, bikes) are frequently used in criminal or terrorist attacks. Therefore, agency employees should be alert to suspicious vehicles in and around their work environment and should notify system management of vehicles that:

- Show signs of forced entry
- Have altered or makeshift company insignia or license plates
- Are located in an unauthorized area or near a potentially catastrophic target
- Contain unusual equipment which could be used in a violent act
- Appear to be overloaded and/or have bulging tires or sagging frames
- Emit unusual odors, leaks or residues

Suspicious People and Activities Recognition and Reporting

The key concern in determining what is suspicious is always based on 1) where someone is, 2)

when he or she is there, and 3) what he or she is doing. It is important to focus on behaviors and not on a person's color, nationality, ethnicity or religion. Behavior may be considered suspicious based upon:

- Attitude of the person
- Actions in and around crowds
- Inappropriate apparel/accessories (e.g. Heavy coat on a hot day)
- Body language (e.g. reaction to uniformed presence)

Specific actions of concern include individuals appearing to be:

- Gathering intelligence
- Testing security response tests
- Attempting infiltration of a secure facility

It normally is a combination of factors that will accurately identify a suspicious person or act. Employees should be encouraged to trust their judgment based on their experience in and around the agency's facilities and the community. If it does not feel right, it is often worth reporting.

D. Safety/Security Data Acquisition And Analysis

Your understanding of safety/security data is not just a federal guideline but an important step toward allocating finite resources to safety/security program elements. Your agency should have a protocol that provides for the review of safety/security performance and identification of corrective actions that will reduce the likelihood of repeating preventable losses in the future. Specific focus should be on safety/security related events such as passenger injury or claims, employee injuries, and accidents and incidents. It is essential to identify safety/security accident/incident trends, and to take steps that eliminate hazards and threats where possible, reduce their impact when appropriate, and shift liability to other parties where necessary. A common tool used to assess accidents and incidents is an internal committee that meets periodically to assess recent accidents and incidents and recommend corrective actions.

Summary of Critical Steps for Incident Prevention

Identify risk reduction strategies relating to:
- Facilities
- Vehicles
- Information

Focus on training and development activities for:
- Vehicle Operators
- Maintenance Workers
- Scheduling and Dispatching
- Management and Supervision

Encourage Security Awareness of:
- Suspicious items
- Suspicious individuals/activities

Utilize FTA “Transit Watch” program

Emphasize safety data acquisition and analysis

3 Respond

A critical incident is any incident that threatens assets essential to your transit system or your community. Regardless of how well you plan, train and exercise you will not be able to fully eliminate all hazards and threats facing public transit. Frontline employees may be responsible for managing incidents until first responders arrive. They also may serve as a resource to emergency responders until the incident or threat is resolved. As such, it is important to provide clear protocols to all staff for how to respond to transit accidents and incidents as well as disasters affecting the community as a whole.

Critical incidents require that decisions be made quickly under stressful conditions, often with incomplete or conflicting information, and without the availability of optimal response resources. The ability to perform under these conditions should be applied to incident response based on the incident objectives. Common incident response objectives are, in priority order:

1) Preservation of self
2) Protection of others
3) Protection of property
4) Stabilization of incident
5) Preservation and safety of family

See Technical Appendix E for summaries of past disasters and lessons learned from those disasters.

A. Internal Incident Response Responsibilities

All Personnel

While not every staff resource will be part of your incident management team, every member of the organization has an essential role in disaster response and recovery. Following are key functions that should be performed by all personnel:

- Become familiar with, and operate within, all safety, security and emergency preparedness procedures for assigned duties.
- Use good judgment when managing volatile passengers and situations.
- Immediately report all suspicious activity to the Transit Director or his/her designee.

- Notify the Transit Director or his/her designee when a physical or mental condition, or required medications or therapies, may impair ability to meet performance standards for safety, security, and/or emergency response activities.
- Immediately report all safety and security incidents.
- Participate in security and emergency preparedness training, drills and exercises.

It is recommended that all personnel also receive training on BERT/CERT and the use of emergency supplies for business resumption and recovery.

In addition, members of the incident management team, Emergency Response Team as well as vehicle operators should receive training in family emergency preparation and response.

Staff with families or other loved ones will most likely be concerned with their welfare in an incident. Their ability to effectively respond to an incident may be impaired if they feel compelled to stay with family members and not report to work or leave their assigned duties to return home if they feel their loved ones are in danger or unprepared for an incident. The Red Cross provides training and other resources for home and family disaster and emergency preparedness that transit agencies can expose employees to. For more information go to http://www.redcross.org/pubs/dspubs/cde.html.

See Technical Appendix A for an example Mobilization Readiness Checklist

Executive Director/CEO/General Manager

The Transit Director has overall authority and ultimate accountability for critical incidents including:

- Activating Emergency Response Team
- Coordinating with the Emergency Operations Center and Incident Commander
- Establishing incident objectives for the transit agency
- Developing and managing the incident staffing plan
- Communicating with governing board chair and members and major stakeholders
- Ensuring that sufficient resources are allocated to incident response
- Providing leadership on response and recovery operations
- Reviewing incident response actions and incident investigation reports
- Implementing changes to reduce the likelihood of future losses
- Available as agency spokesperson in selected situations throughout response and recovery (mainly to reassure the public and instill confidence in the agency's emergency response)

Safety/Security Officer

During incident response, someone must be charged with safety and security, including:

- Ensuring protection of transit assets from a safety/security perspective
- Establishing staffing limits that consider rest and recovery protocols
- Debriefing and crisis counseling for agency staff
- After-action recommendations to limit future losses

Public Affairs/Communications
What you say during a crisis can be as important as what you do. Public Affairs/Communications staff is responsible for:

- Crafting messages incorporating verifiable incident information and impact on service delivery
- Notification of internal audiences (board, staff, advisory committees) and external audiences (media, public)
- Coordinating press conferences and other public announcements in accordance to NIMS/SEMS
- Coordinating with partner agencies
- Preparing after-action reports

Dispatchers
Dispatchers are expected to:

- Receive calls for assistance
- Obtain incident details and determine response requirements
- Provide direction to on-scene personnel
- Dispatch supervisors and emergency response personnel, as appropriate
- Arrange for alternate transportation, including wheelchair accessible vehicles, for passengers that may be stranded by an incident
- Coordinate with first responder resources
- Notify supervisory and management staff of serious incidents
- Notify area hospitals in case of a mass casualty incident
- Notify social service, contract agencies, and community based organizations serving the elderly and disabled of disruptions and/or cancellations of service
- Coordinate with marketing regarding cancellation of fixed-route services

Operations Managers/Supervisors
Operations managers/supervisors are responsible for implementing incident response objectives established by the transit director/incident commander, and ensuring smooth function of both incident operations and continued provision of transit services. To fulfill that responsibility operations managers must:

- Have full knowledge of all standard and emergency operating procedures
- Provide leadership and direction to employees during safety and security incidents
- Make decisions regarding the continuance of operations
- Provide for needed on-scene assistance and coordination
- Communicate incident response activities to marketing/PR
- Compile incident photos and witness statements
- Ensure that all information gathering and reporting requirements are met
- Coordinate any required post-accident drug-testing requirements
- Complete necessary safety and security-related reports

Vehicle Operators
Vehicle operators are responsible for managing on-board safety and security incidents from impact until supervisors and/or first responders arrive including:

- Continually assess hazards and threats, and determine when to call for assistance
- Report all accidents or incidents to agency dispatch
- Take charge of any safety or security incident scene in which they are involved until the arrival of supervisory or emergency personnel
- Keep passengers together in a safe location (on or off the vehicle, depending upon the incident)
- Request that passengers complete incident witness information cards
- Maintain control of transit equipment until relieved of that responsibility by supervisory or emergency personnel
- Support emergency response activities as directed, assuming that such direction does not conflict with standing organizational policies and procedures
- Complete all necessary safety and security-related reports

Maintenance

During incident response, mechanics (including volunteers and contractors) are expected to:

- Provide priority response to safety and security requests for equipment and personnel
- Discuss with the transit manager or his/her designee any mechanical hazards associated with using agency equipment for particular response activities
- Assist with law enforcement access and search vehicle for suspicious packages
- Follow-up on personal effects left onboard

Finance/Administration

Finance plays a critical role in incident response, including:

- Notification of the state Department of Transportation regarding significant incidents
- Tracking financial resources dedicated to response activities
- Conducting emergency procurement of supplies and materials necessary to sustain agency and operations during the emergency

Claims/Risk Management

Claims or Risk Management staff is closely involved during incident response by:

- Documenting incident details and working with legal counsel on issues of potential litigation resulting from an incident
- Identifying and reporting casualty losses to insurance or other reimbursement sources
- Following-up on questionable claims

Legal Counsel

Provides advice to the incident management team on the transit agency's legal responsibilities, potential labor union issues and possible litigation that may result from an emergency incident.

Note: In smaller transportation agencies, one individual may fill multiple roles and have multiple safety, security and emergency preparedness responsibilities. Additionally, smaller agencies will often establish agreements with others outside their agency to help fill functional roles and responsibilities during critical incidents.

Special consideration must be given to employees of contract operators. In these cases, vehicle operators are not agency employees but rather employees of a private sector firm working under contract. Operating contracts must contain provisions requiring contracted firms to provide appropriate risk reduction and recognition training, emergency response instruction and other any other preparation for emergency incidents.

Labor union representatives should be part of the emergency planning process as well as kept informed of decision making during incident response and recovery.

Call Down Lists – Activation
During a crisis each department or team leader will initiate activation of your Emergency Response Team by contacting two people on the agency call tree. Those two people will in turn contact two others and so on. If a staff person only reaches voicemail, he or she should leave a message but continue down the tree contacting the next person on the list until he or she has spoken with at least two people.

When making activation calls, each person should communicate the following:
- A very brief synopsis of the crisis
- If and where the employee is expected to report, and what will be expected of them
- The status of other members of the response team (if known)
- How to reach the team leader

Additionally, the caller should confirm:
- Who on the call list the employee is responsible for contacting
- How the team can contact the employee for changes (e.g. cell phone number)

After making calls the caller should report to their team leader.

Sample call: *"This is Tom Jones. Am I speaking with Jane Doe? We have had a serious accident with injuries/fatalities and need your help. You are expected to report to the Whittier Facility as soon as possible. I believe you will be working in the plans section gathering and producing incident reports. The Team Leader Mark Walters is already there. Check in with him when you arrive. If you have an emergency en route, contact Walters at 916-916-1234. Is this the best number to reach you while you are in transit?*

B. Suspension/Restoration of Service

Prior to an incident, agency management should develop a set of protocols to help determine the thresholds at which a partial or complete suspension of service should take place. These guidelines should take into account the following:
- Number of vehicles in service at the time of the incident
- Time of day
- Hours of service status of transit operators
- Number of passengers on transit vehicles
- Availability of nearby drop-off locations

- Safety and security status of those locations
- Availability of alternate transportation
- Possible duration of service suspension
- Public and rider notification of the service interruption

The transit supervisor/dispatch will, after being notified of an emergency, evaluate the status of agency assets (people, information and property), and the risk to those assets, to determine if transit operations can be maintained. If service must be suspended, the Emergency Response Team will be responsible for coordinating service suspension protocols, and for taking steps to restore essential transit services as soon as is practical within the constraints of resource availability and safety considerations. Issues to be considered during service suspension/ restoration include:

Emergency Public Information

During critical incidents what is said to the public is critically important. The watchword for emergency public information is "*maximum disclosure with minimum delay*". Throughout a crisis the media relations/public information function must work proactively with the media, elected officials and partner agencies to provide accurate, verified information regarding:

1) What has happened
2) What you are doing about it
3) How it might affect the community

Staffing of the emergency public information function is vital during an incident due to the overwhelming demand for information from the public and media outlets during an incident. The availability of resources to rapidly make accurate information available after an incident can relieve much of the pressure on public information staff.

- Prepare an initial holding statement template that will provide the basic details of any incident and can be quickly supplied to staff at the incident scene, receptionists, customer service representatives, the media and other stakeholders.
- Be prepared for a tremendous increase in traffic to the agency website. A ghost webpage should be prepared in advance that can take the place of the regular website. This would be a single page that would be updatable from any Internet enabled computer and would provide the details of any incident.
- Staff should be pre-assigned to take telephone calls from the media and log contact names and phone numbers of reporters to maintain responsiveness and provide support to designated agency spokespeople.

The National Incident Management System (NIMS) provides guidance, standards, and tools for utilizing the Joint Information System/Joint Information Center (JIC/JIS). This system helps integrate local, state and federal disaster information into a cohesive, understandable public safety message. Additional information, including the self-paced online NIMS public information officer course, can be found at: http://www.training.fema.gov/EMIWeb/IS/is702.as

Release of Sensitive Information

Transit agencies depend on first responder agencies to tend to the injured, arrange for their transport to local hospitals or extract and remove the deceased from an incident scene. Questions about the identities or conditions of those individuals are best answered by the lead first responder agency or the appropriate medical personnel at the receiving hospital. Under the Health Insurance Portability and Accountability Act (HIPAA) it is illegal to release to the public or the media information about the names of the injured or the nature of their injuries without patient consent. This is, of course, precisely the kind of information the media will want. Information concerning the number of injured or deceased is appropriate for release by the transit agency.

