RTC-TH Nov 2012 Update 2

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

ชุมชนตามสิ่งแวดล้อมศึกษาเพื่อการพึ่งตัวเองและยั่งยืนชนบทขนาดเล็กครอบครัวฟาร์ม

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

www.neighborhoodlink.com/org/rtcth E-mail: rtc2k5@gmail.com

RTC-TH Scores Big at MyGAREC 2012

MyGAREC 2012 (Global Amateur Radio Emergency Communications) is an international conference for amateur radio operators interested in serving the public in times of disasters and other emergencies.

China-Hong Kong Finland Germany Indonesia Japan Malaysia Switzerland Thailand United Kingdom

Front (L to R): Ken Yamamoto (JA1CJP), Johnny Tan (9M8DB, MyGAREC Facilitator), Choy Chee Keong (9W2PCK, MyGAREC Facilitator), Aiznin (9W2SBS, MARTS interim-president), Ria Triadi (YCØKVM), Triadid Suparta (YBØKVN), Hans Ehlers (DF5UG), Alan Kam (VR2KY). Back (L to R): Greg Lee (HSØZHM, MEWS Trainer), Dr. Seppo Sissato. (OH1VR,GAREC founder), Henri Olander (OH7JR), Greg Mossop (GØDUB, GlobalSET coordinator), Jyri Putkonen (OH7JP), Peter Sidler (HB9PJT), Dr. Khairuddin (9M2KMA). Missing: Norsalim (9W2NOS), Deen (9M2DA).

In This Issue

Pre-Conference MEWS Training

The Sunday 11 Nov hands-on Quick Start Basic MEWS training consisted of a diversity of people: Malaysian hams, civil defense volunteers, scout leaders, teachers, scholars, and environmentalists.

Introduction to MEWS Quick Start Basic Training

Training starts with the slide show presentation

MEWS training was open to all: most trainees are local hams, civil defense, scout leaders,etc.

The Basic MEWS kit is a low cost / no cost, low tech / no tech system (the PWIS, Portable Weather Instrument Shelter). It uses an optional umbrella to create shade for the thermometer. The preferred thermometer is one that is encapsulated in plastic. It is not easily broken and can survive. A mangetic compass is optional. An equipment pouch keeps the thermometer and compass with the umbrella. Reference charts for estimating wind speed, cloud cover, cloud type / height, and flash to boom (lightning / storm distance) are clipped together with the umbrella. This kit is easy to put together using commonly available equipment and parts. This makes the kit ideal for rural hams, countryside schools and teachers.

The compact Basic MEWS portable wx station

Visit www.hamfair.ixapp.com to see more MyGAREC 2012 photos

Greg guides hams on using the Cloud Cover chart.

Greg coaching KP Sim (left) and Yusra (right).

*←-KP Sim looks on as Greg coaches Othman (*9M2OK) on the PWIS.

Taib -→ (9W2TBD) and other hams get to examine the PWIS

Getting an up front, close and personal experience operating amazingly simple the PWIS

Just like ham radio, MEWS takes practice, practice, practice.

Practice leads to learning from doing and asking more questions.

The hands-on practicum connects the slide show lesson to operating reality. Then the questions flow and the true comprehension process begins.

Chooi Yew Tzen, Asiz (9M2NBQ), KP Sim, (9W2AYA), Rizal (9M2RDX)

MEWS has many of the characteristics of ham radio. To do it well requires practice. Practicing together is a way to learn new things, improve understanding, create friendships, and to be better prepared to serve the community in times of need.

The Quick Start Basic MEWS training is a fast way to introduce MEWS and enable hams to make the first report. It is short on theory. Filling in the MEWS observation form is a step-by-step mechanical process. To learn more, the full set of MEWS lessons are available for self-study on the RTC-TH Tech website (see link at the end of this section).

The complete MEWS lesson set consists of three orientation lessons, eight Basic lessons, and 6 Advanced lessons.

