A Simple Map Brings Comfort in Times of Need

On August 29th, 2005, a Category 3 hurricane known as Katrina with estimated winds of 175 mph hit southern Plaquemines Parish Louisiana. In economic terms, it has been recorded as the most destructive storm in the United States. Non-governmental organizations were quick to respond providing food, water, hygiene kits and raising nearly $4.25 billion in donations.

Turn on the news and headlines scream: "Tornadoes lash Oklahoma", "Ohio tornado destroys home", and "Quake strikes off of Indonesian coast". The world is in turmoil, whether it is by natural disaster or hard economic times. What can be done to be better prepared?

**Planning for the worst**

The Church of Jesus Christ of Latter Day Saints Klamath Oregon Stake, which covers parts of Klamath and Lake County Oregon, and parts of Siskiyou and Modoc County California in the United States, has already begun to plan for the worst. It is better to be safe rather than sorry.

For the Klamath Basin, the worst can include forest fires, earthquakes, volcanic activity, chemical spills from nearby trains and also natural gas leaks from the pipeline that runs through the Basin.

Sponsored by the Klamath Stake, the Church has developed an Emergency Preparedness Committee headed by a member of the Stake Presidency, Paul Stuevens. Members of the committee represent a Food Storage Specialist, Susie Norris; two Communication Specialists, Brent Frazier and Hollis Kiger; Klamath Stake Relief Society (women's organization whose goal is to exercise charity and to help those in need) President, Robin Shirts; Emergency Response Specialist, Ed Dolan and Stake Geographic Information Specialist, Oregon of Institute of Technology (OIT) student Susy Lathom.

The Klamath Stake is broken down into eleven wards: Cedarville, California; Tulelake, California; Alturas, California; Lakeview, Oregon, Chiloquin, Oregon; Keno, Oregon; Yonna Valley, Oregon; and Klamath Falls, Oregon 1st ward, 3rd ward, 4th ward and 5th ward. A ward is created based on the amount of families in a geographic area. Each ward contains approximately 150 families.

**Integrating ArcGIS**

With the use of ESRI’s ArcMap, Susy Lathom gathered simple road layers, waterbodies including streams, canals, rivers and lakes, 100 ft contour intervals, and ward boundaries for each of the twelve wards to bring into visualization the Klamath Stake. ArcMap allowed Susy Lathom to explore the data, symbolize and create features according the needs of the Emergency Preparedness Committee. Each map had not only a visual boundary of each ward, it also included locations of the nearest hospital and fire station.

The map of the Stake is the foundation, the bedrock of the Emergency Preparedness Committee’s goal.

**The Map in Action**

A Bishop from each ward, will examine an individual map of their ward and create what they call “Geozones,” specific geographic areas where one person can physically reach each individual person in cases of an emergency within a matter of 2 hours.

Once the “Geozones” have been established, annual training workshops will be constructed. Four plastic flags will be distributed to each household each symbolizing a particular need. A red flag indicates an emergency. A yellow flag indicate non-life-threatening assistance is needed. A green flag indicates everything is fine. A white flag indicates that the household has evacuated the home.

The flags are so that each “Geozone” leader does not have to knock on every home unless it is needed.

There is a likelihood that in cases of a natural disaster, there will be no cell phones, texting, Internet, or basic landlines. In order to communicate, each leader of a “Geozone” will have a HAM radio in which he will report to the head of the Emergency Preparedness Committee, Paul Stuevens, the outcome of each ward.

Every Sunday night at 9pm, Hollis Kiger uses his HAM radio to contact every "Geozone" leader to check their radios.

**No one is left behind**

Though the system is generally created for members of the Church of Jesus Christ of Latter Day Saints within the Klamath Stake, in cases of a natural disaster emergency, other houses will be visited as well, so that none are forgotten.

The system is not without fault; it cannot be possible to check on every person if an Earthquake hits at 1 pm and everyone is at school or work. The Stake recommends that all carry a 72-hour kit in their home for each member of the household. The kit includes a gallon of water, ready-to-eat food that requires a minimal amount of water, any required medication, first aid kit, utensils, and matches, and perhaps anything else that is required for survival of at least 72 hours.

Imagine if the residents of Oklahoma, whose state was recently ravished by tornados, had a plan similar to what Klamath Stake is doing. Would it not feel great to have a sense of assurance to know that one could survive for 72 hours until any help arrives? To know that there is a plan for someone to check on every resident to make sure all is alright?

It all starts with a simple map with basic road layers and contour lines. The credit goes to those who can look at something simple and turn it into something amazing that can bring comfort to those who need it the most in the worst of times. Somebody is always looking out for somebody, whether it is realized or not.

**More Information**

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