



EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA



A PROCLAMATION
by the Governor of the State of California

WHEREAS, California has a critical wildland fire problem; and

WHEREAS, an average of 10,000 fires each year destroy natural resources, burn homes and take human lives; and

WHEREAS, over ninety percent of these fires are caused by people, and therefore are preventable; and

WHEREAS, this important problem is of primary concern to all wildland fire protection agencies in California; and

WHEREAS, public awareness of the importance of making California firesafe is essential to reduce the intolerable loss of life, property and resource values;

NOW, THEREFORE, I, **GEORGE DEUKMEJIAN**, Governor of the State of California, do hereby proclaim May 9-15, 1988 as Wildland Fire Prevention Week in California and urge all citizens to join in this important observance.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 14th day of March 1988.

George Deukmejian

Governor of California

ATTEST:

March Fong Eu
Secretary of State



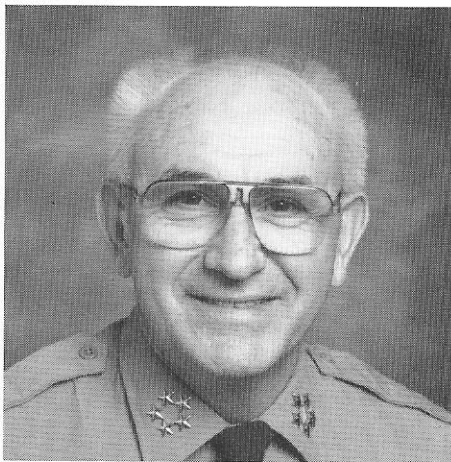
PRESORTED
FIRST CLASS



MAY 1988

Executive notes

FIRE SEASON '88; A REFLECTION OF '87?



Less than normal rainfall, record high temperatures, vegetation that has dried out a month ahead of schedule; those are the conditions that preceded disastrous fire years such as 1970, 1977, 1985, and last year. Unfortunately, those are also the conditions we are looking at as we roll into the 1988 Fire Season.

No one is looking forward to another season like 1987, even though CDF's numbers were not, all things considered, that bad. Last year 8,063 fires occurred on State Responsibility Areas (SRA) burning 86,944 acres. Compare that to the 1986 season when CDF responded to 7,-

149 wildfires on SRA, a relatively calm year. The acreage loss was kept to 54,000 acres. Then there was 1985 which ranks as one of CDF's worst fire seasons. Over 223,000 acres were burned by 7,238 fires.

Of course, we can't know for sure what this year will bring, but we've been preparing for the worst. I declared the 1988 season open in Southern California on Monday, April 4. Nevada-Yuba Placer, Butte, and San Mateo-Santa Cruz ranger units followed on April 11. I'm sure the rest of you will have done the same by the time you read this.

On top of that, in anticipation of another horrendous season, Governor Deukmejian approved over \$10 million in additional funding for CDF to supplement our firefighting forces. Half of that money will cover the expenses of hiring seasonal firefighters ahead of schedule, and to bring CDF airtankers on board two weeks to a month early. The other half will be used to hire a fourth firefighter on each CDF fire engine.

If the fire siege that occurred at the end of August last year is any indication, all this preparation will be well worth it. Look over the following list and I'm sure you will be able to conjure up images of last year's disastrous siege.

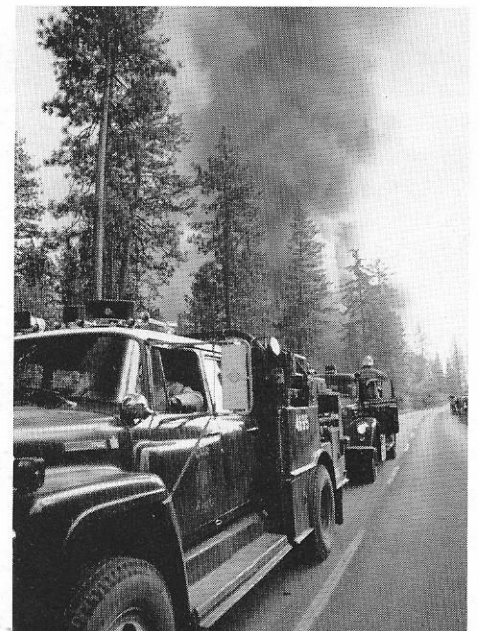
- The 10 fire fighters who were killed during suppression activities.

- The 42 homes that went up in flames.
- The more than 6,000 people who were evacuated from their homes at one time or another because of the threat to lives and property from encroaching wildfires.
- The 12,265 lightning strikes that sparked more than 1244 fires.
- The over 750,000 acres that burned, including 450,000 acres of timber-producing land, and 100,000 acres of wilderness area.
- The 1.9 billion board feet of timber that was blackened, enough to build a city the size of San Francisco.
- The more than 15,000 firefighters and support personnel from California and 41 other states who responded during during the siege.
- The suppression costs of an estimated \$160 million.

As we embark on yet another potentially destructive season, keep in mind that your safety is our number one concern; please be careful out there. Hopefully we can prevent the injuries and deaths that occurred last year.

