County of Orange RACES
NET CONTROL
January 2001

Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Feeling Powerless

by: Ray Grimes, W6RYS
Chief Radio Officer, OCRACES

The media has recently brought attention to the California utilities problems which have threatened rolling power blackouts throughout the state. While the causes which brought us to this point are many, and are rooted in government and private market politics, management issues, and environmental concerns, this article will focus on the possible impacts with respect to emergency services providers. A rolling blackout is the industry term for a deliberate and selective power outage which the utility service company will initiate to prevent a total electrical system shutdown when overloaded. A rolling blackout may be targeted at a certain community, for a period of an hour, and will then be redirected to another neighborhood, and so on. This blackout may be with minimal warning, and may occur at most anytime, such as

early morning, dinner time, late at night, etc.

According to the utility companies, utility market deregulation has resulted in reduced operating money and profits for the utilities, and loss of control and management over large scale power networks. The utilities claim that user demand has increased dramatically, with few new power plants being built in the last two decades to accommodate the growing demand for electricity. To further complicate this, individual private electrical energy providers may not coordinate planned maintenance outages, resulting in a significant amount of the power generating system being simultaneously offline at the most inopportune times. The demand for increased electrical service parallels a rapid growth in housing and business properties, which also produce the need for more power to run lights, air conditioning and heating systems, and computers. The redirection of energy uses from fossil fuels to electric (such as with electric vehicles) has also placed a new demand on available electrical power.

January Meeting

The January 8th OCRACES meeting will focus on reviewing the accomplishments of the year 2000 and setting goals for 2001.

This is an open meeting and will start at 1930 hours at the usual meeting location, 840 N. Eckhoff Street in Orange.

What could happen if the power in your neighborhood suddenly is shut off by the power company? If it happens early in the morning, you will be late for work, as your clocks will have lost one hour (you will also have to reset the clocks on your VCR's when you get home). Your home radio won't work, unless you have a battery portable. Unless you have a gas stove, you will be eating cold pop tarts for breakfast. Your commute to work may be interesting, without street lights and traffic signals.

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In This Issue:

Upcoming Events

Date	Event
January 8	OCRACES Meeting, 1930 Hours, 840 N. Eckhoff St.
January 29	City / County RACES Meeting, 1930 hours, Eckhoff
February 5	OCRACES Meeting, 1930 Hours, 840 N. Eckhoff St.
March 4	Mass Casualty Incident exercise 0700 Hours, Brea Mall
March 5	OCRACES Meeting, 1930 Hours, 840 N. Eckhoff St.
April 2	OCRACES Meeting, 1930 Hours, 840 N. Eckhoff St.
April 7/8	Baker-To-Vegas Challenge Cup Relay Race

Captain's Corner

by: Ray Grimes, W6RYS
      Chief Radio Officer, OCRACES

As we enter a new year, I would like to again thank each of you for your continued support and dedication to the OCRACES program. The County of Orange has enjoyed peace and quiet for the past few years, with no major disasters. While this is very good news, it can make us complacent as emergency responders. Each of us must remain motivated and focused on our mission, to be prepared and trained for whatever may occur. I challenge the members of OCRACES to become self-motivated in making the extra effort to stay on top of new technology and to think of new and better ways to support our agencies through communications.

In this past year, OCRACES has added Slow Scan Television (SSTV) and PSK-31 digital text messaging to our emergency communications tool box. These exciting technical innovations have great potential to provide real-time emergency scene information over long distances. As celfones and the Internet become even more commonplace, OCRACES must continue to explore leading-edge technologies and to remain one step ahead of our 'competition'. Our members have received valuable training on the new 800 MHz CRT dispatch consoles and portable radios which will further improve our value to the County as communications experts.

I would like to commend those of you who made the extra effort to meet with our neighbor cities and counties over the past year, to share our technical expertise while building important relationships with other agencies.

OCRACES is a family, bringing many talents and capabilities together. Together we can accomplish most anything. Let me be the first to wish you and your families the best new year ever, enjoying good health and prosperity.

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Some motorists will not stop at dark intersections where traffic lights are out, possibly resulting in accidents. Don't depend on your cordless phone to call 911, as very few of these have backup batteries. Without AC power, the cordless phone base stations which connect to your telephone line simply won't work.

If you regularly stop at the convenience store for a cup of coffee and gas, they may not be able to serve you. Even if they had a working gas pump (which would be unlikely), their point of sale credit card system would be down. Your workplace may also be without power, requiring a time consuming startup process to resume activities.

While the utilities claim that they will be able to notify the public sufficiently to minimize inconvenience, such notification also may produce opportunity for criminals when alarm system failures and darkness prevail. People who depend on AC powered respirators will have to arrange for emergency power generators.

If you meant to charge your portable transceiver batteries but forgot, when the lighst go out, you had best have a DC operated charger and mobile radios handy which can be operated from your car. You will also need flashlights and plenty of fresh batteries.