There may be additional information relative to safety and security incidents that may be withheld under company policy. This could include information containing security procedures and capabilities, personnel details, or details that could increase the vulnerability of personnel, facilities, or operations. These policies and protocols must be established in writing in advance of any critical incident, and practiced during disaster drills and exercises.

See Technical Appendix C for incident response protocols and procedures.

C. NIMS/SEMS/ICS

The Incident Command System (ICS) is a standardized on-scene incident management strategy structure. It is a component of both the National Incident Management System (NIMS) and California's Standardized Emergency Management System (SEMS). ICS was first used in California by the Office of Emergency Services fire services as part of the FIRESCOPE (**Fi**refighting **Res**ources in **C**alifornia **O**rganized for **P**otential **E**mergencies) program. The use of ICS is now the national standard for managing incidents large and small. ICS focuses on key functional responsibilities, allowing responders to expand or contract staffing based on resource availability and complexity of incident. It defines responder roles and responsibilities, and establishes a clear decision-making process. It accommodates any responding agency, regardless of jurisdiction or discipline, and minimizes redundancy in roles, thereby optimizing resource deployment. ICS also provides effective two-way communication between response personnel, facilitating improved interagency coordination while reducing the overall communications load associated with incident response.

First responders organize and manage critical incidents using the principles of NIMS/SEMS/ICS with the expectation that other organizations supporting incident response will also be NIMS-compliant. To be compliant with NIMS/SEMS your transit system must identify individuals who may have active roles in a critical incident response in each of the following areas of responsibility:

- Incident response leadership
- Emergency public information
- Staff and public safety
- Incident response operations
- Incident planning and documentation
- Logistical support for response activities
- Financial accounting for incident response activities and losses

These NIMS-based positions are utilized in the internal incident management team structure identified in Chapter 1 – Prepare (page 10). Additional required training is available online at the NIMS Integration Center and from the California Governor's Office of Emergency Services. NIMS/SEMS training can also be obtained from Consultants.

NIMS Integration Center
http://training.fema.gov/EMIWeb/IS/is100.asp
http://training.fema.gov/EMIWeb/IS/is200.asp
http://training.fema.gov/EMIWeb/IS/is700.asp

California Governor's Office of Emergency Services:
http://www.oes.ca.gov

http://www.oes.ca.gov/Operational/OESHome.nsf/ALL2694BCCF302EBC0B882571300076A116?OpenDocument

D. Interagency Coordination

Emergency events require a short-term response by one or more agencies, often across jurisdictions and disciplines, to protect life, property and the environment.

Incident responders face many potential challenges to effective response and recovery operations, Resource constraints and poor coordination across jurisdictional boundaries, can hinder incident response. Interagency coordination and collaboration are therefore critical, such that responders cultivate a working trust with one another, transfer command and control when necessary, and ensure that sufficient on-scene resources are provided.

Summary of Critical Steps for Incident Response

Contact incident management team

Mobilize response personnel

Gather incident management team and response personnel at designated meeting locations

Assess incident extent and severity

Assign incident management responsibilities

Initiate incident response protocols

Contact/coordinate with first responder agencies

Determine if partial or complete suspension of service is necessary

- Coordinate public information in accordance with NIMS/SEMS
- Develop and issue press statement
- Inform public of incident/service status
- Activate mutual-aid agreements to initiate alternate transportation

Protect lives

Protect property and facilities

Stabilize incident

4 Recover

Putting things back together after an emergency or disaster can be a difficult process. This chapter addresses the disaster recovery process.

A. Continuity of Operations

Transit supervisors, after being notified of an emergency, must evaluate the status of and the safety risk to agency assets (people, information and property) to determine if transit operations can be maintained. And while the FTA does encourage transit to partner with community agencies in order to serve as a first responder resource, there is a balance every agency must strike between supporting community disaster incidents and maintaining day-to-day transit service requirements that are the core mission of transit resources. By maintaining service, transit facilitates ensure the continued mobility of the community.

B. Business Resumption

If service must be suspended, essential transit services should be restored as soon as is practical within the constraints of resource availability and safety considerations. Transit Agencies should be prepared to sustain identified essential functions for up to 30 days.

Post-Incident Cleanup and Inspection
Immediately after a critical incident, facilities, equipment and rolling stock must be inventoried and inspected. Management must document the status and the condition of vehicles used during an event. Photos should be taken of disaster-damaged property. Narrative should be provided for the cause of the incident, and to document disaster-damaged human and information resources. Insurance providers should be notified. The purpose of this activity is to begin to restore assets to their pre-emergency condition.

Follow-Up Debriefing

In order to mitigate the possible negative psychological effects of an emergency, staff involved in emergency incidents should meet to discuss response activities and to process emotional issues that may arise. Transit managers should ensure the availability of support services to all parties who may have been directly or secondarily impacted by the event, including family members of all employees involved.

Stress is a normal response to an abnormal situation. It is important for the incident management team and front-line employees to have time to decompress and recover from an incident.

After Action Report Creation and Utilization

Following an incident your management team must complete a report assessing response during the incident. Transit agencies are encouraged to have their staffs maintain logs of their actions during emergency events. At the conclusion of an event, an overall summary of actions should be compiled, key statistics of services rendered detailed, the chronological timeline of events committed to writing, and finally, an assessment of what went right, what went wrong and what lessons were learned, should be documented and discussed. This report should focus on issues including the emergency notification process, the establishment of incident command, incident communication, and strengths and weaknesses of the response effort. This information will be used to update the transit agency's emergency management plan, modify policies and procedures, and identify training needs.

After action reports may be made available to all interested public safety and emergency management organizations and serve the following important functions:

- A source for documentation of response activities
- Identification of problems/successes during emergency operations
- Analysis of the effectiveness of the components of Incident Command
- Describe and define a plan of action for implementing improvements

After Action Reports should emphasize improvement of emergency management systems and procedures Jurisdictions are encouraged to work together in the development of After Action Reports when appropriate and feasible. If appropriate, jurisdictional reports may become part of an overall operational area report.

After Action Report Structure

- Executive Summary
- Overview
- Goals and Objectives
- Events Synopsis
- Analysis of Mission Outcomes
- Analysis of Critical Task Performance
- Conclusions
- Improvement Plan

C. Crisis Counseling

The impact of employee involvement in emergency incidents can include post-traumatic stress syndrome and even physical and psychological injury. This impact can manifest itself in increased fear and stress, absenteeism and loss of productivity, job turnover, and disruptions in personal life. It is essential that impacted employees be supported by the management/ supervisory team and their peers in any way possible and that they are offered external counseling assistance. Consideration should be given to Employee Assistance Programs for staff that may need post-incident counseling.

D. Long Term Recovery

The goal of long-term recovery is to ensure that your organization emerges from crisis even stronger that it was before the event. On large incidents, additional assistance may be available through FEMA or the state and local offices of emergency services. Long term recovery initiatives should include the following steps:

- Analyzing the After Action Report and developing long term recovery strategies based on the assessments contained in the report
- Determine the financial impact of the emergency on the transit agency and budget for recovery, including insurance reimbursement and non-reimbursement issues, and federal and state financial assistance opportunities
- Build relationships with emergency management and first responders based on unmet coordination needs illuminated by interagency reaction to the event
- Initiate public relations activities to rebuild confidence in the transit operation on the part of customer and the community as a whole

Summary of Critical Steps for Recovery

Establish continuity of operations

Resume normal operations

- Post incident clean-up and inspection
- Follow-up debriefing of personnel

Prepare After Action Report

Ensure counseling support for impacted employees

Initiate long term recovery

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The content of this document is based on industry best practices identified by the contractor and documented in the National RTAP Threat and Vulnerability Toolbox (http://www.nationalrtap.org/vulnerability.asp); and, importantly, outcomes from the **Caltrans Response and Recovery Conferences** held in Los Angeles and Sacramento in October, 2006.

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Caltrans, Division of Mass Transportation

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Federal Transit Grant Programs
Caltrans, Division of Mass Transportation

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www.DisasterPrep.info
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Additional details at http://www.dot.ca.gov/hq/MassTrans/Safety-Security.html

Attachment E

OSHA

Emergency Action Plan

UNITED STATES
DEPARTMENT OF LABOR

Evacuation Plans and Procedures eTool

Emergency Action Plan » Minimum Requirements

Putting together a comprehensive emergency action plan that deals with those issues specific to your worksite is not difficult. It involves taking what was learned from your workplace evaluation and describing how employees will respond to different types of emergencies, taking into account your specific worksite layout, structural features, and emergency systems. Most organizations find it beneficial to include a diverse group of representatives (management and employees) in this planning process and to meet frequently to review progress and allocate development tasks. The commitment and support of all employees is critical to the plan's success in the event of an emergency; ask for their help in establishing and implementing your emergency action plan. For smaller organizations, the plan does not need to be written and may be communicated orally if there are 10 or fewer employees. [29 CFR 1910.38(b)]

At a minimum, the plan must include but is not limited to the following elements [29 CFR 1910.38(c)]:

- Means of reporting fires and other emergencies
- Evacuation procedures and emergency escape route assignments
- Procedures for employees who remain to operate critical plant operations before they evacuate
- Accounting for all employees after an emergency evacuation has been completed
- Rescue and Medical Duties for Employees Performing Them
- Names or job titles of persons who can be contacted

Although they are not specifically required by OSHA, you may find it helpful to include the following in your plan:

- A description of the alarm system to be used to notify employees (including disabled employees) to evacuate and/or take other actions. The alarms used for different actions should be distinctive and might include horn blasts, sirens, or even public address systems.
- The site of an alternative communications center to be used in the event of a fire or explosion.
- A secure on- or offsite location to store originals or duplicate copies of accounting records, legal documents, your employees' emergency contact lists, and other essential records.

Now that you have read through the basic overview of an emergency action plan, find out how to implement your plan.

MEANS OF REPORTING FIRES AND OTHER EMERGENCIES

Procedures for reporting a fire or other emergency. There are preferred procedures for reporting emergencies such as dialing 911, or an internal emergency number, or pulling a manual fire alarm but there are many other possibilities. [29 CFR 1910.38(c)(1)]

For additional information, see reporting emergencies.

EVACUATION PROCEDURES AND EMERGENCY ESCAPE ROUTE ASSIGNMENTS

Evacuation policies, procedures, and escape route assignments are put into place so that employees understand who is authorized to order an evacuation, under what conditions an evacuation would be necessary, how to evacuate, and what routes to take. Exit diagrams are typically used to identify the escape routes to be followed by employees from each specific facility location. [29 CFR 1910.38(c)(2)]

Evacuation procedures also often describe actions employees should take before and while evacuating such as shutting windows, turning off equipment, and closing doors behind them.

Sometimes a critical decision may need to be made when planning - whether or not employees should fight a small fire with a portable fire extinguisher or simply evacuate. Portable fire extinguishers may be integrated into the emergency action plan, find out how!

For additional information, see evacuation elements.

PROCEDURES FOR EMPLOYEES WHO REMAIN TO OPERATE CRITICAL PLANT OPERATIONS BEFORE THEY EVACUATE

Employees may be required to operate fire extinguishers or shut down gas and/or electrical systems and other special equipment that could be damaged if left operating or create additional hazards to emergency responders (such as releasing hazardous materials). [29 CFR 1910.38(c)(3)]

For additional information, see evacuation procedures - employees who remain.

ACCOUNTING FOR ALL EMPLOYEES AFTER AN EMERGENCY EVACUATION HAS BEEN COMPLETED

Procedures to account for employees after the evacuation to ensure that everyone got out may include designating employees to sweep areas, checking offices and rest rooms before being the last to leave a workplace or conducting a roll call in the assembly area. Many employers designate an "evacuation warden" to assist others in an evacuation and to account for personnel. [29 CFR 1910.38(c)(4)]

For additional Information, see evacuation procedures - account for employees.

RESCUE AND MEDICAL DUTIES FOR EMPLOYEES PERFORMING THEM

Most small organizations rely on local public resources such as the local fire department or hospital to provide these services. [29 CFR 1910.38(c)(5)]

For additional Information, see fire, rescue and medical services.

