



## Exponential Change and Impact

Ron Ralph, Information Technology Services

*“Great works are performed not by strength but by perseverance.”*

-Samuel Johnson

The workforce within CAL FIRE has seen a good deal of change over the last 20 years with regard to how technology is used. While no one can predict the future with any assured accuracy, there are forces at work that can help all of us understand what is driving the rapid and accelerating rate of technological change in our lives.

There is a well-established tenant within the computing industry called Moore's law, which generally states that computer processing speed doubles every 18 months. This has been true for 70 years now, and while often debated whether this will continue, the history of this doubling is undisputed. For all of our lives, we have seen a trend that technological change occurs at an *exponential* rate, which means the change we have seen to date is nothing compared to the change we will see. This rate of change will likely be significant, and it will impact every line of business in the Department.

Why is this important for CAL FIRE staff? For the vast majority of human existence, it was safe to assume that the world in which you died would look pretty much the same as the one in which you were born. However, as technology doubles again and again, you can expect that the change your grandparents or parents dealt with will be nothing compared to what you will deal with, let alone what your children will see in their lifetimes. We will not experience 100 years of progress in the 21st century—it will be more like 20,000 years of progress (at today's rate). Just think about how much things have changed in just the past 10 years—wireless Internet, smart phones, social media, automated cars—and then try to imagine how vastly different things will be in 2021, or even 2100.

Consider the tremendous power of the exponential growth of computers. The computer in your smartphone today is a million times cheaper and a thousand times more powerful than the most powerful computer in existence just a few decades ago. That is a billion-fold increase in price

performance of computing. If you apply that horsepower to other fields that depend on information technology, you will find some startling revelations, like:

- *Energy* – Solar power, which relies on nanotechnology, will likely be cheap enough and powerful enough to power the entire world within 20 years.
- *Neuroscience* – Projects to reverse-engineer the brain will construct a full, synthetic model by 2029 (or sooner), giving us greater insight into how the brain works, also driving artificial intelligence products that will think like us, and they will be *a lot smarter*.
- *Genetics* – Within 10 years we may all have digital copies of our genome, leading to medical therapies that are personalized to our individual genetic makeup.
- *Nanotechnology* – As robots get smaller and smaller, we will be able to insert them into our bodies to repair damaged or aging tissue.
- *Robotics* – Speech recognition, big data, the Internet of Things, and a plethora of technologies we do not even know about

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# A New Look for the 1000 Handbook

Cindy Noss, Policy and Project Services

Policy and procedure documents are important to a Department for a variety of reasons. They communicate values and expectations for how things are done; keep the organization in compliance with legislation; provide protection against employment claims; support consistent treatment of staff; promote transparency; and help management to make decisions that are consistent, uniform and predictable.

The Department has identified the importance to have clearly written policy and procedure documents incorporated in the entire Handbook as they communicate values and expectations for how things are done at CAL FIRE. Human Resources (HR) has been part of a work group tasked to make significant changes and to create templates which give clear direction on how to write, format, and navigate through the approval process for policies, procedures, temporary directives, and memorandums. The new templates are now being utilized in the rewrite of the 1000 section of the Handbook, which has changed its entire look and feel.

What you will notice at first glance are new templates with the CAL FIRE logo. Our new templates have been designed to make things simple, consistent and easy to use. Labels, headings, margins, and tables are used to make it easier for the end-user to quickly focus on the policy or procedure. Another change you will notice is that policy has been separated from procedure. Loosely defined, policies are the rules for the Department whereas, the procedures are the specific, chronological steps taken to carry out its corresponding policy. While policies have widespread application, and change infrequently, procedures have a narrower focus and are subject to change and continuous improvement. Policies are statements of what and why, whereas procedures are statements of how, when, and/or who.

The update of our entire 1000 Handbook will take some time; therefore you will notice an overlap of both the old format and the new updated versions. We ask for your flexibility during the process.

HR would like to invite you to visit the 1000 Handbook during the updates, as we are sure you will find it an easier read.