Jerry Partain

FIRE SCENES '87



(Cont. on pg.3)



This photo taken by Darren Read, Butte Ranger Unit

NEW BOARD MEMBER APPOINTED

Elizabeth Penaat, who was appointed by Governor Deukmejian in March, was sworn in on April 6, as the newest member of the Board of Forestry. Chairman of the Board Hal Walt handled the honors as Penaat replaced Jean Atkisson whose term had expired.

Penaat is from Ben Lomond, California. She has been a partner in Hyde-Penaat Associates of Watsonville, a management consulting firm, since 1981.

Prior to that she was a vice chancellor



for the University of California, Santa Cruz. Penaat is also a former member of the Santa Cruz Area Chamber of Commerce, the Greater Santa Cruz County Foundation and the Forest History Society. She is currently a member of the Board of Directors of the United Way.

Penaat holds a bachelor's degree in economics from Mills College.

Her term with the Board will expire on January 15, 1992.

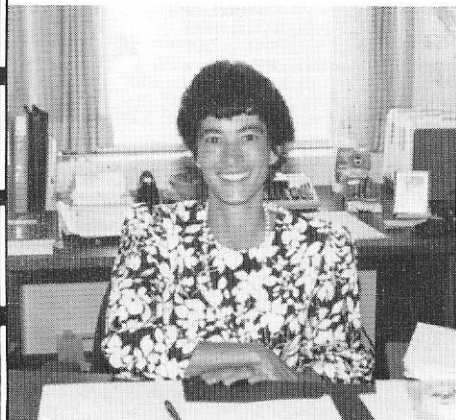
REAPPOINTMENT

At the same time, Jack Shannon, a Board member since 1984, was reappointed. He is the owner-operator of Shannon Ranch in Porterville and is a member of the California Cattlemen's Association and the California Farm Bureau.

His term will expire on January 15, 1992.

NEW BUDGET OFFICER - "LOVES A CHALLENGE"

by Laurel Goddard



There's never a dull moment in CDF's budget section, according to Kay Fagunes, who officially became the new budget officer around mid-December ("an early Christmas present," she said) after holding the position on a rotational basis "for numerous periods of time over the last three years."

Kay has been with CDF since January 1985. As budget officer, she is responsible for compiling the annual governor's budget, as well as ensuring that the department has sufficient resources to carry out its mission. She also acts as a liaison with control agencies on fiscal issues.

Beginning in 1979, Kay spent five years

with the Employment Development Department as a budget analyst, before she became fiscal officer for the Office of Statewide Health Planning and Development.

A CSU, Sacramento graduate with a math degree, Kay loves numbers—and a challenge, and the CDF Budget Office has obliged her with both. "It's constantly changing," she said. "I've thoroughly enjoyed myself. We've come a long way and I'm part of it. We still have a long way to go and hopefully I'll be here to see it through."

Kay said one of her goals for the budget office is to go "onward and upward—without too many steps backward," she laughed.

When not dealing with CDF's money matters, Kay devotes plenty of time to golf and tennis. "I'm an avid tennis player, both socially and competitively."

Also, she just recently had a house built in Rancho Murieta which, she adds, was "a real experience."

Kay is also on her way to becoming a gourmet cook, and is shooting for "early retirement at 48." She added that she hopes "to be cooking and golfing when I'm old and gray."

Forestry features

FINDING THOSE FIRES

By SFR III Bob Weaver (retired)

Finding last year's lightning-caused fires was a difficult task for the Sacramento command and coordination group. Plots of strikes by ALDS (Automatic Lightning Detection System) showed that lightning activity had occurred over large areas of the state where little or no fire activity had been reported.

The solution to the problem of locating those fires through all the smoke that was hovering over Northern California was high altitude detection flights. Even at that the smoke effectively blinded conventional photography systems. Only infra-red systems, such as the U. S. Forest Service's line scan units or 'FLIR' television could see through the pall. Unfortunately, those systems were totally committed to local or regional situations, and

(Cont. on pg.5)

(Cont. from pg.4)

really were not efficient for use on large geographic areas. The best sources for the pictures that Sacramento needed seemed to be Beale Air Force Base, the National Aeronautics and Space Administration (NASA), and the National Oceanographic and Atmospheric Administration (NOAA).

A U-2 flight originated by Beale Air Force Base used over 8000 feet of film to cover the coastal mountains from Monterey to the Mexican border and the mid-elevations of the Sierra Nevada from Mexico to Oregon. Because conventional black and white film was used smoke obscured the large fires and no detail could be seen. Experienced Air Force photo-interpreters could not find any fires,

even in the clear areas of the photos - a classic case of looking for a needle in a haystack!.

Sacramento still didn't have the photos it needed. Several attempts to secure other means of photography failed as well until one of the Bureau of Land Management coordinators learned of a Mississippi based NASA multi-channel far-IR scanner which was mounted in a Lear jet. By chance he ended up talking directly to the NASA administrator who placed the system at CDF's disposal. Also, by chance, the aircraft and crew were operating out of Reno on another project. They flew a number of fire imaging missions over the northern portion of Region I and parts of Region II. NASA's

photo-interpretation facility at Moffett Field processed the data tapes and produced flight strip imagery which could be arranged in mosaics. Areas of active fire appeared as 'hard' white and were easy to see. Names of key geographic landmarks and of the fire complexes or individual large fires were put on the imagery. Several enlargements were made and were used extensively for briefings and information by the Sacramento staff.