NAMES OR JOB TITLES OF PERSONS WHO CAN BE CONTACTED

Names, titles, departments, and telephone numbers of employees who can be contacted for additional information and/or explanation of their duties under the plan. [29 CFR 1910.38(c)(6)]

UNITED STATES
DEPARTMENT OF LABOR

Occupational Safety and Health Administration
200 Constitution Ave., NW,
Washington, DC 20210
800-321-6742 (OSHA)
TTY
www.OSHA.gov

FEDERAL GOVERNMENT

White House
Affordable Care Act
Disaster Recovery Assistance
USA.gov
Disability.gov
Plain Writing Act
Recovery Act
No Fear Act
U.S. Office of Special Counsel

OCCUPATIONAL SAFETY AND HEALTH

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Disclaimers
Important Web Site Notices
Plug-ins Used by DOL
RSS Feeds from DOL
Accessibility Statement

Attachment F

2012 Chips Ponderosa

After Action Report

Cal OES After Action-Corrective Action Report

http://www.caloes.ca.gov/PlanningPreparednessSite/Documents/
15 Executive Summary 2012 Chips Ponderosa Fires.pdf

2012 CHIPS PONDEROSA FIRES
AFTER ACTION REPORT

EXECUTIVE SUMMARY

Beginning July 23, 2012 through September 4, 2012, six wildfires (Reading, Chips, Fort Complex, Rush, Bagley, and Ponderosa Fires) were ignited in Northern California that became significant conflagrations burning approximately 494,926 acres of wild land terrain in the counties of Shasta, Tehama, Lassen, Trinity, Siskiyou, and Plumas. These fires burned for weeks prompting local health officials to request the deployment of air quality monitors by the California Air Resources Board (CARB) over concerns of diminished air quality for the counties of Shasta, Tehama, Plumas, Butte, Lassen, and Siskiyou. Two of the fires that raged became a priority for fire fighters as the path of destruction began to threaten lives and property. These were the Chips Fire in Plumas County and the Ponderosa Fire in Shasta and Tehama Counties for which the Governor proclaimed a State of Emergency and is the focus of this report.

Chips Fire

On July 29, 2012 the Chips Fire was ignited in the Plumas National Forest in Plumas County by an unknown cause. This is a Federal Response Area (FRA) and the initial attack was done by the United States Forest Service (USFS). The fire consumed 48,297 acres of the Plumas National Forest, 18,372 acres of the Lassen National Forest and 8,762 acres of private timberland.

Because of the rough terrain, the initial USFS strategy was to build a fire line and let it burn within a time-frame of one month. Initially, the Plumas County Emergency Operations Center (EOC) was inactive due to the remote location, direction of travel of the fire, and the low populace threatened. As the fire progressed, threats to life and safety heightened. The threat of fire, smoke, ash and fire suppression operations resulted in many road closures and mandatory and voluntary evacuations.

Although the Chips fire did not cause a major loss of structures the fire caused significant economic injury to private industry. Timber company losses were great, gold mining facilities were destroyed and small businesses in the area were heavily impacted. People that normally flock to the Lake Almanor/Chester area during the summer months cancelled reservations and cut vacations short. Weddings were cancelled as well as lodging and camping reservations. Many jobs were lost as the summer revenue that normally carries these full time residents through the winter was never regained.

Ponderosa Fire

On August 18, 2012 the Ponderosa Fire began as a result of a lightning strike and burned approximately 27,676 acres before the fire was fully contained and extinguished. Water quality was a concern during the fires due to fire suppression activities for which five water quality monitor stations were deployed within the burn area. A number of critical infrastructures were threatened including power lines, gas pipelines, and water delivery systems to which Pacific Gas & Electric (PG&E) and the California Utilities Emergency Association (CUEA) responded to minimize or eliminate any failures of these systems.

Statistical Summary

	Chips Fire	Ponderosa Fire
Acres Burned	75,431	27,676
Firefighter Injuries	16	7
Residence Destroyed	1	52
Outbuildings Destroyed	8	81
Evacuations	155	2,500
Shelter Populations (at peak)	57	62

Incident Period

August 18, 2012 through September 4, 2012

Summary of Key Findings

This report has identified several areas in need of improvement. The following summarizes the key findings of this report:

- Unreliable cellular communications continues to be an issue in mountainous and remote regions.

- State agencies and local jurisdictions continue to avoid using the Response Information Management System (RIMS) which impedes the development of situational awareness and a common operating picture.

- Air monitoring equipment failure was noted by CARB.

- Coordination and communications between the region and local emergency managers are often impeded because local emergency managers are assigned too many responsibilities, leaving them little time to deal with emergency management issues.

- California Emergency Management Agency (Cal EMA) region field found it difficult to maintain the use of vital equipment (i.e. computers, cell phones, etc.) during long deployments in remote areas where commercial power was not available.

- A lack of coordination between the Northern Region Emergency Operations Center (REOC) and Operational Areas (OA) often led to scheduling conflicts for OAs, especially when the REOC scheduled conference calls with the OAs.

Organizations Contributing to this Report

State Agencies and Departments
California Emergency Management Agency (Cal EMA)
California Highway Patrol (CHP)
Emergency Medical Services Authority (EMSA)
California Environmental Protection Agency (Cal EPA)
California Department of Forestry and Fire Protection (CAL FIRE)
California Department of Transportation (Caltrans)

Local Government/Operational Areas
Plumas County
Tehama County
Shasta County

Public/Private Partnerships
California Utilities Emergency Association (CUEA)

Attachment G

2013 Fire Season

After Action Report

Cal OES After Action-Corrective Action Report

http://www.caloes.ca.gov/PlanningPreparednessSite/Documents/
16 K 2013 Fire Season AAR Executive Summary.pdf

EXECUTIVE SUMMARY

The following report is an overview of the response to fires that burned in California during the 2013 fire season where local government proclaimed a local emergency and the Governor proclaimed a State of Emergency. In 2013, the Governor proclaimed a State of Emergency for five fires that threatened life, property, and the environment. The fires were the Silver Fire, the Powerhouse Fire, the Mountain Fire, the Clover Fire, and the Rim Fire. The Governor authorized California Disaster Assistance Act (CDAA) funding for two counties (Mariposa and Tuolumne) affected by the Rim Fire. Six Operational Areas (OAs) proclaimed a local emergency. The OAs included Los Angeles, San Francisco, Tuolumne, Mariposa, Riverside, and Shasta. Although San Francisco County had no active fire, the fires threatened their power and water supply that resided in the burn area. The fires caused massive destruction but the fires also generated huge smoke plumes that greatly diminished air quality, which became a significant health risk.

Regional Emergency Operations Centers (REOCs) and the State Operations Center (SOC) activated in support of local Emergency Operations Centers (EOCs) as needed. However, other than fire and law enforcement mutual aid resources, requests for state resources were limited to air-quality monitoring equipment. The California National Guard (CNG) deployed a remotely piloted airplane during the Rim Fire at the request of Cal OES. The plane was equipped with heat imaging sensors, which provided real-time information. The information improved firefighting capabilities and firefighter safety.

Statistical Summary

Total acreage burned	343,484
Rim Fire:	257,314
Silver Fire:	20,292
Powerhouse Fire:	30,274
Mountain Fire:	27,531
Clover Fire:	8,073
Total Structures Destroyed	437
Rim Fire:	112
Silver Fire:	48
Powerhouse Fire:	58
Mountain Fire:	23
Clover Fire:	196
Total Structures Damaged	35
Rim Fire:	7
Silver Fire:	8
Powerhouse Fire:	4
Mountain Fire:	1
Clover Fire:	15

Incident Period

June 3, 2013 – October 31, 2013

Declarations and Proclamations

Local

Los Angeles County	June 3, 2013 (Powerhouse Fire)
Riverside County	July 18, 2013 (Mountain Fire)
Riverside County	August 8, 2013 (Silver Fire)
Tuolumne County	August 19, 2013 (Rim Fire)
San Francisco County	August 22, 2013 (Rim Fire)
Mariposa County	August 27, 2013 (Rim Fire)
Shasta County	September 12, 2013 (Clover Fire)

State of Emergency

Los Angeles County	July 12, 2013 (Powerhouse Fire)
Riverside County	July 19, 2013 (Mountain Fire)
Riverside County	August 9, 2013 (Silver Fire)
Tuolumne County	August 22, 2013 (Rim Fire) (CDAA Authorized)
San Francisco County	August 23, 2013 (Rim Fire)
Mariposa County	August 29, 2013 (Rim Fire) (CDAA Authorized)
Shasta County	October 31, 2013 (Clover Fire)

Federal

Los Angeles County (Powerhouse Fire)
- U.S. Small Business Administration (SBA) Declaration

Riverside County (Mountain Fire)
- SBA Declaration

Riverside County (Silver Fire)
- SBA Declaration

Tuolumne County, Mariposa County (Rim Fire)
- Presidential Declaration (DR-4158)
- SBA Declaration
- U.S. Department of Agriculture (USDA) Declaration

Shasta County (Clover Fire)
- SBA Declaration

Lessons Learned and Improvements

Overall, emergency personnel managed the fires effectively. First responders and support personnel provided vital resources. However, a SEMS review provides the opportunity to improve disaster response. The improvement process enhances California's future disaster responses. Improvements can be applicable to all five SEMS levels (Field, Local, Operational Area, Regional and State).

Summary of Successes

Contributors highlighted the following successes:

- Cal OES Inland Region staff provided excellent support to their OAs

Summary of Areas Needing Improvement

Report contributors identified the following issues:

- Remote locations hampered interoperable communication systems.
- EOC personnel found difficulty disseminating key information.
- County departments did not possess a clear understanding of what documentation Federal Emergency Management Agency (FEMA) and Cal OES required.
- Local officials held misconceptions regarding opening, organizing, and operating a Local Assistance Center (LAC).
- Local officials mistakenly believed if they waived County Assessor's fees, the State would reimburse the County for the lost revenue.
- One OA found their existing Mass Care and Shelter Plan was outdated when the American Red Cross (ARC) required significant county support for shelter feeding operations and logistics during the initial response phase.

Organizations Contributing to this Report

California Governor's Office of Emergency Services (Cal OES)
California Department of Transportation (Caltrans)
California Department of Social Services (CDSS)
California Department of Forestry and Fire Protection (CAL FIRE)
California Environmental Protection Agency (Cal EPA)
California Department of Public Health (CDPH)
Mariposa County Office of Emergency Services
Los Angeles County Office of Emergency Services
Riverside County Office of Emergency Services
San Francisco Public Utilities Commission (SFPUC)
Shasta County Sheriff's Office
Tuolumne County Office of Emergency Services

Attachment H

2014 Bully Fire After Action Report

CAL FIRE INCIDENT MANAGEMENT TEAM 6

After Action Report

Bully Incident

CA SHU 006248

July 11 – 23, 2014

CAL FIRE

Incident Management Team 6

Brian Estes, Incident Commander

Executive Summary

Fire Environment

Location

The Bully Fire started southwest of the community of Ono, south of Platina Road near the intersections of Roaring Creek and Sargent roads at 40' 25.188" x 122'.43.767". The fire quickly spread to the north, spotting across Platina Road and spread along Duncan Creek Road.

The general fire area is centered on the Duncan Creek drainage and the Ditch Fork and East Fork of Duncan Creek. The Duncan Creek flows south out of the Trinity Mountains on the county line between Shasta and Trinity Counties.

The flanks of Duncan Creek are very steep and dissected by many side drainages and gulches. Slope steepness ranges from flat to 160% with mostly southern aspects. Elevation ranges from 1600' near the point of origin to 5500' near Lookout Peak.

Fuels

Fuels on the Bully fire are diverse and varied. The origin of the fire was in grass and scattered gray pine with occasional patches of brush. The herbaceous fuels were completely cured, and brush fuel moisture was approaching critical levels.

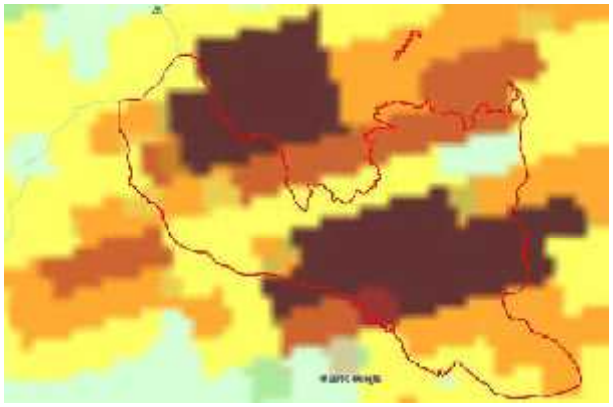
According to the SHU fuel moisture report for 6/15/2014, the moisture content was between 82-88% in manzanita. It was likely much lower on the day the fire started. 80% is considered critical.

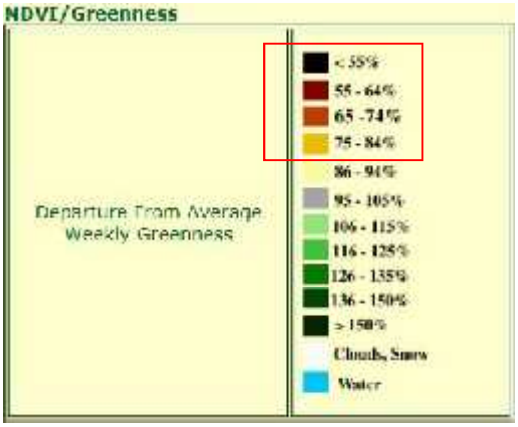
As the fire progressed, it moved into chamise chaparral and manzanita under timber reproduction. The fire intensity of the fire in this fuel type was extraordinary. Air Attack reported flame lengths in excess of fifty feet in several instances.

The fire continued to spread up the Duncan Creek drainage and moved into an area of tree plantations and a second growth timber stand of predominantly ponderosa pine, approximately 100' tall. The timber had partially burned in the 2008 Deer Lick fire so it did not have a high level of dead and down fuels.