# Exercise Spotlight: Foam Rolling

Ryan Burns, Occupational Safety and Health Programs

Loss of flexibility and stiffness are two of the effects aging has on our bodies. Many age-related changes are due in large part to disuse. By being sedentary you will accelerate the aging process. Exercising can be used as a decelerator of the aging process and greatly reduce one's decline in flexibility.

Self-myofascial release, also known as "foam rolling," is used everyday for people of all fitness levels. Foam rolling is a self-massage, which helps to release muscle tightness. By applying pressure to specific points on your body, you can aid in the recovery of muscles and assist in returning them to normal use. Normal use means your muscles are elastic, healthy, and ready to perform again.

If an individual has past injuries, the muscle fascia can become dense and less flexible, even developing knots. This can result in decreased mobility and flexibility. You must foam roll based on your individual needs. You may spend a minute or two on one body part and only 20 or 30 seconds on another. If you are new to foam rolling, it may be very painful at first, but stick with it. As your tissue quality improves, foam rolling will become less painful.

There are several tips to foam rolling, for example: 1) Do not roll on a hard surface, 2) Do not foam roll before workouts as part of your warm up, 3) Do not roll onto joints or across bony prominences, and 4) Do not foam roll on areas of injury. Please click on the following video link for [Foam Rolling Basics](#).



For additional health and wellness resources check out the [CAL FIRE Health and Fitness Intranet page](#). If you have an exercise/movement that you would like to be featured in a future *Connections* issue, email to Ryan Burns, Department Fitness Coordinator at [ryan.burns@fire.ca.gov](mailto:ryan.burns@fire.ca.gov).

## Dates to Remember

### Final Filing Date(s):

Arson and Bomb Investigator  
Continuous Filing

Communications Operator  
Continuous Filing

Deputy State Fire Marshal  
Continuous Filing

Deputy State Fire Marshal III (Spec.)  
Continuous Filing

Forestry Assistant II  
5/8/2017

“Perseverance is a virtue that cannot be understated.”

-Bob Riley

# Ready for Wildfire? Water Safety?

Lynnette Round, Communications Office

Did you know that the Department has a new “Ready for Wildfire” application (app)? This new tool puts a whole library of step-by-step checklists in the palm of your hand, literally. The app provides the ability to track progress while creating defensible space, hardening your home with fire-resistant construction, assembling an emergency supply kit, as well as creating a family communication and evacuation plan. With the tap of a finger, you can check off each step and see the progress, until you hit the 100% Ready!

While being a great educational tool, the Ready for Wildfire app also provides critical wildfire alerts. You can sign-up for customized alerts that will send a text or push notification to your device when CAL FIRE is responding or assisting to a wildfire in your area. The alerts are for wildfires that are 10 acres or more. Additionally, you can set up alerts for single counties, multiple counties, or even statewide.

If you travel or enjoy recreation in forested areas, CAL FIRE has that covered, too. The app lets you enable an alert system to notify you if a wildfire is reported within 30 miles of your device. By being aware of a wildfire in your area, you can quickly tune in and follow any evacuation orders.

Record rainfall does not mean we can let our guard down. With 102 million dead trees due to the drought, we are in for some extreme wildfires. To download the app, visit the App Store or the Google Play Store—search for CAL FIRE and install. You are now on your way to becoming Ready for Wildfire.

While you are ramping up for wildfire, it is also a good time to look around your home to be water safe. As the weather warms up, now is the time to brush up on water safety tips. It is easy to remember, just think about the ABC and Ds of water safety! **A**ctive adult supervision, **B**arriers, **C**lasses, and **D**rain entrapment:

- Instruct parents, babysitters, and caregivers about potential pool hazards, and emphasize the need for constant supervision of children. If a child is missing or unaccounted for, always check the pool or spa first. Always watch your child in and around the water, and do not assume that someone is watching your child—only you can do that.
- Install and maintain proper barriers around your pool or spa to isolate your

swimming area from the home and play area.

