

LEPC CHRONICLE

Tactical to Practical: Military Technology Could Save Firefighters' Lives

Since 19 firefighters died fighting a blaze near Yarnell, Ariz., nearly two years ago, experts have looked for ways to prevent similar loss of lives.

Will Sowards, Cronkite News | April 6, 2015

(TNS) – Nearly two years ago, 19 firefighters died fighting a blaze near Yarnell, Ariz. Since then, experts have looked for ways to prevent similar loss of lives.

They said they hope a new piece of communications technology, previously used by the military and adapted for wildfire fighters, will help.

Ralph Lucas, a battalion chief with the Prescott Fire Department, said he knew all 19 members of the Granite Mountain Hotshot crew. When federal officials approached him to test the communication and tracking system, he saw an opportunity to help protect other firefighters.

“One of the issues that occurred on the Yarnell Hill fire was resources not being able to locate one another,” Lucas said. “In the aftermath of the Yarnell Hill Fire, federal resources came to us and offered us some equipment that has been used in military applications, and they thought that we might be interested in trying to test some of this equipment.”

The Defense Advanced Research Project Agency, which creates and researches technology for the Defense Department, developed the system, the Fire Line Advanced Situational Awareness for Handhelds, or FLASH.

Special operations groups like the Navy SEALs and Army Green Berets used the system in combat. But after the Yarnell Hill Fire, the agency began looking at civilian applications for the system.

FLASH uses radios, handheld tablet computers and sensors to create an interactive “battlefield” for fighting fires. Continued pg. 4



As I prepare for my retirement I want to thank each and every one of you for the incredible work you have done, and continue to do, to improve preparedness in your communities. From my perspective, over a couple of decades, LEPC's in Alaska have made emergency management a critical component of local government functions. You continue to engage with new partners in your areas and develop integrated public awareness that has paid huge dividends in recent disasters. Alaskan communities may be small, but the dedication of a few key people has proven our capabilities far exceed our resources. Thanks again and good luck in the future!

Roberta Carney, Deputy Director, DHS&EM Retiring 5/1/2015

LEPCs AROUND ALASKA

- **Sitka:** Military assistance to disarm potential explosive found by local; held emergency operations center training and moved search and rescue operations under the control of the fire department. Recently completed Blue Lake Dam expansion project requires changes to the evacuation plan. Emmonak fire department personnel coming for training.
- **Fairbanks:** Annual exposition planning ongoing, expo grows every year. Borough hosted two emergency operations center trainings in the last six months with all local partners. New non-profit has been incorporated; the Alaska Preparedness Council is meant to bring together all emergency management partners to communicate and coordinate. The Council is starting local but hopes to expand.
- **Copper River:** Tabletop exercise being organized with DHS&EM to be held during the summer. LEPC is publishing 1 article per month in the local newspaper and is developing a website. Tourist safety information flyers have been updated and are being distributed for the start of the season.
- **Valdez:** Implementing Red Cross Pillowcase Project with local volunteers; project was developed in partnership with Disney and involves one hour presentations given to schools; supplies and training are available for free from the Red Cross. A webpage has been added to the main school site detailing emergency preparedness methods and recommendations. The mass inoculation drill held with support from the National Guard went great with most of the community being given flu shots. There will be an oil spill drill in May and ALICE training for all agencies.
- **Denali:** Attended Borough-wide winter festival with a variety of safety and preparedness presentations. LEPC is currently recruiting new members and growing; they are also developing a public safety fair. Borough-wide mutual aid systems have been reconfirmed.
- **Anchorage:** Emergency operations plan rewrite has gone to legal review and is almost complete. The city is working with the Division of Forestry and Anchorage Fire Department to conduct contingency planning due to the high risk of forest fires this year. Cybersecurity for the city has been upgraded with grant funding assistance and mass care planning is on the agenda for this year.
- **Delta-Greely:** Preparations are underway for upcoming fire season. Members developed an LEPC history for new members and overall understanding of the committee's responsibilities. Delta Junction and surrounding communities are working with Ft. Greely to get tied into their 911 and emergency alert system.