Basic MEWS observations are mostly estimates. Advanced MEWS uses more measurements. This requires more instruments. Many of these can be home made to keep the costs down. (Instructions are included in some lessons.)

MEWS can also be used to enhance traditional classroom instruction. It can be integrated with GROW (Getting Real On-farm Weather) to help farmers.

MEWS lessons: www.neighborhoodlink.com/RTC-TH_Tech/Pages; left column look in MEWS section.

MyGAREC 2012 Conference

MEWS was the first participant presentation slot on the first full day of the conference. This was an unexpected honor since MEWS didn't fit the profile for the "Call for Papers". It was a bit intimidating to speak before a body of very experienced EmComm hams. But in true ham radio spirit, the reception was warm and friendly.

During an open time slot later in the conference, Greg got to demonstrate the PWIS. The simplicity, utility, and the significance of MEWS to EmComm made an impression on these EmComm hams.

Greg was included in the tabletop EmComm exercise.

During the conference, a table top exercise called for conference attendees to be the EmComm leadership team for a simulated disaster. The group received incoming calls and had to discuss and formulate EmComm policy responses. Many of the participants had real life experiences to guide their input. However, they were receptive to Greg's perspectives as a geographer and educator. They welcomed the different views and appreciated the value of this input relative to handling the group's responses. Past GAREC conferences held coordinated group discussions. This year's interactive

tabletop EmComm exercise was new. Everyone could see the value for doing it this way. The MyGAREC 2012 facilitators were surprised by the results of the exercise.

Much of what they hoped for occurred. But the dynamic of any group is affected by the unique combination of individual participants. So some results of the group exercise were unexpected by even the experienced facilitators. For example, there was no one person that took on the role of group leader. The free exchange of different views didn't detract from the group making decisions in a timely manner. Little or no polarization occurred. There seemed to be a unified effort to focus on effective emergency communications.

The specially created GAREC 2012 organizing committee and MARTS (Malaysian Amateur Radio Transmitter's Society) are responsible for MyGAREC 2012. [Note: the My = Malaysia.]


Observations and feedback to the organizers revealed that much of the valuable information exchange took place during the coffee break sessions.


Meals were another good opportunity to share "food for thought".

The RTC-TH approached MyGAREC 2012 with a request to help publicize our MEWS lessons. The MyGAREC 2012 organizing committee responded with an invitation to present MEWS. The initial request evolved to include a hands-on training session. The request of the organizers was based on the desire have something practical and tangible for conference attendees to take back home. In retrospect, they realized past conference reports suggested action items. But there were few tangible results. The RTC-TH MEWS lessons and the community-based "teach back" method suited their goal.

The small number of participants made it possible to get to know every conference participant. Some of them are key players in their national amateur EmComm organizations. None of them had any training in weather observations.

The comments of MyGAREC 2012 attendees show MEWS was very well received.

Dr. Seppo (OH1VR): "[MEWS]…added a new dimension into EmComm. MEWS is an important tool for our work. ---A view of an experienced educator gave GAREC 2012 a valuable addition."

Greg (GØDUB): "[MEWS]…showed how people can be empowered with simple tools and good training." He also said the next challenge is to integrate MEWS to amateur radio similar to the way Skywarn uses U.S. hams.

Johnny (9M8DB): "I have no doubt MEWS will find a large audience in due course…" [Note: Johnny was a driving force in bringing MEWS to MyGAREC 2012 even though it did not meet the profile in the call for papers.]

Choy (9W2PCK): "I believe MEWS is beneficial to not only hams, but to everyone."

Henri (OH3JR): "Your practice for weatherman is nice and your work with youth is 100%."

Triadi (YBØKVN): "…I met a geographer with a ton of ideas to educate people. I am going to use it for sure."

Alan (VR2KY): "MEWS will probably add value to emergency communication and get attention from government agencies."

Jyri (OH7JP): "A new look at what we [can] also do with EmComm team[s] and make people more involved."