The most representative Rothermel fuel models on the Bully Fire are SH7 Very High Load Dry Climate Shrub, GR2 Low Load Dry Climate Grass, TU5 Very High Load Dry Climate Timber-Grass-Shrub and TL8 Long Needle Litter.

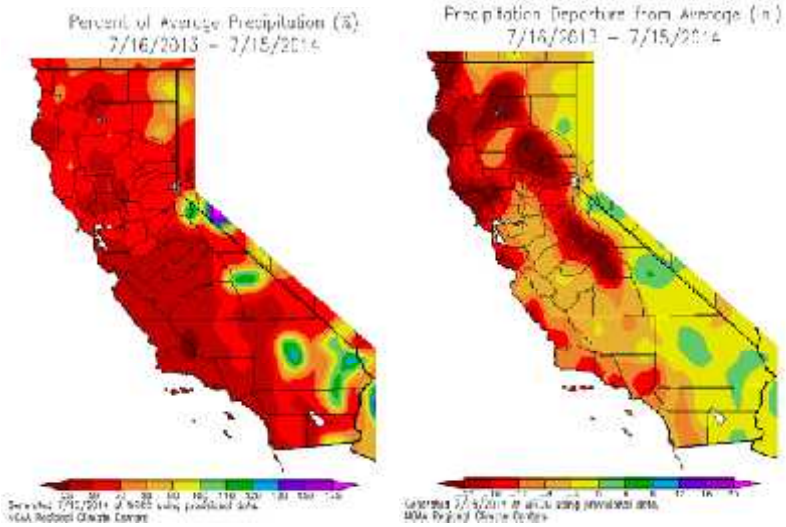
"Greenness" of vegetation as sensed from space by Modis indicates that the fire area is well below the greenness average for this date. This is an indicator of the advanced seasonality of the fuels and health of the vegetation, corroborating the idea that the fire season is already at Fall levels in mid-July.





Climatology

On the day the Bully Fire started, Northern California was in the middle of the driest year in recorded history. Rain and snow fall levels over the winter were less than 50% of the average.

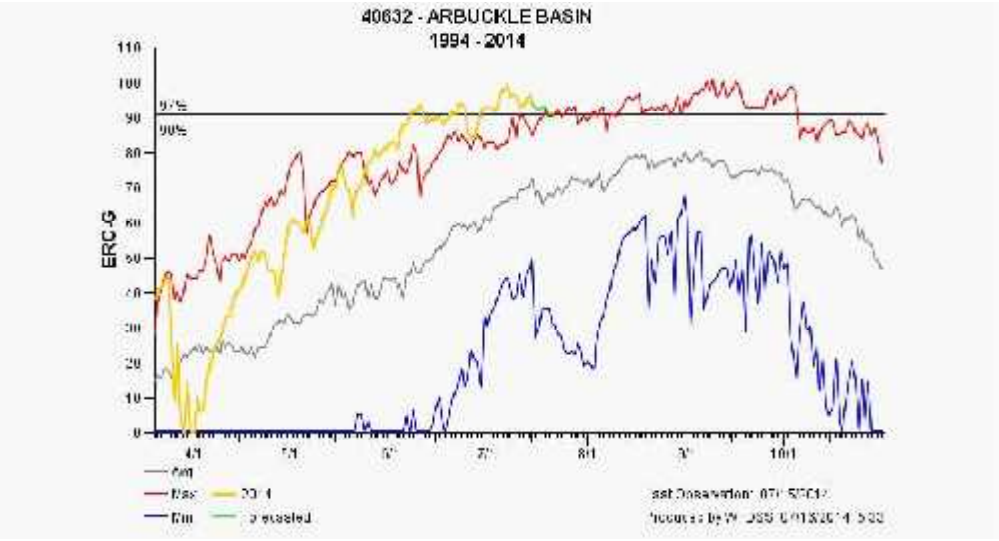


The U.S. Drought Monitor showed the area around the fire to be in “Extreme Drought” and “Exceptional Drought”.

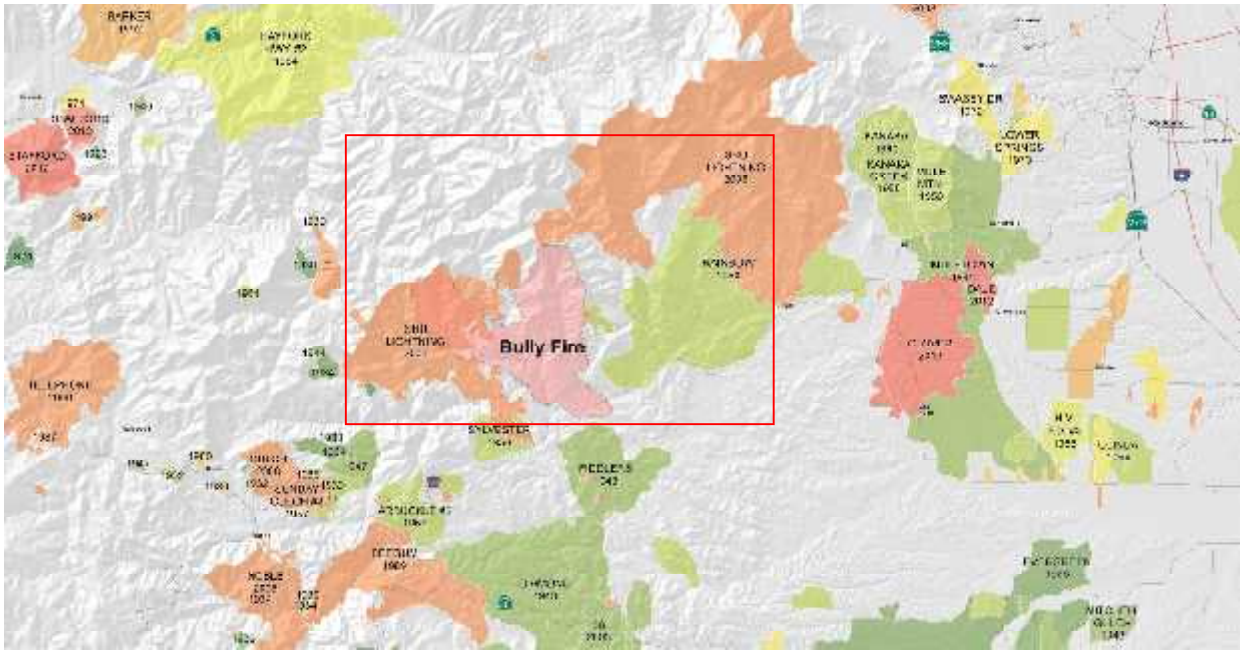
This severe lack of rainfall has resulted in live and dead fuel moistures being at critical levels three to four months earlier than normal. Fire activity normally experienced during the peak of fire season in September or October began to be seen in June.

The Energy Release Component (ERC) of the National Fire Danger Rating System, a progressive measure of fuel dryness in all classes, has been above historical records since mid-May and setting records every day since

This includes the day the Bully Fire started, when the Arbuckle Basin RAWS local ERC was 100. This is well above the 97th percentile of all readings for ERC near the fire for the twenty year period 1994-2014.



Area Incident History



Ownership

Bureau of Land Management (BLM)	3,338 acres
Private Land - Sierra Pacific Industries (SPI)	2,440 acres
Private Land - Crane Mills	1,352 acres
Private Land – Other	4,877 acres
State of California Lands Commission	654 acres

Incident Potential

The local RAWS station at Arbuckle Basin had recorded a period of extreme dryness in the days and weeks prior to the Bully Fire. Since June 26th the relative humidity remained below 55% 24/7 for the entire period.

In the 72 hours immediately prior to the fire starting, the relative humidity remained below 32% 24/7 for the entire period. This constant dryness has the effect of drawing down moisture that was already at extreme low levels in the large diameter and living fuels.

In addition, resources assigned had increased response times due to the remoteness of the fire's location.

Values at Risk

Values at risk within the fire perimeter included private residences and outbuildings in the Platina, Wild Turkey, Bully Choop and Sunny Hill Road areas, undeveloped private property, Sierra Pacific Industries and Crane Mills commercial timber values including thirty-year old plantations as well as BLM lands within State DPA.

Fire Behavior

When the fire established itself in the brush, spread rates were witnessed at thirty feet per minute with ten foot flames lengths. Spotting distance was up to one-third of a mile. There were no active crown runs, but individual and group tree torching occurred. With ERC's initially above the 97th percentile, extreme fire behavior occurred with relative humidity as high as fifty percent. This highlighted the impact of this season's significant low fuel moistures, especially when coupled with slope and alignment.

Contingency Plans

A Contingency Branch was established and staffed to scout and plan for both the construction of secondary lines in direct support of operational objectives, as well as to perform strategic planning should the fire escape the operational control objectives.

Secondary lines were initially constructed and then successfully utilized as final fireline maintaining established control objectives. Contingency lines were also placed in strategic locations surrounding the fire's control objectives by opening historical fire dozer lines and fire area forest road structures.

Included was the development of action plan decision points, travel plans, road signage, pre-designated drop points and written tactical contingency action plans with maps.

Initial Actions

Report

On July 11, 2014 at 1537 hours the Bully Choop Lookout called in a smoke report in the area of Platina Road and Yolla Bolly Road in Ono, California.

Response

The SHU ECC proceeded to dispatch a high wildland response to the scene.

The fire was burning into a sparsely populated rural subdivision at the base of the Coast Range in western Shasta County. The first arriving engine company reported thirty to forty acres of brush and oak woodland involved, with structures threatened.

The initial arriving CAL FIRE Battalion Chief augmented the resource order for the fire due to burning conditions, fire spread and the remote location of the incident.

Control Objectives

A command structure was established for the incident with the priorities being structure defense and perimeter control.

Initial attack actions included direct attack on both flanks of the fire from the origin with both ground and air resources. The initial objective was to hold the fire south of Platina Road.

The Shasta County Sheriff's Department coordinated evacuations of the residents in the area and the California Highway Patrol, along with the Shasta County Public Works Department implemented road closures in the fire area.

An Incident Command Post was established east of the incident along Platina Road.

The fire continued to resist control efforts as it became established in the Duncan Creek drainage.

At approximately 1900 hours it was evident that the fire would likely transition from extended attack into a major fire.

Major Incident Transition

Team Activation

Incident Management Team 6 (Estes) was activated at approximately 2200 hours on Friday July 11th. The IMT Conference Call with Northern Operations occurred at 2300 hours. Team members began travel from their Home Units. There was a supplemental resource order reconciliation conference call at 0030 hours on Saturday July 12th.

Team 6 members began arriving during the overnight hours of July 11th and embedded in the Unit's extended attack incident management organization to assist wherever possible. Well over half of the Team attended the 0700 hour Operational Briefing conducted by the Unit's extended attack incident management organization. This included all Command and General Staff positions.

Team Transition

A formal in-brief transition meeting was held in the Mount Shasta Hall at the Shasta District Fairgrounds in Anderson, CA at 1000 hours on Saturday July 12th. IMT 6 facilitated the meeting as requested by the Unit Agency Administrator.

The Team's Plans and Operations Sections engaged with the Unit's extended attack incident management organization to conduct the incident planning cycle and conducted both the ICS-215 process and Planning Meeting.

Incident Management Team 6 assumed responsibility for Incident Command at 1800 hours the same day.

Incident Base

An Incident Base was established at the Shasta District Fairgrounds in Anderson, CA.

Staging Areas

Staging areas were established at both Incident Base (Bully) and Shasta County Fire Station # 57 (Platina).

InciNet, Clerical and GIS and NICS

InciNet and NICS support were both established and integral to incident success. Clerical and GIS support was provided by Tozier's Fire Support and Deer Creek GIS respectively and both vendors provided excellent services.

Incident Summary by Operational Period

Initial Attack

Friday, July 11th	Total Resources	Total Personnel
Engines	31	93
Hand Crews	2	32
Dozers	11	22
Water Tenders	7	14
Aircraft	14	26
Totals	65	187

Weather

Hot and dry conditions prevailed at time of ignition. The Arbuckle Basin RAWS approximately fifteen minutes after dispatch reported Temperature 88, RH 22%, Wind Speed 12 mph with gusts to 27 mph from the east, with a 10 hour fuel moisture of 3%.

Narrative

The fire crossed Platina Road within the first hour of the incident and continued to burn north into the Duncan Creek Drainage. There were significant uphill runs with short range spotting.

Initial and extended attack resources completed and held fire lines south of Platina Road throughout the first burning period. They were successful and limited further structure loss and fire spread south of Platina Road.

Fire Spread

A total of 2,930 acres burned during the first operational period.

Saturday July 12th

	Total Resources	Total Personnel
Engines	40	120
Hand Crews	22	352
Dozers	14	28
Water Tenders	15	30
Aircraft	15	29
Totals	106	559

Weather

Very hot and dry under a high pressure ridge with general winds that were fairly light with some localized breezy up canyon winds on the fireline. Arbuckle basin just a couple miles from the fireline saw a transition to up canyon winds after sunrise with increasing speeds after the inversion lifted around noon. Up canyon winds were from the southeast 7 to 11 mph with gusts up to 20 mph. Maximum temperatures ranged from around 94 to 102 degrees with minimum relative humidity in the lower teens. There were fairly stable conditions in the afternoon with little in the way of cumulus or column development.