Someone you want to recognize? Send your message to

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- **Wrangell:** LEPC is struggling to maintain membership, but will be holding more regular meetings going forward. CRTK information was published in local newspaper. LEPC has been reaching out to local shipyards to confirm Tier II reports and get information on chemicals that don't reach Tier II level.
- **Aleutian and Pribilofs:** Started planning for Alaska Shield 2016. Received new inundation maps from UAF study. LEPC reached out to local businesses not reporting Tier II information.
- **Southern Southeast:** Working closely with public health nurses regarding mass inoculation needs and updating point-of-distribution plan. Providing local training to individuals identified with roles on community SCERPs.
- **Petersburg:** Update to bylaws complete and most empty seats filled. Had table set up at community breakfast hosted by local canneries. Mutual aid agreement with USCG renewed.
- **Northwest Arctic Borough:** Exploratory oil drilling to begin this year will require new response considerations. Hazmat and mass rescue exercise scheduled for May will address some of these concerns; update to EOP scheduled to begin at next LEPC meeting.
- **Northern Southeast:** Welcome Linda, the new project manager! SVA completed by DHS&EM and identified issues are being addressed locally. EOC improvements have been approved by local government, including new equipment.
- **Nome:** Regular radio interviews being conducted regarding hazards and safety. Request for local businesses to send a Tier II response even if no chemicals needed reporting was successful and showed no chemicals instead of just no response.
- **MatSu:** Alternate monthly meetings are resulting in more consistent attendance, variety of presentations also helping. Upcoming events include 3rd annual Sutton Preparedness Fair and 5th annual fair at local college. CERT training has been turned over to a local nonprofit with support from Borough.
- **Ketchikan:** Welcome new Fire Chief and project manager Abner Hoage! LEPC developed a new logo for all material and has printed tsunami hazard information for community and tourists. Outreach campaign directly reached 1500-2000 people plus media involvement.
- **Bristol Bay Borough:** Received shelter training from the Red Cross and has a new 911 system in place. Developed preparedness material for incoming fisheries workers.

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Firefighters on the ground can track fire locations, and command units can coordinate how best to fight the flames.

“It comes down to situational awareness,” said Chris Stalzer of Scottsdale-based Juggernaut Defense, a company that helped develop FLASH and its military counterpart. “The incident command will know where (firefighters) are, they’ll have good situational awareness because they can look to these maps for real-time data and then communicate to each other.”

Stalzer said situational awareness is key to firefighting, especially in diverse terrain.

In some areas, it can be nearly impossible to communicate because of a lack of relay antennas or geographic barriers, but FLASH can overcome these issues by creating a “mesh” network made from the radios and other technology that each individual or team carries.

The system weighs about 15 pounds and has a battery life of 12 to 15 hours with heavy use. It is designed to go into the most rugged areas and survive underwater or in heavy dust.

But the system isn’t ready for widespread use just yet.

“Another issue we have been talking about is the cost,” Lucas said. “These units with the harnesses cost \$12,000 each as they sit right now. For agencies to be able to purchase something like that, it would be really expensive. But there are ways we can simplify the system, decrease its weight and bring it to a much more manageable cost.”

Lucas and Prescott Fire have been beta testing the FLASH system since summer 2014.

The battalion chief said he expects a lighter, more effective system will be available by the 2016 wildfire season.

Stalzer agreed. He said his company is reworking its designs to shed weight and make something more effective.

Technology can help, but it is only part of the firefighting equation, experts said.

“The biggest avenue to protect firefighter safety is training,” said Sean Newton, a director in emergency services training at Mesa Community College. “Firefighters rely heavily on quality simulated training, especially when they are talking about high-risk, low-frequency events. Those that don’t happen that often.”

“We have a phrase that we use,” Newton said. “‘Practice how you play.’ We try to make our practice scenarios as realistic as possible in order to prepare us for that incident and that’s how firefighters get better, through high-intensity training.”

(Cronkite News reporters Julia Thatcher and Lauren Klenda contributed to this report.)

<http://www.emergencymgmt.com/disaster/Military-Technology-Could-Save-Firefighters-Lives.html>