When the power is restored, expect major widespread electrical surges. It is vitally important to shut down all home electrical equipment and appliances, and to remove wall plugs prior to power restoration. Surges can destroy computer equipment and home appliances. Don't depend totally on consumer grade surge arrestors to save the day. Most low-cost surge arrestors degrade with use and time, and may not be effective when needed most. The experts suggest that all electrical devices except for one light bulb be removed from the circuit. The light bulb will serve as an indicator of when power is restored.

If you think about this, the impacts to the community from rolling blackouts are very much like an earthquake, without the shaking. The implication is that we as emergency responders need to prepare in the same manner as we would for most any disaster. The public will very likely be in need of some increased level of emergency services, and will most certainly demand information as to the power outage status and any newsworthy items. California has repeatedly risen through floods, fire, earthquakes, killer bees, and now rolling blackouts. You as an OCRACES member have a responsibility to prepare for the worst possible scenarios, while wishing for a powerful solution.

Meetings:
   General: First Monday of Month
   (open to public) @ 1930 hr

Meeting Location:
   OCSD/Communications
   840 N. Eckhoff St. Suite 104
   Orange, CA 92868-1021

County RACES Frequencies:

   6 m: 52.62 MHz output, 52.12
   MHz input, 103.5 Hz PL

   2 m: 146.895 MHz output,
   146.295 MHz input, 136.5 PL;
   (primary net Mondays, 1900 hrs)

   2 m: Packet: 145.07 MHz
   (1830 - 1900 hours)

   1.25 m: 223.76 MHz output,
   222.16 MHz input, 110.9 Hz PL

   70 cm: 449.180 MHz output,
   444.180 MHz input, 107.2 Hz
   PL (private)

OCRACES Web Page:
   http://www.ocraces.org

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Did You Know?

Wildland Fire Season Overview

by: Ray Grimes, W6RYS
      Chief Radio Officer, OCRACES

The cold water conditions in the Pacific Ocean over the past two years have produced the La Nina weather pattern. This resulted in a very wet winter in the northwestern United States and dry conditions in the south, from California to Florida. Southern California reported only about half of its normal seasonal rainfall. The La Nina condition produced dry fuels and abnormally hot, dry weather over much of the west. The wildfire season began early and was intense in some areas. Mid-February brought large grass fires in New Mexico. Fire activity moved eastward into Virginia. By the end of February, fires were reported in Texas, Louisiana, and Missouri, followed by Oklahoma in March. More fires followed in Georgia, Alabama, Missouri, Ohio, Minnesota, and Indiana. By November, 2000, Idaho had lost 1,282,918 aces, with Montana running right behind at 950,120 acres. Interestingly, California and Wyoming were very close in numbers of acres burned, at 234,669 acres and 278,736 acres respectively. The Montana fires alone were estimated to cost the state $28.4 Million in firefighting costs alone. While federal disaster funding will likely pay $18.4 million, the state may have to makeup the difference. No one can say what 2001 will bring in the way of wildfires and other natural disasters. Hang on to your (fire) hat!

statistics obtained from www.disastercenter.com/montana
www.nifc.gov/fireinfo

Visual Communications

Coordinator: Jim Carter WB6HAG
Web Page: http://www.qsl.net/wb6hag/

SSTV NET – This month during the all City and County RACES meeting, we will review how we can implement the SSTV net or future drills. We invite all suggestions during this scheduled meeting.

Presentations on the Road – OCRACES has a very informative SSTV or ATV presentation with live demonstrations that is available to any City RACES organization. If your RACES group is interested in learning more about SSTV or ATV, please contact Robert Stoffel at 714-704-7919 for availability.

City / County News

LADCS - Welcome to Diana Bingham, KD6ACQ, who is the new LADCS amateur radio emergency communications systems full-time operator at the Los Angeles County Sheriff's Emergency Operations Bureau in East Los Angeles. Diana has been with the Sheriff's Department for 17 years, bringing expertise as a highly qualified communications operator. The next time you are monitoring 145.300 MHz or 147.270 MHz, the LADCS Mt. Disappointment repeaters, be sure to say hello to Diana and tell her you belong to OCRACES.

Basics of the Incident Command System

This article was re-printed with permission from the December 2000 edition of *Public Safety Communications* published by APCO International.

The Incident Command System (ICS) is a term found in almost every public safety situation. It refers to policies and procedures that establish the command structure for communications in major incidents. Communications is one part of the ICS.

ICS was developed to prescribe a common terminology and method of operating at major emergency incidents. Standardization lets agencies that never or rarely work together recognize terminology and actions in an emergency instantly, with a minimum of confusion.

To understand ICS is to understand the building blocks of a command structure that can be as big as necessary to manage and mitigate a given emergency. ICS is used in fires, natural disasters, hazardous material incidents and mass- casualty incidents. ICS is a sophisticated resource-management tool that can expand or contract to fit the size of any emergency.