Narrative

The fire moved at a moderate rate of spread driven by extremely dry fuels and slope alignment with medium range spotting. At times the fire was plume-dominated due to very high energy release rates caused by dry fuels. IMT 6 (Estes) assumed command of the incident at 1800 hours.

Fire Spread

An additional 770 acres burned this operational period for a total of 3,700 acres.

Sunday July 13th

	Total Resources	Total Personnel
Engines	60	180
Hand Crews	29	464
Dozers	26	52
Water Tenders	16	32
Aircraft	17	32
Totals	148	760

Weather

Temperatures Sunday ranged from the upper 90s to 104. Minimum humidity dropped into the lower teens, although a weather system passing to the north kept RH values up somewhat during the middle part of the day. Ridge humidity dropped to around 10%. Winds were mainly light and terrain driven with west ridge top winds to 8 mph.

Narrative

The fire moved slowly through the heavy brush fuels on the surface in a northwesterly direction in Division F. There was widespread smoldering and creeping along the lines in many areas on the fire, as well as a few large islands of unburned brush canopy within the perimeter with smoldering fire behavior. Fire spread was primarily topographic and fuels driven.

When fuels, wind and topography came into alignment, the fire made hard runs up several drainages. Damage assessment was ongoing. Re-population occurred for all evacuated residences and the soft road closure was lifted for Platina Road.

Fire Spread

An additional 700 acres burned this operational period for a total of 4,400 acres.

Monday July14th

	Total Resources	Total Personnel
Engines	60	180
Hand Crews	32	512
Dozers	31	62
Water Tenders	17	34
Aircraft	18	36
Totals	158	824

Weather

Strong down canyon winds were reported during the early morning hours with poor humidity recovery conditions. There were reports from the Duncan Creek area during night operations of sustained winds from 20 to 30 mph. These winds dropped off after 0600 hours with a transition to up canyon winds by around 1200 hours. Maximum temperatures Monday topped 100 degrees in most areas ranging from 101 to 106 degrees. Minimum humidity dropped into the lower teens ranging from about 10-15%. Daytime winds were mainly light to 10 mph with gusts into the teens.

Narrative

The fire made sustained surface fuel runs through the heavy brush. Fire spread was topographic and fuels driven. Observed winds caused significant fire activity on the fire. When fuels, wind and topography came into alignment, the fire made hard runs up several drainages. There was continued widespread smoldering and creeping within the islands of unburned brush canopy and along the lines in many areas on the fire. Damage assessment was ongoing. Significant fire activity caused additional mandatory evacuations and threatened structures. Two reports were received by line personnel during this operational period of a missing person within the fire area.

Fire Spread

An additional 2,000 acres burned this operational period for a total of 6,400 acres.

Tuesday July 15th

	Total Resources	Total Personnel
Engines	65	195
Hand Crews	34	544
Dozers	50	100
Water Tenders	22	44
Aircraft	23	58
Totals	194	941

Weather

Monsoon moisture moved over the area brought high and mid clouds to the fire area most of Tuesday. Humidity saw increases of about 4 to 8 percent over the previous day. Temperatures were about 5 to 10 degrees cooler. Minimum RH Values were 17 to 22 percent with daytime highs about 92 to 97 degrees. Winds were mainly upslope to up canyon to 6 mph with some gusts to 11 mph in favored areas. A slight chance of a light shower or sprinkle existed through the nighttime hours.

Narrative

The fire made slope driven runs in brush and crept in the timber and understory. Increased humidity and cloud cover slowed the fire spread rates in the timber. The fire continued to grow during the day with active burning observed. Due to significant fire activity and growth outside of the planned control lines, mandatory evacuation orders remained in effect for the Big Foot Road and Sunny Hill Road area. Evacuation advisories were also issued further east to Rainbow Lake Road. Strategic firing operations were conducted in accordance with approved operational firing plans and successful.

Fire Spread

An additional 2,300 acres burned this operational period for a total of 8,700 acres.

Wednesday July 16th

	Total Resources	Total Personnel
Engines	70	210
Hand Crews	37	592
Dozers	46	92
Water Tenders	29	58
Aircraft	18	49
Totals	200	1,001

Weather

Winds transitioned to upslope by mid-morning at 3 to 5 mph with gusts to 10 mph. There were slightly higher wind speeds at Arbuckle basin (15 mph). Temperatures remained several degrees cooler today compared to the previous day while the RH remained about 5-10 percent higher throughout the afternoon. Variable high cloudiness moved across the region throughout the day. Maximum temperatures today were 90 to 96 degrees, with minimum RH values of 22 to 28%. An RH of 18% was reported at the Yolla Bolly RAWS during the late morning.

Narrative

The fire continued making slope driven runs in the brush and continued creeping in the timber understory. Increased humidity and cloud cover slowed spread rates in the timber. Fire continued to grow during the day with active burning observed. Burnout and tactical patrol operations continued to be utilized to further support existing control line throughout the operational period. Significant improvements were made to the control lines in Branch I and II. Mandatory evacuation orders were lifted and resident re-population began in the Sunny Hill Road area. Strategic firing operations were conducted in accordance with approved operational firing plans and successful. A single civilian fatality was discovered during this operational period. It was determined that the fatality occurred during the initial attack phase of the incident.

Fire Spread

An additional 2,000 acres burned this operational period for a total of 10,700 acres.

Thursday July 17th

	Total Resources	Total Personnel
Engines	75	225
Hand Crews	36	576
Dozers	38	76
Water Tenders	32	64
Aircraft	18	49
Totals	199	990

Weather

Monsoon moisture continued to feed into the area with a weak disturbance squeezing out a few light showers over Base Camp In the morning hours. No rain was reported on the fire. Skies cleared to mostly sunny by afternoon under slightly more stable conditions. Maximum temperatures reached the upper 80s to mid-90s. Minimum RH was 30 to 35%. Winds were primarily terrain driven turning from light down canyon in the morning to upslope and up canyon 3 to 9 mph after 0900 hours.

Narrative

The fire continued making slope driven runs in the brush and continued creeping in the timber understory. Fire continued to grow during the day with active burning observed. Burnout and tactical patrol operations continued to be utilized to further support existing control line throughout the operational period. Significant improvements continued to be made to the control lines in Branch III. Resident re-population was completed. Strategic firing operations were conducted in accordance with approved operational firing plans and successful.

Fire Spread

An additional 1,000 acres burned this operational period for a total of 11,700 acres.

Friday July 18th

	Total Resources	Total Personnel
Engines	61	183
Hand Crews	41	656
Dozers	36	72
Water Tenders	48	96
Aircraft	15	48
Totals	201	1,055

Weather

Fair skies with some scattered cumulus in the afternoon but no thunderstorm development. High temperatures were in the 90s. Minimum humidity was 25 to 32%. Upslope to up canyons winds developed mid-morning at 3-6 mph with gusts to 12 mph. Ridge winds were mainly southeast from 2 to 4 mph with gusts to 10 mph.

Narrative

The fire from the burning operation backed into the east fork of Duncan Creek with occasional isolated single tree scorching. Other areas of the fire continued creeping in the understory. The fire continued to grow during the day with active burning observed. Burnout and tactical patrol operations continued to be utilized to further support control lines throughout the operational period. Significant improvements were made to the control lines in Branch III.

Fire Spread

An additional 961 acres burned this operational period for a total of 12,661 acres.

Saturday July 19th

	Total Resources	Total Personnel
Engines	25	75
Hand Crews	24	384
Dozers	14	28
Water Tenders	33	66
Aircraft	12	42
Totals	108	595

Weather

Southwest flow aloft pushed the monsoonal moisture southward temporarily resulting in drier conditions today. There were sunny skies throughout the day. High temperatures were 95 to 100 degrees. Minimum RH was 18 to 25%. Upslope to up canyon winds developed mid-morning from 3-6 mph with gusts to 12 mph. Ridge winds were mainly southerly at 3 to 9 mph after about 0900 hours.

Narrative

The fire continued backing into the East Fork of Duncan Creek. Other areas of the fire continued creeping in the timber understory and consuming unburned islands, all well interior. Crews continued holding direct line, mopping up, and back hauling equipment and garbage from the fire area. Tactical patrol operations continued to be utilized to further support existing control lines throughout the operational period. Significant improvements continued to be made to the control lines in all Branches.

Fire Spread

None.

Sunday July 20th

	Total Resources	Total Personnel
Engines	31	93
Hand Crews	22	352
Dozers	13	26
Water Tenders	38	76
Aircraft	15	46
Totals	119	593

Weather

It was a little cooler today with higher humidity. Maximum temperatures were 90 to 95 degrees. Minimum humidity was 24 to 28%. There were slightly enhanced upslope to up canyon southeast flow with southerly aspects picking up southeast winds at 4-8 mph with gusts to 15 mph.

Monsoon moisture pushed northward over the area today bringing scattered clouds throughout the day. A thunderstorm formed within 5 miles of Division K/F west of the fireline around 1500 hours. Thunderstorms continued in this area through the remainder of the afternoon. Light downdraft winds were observed with some sprinkles on the line.

Narrative

The fire continued backing into the East Fork of Duncan Creek. Other areas of the fire continued creeping in the timber understory and consuming unburned islands, all well interior. One significant run in an unburned island prompted the use of fixed wing aircraft. Crews continued improving direct line, mopping up, and back hauling equipment and garbage from the fire area. Tactical patrol operations continued to be utilized to further support existing control lines throughout the operational period. Significant improvements continued to be made to the control lines in all Branches.

Fire Spread

None.

Monday July 21th

	Total Resources	Total Personnel
Engines	35	105
Hand Crews	23	368
Dozers	14	28
Water Tenders	34	34
Aircraft	6	14
Totals	112	549

Weather

There were partly to mostly cloudy with a threat of thunderstorms in the afternoon. Maximum temperature was 74 degrees with a minimum RH of 40%. Ridge winds were east 3-8 mph.

Narrative

The fire completed backing into the East Fork of Duncan Creek. Other areas of the fire continued creeping in the timber understory and consumed unburned islands well interior. Crews continued improving direct line, mopping up and back hauling fire hose and garbage from the fire area. Tactical patrol operations continued with improvements made to control lines in all Branches.

Fire Spread

None.

Tuesday July 22th

	Total Resources	Total Personnel
Engines	30	90
Hand Crews	19	304
Dozers	10	20
Water Tenders	28	28
Aircraft	3	12
Totals	90	454

Weather

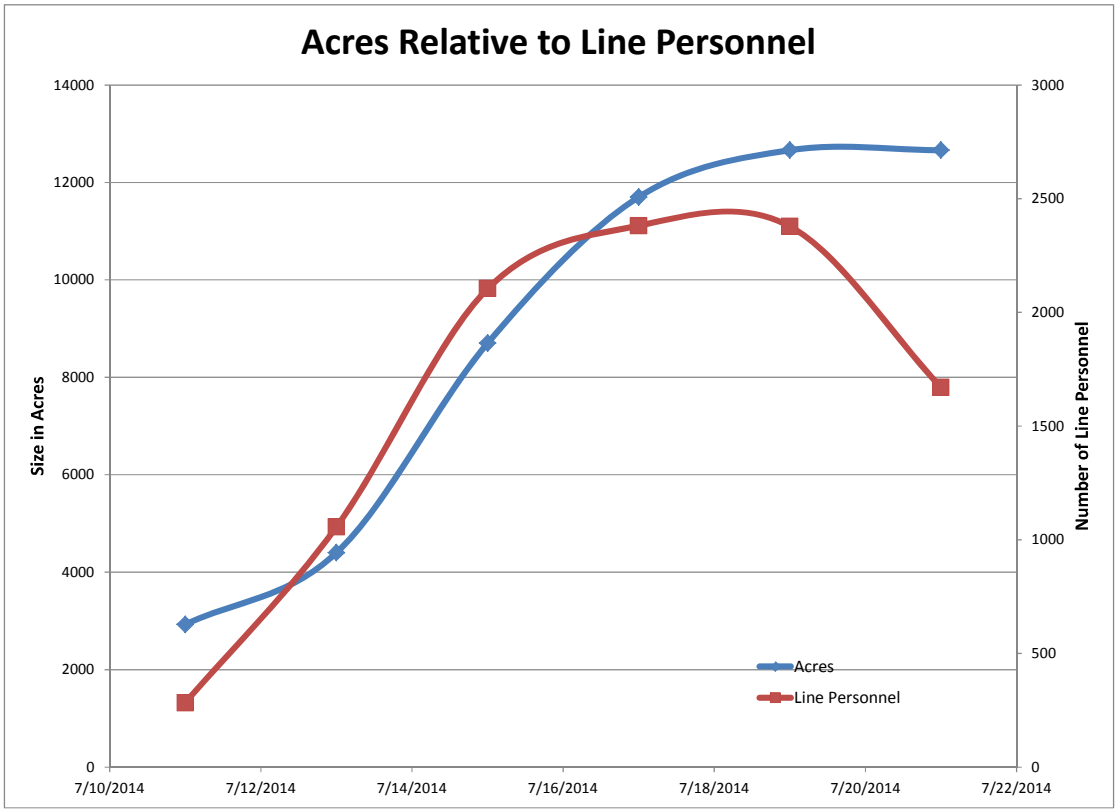
High temperatures were 81-86 degrees. Minimum Relative Humidity was 27-32%. Winds were out of the southeast at 4-9 mph with ridge top winds at 8 mph. Monsoonal moisture remained in the area. Potential thunderstorms were reported over the fire area.