Although it wasn't an easy task, the need for these kinds of photos last summer did lead to the discovery of new resources in that field. These resources will be an important part of a proposal to develop CDF's own remote sensing program.



Fire Safe, California!

by Laurel Goddard

It was just over a year ago that CDF launched its massive Fire Safe, California! campaign to spread the word of wildland fire prevention, with these three goals in mind:

- * To educate the public about the need to be fire safe.
- * To increase overall awareness of fire safe techniques among California residents and vacationers.
- * To increase media awareness and coverage of CDF/fire safe techniques/the "Fire Safe, California!" campaign; and the long and short-term effects of fire on state land, resources and economy.

Phase I of the project is now complete, resulting in more than 254 million consumer impressions—equivalent to more than \$1,117,000 in advertising.

Included in the campaign were a comprehensive CDF media kit, a Fire Safe, California! brochure, a seven minute video news release, two 90-second radio news releases, two print releases, radio and TV public service announcements, and a spokesperson tour featuring actor Ted Shackelford as well as local CDF representatives. The campaign was kicked-off with a news conference at the capitol, featuring Governor Deukmejian, Ted Shackelford, Director Partain and Secretary of the Resources Agency Gordon Van Vleck.

In the wake of 1987's tragic fire siege, and the threat of similar hazardous conditions this year, it's time to kick-off the

second phase of the Fire Safe campaign. And, with the vivid memory of lives and resources lost, the Fire Safe message is more important than ever.

Whereas last year's message was more factual, this year's Fire Safe campaign will take a more emotional approach, said CDF Chief of Fire Prevention Education Craig Anthony, one of its creators. The main theme will be, in essence, that you can rebuild a home, but you can't replace the memories. The catch phrase is "Defend your home...be safe, not sorry."

The new program will include an updated media kit, new radio and TV PSAs, bumper stickers, a Fire Safe poster, new press releases and pamphlets, and more spokesperson tours.

But, Craig said, "the big part of the program this year is corporate sponsorship—enlisting the support of corporations to spread the Fire Safe message."

Chevron USA has agreed to print and distribute a Fire Safe statement insert to two million California-based card holders during Wildland Fire Prevention Week. The insert will list simple Fire Safe steps that homeowners can take to protect their homes, property and lives, along with a quote from Governor Deukmejian.

The governor will also make a public service announcement.

Lucky stores have also agreed to include the Fire Safe message in its May bills and employee magazine.

In addition, CDF has contacted over 50 corporations, many of which have secured their support for the campaign in 1989.

With all this support, Fire Prevention officials hope that the impact of Fire Safe, California! will prevent another horrendous fire season. But remember, only you...



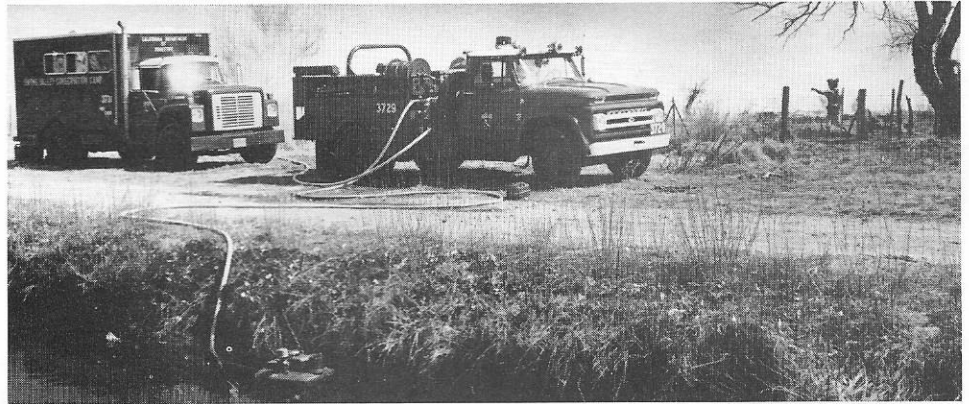
UNIQUE FIRE SEASON IN OWENS VALLEY

By Fire Captain 'B' Mike O'Neil

While the rest of CDF is usually gearing up for a fire season that begins in May, the Owens Valley Ranger Unit is already three-quarters of the way through theirs. On the valley floor fire season generally runs between January/February and June, after that time the mountain snows begin to melt, turning the valley green.

Nestled in the beautiful High Sierra of Inyo and Mono counties the ranger unit covers approximately 400,000 acres and is 249 miles long. CDF personnel at Owens Valley consist of one 12-month state forest ranger I, two engineers and four firefighters who are on duty for five months. Initial attack within Owens Valley is handled by two model 5 engines (one reserve unit and one surveyed unit). The ranger unit responds to anywhere from 80 to 160 incidents each year.

Our closest CDF support is on the av-



Owens Valley at work. (Photo by Bill Husa, Inyo Register)

erage six hours of driving time away. Therefore, we work closely with other agencies in suppressing fires.