Norsalim (9W2NOS): "I have enjoyed this conference very much because I have got new ideas and energy."

"Dinali" (9M2KMA): "Your presentation amazed me. I was very excited to hear your presentation and I like very much the way you present. I hope that 'tool' gave us more inspiration and we keep our promise to teach another 4 people."

Zakran (9M2ZNM) "It was an honor meeting you during MyGAREC. I drove back to KL on the same night with my mind full of ideas on how to make MEWS as another interesting 'non-formal' education for our scouts."

Mohd Rizal 9M2RDX "It can help, especially in the summer monsoons. --- knowledge of the weather observing can help in a disaster. Maybe we can add a method of delivery of weather information via digital transmission. With this method it can be sent periodically."

Deen (9M2DA): "Thank you for showing us … MEWS. We did …monitor weather during La Nina. Most of the sources came from hams radio reporting their weather."

Hans (DF5UG): "Unexpectedly, I and others got a very detailed introduction into weather [observing] with small homebrew equipment.---It was nice to have you on the team".

KP Sim (Scout Leader): "Personally it's an eye opener for me to know and understand to important or the Mews especially with our climate change worldwide."

Yusra 'Adilah Hamzah 9W2AYA "The materials are easy to understand and very helpful. We never thought that something as simple as a keychain might save thousands life during disaster...cheers!"

Peter (HB9PJT): "GAREC [brought] people together so we could hear and learn a lot. It enlarged my knowledge about EmComm a lot. It was a please to share experiences."

The long tradition of emergency communication and public service in ham radio inspired the start of the RTC-TH Emergency Communications (EmComm) program. After studying numerous mega disasters, Greg noticed a need for weather reports in remote disaster areas. This led him to create the Mobile Emergency Weather Station (MEWS) lessons.

Greg and Saifon Lee co-founded of the Rural Training Center-Thailand (RTC-TH). The RTC-TH provides community-based environmental education for the self-sufficiency and sustainability of small rural family farms. In response to the growing number of disasters in the world, the RTC-TH expanded activities into the areas of emergency communications and emergency preparedness. At the urging of Mark (N7YLA), Greg got his FCC Technician amateur radio license (KI6GIG) in Fall 2006. He upgraded to a General license in Spring 2007. He now holds a reciprocal Thai Intermediate amateur license (HSØZHM).

MyGAREC 2012 Mementos

At the closing ceremonies of MyGAREC 2012, Triadi (YBØKVN) presented ORARI (the Organisasi Amatir Radio Indonesia) Communications & Rescue (CORE) plaques to selected conference VIPs.

Dr. Seppo Sissato. (OH1VR,GAREC founder)

Johnny Tan (9M8DB, MyGAREC Facilitator)

Ken Yamamoto (JA1CJP)

Greg Mossop (GØDUB, GlobalSET coordinator)

Greg Lee (HSØZHM, MEWS Trainer)

Jyri Putkonen (OH7JP)

Peter Sidler (HB9PJT)

Rabindra Harichandra (9W2PD)

Alan Kam (VR2KY)

Hans Ehlers (DF5UG)

Malaysian King Scout Chooi Yew Tzeng presented Greg with a very high honor: a King Scout's neckerchief with a friendship knot. Chooi is an adult scout leader who was very impressed with Greg's teaching methods during the MEWS training. Chooi explained that of all the British commonwealth nations Malaysia's scouts were the only ones to retain the red, white, and blue colors for the scout neckerchiefs. The other commonwealth nations changed the colors in the push to separate themselves to create a new identity from Britain.

The biggest "awards" of the MyGAREC 2012 event was the respect of the many new friends from Malaysia and the other participating countries. For Greg, as a new and very inexperienced ham, the warm welcome and acceptance of the more experienced hams was amazing. It was the best of all that can be expected from the long traditions of ham radio.

