



RTC-TH May 2014 Update 2

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Community-based environmental education for the self-sufficiency and sustainability of small rural family farms

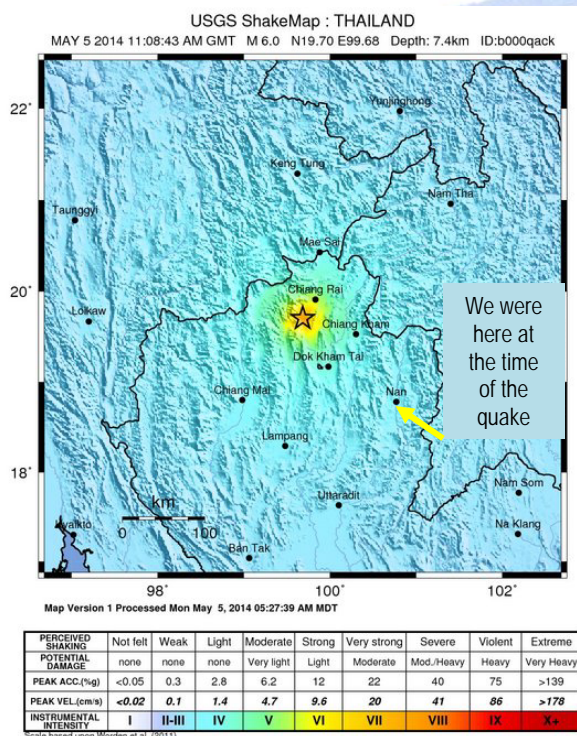
ชุมชนตามสิ่งแวดล้อมศึกษาเพื่อการพึ่งตัวเองและยั่งยืนบนขนาดเล็กครอบครัว

You may post questions / comments to the Discussion area of our website

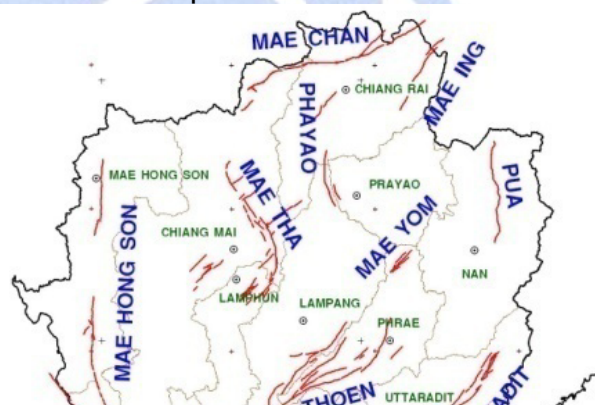
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BIGGEST MODERN THAI QUAKE 6.0



A 6.1 magnitude quake struck Chiang Rai province, 6.08 p.m. Monday (5 May) night. The epicenter was in Phan district (~24 km SW of Chiang Rai city) at the depth of 10 km. This was the strongest modern earthquake recorded in Thailand.




The active faults in northern Thailand are shown in the map above. The Pua fault is the only active one in Nan Province and has no recorded activity for over 100 years.

Extensive damage was reported. And over a week later, more than 712 aftershocks were recorded ranging from 4-5 on the Richter scale. Some aftershocks caused more destruction to already weakened buildings.

We were in Nan Provincial Hospital at the time and felt 2-3 seconds of slight vibration (Mercalli Index II-III, weak).



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About a 2m vertical offset in a major highway



More than 800 homes were damaged

Post and lintel construction is very common here. This is an easy and inexpensive building method. Most walls are non-load bearing. But it is not the best construction method for earthquake conditions.

Recently, there has been much concern about increasing and improving public awareness and preparedness for disasters. Ancient records and temples provide evidence of past earthquakes. But many of these were many decades to a century or more in the past. Human memory tends to forget many prior natural disasters not recollected by living people. (As evidenced by the 2004 Indian Ocean tsunami, where none in Indonesia recalled any prior quakes along that part of the fault zone for over a hundred years.)