There are 17 volunteer fire departments within Inyo and Mono counties. These departments are relied upon to assist in initial fire suppression and structure protection. However, we try to release them as soon as possible so they can serve their communities. The U. S. Forest Service and the Bureau of Land Management also have fire crews who are available to us. Owens Valley Conservation

Camp, a 120-person camp located within the ranger unit, has six hand crews, one construction dozer and a Sonoma fire kitchen to fill out the fire suppression forces in the Owens Valley.

On most fires within the ranger unit, it wouldn't be unusual to see equipment and manpower from CDF, USFS, BLM, fire districts, CalTrans, Inyo and Mono counties, and Los Angeles Department of Water and Power.

And, as of August 25, 1988 the Owens Valley Ranger Unit will be 28 years old!

LEGISLATIVE UPDATE

By Kathleen Cronin, RAMTP

The Legislature is back in action, and here in the CDF Legislative Office we are following over 60 bills that directly impact CDF, and hundreds of other bills with potential impact to the department. We've highlighted the following four bills to give you an idea of what the Legislature is currently looking at; in terms of CDF.

Assembly Bill 3820 (Bader)

Under the existing law, all counties except those in Southern California require that everyone who moves minor forest products on a public road or highway must have specified documentation. AB 3820 would remove the current exemption of Southern California counties and would require anyone in California who moves firewood to carry a bill of sale. In addition it would prohibit the movement of firewood infested with the eucalyptus longhorn borer - a serious pest affecting more and more trees in the state. Individuals who transport firewood or infested wood without proper documentation are subject to fines and confiscation of their wood. AB 3820 is now in the Assembly Ways and Means Committee.

Assembly Bill 1563 (Wright)

This road sign bill was proposed by Assemblymember Cathie Wright in order to satisfy two needs. Wright wanted to sponsor a bill that would research the importance and impact of logos on highway signs to determine whether this program should be expanded throughout California to serve the motoring public. Also, she was sympathetic to CDF's expressed need to have signs placed on rural highways to inform motorists about fire stations located within one-half mile of the road. CDF asked Wright to include this language in the bill because we believe it is important that motorists know where a station is in case someone wants to report a fire or needs emergency care or other help in rural areas.

The latest version of the bill directs CalTrans to supply and pay for fire station road signs requested by local governments or CDF. According to current bill language, about 50 CDF stations will be eligible for free road sign installation. A date has not been set for the bill to be heard in Senate Appropriations.

Senate Bill 2190 (Dills)

This bill provides specific changes to the rules governing development of County General Plans to include assessment of wildland fire preparedness. Through this bill, local governments will be given the authority to deny approval

of any tentative map plan that does not include adequate wildland fire planning. Increasing commercial and residential development in the wildlands has significantly impacted wildland fire protection programs. The Board of Forestry has proposed this legislation sponsored by Senator Dills to enable review of fire protection policies in counties before land development plans are approved in or near State Responsibility Areas (SRA).

Development in SRA significantly impacts CDF wildland fire protection programs. Continued development without consideration of self-protection and defensible space reduces the department's effectiveness in controlling wildland fires, and complicates overall protection objectives. Defense of structures in SRA diverts equipment and personnel away from wildland fire suppression, resulting in larger fires and greater resource losses. The bill was scheduled to be heard in the Senate Local Government committee during April.

Assembly Bill 3190 (Frazee)

In 1976 Senator Presley sponsored a bill that enables certain public officers to issue proclamations prohibiting open fires during high risk fire seasons. During the 1987 Fire Siege, CDF issued a number of burning permit suspensions in accordance with this law. In some cases, questions surfaced regarding the intent of the proclamations relating to camp-

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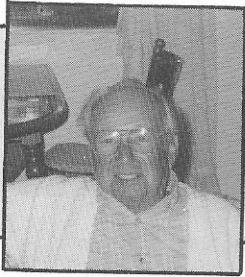
fires and outdoor smoking restrictions. As a result, CDF has proposed, with the help of Assemblymember Frazee, AB 3190 to clarify the definition of open fire to include certain campfires and smoking. In addition, this bill would clarify when and how burning suspension proclamations will be ordered thereby giving CDF

more flexibility in issuing suspensions. The bill will soon be heard in the Assembly Ways and Means Committee.

If you have questions about these bills, or any legislation, call the Legislative Office at (916) 445-6441.



MELVIN M. POMPONIO DIES



(While many of you are too new to CDF to have known Mel Pomponio practically everyone who was working with the department prior to 1975 was touched in some way by his efforts. The following tribute was put together with information and kind words from a number of retirees who were close to him.)

Retired Deputy State Forester Melvin M. Pomponio died April 4 at his Folsom home. He will long be remembered, not

only for his many contributions to CDF, but for being, as former co-workers put it, a first class manager and a great guy.

Pomponio, 'Pony' as he was known to his many friends, started his 37 year CDF career in 1937 in Santa Cruz County as an assistant ranger, after graduating from U. C. Berkeley—the only forestry school at the time.

In 1940 he went to Calaveras County as an associate ranger, where he remained until 1944 when he moved to Redding as an assistant to Deputy State Forester Jim Mace.

In 1945, Pomponio became a war-time deputy state forester in Redding, following Mace's transfer. A year later, he came to Sacramento as a deputy state forester in charge of Management Services. In that capacity, he served as administration manager of all operations, and delegated budget responsibilities to the six regions.