Narrative

Crews continued improving direct line, mopping up and back hauling fire hose and garbage from the fire area. Tactical patrol operations continued with improvements made to control lines in all Branches.

Fire Spread

None.



Air Operations Summary

Summary

The Team 6 Air Operations Branch Director was already assigned to incident during initial attack. Initial attack aircraft consisted of two Air Attacks, seven Air Tankers and five Helicopters.

Bully Helibase was established on July 12th at the Brashears Ranch located on Platina Rd. During the first days of the fire, rotor wing augmentation exceeded the capacity at Bully Helibase and Sky Helibase was established on July 15th. On July 17th, a portable retardant plant was established to support helicopter retardant application in areas not suitable for fixed wing aircraft.

At the peak of the incident there were three Air Attacks, seven Air Tankers and fifteen Helicopters assigned. Fixed wing aircraft supported the incident flying 194 hours and delivering 364,503 gallons of retardant for a cost of $3.96 per gallon. Helicopters supported incident operations flying 484 hours delivering 835,113 gallons of water at a cost of $1.83 per gallon.

Helicopters delivered 88,641 gallons of retardant, 36,195 pounds of external cargo, conducted IR, recon and mapping missions and transported a total of 173 personnel.

In addition, CAL FIRE helicopters performed four medical evacuations, including three hoist rescues. Due to the potential for serious injury and steep rugged terrain a night hoist rescue helicopter was assigned utilizing Orange County Copter 2 to facilitate 24 hour hoist rescue capability on the incident.

Successes

The local Unit had pre-identified Helibase locations. Assigned CAL FIRE and Orange County helicopters provided 24 hoist rescue capabilities. Agency and USFS exclusive use helicopters with crews minimized costs and eliminated the need for additional overhead. There was good availability of aviation assets and personnel and all aviation resource requests were filled. Availability of operational and IR Map data online was able to be utilized by aviation personnel.

Challenges

Required tracking of water usage at dip sites and lack of available dip sites for rotor wing use due to the drought caused some issues. Maintaining security at Sky Helibase was difficult. There was an initial lack of phone communications at the Bully Helibase on the Brashears Ranch property. This was later mitigated by using an OES Mobile Interoperability Gateway Unit.

Fixed Wing Costs

Date	Flight Hours	Flight Cost	Gallons	Misc
7/11	26.7	$174,410.24	48,886	
7/12	29.09	$202,049.56	56,262	
7/13	29.41	$171,059.84	40,283	
7/14	44.6	$407,084.62	103,728	
7/15	49.91	$438,010.69	105,081	
7/16	1.44	$11,512.58	2997	
7/17	7	$19,627.69	4292	
7/18	1.38	$3480.78	1001	
7/19	0	0	0	
7/20	4.57	$16,867.97	1993	
7/21				
7/22				
Totals		$1,444,103.97		

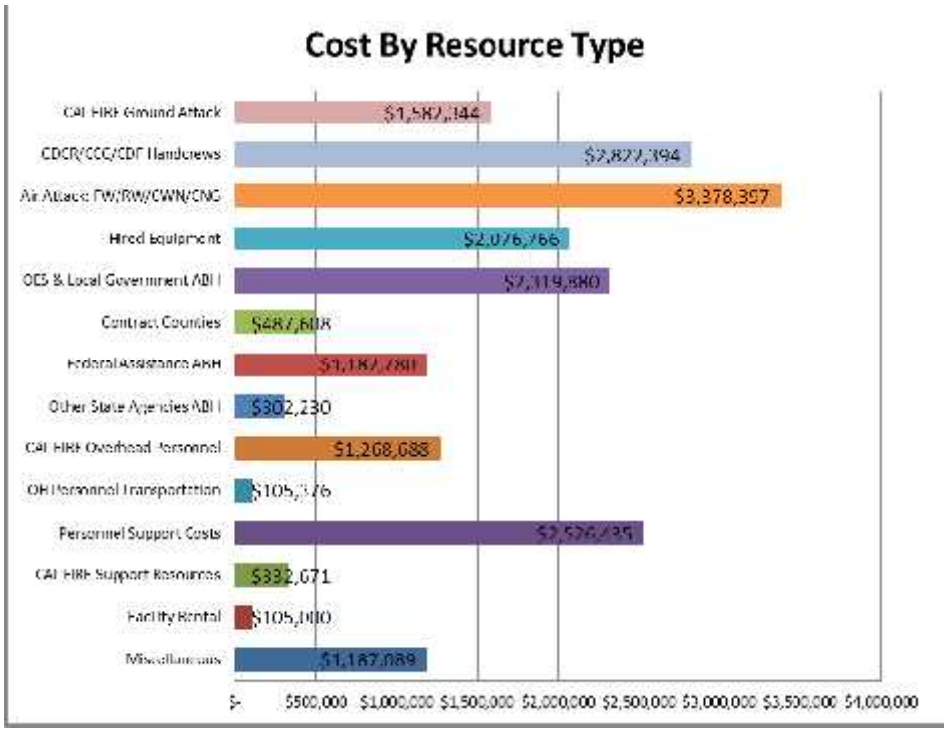
Helicopter Costs

Date	Flight Hours	Flight Cost	Gallons	Retardant
7/11	18.6	$58,172.42	56,900	
7/12	32.9	$70,238.53	42,780	
7/13	54.1	$166,905.02	114,080	
7/14	58.6	$189,712.19	147,340	
7/15	75.8	$255,190.18	168,486	
7/16	57	$229,460.69	103,299	
7/17	43.1	$178,731.38	74,826	23,631
7/18	52.7	$221,158.30	84,533	65,010
7/19	25.5	$96,792.03	23,659	
7/20	38.4	$123,252.60	15,850	
7/21	17.4	$60,627.97	3360	
7/22				
Totals		$1,679,026.84		

Estimated Incident Costs

Day	Date	Cost per Day	Cost to Date	Acres to Date	Cost per Acre
1	7/11/2014	$397,131.00	$397,131.00	2800	$141.83
2	7/12/2014	$1,059,441.00	$1,456,572.00	3300	$441.39
3	7/13/2014	$1,845,204.00	$3,301,776.00	3700	$892.37
4	7/14/2014	$2,262,145.00	$5,563,921.00	4400	$1,264.53
5	7/15/2014	$2,675,843.00	$8,239,764.00	6400	$1,287.46
6	7/16/2014	$2,227,879.00	$10,467,643.00	8700	$1,203.18
7	7/17/2014	$2,412,255.00	$12,879,898.00	10700	$1,203.73
8	7/18/2014	$2,461,819.00	$15,341,717.00	11200	$1,369.80
9	7/19/2014	$2,183,499.00	$17,525,216.00	12661	$1,384.19
10	7/20/2014	$1,885,863.00	$19,411,079.00	12661	$1,533.14
11	7/21/2014	$1,557,008.00	$20,968,087.00	12661	$1,656.12
12	7/22/2014	$1,286,283.00	$22,254,370.00	12661	$1,757.71
13	7/23/2014	$1,169,916.00	$23,424,286.00	12661	$1,850.11
14	7/24/2014	$220,737.00	$23,645,023.00	12661	$1,867.55
15	7/25/2014	$220,737.00	$23,865,760.00	12661	$1,884.98
16	7/26/2014	$220,737.00	$24,086,497.00	12661	$1,902.42

Total Projected Incident Costs - $24,086,497.00



COMMAND AND GENERAL STAFF

Safety Officer

The fire burned in steep rugged terrain and challenged fire personnel with limited access and both extreme fire behavior and weather conditions. The Safety Section supported the incident by providing line safety officers, conducting Base Camp and facility inspections and documenting the actions of the Safety Section.

This documentation included two Blue Sheets and one Green Sheet in response to two significant incidents. Incident hazards were identified with mitigations detailed in the daily Hazard and Risk Analysis ICS-215A. Identified hazards were the basis for both the daily Safety Message and ICS-204 special instructions in the IAP as well as the Safety portion of the Operational Briefing.

Safety Officer staffing included two Type 1 Safety Officers (SOF1), one SOF1 Trainee, six Type 2 Safety Officers (SOF2) and seven Line Safety Officers (SOFR). Additionally there were eleven line SOFR trainees, each assigned to qualified Safety Officers. Safety Section personnel were assigned to a multitude of incidents ranging from minor vehicle collisions to medical emergencies, including one civilian fatality.

Successes

Response to the extreme weather conditions included staged refrigerated supplies (hydration and nutrition) at Drop Points on the fire line, cooling station and rehabilitation facilities within Base Camp and establishing climate controlled areas to support the work to rest cycles for the California Conservation Crew members.

Due to the rugged terrain and limited access, the Safety Section prepared for extrication challenges by committing hoist capable air resources to the incident for both day and night operations. The incident did utilize helicopter hoist operations on three different occasions.

The Safety Section facilitated the training of eleven line safety officers with three trainees completing their task books on this incident.

Challenges

There were some inconsistencies with assigned field personnel following the injury reporting procedures as outlined in the Incident Medical Plan ICS-206. This created a ripple effect on communications, logistics and resources committed to these events. Efforts to educate personnel during Operational Briefings, as well as the distribution of pocket cards outlining the process, contributed to improved compliance during the incident with the ICS-206 process.

Orders were placed for Line Safety Officers early in the incident in anticipation of the impending challenges of the fire. The “fills” of these orders were slowly realized on the ever expanding incident. At one point all outstanding SOFR orders were abandoned and a new order was placed with more positive results.

Public Information Officer

Summary

Upon activation the IMT Information Officer (PIO 1) contacted the incident PIO to get an update on current conditions and media activity. The Team PIO was already working with the Unit PIO updating information on the CAL FIRE website, Facebook and Twitter accounts. Based on the status of the fire and information received from the incident PIO it was determined that the pre-established PIO resource orders were adequate.

The IMT PIO attended the Unit operational briefing and met face to face with the current incident PIO. Current status of established information activities was exchanged. Based on the good work of Unit personnel several key operations had already begun. Media inquiries were being handled by the initial incident PIO, a central public information phone number was in place and public notification had occurred. A fully staffed call center had been established at the Unit headquarters. The call center was staffed with Unit administrative office personnel.

The IMT PIO integrated with the Unit PIO, as well as up to 5 additional PIO’s at the peak of the incident, forming the PIO team. An information shop was developed at incident base in a convenient location for members of the public and media to make quick and efficient contact. The information function was co-located with the Liaison shop, which was very beneficial throughout the incident as it relates to quick information exchange.

It is estimated that the call center processed nearly 900 calls during the duration of the incident.

Regular contact with the call center continued daily and has handled primarily by the Unit PIO. Incident updates and maps were provided to the call center daily. Significant updates to the call center staff were made as they occurred. Morning and evening incident update sheets and PIO fire perimeter maps were developed and distributed locally via the media and trap line. Sacramento Office of Communications was updated regularly for the purpose of updating the CAL FIRE incident information webpage, Facebook and Twitter accounts.

Members of the media were active both in the fire area and at incident base. Media phone and on-camera interviews were provided through the duration of the incident. Keep in mind this was a very complex incident involving a rapidly growing wildfire, multiple road closures, evacuations, re-populations, a civilian fatality and a criminal investigation/arrest related to marijuana cultivation.

Although the media market in the immediate area is relatively small as compared to other parts of California, this incident was covered statewide and nationally. It is estimated that the PIO team facilitated well over 50 in-depth media interviews/tours through the duration of the incident. Moreover, there were countless media calls related to quick incident updates and interview facilitation.

A trap line was established, which included six physical locations, evacuation centers and local hotel delivery via the Finance Section staff.

Contact with the fire and law liaisons, local law enforcement and public works department was maintained with regard to the notification of the public on road closures, evacuation orders and the re-population of the areas that had been evacuated. Road closure, evacuation and re-population media alerts were issued as necessary.

In addition to addressing local media and community information needs, the PIO shop facilitated three tours involving international media from Japan and Russia, as well as CAL FIRE Executive staff and members of the California State Department of Finance and the Legislative Analyst's Office. Tours of the incident base camp and various points of interest within the fire area were facilitated and supported.

One of the assigned PIO's was very technologically competent and had experience with Google Voice service. He was able to establish an IMT 6 account. This account can be used as a media line for future incidents, providing flexibility and options for expediting a media line for an incident anywhere in the state.

Successes

Unit personnel did an outstanding job establishing initial public information operations; including media management and placing fire information line and call center in place rapidly.

There were multiple activities facilitated by the PIO team, including special tours. The Logistics Section went above and beyond to support PIO needs in a rapid an efficient manner. LOGS support helped the tours go off successfully.

When a civilian fatality was discovered within the fire perimeter, the Team PIO staff assisted the SCSO and local Unit with the handling of a news release and public notification. This was very beneficial and minimized the overall impact of the event on the incident.