Functional Call Signs

Functional call signs are a major ingredient of ICS. In pre-ICS days, units would arrive at an incident and use their normal call signs, such as Engine 2, Rescue 5 or Battalion 4. This is fine for a small incident, but it could cause confusion in large multi-jurisdictional incidents. There could be two Engine 3's or Battalion 4's on the same scene.

Confusion could also be caused by not knowing to whom you are speaking. This is particularly true at prolonged incidents where there are changes in personnel doing specific jobs. Using a functional call sign can reduce or eliminate these problems. A functional command call sign is named after the job the person does, rather than who he is. For example, the person in charge is the incident commander or IC, regardless of who holds that job during an incident. Other common functional call signs used in ICS include "Staging Area," "Operations" and "Logistics," as well as tactical sub-units such as strike teams, task forces and divisions. In structure fires, some of these titles can also be location-related such as "Roof," "Interior" and "Basement."

Command Span

The ICS was built on a command-span principle designed to make the most effective use of leadership and control. A tactical leader can effectively manage up to five resources. Thus, in ICS the magic number is five resources. For example, a strike team is composed of five of the same type of apparatus under the command of one officer who is called a "strike team leader."

Five strike teams operate under one sector officer, and five sectors are under the control of a division officer. Therefore, 125 fire apparatus would operate under the command of the division officer, but that officer would give orders only to his five sector chiefs. On a major wildland fire, several hundred apparatus could operate at any one time, along with ground crews and aircraft, in a complex coordinated effort to contain the fire.

ICS Vocabulary

Here are some important, basic ICS terms every communicator should understand. They are listed in logical order, rather than alphabetical.

- Resource: any equipment or personnel needed, requested or used to manage or mitigate the emergency.

- Allocated resource: a resource dispatched to an incident but not yet checked in at the incident.

- Available resource: a resource checked in at an incident and ready for assignment.

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• Base: location where primary logistical functions are coordinated and administered (NOT the command post). Bases support the command post by managing many essential tasks. Bases are frequently used in major wildland fires, and large incidents may have multiple bases. Bases frequently have a location name attached to them as an identifier, such as "Camino Base" or "Main Street Base."

• Staging area: where resources report during an incident; may be separate locations or part of a base. Urban fire-staging is set up frequently on a street within a few blocks of a fire. Units wait at the staging area until assigned a task. Staging areas are an active part of communications during major incidents.

• Command post: location of the person with primary command responsibility. Command posts may be located at a base or elsewhere and are usually well marked.

• Incident commander: ultimate resource manager for an emergency, charged with the overall strategic command of an incident. The person filling the IC position may change several times during an incident.

• Section: organizational level responsible for primary segments of an incident. Examples include operations, planning, logistics and administration/finance.

• Unit: organizational element that provides a specific support function and works under the control of a section. Examples include the weather-forecasting unit, the time unit, the medical unit and the communications unit.

• Branch: organizational level with functional or geographic responsibility for major segments of an operation. Examples include the air branch or the support branch.

• Division: organizational element responsible for tactical operations within a defined location. Examples can be identified by letters, such as "Division A," or by geographical location, such as "North Stairwell" or "Roof Division."

• Group: organizational element that does a primary job within an incident, such as "Fire Attack," "Primary Search" or "Ventilation." In large incidents such as high-rise fires, groups may be further identified by location (e.g., "14th Floor Fire Attack") or with an alpha-numeric identifier (e.g., "Fire Attack One" or "Fire Attack B").

• Strike team: five of the same type of resource under the command of a strike team leader. Strike teams vary in their makeup. It is common to have bulldozer strike teams, ambulance strike teams or engine strike teams which generally have numerical designators (e.g., "Strike Team 4511").

• Task force: up to five dissimilar resources grouped together for a specific task. For example, three hand crews and two engines may be grouped together under the command of an officer. Task forces use identifiers such as "Task Force 27."

• Agency representative: individual assigned from an assisting or cooperating agency and empowered to act as the decision-making authority for that agency during an emergency. When multiple agencies and jurisdictions are involved, these representatives are generally grouped as "Unified Command" and fill staff and liaison functions for the IC and his executive staff.

• Incident-action plan: plan developed by the incident commander that outlines strategic goals for incident management and mitigation, as well as related tactical objectives to meet the goals. All incidents require an action plan, whether written or verbal. Larger incidents require complex written plans, especially major disasters or prolonged operations (i.e., those lasting longer than 12 hours). Generally in these large incidents, the staff group responsible for a given portion of the support plan writes that portion, leaving the IC free to concentrate on the actual management of an incident. Examples include the medical plan, the food-service plan and the communications plan.

Tying It All Together

ICS is designed so that many branches, sections, groups and other units may work together on an incident. Communications is greatly simplified by the use of ICS, because everyone knows to whom they report. Radio traffic to the IC is limited to necessary members of the command staff. Radio traffic to the communications center is limited to the IC or a designee. Larger incidents can occupy multiple frequencies to further isolate key staff groups and allow for a more focused approach to incident management.