The government announced a cell phone application educational game to teach children about flood preparedness and safety. Maybe they should be working on a similar one for earthquakes. 🌐



Many buildings suffered cracked walls and facades



Photos and images for this article from the Internet: Educational fair use clause

More Fresh Garden Food



In our mango tree next to the Jack fruit tree is another fresh garden food treat. Well, it's a treat for "some" of the family. We spotted 2 red weaver ant nests. Their eggs are a northern Thai delicacy. See if you can spot one of the nests in the photo #1. If not, "zoom" in by looking at photo #2. And then photo #3 below.

These ants are aggressive in the active defense of their nests. There are various



methods to harvest the eggs and avoid getting bitten.

The method used in our family consists of a pointed bamboo pole with a bag to get the eggs and a bucket with flour to start the processing to clean the eggs.

Mom rigged up the pole. The bag is tied back from the point end. It has a sling to keep the bag down and back from the pointed end. The harvesting begins with poking a hole in the nest. You shake the

the pole vigorously. You have to watch for: 1) ants scrambling down the pole toward you; 2) the ant eggs falling out of the nest to make sure they drop into the bag; 3) making the hole larger and getting more eggs to drop out of the nest.

When no more eggs fall out of the nest, the bag is emptied into a bucket with flour. The ants cannot pick up the eggs with flour on them. The trick is to shake the bucket to get the eggs mixed with the flour while avoiding ant bites.





Bucket with flour, eggs, and ants are set in the sun. Periodic shaking gets more of the flour on the eggs. The ants try to get the eggs. Many ants try to escape the heat and the bucket. When checking on the bucket, you have to watch out for red ants that got out of the bucket and crawling around looking for their way home. After an hour, most ants are gone, and the bucket is emptied onto a tray for winnowing. There are still some red ants in the mix, so bites are likely. Don't forget, red weaver ants are tenacious and aggressive defenders.



The winnowing process relies on gravity and the fact the eggs are heavier than the ants. The inactive red ants are collected and added to the kitchen scraps we use to feed the fish at our farm.



Mom puts the winnowed red ant eggs in a bowl. The bowl has a combination of red ant eggs, larvae and pupae. She places the bowl in a pan of water. This gives the eggs a chance to cool down and keeps black ants from carrying off any eggs. After a suitable time, the bowl goes in the refrigerator until the family wants a meal. 🌐

A Request to Our Readers

Some of our friends and family in Thailand asked an interesting question about how our readers overseas make use of the RTC-TH Update reports. So we thought it would be interesting to hear from some of our readers themselves.

We invite you to send a photo with some comments of you and your family members and friends reading our Update reports or viewing some of the various articles or lessons on our websites. If you use any of our materials for your teaching or classes, we would love to see you and your students in action and learn how you are using our materials. Here's a chance for you to show the folks here your interest in our Thailand efforts.

Please email your submissions to us at rtc2k5@gmail.com with "Reader submission" in the subject line. Photos should be 2 MB or larger in jpeg format. We can resize them, but the larger image size will give us a sharper image.



Nov 2012, Kuala Lumpur, Malaysia: BASIC MEWS training at the MyGAREC 2012 international conference

Ham Radio Push



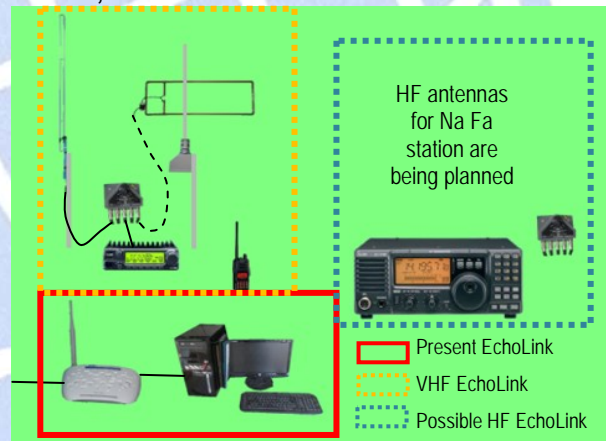
The American Radio Relay League is celebrating its centennial this year. So we hope to make a concerted effort to get our amateur radio station at a minimal operational level. That means both VHF and HF radio / antenna systems are operational. The acid test is to have confirmed radio contacts made using each type of radio.