- Use multiple layers of protection such as safety covers, gate alarms, door alarms, and motion-detection devices. Make sure all gates are self-closing, self-latching, and open outward away from the pool.
- Learn cardio pulmonary resuscitation (CPR), first aid, and rescue techniques. Those precious moments can save a life!
- Stay away from all pool and hot tub drains, and tie up loose hair to prevent getting caught in drains while swimming.
- If you know that a child or even an adult cannot swim, or are is not a strong swimmer, have them wear a U.S. Coast Guard approved life jacket. “Water wings” or “floaties,” inflatable water rings, and other pool toys are not safety devices. Please do not use flotation devices as a substitute for supervision!
- It is always a good idea to “swim with a friend,” regardless of age and ability of the swimmer.

## Change (*Cont’d.*)

yet will change the face of how we work, interact with each other, and teach our children.

If you look at the implications of exponential growth, it creates a very different picture of the future, and it is not intuitive. Problems that may seem intractable now could become eminently solvable in the near future. We should all be thoughtful about planning for the future, and understanding that the rate of change is *increasing exponentially* will drive things which we could barely just a few years ago. The CAL FIRE mission will be significantly impacted by this change, much the same as it has been for some time, but much, much faster. Coping with this change, planning for the future, and dealing with the impacts of automation should be a consideration for any long term planning we may do.

“The greatest shortcoming of the human race is our inability to understand the exponential function.” -Albert A. Bartlett

# Save a Life, Be the Match!

*Toby McCartt, Legal Office*

Chances are good that you or somebody you know has been affected by a form of blood cancer like Leukemia, Lymphoma, or Myeloma. That is because on average, another person is diagnosed with a blood cancer every three minutes, and another person dies of blood cancer every ten minutes. A recent government study of firefighters in California found that firefighters have a significantly elevated risk for some forms of blood cancers. But there is good news, and that is that the survival rates of blood cancers in general have been increasing dramatically over the last 50 years or so. And one of the reasons is simple: people just like you.

Blood cancers and many other diseases like sickle cell anemia can often be treated successfully with bone marrow or stem cell transplants, but the donor and the recipient must be properly matched for the treatment to work. Only about 30% of all patients who need a transplant have a fully-matched donor within their family. The rest must rely on the kindness of others who are willing to donate and on the organizations that work to match donors with recipients. And, that is where you come in.

The Be The Match Registry, operated by the National Marrow Donor Program, manages the largest and most diverse donor registry in a worldwide network of donor organizations working together to match donors with patients.

Leveraging these partnerships means that a patient's likelihood of finding a matching donor on the Be The Match Registry is estimated to range from 66-97%, depending on ethnic background. But in order to keep expanding the Registry and save even more lives, Be The Match needs people to join the Registry or to donate their baby's umbilical cord blood.

If you are between the ages of 18 and 44, in good health, and are willing to commit to donate to any patient in need, registering is quick (less than ten minutes) and painless (no needles, just a cheek swab). To register, simply go to:

[www.join.bethematch.org](http://www.join.bethematch.org). You will fill out a short questionnaire to determine your initial eligibility, and then the Registry will send you a test kit. Just follow the instructions for the cheek swab, place it

in the return envelope, and drop it in the mail. It is that easy!

But maybe it is the donation and not the registration that you are worried about being painful? Rest assured that donation has come a long way over the years. The most common donation, peripheral blood stem cells, requires a five-day course of injections of filgrastim to increase the number of target cells in your blood, followed by a non-surgical procedure where some of your blood is pumped from a needle in one arm, the blood growing cells are removed, and the blood is replaced in your other arm. The other donation, bone marrow, involves a surgical procedure in which you are anesthetized prior to having bone marrow withdrawn by needle from the back of the pelvic bone. While no procedure is ever 100% safe, there are rarely any long-term side effects of either donation method. Donors do not have to bear any financial costs of donation, either, as the costs of transportation and of the procedures themselves are borne by the Registry or by the recipient.

So please take a moment to join the Registry. If you are already a member, take a moment to make sure that your contact information with the Registry is current. And, even if you are not willing or able to be a donor, please consider making a financial contribution to the Registry.