During the incident the PIO shop had four trainees. All were from the local Unit and Region. Three were PIOF trainees and one was a PIO2 trainee. The PIOF trainees completed their task books. The PIO2 trainee was able to complete additional required tasks as well.

Challenges

Although the communication with the call center was good, it would be beneficial for the call center staff to have access to a television in the room they are operating in. This would allow them to monitor local media reports and anticipate potential calls from the public.

The Unit PIO's laptop computer is antiquated. There were several occasions where it experienced technical difficulties which resulted in lost productivity during critical need time periods. Examples include, computer lock-up and unreliable Wi-Fi connectivity.

This is a critical tool a PIO must have to meet the information demands of the media and general public, especially on a large incident with the complexities such as this one.

Cell phone coverage was virtually non-existent in the fire area. This placed limits on PIO abilities to communicate with members of the media and our own team members in the field.

Liaison Officer

Summary

All IMT 6 Liaison Officers responded to the incident. The Team's Law Enforcement (LE) Liaison was the first to arrive in time to attend the 0700 briefing on July 12th. Liaison immediately began reaching out and establishing relationships with the incident cooperators with two LOFR's in attendance at the IMT transition meeting.

Incident priorities and objectives were established and sensitive and critical areas were identified, such as the commercial timber values of Sierra Pacific Industries and Crane Mills.

Mandatory evacuation orders were in place beginning the night of July 11th. The LE Liaison met with Shasta County Sheriff's Office (SCSO) representatives to ensure the evacuation area and road closures were valid. An Evacuation / Re-Population Plan was completed based upon the sheriff department's information.

The LOFR section continued gathering cooperating agencies' contact information so representatives could be invited to the next day's Operational Briefing and Cooperators' Meeting. Cooperators' meetings were held each morning at 1000 hours. The meetings continued until the incident was transitioned back to the local Unit.

At the peak of the incident, there were 39 agency and cooperator representatives included on the contact list.

LE Liaisons conducted various activities including helping to facilitate and document evacuations, road closures, and the repopulation of evacuated areas. They provided intelligence to the IC from local law enforcement sources, communicated with allied agencies and advised and answered questions IMT members related to legal statutes and LE protocols and procedures.

Successes

The implementation of the Law Enforcement Technical Specialist (LE Liaison) proved to be a tremendous asset. It is evident this new position is a positive addition to the Team and its' mission. The communication and coordination between the IMT, law enforcement agencies and cooperators were fluid and constructive. Because of past fires in the area, existing relationships proved to be of great value.

Because of the good relationships and trust established with the SCSO and the unavailability of other law enforcement resources in the area, Team 6 LE Liaisons were requested to assist with a missing persons report within the fire area.

There was a high degree of cooperation throughout the incident by Team LOFR members, Agency Representatives and cooperators. The positive attitude and professionalism of the Team was instrumental in the success of the team's activation.

Challenges

Liaison challenges included long distance travel drive times which hindered initial full LOFR engagement in the incident and citizens who did not evacuate as requested and/or wanted to re-enter the burn area before it was safe to do so.

This made it difficult for the Sheriff's Department to know exactly who and how many were evacuated. In addition, some areas where road closures were located posed a challenge for officers as they had to check identification and residence addresses during re-entry.

Operations Section Chief

Summary

From an operations standpoint, we were able to receive from the Unit a well-established command structure (2 Branches and 6 Divisions) that was heavily supported by local resources. The decision was made to add a third Branch as well as two additional Divisions due to the complexity of the incident.

For the first two operational periods that the Team had the fire, ground personnel experienced extreme fire behavior due to high temperatures, low humidity and fuel conditions. On the third operational period, with the presence of the incoming monsoonal moisture, we were able to make substantial headway with planned firing operations.

Due to the success of the planned firing operations over the following three operational periods, we were able to have our final acreage burned and transitioned into a holding position on the fire. With aggressive mop up by the field personnel, we were able to hold the fire to 12,661 acres.

While an aggressive suppression effort was going on in the field, a contingency plan was being developed and implemented by the Contingency Branch. This plan and process used to develop it proved to be very successful and will be used on future incidents for IMT 6.

In addition to the fire suppression efforts going on, we also had structure defense issues on the Old Bully Choop Road and Sunny Hill Road areas that required mandatory evacuations.

Successes

The Unit embedding local personnel into our command structure supported a smooth transition of incident operations to the Team. This allowed us to have the local knowledge in the field, as well involved in our contingency planning processes.

Through the coordination of the two Law Enforcement Liaisons assigned to the Team and the Shasta County Sheriff's Office, a successful evacuation plan was implemented quickly.

Containment was established in some very difficult country. Heavy fuels and steep terrain were challenges that were overcome by ground and air resources.

Development of a detailed contingency plan allowed us to get out ahead of the fire while still engaging in direct perimeter control. This was successful due to the availability of qualified personnel on the incident that could function in this support role.

Challenges

One of our major challenges was communications. Given the location of the fire, communications in this area proved to be a significant challenge.

Filling of operational overhead positions on the fireline (Division/Group Supervisors and Heavy Equipment Bosses) proved to be a challenge throughout the incident.

Due to drought conditions, we did not have a suitable water source close to the incident to support the water tenders. Water tender turn-around travel times in some cases were in excess of 3 hours.

Plans Section Chief

Summary

IMT 6 Plans personnel arrived during the overnight hours of Friday July 11th establishing Check-In and setting up the Plans Section at the Incident Base. The Team PSC1 facilitated the initial in-brief transition meeting for the local Unit and assumed responsibility for the Plans Section from the extended attack organization.

Starting with the July 12th Planning Meeting, all IMT meetings and briefings were conducted in a timely and effective manner. IAP production, clerical and IT services were established and effective. Communication with the SHU ECC Expanded Dispatch was established and maintained through the use of a CAL FIRE ECC Support Team.

A CAL FIRE InciNet Kit with Advisors and IT personnel arrived and were effectively deployed. Fully staffed Resource and Demobilization Units were established and maintained throughout the incident, providing complete resource accountability.

IMT 6 assumed and maintained responsibility for the ICS 209 starting at 1800 hours on July 12th. Both the Cobra Helicopter and NIROPS IR flights were effectively used. Both NICS support and Field Observers were used to validate fire perimeter information through the Situation Unit. High quality and timely GIS products were delivered as needed through the use of GISS and GIS vendor.

Both a Fire Behavior Analyst and Incident Meteorologist were assigned. A full Documentation Unit was established and maintained, as well as both the Training and Crew Technical Specialist functions. Due to assigning trainees, two Documentation Unit Leaders were fully qualified on this incident.

The Plans Section also completed the Damage Inspection and After Action Reports and facilitated the turn-back transition meeting on July 23, 2014.

Successes

The local Unit was able to produce an IAP and Operational and IAP maps for the second operational period and submitted the first ICS-209 before the Team's arrival. This set the Team Plans Section up for success and is greatly appreciated.

There was adequate staffing of Status Check-In recorders and DMOB positions within the first 24 hours of the incident. Although the six assigned Status Check-in Recorders had no experience in this position, with the early establishment of InciNet, its user friendliness and on the job training, this problem was quickly overcome.

The ICS-215 process was implemented through scheduled meetings between Operations, Logistics, Safety, and Resources. These meetings provided the opportunity to share information and provide input into the incident's operational and logistical needs.

Having four Resource Unit Leaders (2Q/2T) and three Demobilization Unit Leaders (2Q/1T) in the two units was very beneficial and resulted in both Units performing at a very high level.

Having two Crew Technical Specialists was crucial to effectively interacting with CDCR and supporting CAL FIRE Crews throughout the incident. The incident coordinated and supported a "full 24 hour" Driver's Log reset for all Fire Crew Captains.

InciNet Advisors worked with the Situation Unit at mirroring the new FAMWEB ICS-209 program with InciNet and making the InciNet ICS-204 more useable for producing Incident Action Plans.

Having representatives from the ECC Support Team in the Resource Unit and co-locating with the Ordering Manager was very helpful. Both were close enough to answer questions resource issues quickly and efficiently.

The Situation Unit facilitated the first flown fire perimeter by 1030 hours on July 12th by the USFS Cobra Helicopter. Being able to get 3 IR perimeter flights each day assured the SIT Unit was projecting the most accurate acreage at all times.

The Box.com QR reader was well used during the incident. There were 2,997 downloads of the maps and 1,079 downloads of the IAP from the Team's Box account.

Challenges

The ECC Support Team was delayed getting to the incident which resulted in the supplemental Column "C" resource orders not being placed in a timely manner. Because of this, the Clerical Support Trailer did not get ordered until late in the second day which required the Section to go to SHU headquarters for copies.

The Resource Unit did not have ROSS reports easily accessible the first few operational periods. In addition, a communication error between ROSS and the Sacramento server led to InciNet's inability to download current ROSS data. This resulted in an increased workload and duplication of work.

Available InciNet hardware was exhausted within the first 72 hours of the incident. Recommend additional InciNet computers and associated hardware be added to the InciNet Kits. Once again, good internet band width took some time to stand up.

Although the location of the Resource Unit was ideal, spacious, and convenient to work in; not having a private area to construct the ICS-204 made it difficult due to the amount of distractions present in the evening. This delayed IAP production.

Although personnel were highly successful once at scene, there were delays in getting both Documentation Unit Leaders and Crew Technical Specialists fills due to initial UTF. Once again, name requests were required.

SIT Unit challenges included Branches and Division Supervisors not bringing in map data before going off shift, ICS points not getting approved before being put on maps and FOBS being directed by Operations versus the SITL. If FOBS are needed for Operations, Line Scouts should be requested for this need. Also, current InciNet resource numbers do not match the new FAMWEB ICS-209.

Lastly, consideration should be given to establishing a CAL FIRE standard incident documentation package labeling standard as the federal labels in the Cache provided Doc Box system always has to be modified to meet Department needs.

Logistics Section Chief

Summary

The incident base was established at the Shasta District Fairgrounds. The fairgrounds staff was available and helpful regarding access to the facility. The complexity of the incident and the rapid growth of the incident provided for multiple challenges. The Logistic Section was able to provide support for approximately 2500 personnel assigned to the incident at three separate locations (ICP, Bully Helibase and Sky Helibase), two staging areas and multiple drop points. The Shasta Trinity Unit played an important role in the logistics sections success, with the early initial set-up and continued support through the duration of the incident.

Successes

The Shasta District Fairgrounds have once again proven to be an adequate location to support a rapidly escalating incident. The Fairground's size allowed the Team to increase the foot print of the Base Camp in a short amount of time. We were able to support over 2,500 people on site and accommodate the support of multiple resources including 69 Hand Crews.

A Food Unit (FDU) from High Rock camp was brought in to supplement the Mobile Kitchen Unit (MKU). Use of this FDU ensured that resources coming into Base later in the day and into early afternoon were provided a hot meal and the schedule for closing down the MKU to be cleaned and to convert over to prepare dinner was not interrupted.

Having North Ops close assisted in receiving additional radios and repeater orders to the Base in a very short amount of time. This allowed continuous distribution of HT radios and the quick installation of repeaters for line communication. Prior to the arrival of the Team, the Shasta Trinity Unit had a difficult time with communication between the fire and the ECC. Overcoming the communication difficulties was accomplished by utilization of two CAL FIRE mobile repeaters.

The Team was able to easily support the incident's supply needs due to the close proximity of the North Zone Cache to the incident. The North Zone Cache was extremely accommodating to the incident's needs. Incidents in other areas of the State normally receive supplies from the Cache one time a day. Multiple times throughout this incident we received 3 to 4 orders per day. The Cache went to great lengths to support the incident with multiple pumps and folding tanks. The incident used every pump the North Zone Cache had in stock. They also had pumps trucked in from Oregon and Colorado.

The Motel Unit was able to provide accommodations for State, Federal and local resources assigned to the incident in both Redding and Anderson. This was a huge task for an incident that was very dynamic. This allowed for short travel times to motels which enhanced personnel rest cycles. There was only one day that the incident had to send personnel to Red Bluff. The local vendors provided a great deal of support.

Challenges

IMT 6 was activated at approximately 2200 hours on Friday 7/11. The ECC Support Team was instructed to have an arrival time of 0600 on Saturday 7/12. The delay in the arrival of the ECC Support Team resulted in a delay in the Column "C" resource orders being put into ROSS as the Shasta Trinity Unit had only two people working in expanded dispatch through the night of 7/11 working on ordering the day shift resources for 7/12. If the ECCST would have arrived prior to 0600 on 7/12 they would have been able to provide some relief for the local Unit personnel and ensure the Column "C" list was placed into ROSS earlier.

Multiple VPN users online simultaneously resulted in internet connections that were slow and almost inoperable. The local internet company that provided service to the fairgrounds was contacted to turn up the band width to accommodate the amount of internet users. It took two days for a technician to arrive at base camp to complete the work order. Cell and internet connectivity was nonexistent at the Bully Helibase. After multiple failed attempts to provide conventional communication to the Helibase an OES communication support unit was used to provide a satellite feed to the Helibase.