Pomponio watched CDF grow from a small division of the Department of Conservation to the large, diverse department it is today. He had an uncanny ability to analyze situations and to deal with people. These characteristics smoothed the way for budgetary appropriations, clearing suspect Sub-Purchase Orders (SPO's), or solving a personnel problem.

Pomponio was a life member of the California State Fireman's Association and, was active in the Comstock Club and SIRS. He had lived in Folsom since 1975 when he retired from CDF.

He is survived by his wife, Marguerite (Mickey); daughter, Cindy; son, Jerry; sister, Evelyn; and two granddaughters.

A Redwood tree will be dedicated in his memory at Big Basin State Park in the Santa Cruz Mountains. Cards, flowers and donations may be sent to: Mickey Pomponio, 7255 Pine Grove Way, Folsom, CA 95630.

CALIFORNIA VIETNAM VETERAN'S MEMORIAL FUND



You've probably heard about this tribute to Vietnam veterans on TV, radio or in the newspaper, and we know that many of you served during the war so the following (an excerpt from the California Vietnam Veterans Memorial brochure) is provided for those who wish to find out more about the memorial fund and how to contribute toward it.)

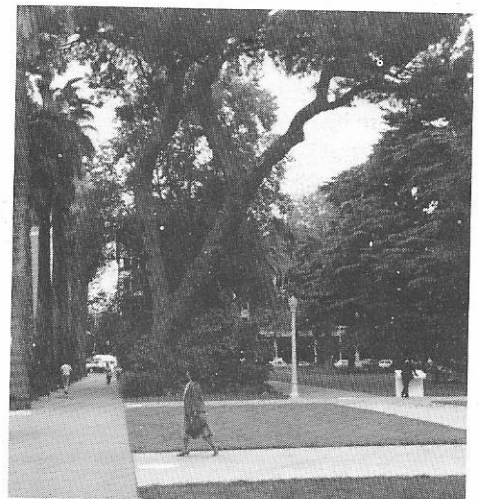
"There were no parades, no marching bands or cheering crowds, no rousing

speeches, no thanks. It was no way to treat the men and women who served in Vietnam. Now there is the California State Vietnam Veteran's Memorial. The site for the Memorial is on the Capitol grounds in Sacramento. The design is finished. But only you can build it. The Memorial will be funded entirely from your contribution. Won't you please send a tax deductible donation today. Your name will be included with all of the other contributors and placed in a corner stone located at the base of the Memorial."

Donations should be sent to the California Vietnam Veterans Memorial Fund, P. O. Box 3040, Sacramento, CA 95812. Make checks payable to CVVMF.

If you would like further information on the Memorial you can contact Al McNulty here at Sacramento Headquarters at (916) 324-1642.

TREE FALLS ON CAPITOL GROUNDS



The tree that fell April 11 looked like this one. As you can see, the thick crown cover makes the tree top-heavy.

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CDFers from the Amador-El Dorado Ranger Unit helped haul away the huge stump of a 116-year-old tree from the Capitol grounds Monday, April 11, after it was knocked over by high winds on the night of March 30.

Luckily the tree, an Italian stone pine nearly 80 feet high, didn't injure anyone when it crashed to the ground.

Crews from Green Valley Conservation Camp came to cut and transport the rest of the tree. Some of the rounds may be put on display in the capitol.



OPERATION PHOENIX FUNDS GROW

Lorraine White and Betty Ramseier of the Daughters of the American Revolution, Sacramento Chapter, present Ken Delfino, deputy director of Resource Management with a check for \$100 to be used in Operation Phoenix efforts. This and other donations are used to purchase and plant seedlings in many of the areas that were destroyed by fire last summer.



CDF FASHION - 1929



Here we have three CDF employees modeling the first dress uniform - circa 1929. What do you think? The photo was taken around March 1939. From left to right we have Malcom "Max" Dixon, ranger of El Dorado County; Ranger George "Humboldt" Brown; and Chester George Strickland, ranger of Siskiyou (193).

This photo came from Ray Clars' collection and was given to this office by "J". "J" please let us know who you are so we can return your photo to you.

THE BUSIEST RANGER UNIT?

Last year was a busy season for everyone, but some of you can lay claim to being the busiest, in terms of the number of incidents you responded to and the number of acres that burned.

The following numbers are for State Responsibility Areas (SRA) only.

Ranger Unit	Incidents	Acres Burned
Riverside	1,939	11,198
San Bernardino	1,470	1,817
Nevada-Yuba-Placer	1,326	15,463
San Diego	1,088	12,344
Tuolumne-Calaveras	1,012	5,112
Butte	783	747
Amador-El Dorado	653	1,687
Madera-Mariposa	519	1,097
San Luis Obispo	516	5,111
San Benito-Monterey	471	2,325
Lake-Napa	464	2,166
Mendocino	442	16,761
Santa Clara	426	3,166
Humboldt-Del Norte	424	845
Lassen-Modoc	416	3,814
Siskiyou	384	118
San Mateo-Santa Cruz	335	236
Fresno-Kings	256	7,455
Tulare	249	6,771
Sonoma	247	196
Tehama-Glenn	222	253
Owens Valley	139	805

FEDERAL EXCESS SALE



Ben Beall and Mary Frith pose with some of the federal excess equipment that was sold.