# Dear Claire DeAir: How should I be purchasing long-term fire retardant?

April Brown, Business Services Office

*“Perseverance is a positive, active characteristic.”*

-Joseph B. Wirthlin

*Are your procurement, contract, state and federal property, or policy needs fraught with confusion? The Business Services Office (BSO) presents Claire DeAir, who is here to offer advice and to ease all of your BSO burdens.*

DEAR CLAIRE DeAIR,

In the past few years, there have been a few methods used to purchase long-term fire retardant (LTFR). One of these methods was introduced last summer. Can you tell me more about it?

-CHEM DROP

Dear CHEM,

You are correct, CAL FIRE has had a few different methods for procuring LTFR in the past few years. First, at the direction of the Department of General Services (DGS), CAL FIRE was using the Form 42 process. Unfortunately, DGS determined that this was not the best way to ensure compliance with State legislation and policy regarding fair and competitive purchasing. Because it is very important to both DGS and CAL FIRE to maintain fair and competitive procurement practices, it was determined that CAL FIRE should instead pursue a statewide contract for LTFR. However, writing statewide contracts takes a bit of time. This is where process #2 came in. While working on the statewide contract, CAL FIRE was permitted to temporarily buy LTFR under a Non-Competitive Bid Special Category Request (SCR). You may remember this recent method, as it required all purchasers to document the SCR number on the Purchase Authority Purchase Order (STD. 65). Well, that method is no longer appropriate, because the statewide contract has been implemented!

The new statewide contract, implemented in August 2016, was awarded to ICL Performance Products and is effective until August 14, 2019, with two one-year options to extend. These one-year extensions allow CAL FIRE the flexibility to continue using this contract for up to five years, or, if additional qualified manufacturers introduce effective products to the market, CAL FIRE may let the contract expire after August 2019.

Another helpful aspect to this contract are the optional amendments, which would allow the contract to include products that are added to the Qualified Products List during the lifetime of the contract. These amendments allow the contract to grow if needed, so that CAL FIRE can stay on the cutting edge of fire protection. Additionally, the contract specifies that the vendor is responsible for disposal of pallets, bags, and other shipping containers related to the purchase and/or delivery of LTFR—this will help reduce waste elimination billing at Air Tanker Bases, so make sure you enforce this clause of the contract.

The contract is very specific, detailing pricing and payment specifications which are unique to each base, and unique for mobiles and portables—make sure to read the contract thoroughly and carefully audit your invoice before making payment. Pricing is not the same across the board. You may come across some types of purchasing and payments that fall outside of the norm, such as water, freight, fees, etc. These and many other LTFR payment topics are addressed in a handy LTFR Payment Guide that has been made available to CAL FIRE purchasers. This payment guide, along with the full contract and the Procurement Broadcast announcing this contract, can be found in the “Chemicals” section of the [Tactical Air Operations](#) CAL FIRE Intranet webpage. If you want to learn more about purchasing LTFR, check out these resources!

# A Quick Connect: MVU and TCU

Issac Sanchez, San Diego Unit and Joshua White, Tuolumne-Calaveras Unit

The Quick Connect feature provides snapshots of the 21 Units located out of the Northern and Southern Regions. Provided by staff at these locations, these articles give readers a glance of Unit facts, including unique characteristics.

## Unit Information:

The Southern Region  
**The San Diego Unit (MVU)**  
2249 Jamacha Road  
El Cajon, California 92019



Unit Chief Tony Mecham

## County/Counties Served:

- San Diego County

## Geography:

Mostly rural east of Interstate 15 and urban west of Interstate 15. The county has wildland urban interface (WUI) across all areas.

## Infrastructure:

- 50 Fire Stations
- 1 Airbase (Ramona Air Base)
- 1 Emergency Command Center (Monte Vista)
- 4 Camps (Puerta La Cruz, Rainbow, McCain, and La Cima)

## Cooperative Agreement(s):

- San Diego County
- Deer Spring Fire Protection District
- Pine Valley Fire Protection District
- Ramona Water District
- Yuima Water District

## Unique Characteristic(s) of the Unit:

- An international border
- Cooperative agreements with fire agencies in Mexico
- County funded rescue/fire helicopters staff by CAL FIRE personnel
- Two female conservation camps (Puerta La Cruz and Rainbow)
- Agreement with the U.S. Navy and U.S. Marine Corps to provide immediate need rotary wing aircraft to the State mission.