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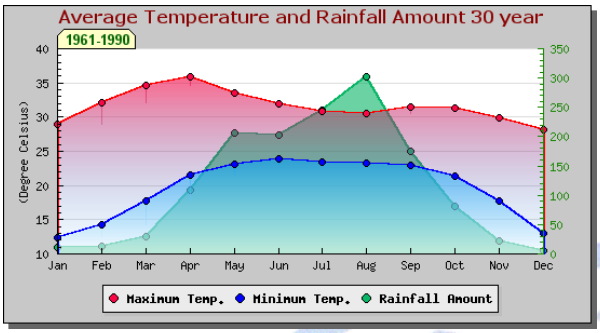
Tracking 2012 Weather Data



The 30-year averages accumulated rainfall total up to Oct is 1371.8 mm, with 118 rainy days. So far, 2012 has an accumulated 1162.17 m total rainfall and 98 rainy days by Oct. This is 84% of the accumulated rainfall and 83% of the rain days in contrast to the 30-year averages. October is the normal end of the SW monsoon rainy season in the north. But in early Nov we got a few heavy thundershowers. It's a bit unusual. But we have to wait to see what impact this may have on the 2012 total annual rainfall tally.

30 Yr Average			2011		2012	
Month	Rainfall (mm)	Rainy days	Rainfall (mm)	Rainy days	Rainfall (mm)	Rainy days
Jan	11.0	2	1.52	3	17.78	3
Feb	12.6	2	14.48	2	1.01	1
Mar	29.2	3	69.33	6	31.24	2
Apr	108.0	9	98.55	10	163.32	8
May	206.2	17	208.53	22	205.21	10
Jun	202.4	17	396.20	17	100.31	10
Jul	244.1	21	340.87	19	175.01	23
Aug	302.3	22	321.05	18	303.2	23
Sep	175.6	16	371.08	20	131.06	11
Oct	80.4	9	147.57	7	34.03	7
Acc Σ	1371.8	118	1969.18	124	1162.17	98
Nov	22.7	4	8.12	2		
Dec	5.9	1	0	0		
30YrAv	1400.4	123	1977.3	126		

Blue Box = northern Thai SW Monsoon Season
Green shading = data above 30 year average for Thawangpha
Red shading = data below 30 year average for Thawangpha
Gray shading = Accumulated totals for the year to this month

We compiled the rainfall, rainy days, and number of thunderstorms, fog days, tornadoes, and hail days for the past 4 years since shifting operations to Nan Province. This gives us a different context to view the 30-year climatic averages and the current year's data. [**Note:** Most years before 2008 were not complete enough to get sufficient data to compare with the last four years.]

Admittedly, 4 years is a small sample to compare / contrast with the 30-year average, but it is all we have at this stage. The results are not conclusive. Over time, what we hope to see is a trend that will give us insight to veracity of the long-range climate change model predictions. The consensus calls for northern Thailand to continue to get about the same annual rainfall. However, the rains would be less frequent, of greater intensity, and come over a shorter period. If this turns out to be true, it has some serious implications for our rainwater harvesting efforts.

Year	Rainfall (mm)	Rainy days	Thun strms	Fog	Trndo	Hail
2008	1911.6	140	66	56	1	0
2009	1133.9	100	54	80	0	0
2010	1720.8	101	54	60	0	0
2011	1977.3	126	65	69	1	0
4YrAv	1685.9	116.8	59.8	66.3	0.5	0
30YrAv	1400.4	123	-----	-----	-----	-----

Average Annual Statistics
Here are the annual averages of rainfall, rain days, thunderstorms, fog days, tornadoes, and hail days since we moved to, Thailand in 2008.

Like any preparedness activity, there is no certain date when things will change or be life threatening. You have to plan carefully and have a range of solution alternatives available to deal with the "unexpected". Awareness helps you to try to spot the trends and try to stay ahead of the curve. And of course, you must be prepared to say hello to Mr. Murphy.