Our present EchoLink® station is shown inside the red box in the diagram below. We have been using EchoLink®

in user -mode (i.e. using the computer only to make contacts). We've made many contacts and friends. We want to have the 2m VHF radio integrated with our EchoLink® computer (see yellow dashed box in the diagram below). Then we can use our handheld VHF radio (HT) with 5 watts of power to talk around the world. An EchoLink® computer / radio interface expands the number of available hours for contacts. Adding HF radio to the mix increases the opportunities for contacts on other RF bands and at greater distances within Thailand, SE Asia and the world.

A big reason why we value our ham radio contacts is the added dimension to points of view about the world. The world of modern media and the Internet combined with the amount of misleading information and disinformation makes it harder to know the truth. Hams don't have all the answers, but they are a diverse forum that can help shift through the chaff. Today, the truth can be as elusive as the end of a rainbow. But hams have an opportunity to get various international perspectives unavailable to most people.

A good example is conversations with Manabu, JQ2TAF about life in Japan. He mentioned Japanese farmers grow strawberries in greenhouses off-season to get a higher price. As a result, during normal strawberry season, his family cannot buy strawberries in the market. We advocated off-season growing as a value added strategy for rural Thai farmers. But our thinking did not consider the negative impact of this practice if the majority of farmers do this. We strive to find balance in our actions. Clearly the situation for Japanese strawberry growing is out of balance. We have to re-think our off-season value added strategy.



Ham radio is an evolving work in progress facing and creating new challenges in our changing world.



The world of ham radio has changed significantly since its early days. And no doubt it will change more with advancing technology. For some, the change took away some of the charm that drew them to the hobby. For others, the challenges redefine ham radio expanding horizons. 🌐

A Summer Thunderstorm

With temperatures climbing over 40°C / 104° F for a week or so, convective thunderstorms are possible. It was no surprise a few thundershowers fell in our area. Winds gusted to 35 km/ph (22 mph). The rain pounded down on the sheet metal roofing making it hard to carry on a conversation without shouting. The rain was heavy enough to obscure the view across the valley. You could hardly make out the clearing on the hillside. (See photos below.)



Photos above: View across the valley with the heavy rain (left) and without the rain (right)



One thunderstorm dropped 8 mm (~ 1/3 inch) of rain on Ban Na Fa. The temperature dropped about 8°C. Once the rain subsided, we opened doors and windows to let the cool breeze enter the house. It was as refreshing as turning on the air conditioning. The big difference is the naturally cool air had the fresh smell of rain. This is a treat that is hard to beat. If there was only a way to get this on demand. 🌐

A Surprise Fisheries Inspection

A strange voice calling for Saifon's mother was the only announcement of the Dept. of Fisheries inspection of our farm. This is the first time in the history of the farm for this kind of inspection. We are not sure how the system works or how they selected our farm.



The inspection really consists of collecting fish samples to be sent for lab analysis. Although the West Fishpond has both tilapia and catfish, they were only able to catch tilapia. They send the sampled fish to a Dept. of Fisheries lab in Phayao. The results should be available in about a month. They are testing for specific toxins. If our fish are clean, the Dept. of Fisheries issues us a certificate attesting our fish are safe. Since the water for our ponds comes only from rain, surface flow from on our farm, and ground seep. We eagerly await the results.



They left a log book for us. It allows us to record critical data about the sources for the fish we buy to stock our ponds. It seems we need to set up a separate file for the test results. 🌐



What Is It? Road or Pond?

It looked like an extension of a village road; until a late afternoon thunderstorm came to town. Then it looked like a swimming hole or fishpond. The next day the crew was back to do the necessary repairs (and hope for no more rain). 🌐



More Life After Empty

Modern life seems to be an endless cycle of buying and throwing away. To break this cycle, we try to find ways to make use of materials often tossed in the trash. We these small projects set an example for others to make better use of things and give them "life after empty."

Increasing Night Road Safety

Driving at night is more dangerous than during the day. In Thailand, it seems more so because of the fact that disabled vehicles are very poorly marked. The common practice is to break some branches off of bushes or trees and place them in the road as one might place a road flare. You can imagine how much light a tree branch reflects at night!