## Check Them Out:

- Twitter – [@calfiresandiego](#)
- Instagram – [@calfiresandiego](#)
- Flickr – [CAL FIRE San Diego](#)

## Unit Information:

The Southern Region  
**The Tuolumne-Calaveras Unit (TCU)**  
785 Mountain Ranch Road  
San Andreas, California 95249



Unit Chief Joshua White

## County/Counties Served:

- Tuolumne County
- Calaveras County
- Eastern portions of San Joaquin and Stanislaus Counties

## Geography:

The central Sierras and foothills. The State Responsibility Areas (SRAs) are largely the area west of the Stanislaus National Forest, North of Yosemite National Park, and East of the San Joaquin Valley.

## Infrastructure:

- 15 Fire Stations
- 1 Airbase (Columbia)
- 1 Emergency Command Center (San Andreas)
- 1 Helibase (Columbia)
- 2 Camps (Baseline and Vallecito)

## Cooperative Agreement(s):

- Tuolumne County
- Calaveras County
- Alpine County

## Employees:

Roughly 330 including seasonals.

## Unique Characteristic(s) of the Unit:

- The Unit's Forestry Training Program at the Sierra Correctional Center supplies trained inmates to a majority of the camps in Southern California.

## Check Them Out:

- Twitter – [@CALFIRETCU](#)
- Facebook – [CALFIRETCU](#)

# Statewide Employee Survey Campaign— Take it Today and Be Counted!

Desireah LaMar, Equal Employment Opportunity Office (EEO)

*“Perseverance is not  
a long race; it is many  
short races one after  
the other.”*

-Walter Elliot

Certain laws require the State of California, through the California Department of Human Resources (CalHR) to collect specific demographic information of its workforce to ensure that the State of California, as an equal opportunity employer, is meeting its efforts to recruit and retain a diverse workforce that includes persons with disabilities, veterans, and a variety of race/ethnicities.

The State of California, as well as each department, needs basic information on its employees that presents a full and reliable picture of its workforce which is used for the purposes of recruiting, planning, developing, and retaining its workforce.

Good planning is also based on reliable, up-to-date, accurate, and detailed information. This information makes it possible to plan recruitment and identify potential hiring irregularities. For example, statistical data helps the State examine the link between disabilities, veteran status, and race/ethnicities, to employment and income as it is compared to population estimates. The data is used as a benchmark to assist departments with meeting their recruitment efforts to attract and retain a diverse workforce made of persons with disabilities, veterans, and a variety of race/ethnicities.

In order to collect such data, CalHR has created a one-time, voluntary, and confidential survey meant to:

- Re-survey *all* State civil service employees;
- Collect veteran data from the State’s civil service workforce;
- Collect multi-race data as required by the federal Equal Employment Opportunity Commission;
- Collect disability data that meets both the federal and State disability standards;
- Use the data as a benchmark to determine if hiring practices are fair, equitable, and promote diversity.

The benefits gained from the survey are:

- Employees who are veterans that did not participate in the Veteran Preference Program can be counted in the workforce;
- Employees may validate their race/ethnicity and now can designate themselves as multi-race;
- Employees who meet the federal or state disability standards can be counted in the workforce and select more than one disability;
- This data is used as a benchmark to determine if hiring practices are fair, equitable and promote diversity.

The Statewide Survey Campaign has the following goals:

- Encourage 100% department and employee participation;
- Provide consistent campaign messaging used through all departments to all employees;
- Ease employee apprehension of disclosing information;
- Collect veteran, multi-race, and disability data among the State’s civil service workforce.

Employees can take the survey any time between May 1, 2017, and May 31, 2017. The survey can be found at <https://www.calhr.ca.gov/survey>. All CAL FIRE employees will have access to the campaign flyer, frequently asked questions, and a fact sheet, which can be found on the CalHR website under the [Civil Rights](#) section.

Departments that reach the closest to 100% employee participation will receive a certificate of superior accomplishment from CalHR’s Office of Civil Rights. Together let us be counted to ensure State employment is fair, equitable, and diverse. Take a survey today and be counted!