The order for the Mobile Communications Unit (MCC) was placed in ROSS at the time of the Team activation. Although the Communications Unit was available at the local Unit, SHU was unable to immediately staff it with qualified personnel. Many initial arriving personnel on 7/12 needed their radios to be cloned in order to report to their line assignment. The COML was unable to facilitate all cloning requests the morning of 7/12 due to the lack of MCC equipment needed to program radios. The MCC subsequently arrived late in the afternoon of 7/12.

There were multiple challenges with hired equipment. Multiple vendors required support from the Supply Unit. Over 25 loaner radios were issued. Multiple EERA's were written incorrectly in the Units with invalid dates on EERA, old rates, incorrect equipment with incorrect rates etc.

Finance Section Chief

Summary

All personnel assigned to the Finance Section for Incident Management Team 6 were available for assignment (no substitutions) which allowed for team cohesion and establishing standards for future incidents. The complexity and duration of the incident allowed for the Finance Section to be established prior to any demobilization occurring. A good line of communication and working relationships were established early on with the other Sections. This allowed us to address issues promptly, organize, adjust accordingly and answer questions.

Successes

The Time Unit was fully staffed early, allowing us to catch up with the incident hired equipment faster than normal. Also having federal employees within the Finance Section allowed us to facilitate federal employee's needs by providing Crew Time Reports, posting to Federal Time Reports, completing I-suite cost reports, and being available for worker's compensation issues. The local Unit provided a representative to assist with paying the local government resources and was available to collect equipment documentation and process for payment.

Finance components in the Incident Action Plan reduced the amount of incorrect shift tickets being turned into the Time Unit. Also, an eFC-33 input worksheet allowed for employees to complete time sheet information while on the fire line and a "Water Usage Form" permitted us to identify and prevent any water issues early on in the incident.

The Finance Section had numerous priority trainees and requested trainees including three Purchasing Technical Specialists (PURC), one Payment Processing Technical Specialist (PPTS), one Compensation/Claims Unit Leader (COMP), two Equipment Time Recorders (EQTR) and two Personnel Time Recorders (PTRC). The trainees were very successful and filled the void in those positions that expanded dispatch was unable to fill with "qualified" personnel.

Once the Finance Section was able to get additional computers, we were able to set up an Injury Assessment Prevention System (IAPS) and ePay Café. This assisted COMP/CLAIMS with required injury reporting and allowed BU8 employees to complete their timesheets prior to the end of the Work Period for their home Unit.

Challenges

There was a significant amount of unable to fills in the Finance Section which caused some difficulty. Finance resource requests remained unfilled for days, even when updated daily and "trainees accepted" were approved for positions. The three positions affected were COMP, PURC, and PROC. It is recommended that these positions remain on the priority trainee lists for all Teams throughout the summer until we have adequate personnel to fill these positions. After the initial fills, the only supplemental positions filled in the Finance Section were those done by name request.

The Finance Section requires computers, printers, a fax/copier and a shredder etc. to be successful. The InciNet kit provided to the incident did not fulfill the needs required to function at the Type 1 IMT level. Section personnel had to provide their own printers and/or scanners to function efficiently. A fax line was eventually provided but a fax machine was not available.

Reliable internet connections were intermittent throughout the first several days of the incident. Personnel Time Recorders require internet to complete eFC-33 and Equipment Time Recorders need internet to validate contract rates and vendor information. Internet improves communication with vendors and department personnel at their home locations, in order to effectively provide internal and external customer services.

The Hired Equipment Management System (HEMS) is an antiquated program that needs updating to today's technology. The HEMS program did not in all cases transfer pertinent information onto the printed agreements. Examples of this were missing "wheel numbers" on Transports which dictate pay, the "not available rate" for Transports were incorrect as well missing company address and information, etc.

These errors stem in part from the HEMS program and in part from the Unit Hired Equipment Coordinators not verifying their agreements for accuracy. Vendors are then arriving at the incident and finding that they are ether being under paid or over paid. The Time Unit had to re-write 20 agreements.

The "Water Usage Forms" are an excellent idea to track incident water usage during the drought. However, water source locations were not clearly named and/or identified on operational maps to ensure consistency on the water usage form. The importance of this is underscored by the fact that total water usage by water tenders on this incident was 2,232,874 gallons. Tracking allowed the local water purveyor to access additional water allotments at no cost to the incident.

Trainees

The following Position Level Breakdown report identifies the number of trainees pursuing qualification by position complexity and functional area.

Position Level	Command	Operations	Planning	Logistics	Finance	Air Ops	Dispatch	Total
500	5							**5**
400	19	11	3	3	1	1		**38**
300		9	13	10	1	1	1	**35**
200		13	3	8	7	3	1	**35**
100						1		**1**
Total	**24**	**33**	**19**	**21**	**9**	**6**	**2**	**114**

Incident Commander Comments

Incident Management Team 6 (Estes) was activated and participated in the IMT conference call at 2300 hours on Friday July 11th. The Shasta Unit established an Incident Base at the Shasta District Fairgrounds in Anderson, CA. A majority of the team arrived prior to the Unit's Operational Briefing at 0700 hours. The Unit hosted and the Team facilitated a transitional briefing at 1000 hours with a full transfer of command to IMT 6 at 1800 hours on Saturday July 12th.

The Team quickly started supporting the incident with logistical, operational, and planning support. The fire continued to grow to the north and the weather produced extreme temperatures, reaching 114 degrees on the fire line. These extreme weather conditions presented challenges to the team both logistically and operationally.

The local Unit Chief provided the Team with a Delegation of Authority and clear written expectations. Several of the Management Objectives were provided within the written expectations document. The fire continued to progress towards commercial timberlands.

The strong relationship with local cooperators and allied agencies provided a strong base for IMT 6 to work from.

Successes

IMT 6 quickly assembled and embedded within the Unit organization which set the team up for success in the next operational period.

The Shasta County Sheriff's Department responded early in the incident and coordinated the evacuation of residences along Patina Road. IMT 6 Law Enforcement Liaison Officers quickly embedded with the Sheriff's Department and assisted with the

coordination of additional evacuations and road closures. SCSO worked in unison with IMT 6 Public Information Officers to ensure a seamless release of information.

The Shasta Trinity Unit had predetermined contacts for the commercial timber operators and allied agencies. Representatives from Sierra Pacific Industries and Crane Mills were on hand to open gates and provide local knowledge of the road system, water sources and past fire history.

Quick rescue response was provided to the fire line by agency aircraft. CAL FIRE Copter 205 performed three separate hoist rescues of injured firefighters on the line. These injured personnel were packaged and hoisted off of the fire line and transported to hospitals within 40 minutes of the initial notification of each emergency. Without this vital capability it likely would have taken 2-3 hours for each of the victims to be extricated from the line via traditional ground resources.

Challenges

The extreme weather conditions, including temperatures up to 114 degrees and rugged terrain coupled with record dry fuels, limited production rates and dictated additional logistical support to the fire line. The extreme weather conditions and rugged terrain also contributed to a higher than average injury rate.

The reported injuries included chainsaw incidents, vehicle accidents, and one individual struck by a fire weekend tree. These injuries involved CAL FIRE, USFS and private vendor personnel. Each of these incidents were investigated and properly documented.

Shasta Trinity Unit working with IMT 6 personnel produced two Blue Sheets and one Green Sheet. Injuries to USFS personnel required several conference calls between the two agencies to ensure the accident investigation and documentation met the needs of both agencies.

There were unfilled resource requests. Key overhead requests took several days to fill. At its peak, the incident supported 72 fire crews without a Crew Technical Specialist. It took two operational periods before critically needed Branch Directors and Division Supervisor requests were filled. The delayed response in acquiring qualified fire line leadership positions proved challenging and resulted in span of control issues. Eight Division Supervisor Qualified ROSS requests had to be downgraded to “Trainee” in order to be filled.

Attachment I

Communications Division

Safety Checklist

Communications Division Safety Checklist
Summary of Telecommunications Rules

1. Access to Communications

It is a fundamental duty of the CPUC to insure access to safe and reliable telephone service for all Californians.

Code and Decision References:

PU Code § 451: "…Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees and the public."

Access to Emergency

GO 96-B Rule 5 and D.07-09-018 OP 3: Carriers must file tariffs for 9-1-1 service.
PU Code § 742: Rules for providers of public pay phones, must allow for free 9-1-1.
PU Code § 2883: Warm line provided for 120 days only after disconnection of basic service for non-payment of service, no requirement for access to 9-1-1 on a line with no account.
PU Code § 2892: 9-1-1 is the access number for emergency, cellular carriers must route 9-1-1 calls without validation, may not charge airtime for calls, routing instructions for carriers (to CHP or Public Service Answering Point PSAP).
PU Code § 7908: No government entity or carrier can interrupt communications service for the purpose of protecting public safety without a warrant, specifies that ability.

C.O.L.R

D.13-07-019: Identifies carriers of last resort (COLR), which are those carriers that cannot refuse to serve customers with telephone service in their service territory.
D.12-12-038, app B: Carriers of last resort must provide basic service, and this includes the ability to call 9-1-1 emergency services.

Universal Service Programs

PU Code § 275: Sets up the CA High-Cost Fund A program for universal support to small independent telephone corporations for rate of return telcos.
PU Code § 276: Sets up the CA High-Cost Fund B program for universal support to telephone corporations providing local exchange services in high cost areas of CA.
PU Code § 277: Sets up CA LifeLine to support telephone service for low income families. Also CPUC is designator for carriers for federal program.
PU Code § 278: Sets up the Deaf and Disabled Telecommunications Program for access.
PU Code § 280: Sets up CA Teleconnect Fund for schools and libraries for communications access.
PU Code § 281: Sets up the CA Advanced Services Fund for deployment of broadband.
PU Code § 2881 (b): Provide a dual-party telecommunications relay service for deaf or hearing impaired.
PU Code § 2881 (d): Provide a speech generating device to any subscriber who is certified as having a speech disability.
PU Code § 2881.2: Provide a program for publicly available telecommunications devices for the deaf or hearing disabled in government buildings.

2. Access to Facilities and Duty to Connect Calls

Carriers must deliver calls. Access to communications infrastructure should be provided on a non-discriminatory basis, with rules for the safety of the public and utility employees.

Code and Decision References:

PU Code § 558: " Every telephone corporation…operating in this State shall receive, transmit, and deliver without discrimination or delay, the conversations and messages of every other such corporation with whose line a physical connection has been made."

D.98-10-058: Rules for access to rights of way and support structures of telco and electric utilities, including guidelines for qualified contractors and applicable safety, engineering and reliability requirements. Article XI of Appendix A lists safety rules, which references GOs 95 and 128, and Cal OSHA, Article 8.

D.16-01-046: Rights of way and safety for Commercial Mobile Radio Services (CMRS), or wireless carriers. Adds National Safety Electric Code.

3. Outage Reporting to the Commission and Investigations

Monitoring telecommunications service quality is fundamental to the CPUC's mission of ensuring safe and reliable utility service.

Code and Decision References:

GO 133-D § 3: Carriers must report five measures: out of service, answer time, customer trouble reports, installation commitments, installation interval.

GO 133-D § 4: Facilities-based carriers must report outages which fall under the Federal Communications Commission's Part 4 Rules (47 USC 4), Network Outage and Reporting System (NORS). GO 133-D § 4: VOIP providers who file NORS must also copy the CPUC.

Resolution T-17002: Eligible Telecommunications Carriers (ETCs) must report annually on outages with Federal Communications Commission form 481 copied to the CPUC.

GO 133-D § 7: Communications division staff can investigate any reported service quality information or major service interruption.

4. Consumer Information

Consumers have many protections under PU Code for unauthorized use of their information, however exceptions exist if they are calling 9-1-1 or if there is an imminent threat to life or property.

Code and Decision References (see also Comm Div public web page):

PU Code § 2889.6: Local exchange carriers will make an annual billing insert with information concerning emergency situations which may affect the telephone network.

PU Code § 2891: Carriers must ask for permission to release some kinds of customer information. Consumer information can be sent by carriers when the consumer is calling 9-1-1.

PU Code § 2893: Carriers shall permit blocking of telephone number, except to 9-1-1.

PU Code § 7910: Telephone corporations or state video franchise holders must have background checks on employees and subcontractors who enter homes to install equipment.

PU Code § 708: Utilities' (inc. telephone corps) employees who enter customer's homes must have, and present to customers, an ID card with a photograph of the employee.

D.10-01-026: Facility-based providers of telephony services must complete an education program about customer premise battery backup, inc. annual reminders.

D.13-07-019: Users of multi-line telephones (PBXs and similar devices which concentrate telephone service) must inform customers of options to provide more specific location information, update tariffs to reflect issue, work with PSAPs to verify information.

Attachment J

PUBLIC - REDACTED

Responses to ORA's Data Request

A.16-10-004 QAP-001 (Safety)

Attachment K

PUBLIC - REDACTED

Responses to ORA's Data Request

A.16-10-004 QAP-002 (Safety)

Attachment L

PUBLIC - REDACTED

MDR Response A.6

Infrastructure Map

Attachment M

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MDR Response D.6

Emergency Response Plan

Attachment N

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MDR Response D.10

911 Routing