Packing of a powdered milk product comes to the rescue. The box comes Two heavy plastic straps around the box. We carefully cut and saved the straps. We saved the foil pouch and cut it into two long strips. Some of the cardboard box served to stiffen the foil pouch pieces. One end of a plastic strap was stapled to the foil pouch / cardboard liner. We looped the other end of the strap around a part of the truck frame. A combination of staples and duct tape completed the installation.

We had some plastic strap material left. Combined with some left over red reflector tape from another project, we made 2 more safety strips. These passive reflectors are much more visible at night. So if we have trouble on the road, and the battery is low or the 4-way flashers don't work, we have a back-up system. We think it is better than a tree branch.

We plan to make additional foil pouch reflectors. These could be put on tree branches placed at intervals on the road like safety cones. That will give approaching drivers more warning of a disable vehicle ahead.



This foil pouch had a life after empty.



Packaging materials re-born as low cost / low tech vehicle passive safety reflectors.

We also noticed many motorbikes at night with no tail light. Many folks wearing dark clothes at night riding on motor bikes, bicycles, or on foot. Adding simple reflector strips made from plasticized foil bags greatly increases their visibility to drivers. It is a simple way to increase road safety and reduce trash in landfills. 🌐



Cheese Wax Art

Here's some food for thought from Erin, one of our reader's. She decided to save the wax from the cheese she buys for her family. She makes small figurines with the wax that most people would throw away.

After opening the cheese, Erin has to sacrifice and suffer for her art. In order to get the wax, she *has* to eat the cheese. She endeavors to use the wax from each package to make a complete figurine. This reduces her suffering. If she aimed for bigger projects, she would have to eat many packages of cheese to get enough wax.



They say it is hard to teach creativity. But teaching by example can be very effective. The wax ball made from the "scrap" wax can become anything. It only takes imagination. It can be shaped or reshaped as you like. You

can literally let your imagination run wild. Erin has found a way to stretch her budget by using the cheese wax wrapper. She buys cheese and gets free "modeling" material rather than having to buy clay for her children.

Her children haven't taken up the "hobby" yet. But it is important Erin finds ways to create opportunities and choices for her daughters. Children don't know what they don't know, like, or dislike. We all learn by trying new things. Creating opportunities for learning is what teaching is all about. So three cheers for Erin, and thanks for sharing. 🌍

Battery Terminal Safety Covers

It began life as an insurance company advertising banner. A new program made it obsolete. The heavy vinyl material was too good to toss, so we put it aside for a possible future use. The light bulb went on during a recent battery maintenance check for Sparky and Sam. The present battery covers used “future board” (corrugated plastic display panels). But over the past 2 years, the heat seemed to take a toll on this material. It was becoming brittle.



A vinyl banner reborn as battery terminal covers



The heavy vinyl banner material seemed to be just what we needed. We opted to use the bright yellow portions of the banner to make covers for the positive battery terminals. Each cover is about 6 cm X 10 cm. A couple of diagonal cuts helps fit the cover to the cable. It is held in place with black electrical tape. The cover can slide on the cable so it can be easily moved out of the way to access the positive terminal. Covering this terminal prevents accidentally shorting out the battery.



Harvesting Peanuts in Ban Na Fa



The vast majority of small rural farmers harvest their crops by hand. It may seem odd in the 21st century, but it is all part of daily life here in northern Thailand. Some of our neighbors are harvesting their peanuts. Here is how

they do it. It starts with uprooting the plants by hand and shaking off as much soil as possible (#1). The bunches are set aside for others to strip the peanuts off the roots (#2). These peanuts are large in contrast to others we see in the local market (#3). Workers pluck the peanuts from the roots and put them into a bucket (#4). The buckets are emptied into a woven bamboo basket (#5). All of this work takes place in the field. There are no toilet facilities. Shade comes from umbrellas or temporary shade structures. Coolers with iced water are about the only amenity seen on the work site.



The uprooted peanuts waiting to be stripped.

These are large peanuts for Thailand





A simple shade structure (above right) made with bamboo poles, a mat, and uprooted peanut plants. The family gave us a bag of peanuts. Later that afternoon, we printed copies of our photos for them. 🌐