CDF brought in more than \$10,000 in the Federal Excess Small Lot Sale, held at the Davis Mobile Equipment Center April 7.

The Federal Excess Personal Property Program (FEPP) disposes of unserviceable federal property that has been loaned to CDF. Eleven successful bidders (over 50 were received) came to claim the myriad of goodies which included forklifts, wash bins, a truck, a van and some metal shelving.

FEPP Program Officer Mary Frith said she was happy to see it all go, especially since the equipment had sat idle for three years. "This was the first step in a major clean-up of federal property in Sacramento," she added.

Mike Noonan, of Davis Mobile Equipment, and Cherie Barnes, FEPP program assistant, also conducted the sale. "It was a great learning experience," said Cherie.

NEW CRASH FIRE RESCUE UNIT FOR SLO



The new Crash Fire Rescue Unit at the San Luis Obispo County Airport Fire Station can spray water and/or foam from above or below while in motion, by just one firefighter bringing the airport emergency rescue capabilities to state of the art. The airport took possession of the unit at the start of the year as part of an upgrade of fire/life safety services provided by CDF/San Luis Obispo County Fire.

The unit cost \$200,000, stands 11-feet in the air, weighs 26,000 pounds, has a 600-gallon water tank and the capacity to pump 2,400 gallons of foam at 500 gallons per minute.

(Atascadero News Photo)

MARDI GRAS CELEBRATION 1988



The Second Annual CDF Mardi Gras celebration went off without a hitch at Sacramento Headquarters, on March 22 (better late than never). Festivities included colorful decorations, tons of food, a barber shop quartet, a band, and a lot of great conversation. To top it all off there were even a few who came in costume. Pictured are the winners of the costume contest. Maybe you know them?

COMMUNIQUÉ GETS AWARD

by Carol Harnsberger

Lisa Boyd, editor of CDF's *Communiqué*, was recognized by the State Information Officers Council for producing the "Best Internal Publication for 1987."

The award was presented at the December meeting of the council, composed of information officers from throughout the state. CDF Information Officer Karen Terrill accepted the plaque for CDF. The publication was entered in the internal newsletter category along with newsletters from other state agencies.

As soon as the November 1987 "Fire Siege" issue was hot off the presses, the prize-winning edition was rushed over just in time to beat the contest deadline. And, since CDF had entered the competition several times prior without success, everyone went back to work—contest

(Cont. on bk. pg.)

In flight

ONE MORE FIRE FIGHTING TOOL

CDF's Aviation Management section will have one more fire fighting tool this fire season—CDF helicopters will have the capability to drop foam as well as water.

Prior to the 1987 season, two CDF helicopters were equipped with foam injection systems. "As a result, more than 460,000 gallons of foam was dropped and fire crews were very impressed with the increased effectiveness of the foam as compared to water alone" said Art Trask, helicopter program manager. Due to the success of the foam system the 15-gallon tank will be fitted onto six more CDF helicopters. A valve on the tank will allow the pilot to drop a measured amount

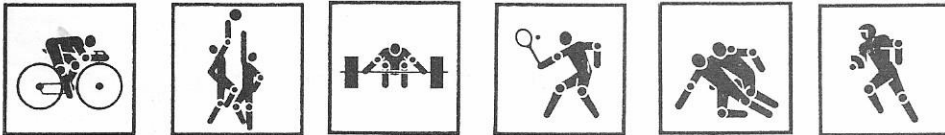


Soon we'll have photos of CDF helicopters dropping foam: a new addition to the department's fire fighting arsenal.

of the foam concentrate solution into the water bucket. Once the bucket is full of water and clear of the pickup point, the pilot just pushes a button and presto-foam.

"We are excited about the foam and

feel it will be an asset to CDF's fire suppression efforts. It can be dropped in the path of an approaching fire, as well as directly on the flames. It soaks into the vegetation and won't run off like water does," Art added.



EXERCISING IN THE HEAT

The sizzling temperatures of summer cause difficult jobs to become even more strenuous and exercise to become unpleasant. However, with some careful preparation prior to the arrival of those high temperatures, you can improve your performance, safety and comfort when the challenge arises.

During warm or hot days, your body must continuously transfer heat from the core of your body to your skin where evaporative cooling of sweat occurs. This allows the body to maintain a normal temperature of 98.6 F. The impact of a warm or hot environment is multiplied by physical work because the working muscles create significant amounts of heat much like the engine of a car does when it is burning fuel. For example, a firefighter would generate approximately 12 times more heat while carrying a hosepack up a steep hill than would be produced at rest.

The cardiovascular system is the key component responsible for conducting heat from the interior of the body to the skin by redirecting a greater proportion of heat carrying blood toward the outer surface of the body. As body temperature rises, sweating increases and the blood vessels in the skin begin to dilate to allow

warm blood to pass closer to the surface of the body where excess heat can be lost due to evaporation of sweat. This redirection of blood also reduces the insulative layer on the outside of the body and allows for the radiation of more heat from the body surface.