If you have any questions for CAL FIRE EEO staff, please contact the Campaign Coordinator Desireah LaMar at (916) 651-8717 or [Desireah.lamar@fire.ca.gov](mailto:Desireah.lamar@fire.ca.gov).

# The Latest Craze: Stand Up Meetings

Shilo A. Wilson, Office of Program Accountability

We have all been there... the ever-begrudging long weekly or monthly staff meeting. When was the last one again? A month, maybe two months ago? Therein lies part of the problem for both staff and management. Changing priorities, scheduling conflicts, unexpected emergencies, unanticipated illness that results in only one-half the staff in the office; therefore, the scheduled meeting is postponed, forgotten about, rescheduled, postponed, and on and on—it is a vicious cycle. Suddenly, it has been months since a meeting was held. And, now there is a huge delay in status and workflow due to unanswered or unaddressed questions, processes, decisions, etc.

The demands of business, coupled with time constraints and staffing concerns, has resulted in an up-and-coming new approach of “stand up meetings.” What on earth is that, you may ask, and do I really have to stand? If you are able to stand then yes! But, as always, you may pull up a chair and let us get going. These stand up meetings are a daily (yes, daily) 15 minutes or less meetings and are held...wait for it...typically, gathered as a group and STANDING UP! The idea is to meet first thing in the day (preferably 15 minutes after the last staff person has arrived at the office that morning so he/she has a minute to get his/her thoughts together), and to keep the meeting short and to the point. Each person will answer these three questions during the meeting: 1) What did I accomplish yesterday? 2) What will I do today? and 3) What obstacles are impeding my progress?

Stand up meetings are an effective way to ensure all staff are included in information sharing and are up-to-date. It is also a great forum for discussing potential roadblocks. These meetings should result in fewer back-and-forth emails, less unfocused hour-long meetings, less interruptions, more flowtime, and increased camaraderie and team work by meeting frequently.

You may wonder, “How am I supposed to keep track of all the information at the meeting?” A useful tool is a “Kanban Board.” A Kanban Board is a board or even an external cubicle wall with cards on it. It provides context for the meetings by visualizing what is going on at that moment. The board will show which staff is working on what, which items/cards in the workflow are ready for the next stage and which items are stuck (blocked). Also, just by looking at the board you get a sense of whether you are working on too many things at the same time or if there is something interesting you forgot to mention. These boards help you to

may be surprised! Another benefit is if someone is absent for a particular meeting, they can easily look at the board when they return and see where things have moved in the last 24-48 hours. Again, this means you can hold these meetings and not have to ensure all staff are at work that day—the absent staff can refer to the board to “catch up” when they return to the office.

As always, change of any type or a new way of doing business can be concerning to staff. These stand-up meetings may not be eagerly embraced or easy at the beginning; it may take a week or two to get into the flow. Adapting these daily meetings to work for you and your team is key. Maybe an every other day meeting will work better for your team but the key is to meet frequently to keep workflow moving and communication sharing on a consistent basis.

## CAL FIRE Softball Champions

Ryan Burns, Occupational Safety and Health Programs

Exercise does not have to be something boring and dreaded, and CAL FIRE employees are proving it. Instead it can be something you enjoy that helps increase the overall happiness in your life. The Department is involved in some great activities that promote physical fitness and team unity. I would like to highlight the CAL FIRE softball tournament, which took place April 22–23, 2017, in Pleasanton, California.

Captain Louis Ermigarat with the San Luis Obispo Unit (SLU) has been putting on the CAL FIRE softball tournament for nine years with the help of many other dedicated individuals. The tournament has been a great way for the Units to interact and compete with one another. This tournament consists of teams representing numerous CAL FIRE Units.

The 2017 CAL FIRE softball tournament champions were the SLU Bombers (pictured to the right). If you are interested in participating the 2018 CAL FIRE softball tournament contact Louis Ermigarat at (805) 712-7240 or by email at [louis.ermigarat@fire.ca.gov](mailto:louis.ermigarat@fire.ca.gov).



*“You might have to fight a battle more than once to win it.”*

*-Margaret Thatcher*

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