However, the cardiovascular system is also responsible for supplying the muscles and other vital organs with a constant supply of oxygen and other nutrients. Because the volume of blood available to carry out the duties of transporting heat or oxygen is limited, exercise creates a dilemma for the cardiovascular system. The limited blood flow must be divided between the cooling and oxygen delivery needs. Unfortunately, this division is not always equitable. At higher intensities of exercise, the body will preferentially redirect blood away from the skin to supply vital organs and working muscles. This results in a decreased dissipation of heat and a steady rise in body temperature.

Body temperature during the performance of a submaximal task is related to an individual's maximum performance capacity. A more physically fit individual can tolerate hotter environmental temperatures and work at a higher rate than an unfit person. The reason for this

difference is the fit individual requires less blood (oxygen and nutrients) flow to working muscles and therefore has a greater reserve of blood flow which can be directed to the skin for cooling.

Heat tolerance can be improved through endurance exercise training and through exposure to progressively warmer conditions. (See "Training for Aerobic Fitness" in March, 1988 *Communiqué*.) Endurance exercise training elevates body temperature to such a degree that the heat dissipation mechanisms of blood vessel dilation and increased sweating are stressed and adapt to become more efficient. In previously inactive people, work capacity in the heat can be improved by up to 50 percent with a regular endurance exercise program of eight to eleven weeks even though the training is performed in a moderate rather than a hot environment. Heat tolerance can be further improved after an endurance base has been established by exercising in progressively warmer conditions. This can be accomplished by gradually moving your exercise time to a slightly warmer part of the day or, on cool days, wearing more clothing. However, you should never wear nonbreathable clothing or become extremely warm during exercise. In general, regular exercise in progressively warmer conditions appears to decrease the body temperature at which sweating begins and increases the amount of sweat produced while improving the distribution of blood flow between the core of the body and the skin.

As body temperature rises, the fluid lost through sweating can soon cause a

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Personnel Transactions

COAST REGION

Transfers - FC "B" George Criswell to Eel River; FAE William Begun to Lake-Napa; and FC "B" Ronald Filippi to Chamberlain Creek.

Promotions - Lyle Wollert to SFR III, Ben Lomond; Thomas Kruzic, Mark Buchanan and Darrell Cox to FC "B", Parlin Fork; Greg Heraty to FC "B" Chamberlain Creek; and Terri Haydon to OT (T), Mendocino.

Appointment - Marc Jameson to FOR. II, Region I Hdqts; Jeff Una Dia to FAE, Mendocino; Stuart Carlson and Dieter Schmitt to San Mateo-Santa Cruz.

Separation - HFEO James Gum, San Mateo-Santa Cruz; OT (T) Betty Bradley, Ben Lomond; and State Eng. William Taylor, Region I Hdqts.

SIERRA CASCADE REGION

Transfers - Word Proc. Tech. Lillian J. Louderback, and FC "A" Eric T. Sargent to Butte; FC "A" Patrick A. Mahaffey to NYP; FC "B" Frank W. Steele, Jr. to Alder Springs; FC "B" Richard S. Duran, to Trinity River; and FC "B" Stephen S. Brown, to Washington Ridge

Promotions - Mark R. Nelson to FC "A", Butte; Jack E. White to SFR IV, Tehama-Glenn; John K. Crites to FC "B", Antelope; and William E. Lloyd to FC "B", Trinity River.

Appointments - Kathleen M. Korach to FAE, Butte; JoAnn Cantos and Robert T. Wolf to FAE, Lassen-Modoc; Timothy Q. Andres to HEM, Alder Springs; Karen M. Baros to OA II (T) 12 time, Tehama-Glenn.

T & D Assignments - HFEO David Maynard to FC "B", Butte; and FC "A" Claud Evans to HFEO.

CENTRAL REGION

Transfers - FC "B" Roger Baker to Mountain Home; FC "B", Don Morris to Mountain (Correction); FC "B" Harlan Enos to Mountain Home (Correction); FC Michael Shay to Amador-El Dorado; Off. Tech. Carla Tyro to Pine Grove; and HFEO Ken D'Artenay to Fresno-Kings.

Promotions - Jody Gossner to SFR I, Growsburg .

Appointments - Kevin Brodie and Luke Serpa to Asst. Civil Eng., Region IV Hdqts; Michael Pittman to FAE, San Benito-Monterey (Correction); and Larry Gilbert to FAE, Tulare (Correction).

Reinstatements - HFEO Ted Davis to

Tuolumne-Calaveras.

Retirement - FC "B" Dorsey Edwards to Sierra

SOUTHERN REGION

Transfers - OA II (T) Christine Lofstrom to Region III Hdqts.

Promotions - Diane Broussard to SSA, San Bernardino; and John Gutierrez and Gilbert Barrier to FAE, Riverside

Appointments - Anthony Caudillo and Richard Solometo to FAE, San Bernardino; Daniel Lopez, Brian Riggs and Dale Hopkins to FAE, Riverside; Mary Tallyn to Dispatcher Clerk, San Luis Obispo; and Brenda Donelson to OA II (T), San Bernardino.

Retirements - PA I Jane Page, San Diego.

Separations - FAE Alice Julian, Riverside.

Reinstatements - Daniel Talbot to FAE, Riverside.

SACRAMENTO HEADQUARTERS

Promotions - Sherry Pierce to BSA.

Transfers - HEM Charles W. Haight, Jr. and William Bannister to Mobile Equipment, Davis.

Retirement - Exec. Sec. I Caroline Keikoan.

Separation - Off. Tech. Sue Stewart

EXAMINATION CALENDAR

Upcoming Examinations

Title	Exam Base	Final Filing Date
Aircraft Mechanic	Open/Promotional	Late May *
Business Service Officer I (Sup/Spec)	Promotional	May 13 *
Carpenter I/II	Open/Nonpromotional	June 9
Electrician I/II	Open/Nonpromotional	May 12
Graphic Artist	Open	June 23
Personnel Asst. III	Promotional	May 19 *

Examinations in Progress

Title	Status
Delineator	Performance Test Date - May 7, 1988
Dispatcher Clerk	Interviews anticipated in June
Information Officer I (Sup/Spec)	Interviews anticipated in June/July
Information Officer I	Interviews anticipated in June/July
Materials and Stores Supervisor I	Interviews anticipated in June/July
Personnel Assistant II	Interviews anticipated in June/July
Tentative	

* Final filing dates have not yet been determined.

Do **Not** submit applications for examinations until the Bulletin has been released.

(Cont. from pg.10)

significant loss of body water resulting in dehydration. The loss of fluid ultimately results in a loss of blood volume which comprises the ability to perform prolonged work and to cool the body. It is similar to losing coolant level in the radiator, the car would overheat. When performing strenuous work under hot conditions, the loss of fluid can be as high as six pounds (6.4 quarts) if water every hour. These are a few guidelines to follow in order to maintain an adequate fluid balance:

1. Drink early. Just before, or in the initial stages of exposure to warm or hot conditions, begin drinking water.
2. Drink often. Sip water every few minutes. The hotter the conditions the more you should drink each time.
3. Do not wait until you are thirsty to start drinking. By the time you feel thirsty you have already lost a significant amount of fluid.
4. Cool water is the best fluid replacement drink because it is absorbed

- into your blood stream quickest.
5. The higher the sugar content of a drink the slower it is absorbed into the bloodstream. Soft drinks are poor choices for fluid replacement.
6. If possible, monitor your body weight as often as possible to check for fluid loss.
7. It is normally not necessary to add salt to your drink or take salt tablets. A normal diet supplies adequate amounts of salt and other electrolytes.

(Cont. from pg.9)

quickly forgotten.

The award was a well-deserved reward to Lisa, *Communiqué* editor since November, 1983, and reflects the steady improvement in the quality and variety of its articles, its paper quality and other innovative techniques (red ink is now used as an accent).

"It's nice to know that the *Communiqué* is receiving recognition from a group that should know about these things," said Lisa. She also reminds contributors to take pride in the articles they write. The list of people who read the *Communiqué* is growing and it is impressive. Many legislators receive the newsletter, as well as private forestry related groups. "Because of this award we may be looked at a little closer, but don't be intimidated by that. Please consider the range of people we reach when sending in information," she added. In fact, wider distribution may be just the incentive needed to encourage more of you weekend, would-be writers to dust off the computer and send in that article you've always wanted to write. Now's the time to do it!

Congratulations, Lisa!

Communiqué
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

George Deukmejian, Governor
Jerry Partain, Director
Lisa Boyd, Editor
Dave Rodriguez, Graphics

Deadline: 5th of each month
Phone: (916) 445-9920

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Mark your calendar

CHRISTMAS ALREADY?

No, not quite yet, but we did want to give you plenty of advance notice as to when the CDF Christmas Party would be this year. Plan on joining us here in Sacramento on Saturday, December 10, 1988 for a festive holiday evening. More to come as we get closer—eight months and counting.

A BUST IN THE PARK

Tim Huff, chief law enforcement officer for the department is retiring. A retirement get-together/picnic has been planned for Saturday, June 25, 1988 at Rancho Seco Park just outside of Sacramento. Come wish Tim a fond farewell and best wishes in future endeavors. For more information contact the CDF Fire Prevention Section at (916) 445-9886.

Kudos

To the Tuolumne-Calaveras Ranger Unit's Jim Owen and his crew for the tremendous job they did in treating Norma Poppe of Sonora when they were summoned by 911. From her husband Doug Poppe who credits you with saving his wife's life.

To the Tuolumne-Calaveras Ranger Unit for having the lowest ranger unit injury rate of the 1987 Fire Season and to Region IV for having the lowest injury rate of all the regions in 1987. Of course we have to take into consideration how destructive last fire season was when looking at any CDF ranger unit or region numbers. Congratulations to Region IV and let's all keep striving to keep those numbers down.

To Bill Clayton of Rainbow Conservation Camp for sharing his expertise at the National Fire Academy Program in Indiana earlier this year. From Larry Bossell, Indiana State Fire Marshall who also named Bill an honorary State Fire Marshall of Indiana.

To the following CDFer's for completing 25 years of service this month:

Fire Apparatus Engineer Lavern Barnes of the Santa Clara Ranger Unit.
Fire Captain Frederick Nelson of the San Mateo-Santa Cruz Ranger Unit.
Fire Captain Vincent Eddinger of the Lake-Napa Unit.