Water Worries / Concerns

This year's drought in Nan Province gave us reason to revisit an article about a US intelligence report (~Mar 2012) on global water resources. Two paragraphs in the article caught our attention:

A dry reservoir east of our farm ~May 2012

The assessment noted that 70 percent of all fresh-water supplies are now used for agriculture. "The downside," the official said, is that many regions are "pulling water out of aquifers faster than it is being renewed, or out of fossil aquifers we don't estimate will ever be renewed. When it is gone, the agriculture . . . will also leave."

Based on climate-change assumptions for the next 40 years, the assessment anticipated "more droughts, more extreme weather events" and floods, along with concerns that "states would not make the necessary infrastructure investments to deal with" the shifting climate, the official said.

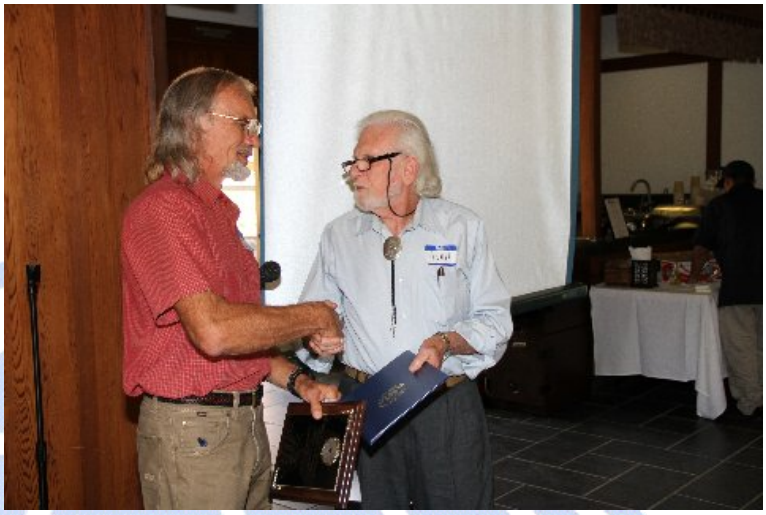
There is talk locally of building a new reservoir. But so far, it is just talk. We are not willing to sit and wait for a final decision. The last line of the quote above seems to justify our skepticism.

We made this rain harvesting graphic (see photo on the left) more than 5 years ago. A UN report in Mar 2012 indicated the statistic is down to 783 million of the world's 6.1 billion people (~12%). As with most statistics, the devil is in the details. In this case, the details are the terms and definitions used. "Clean" drinking water is not a "standard" measure. Even if it were, many developing countries do not routinely test nor report drinking water quality data. As it turns out, the UN report uses the phrase "access to improved water sources." Access to "SAFE" drinking water was included. An improved water source was one coming from "a piped supply, drilled well, a hand dug well, or a spring protected from sewage contamination". This may not always mean "potable water." Unimproved water sources are open surface water (rivers, ponds, etc), open wells, and water delivered in carts. Unimproved water sources are readily exposed to contamination.

We must still be vigilant and be willing to question general statistics and statements about our water supplies and access to clean potable water. Large cities will be particularly vulnerable to water supply infrastructure disruptions and failures. Everyone needs water to survive!

Alan Pollack Gets SFVAS Annual Award

The San Fernando Valley Audubon Society presented its 2012 annual Conservation Award to Alan Pollack. The SFVAS presented the award during it annual conservation luncheon on Saturday November 3, 2012.



Alan (right) receives the SFVAS Conservation Award and a Congressional Certificate for his wildlife habitat conservation efforts.

The plaque reads: "San Fernando Valley Audubon Society gratefully presents this 2012 Conservation Award to Alan Pollack...for a lifetime of actions on behalf of wildlife...building bird houses, healing injured animals, providing natural habitat in an urban setting and educating the public through our Audubon at Home program.

He also received a Congressional Certificate of Recognition from Congressman Howard Berman "upon receiving the San Fernando Valley Audubon Society's Conservation Award".

Alan wrote to us and said, “I told the crowd how you helped me along the path I am on and about the work you are doing in Thailand. Thanks again, Greg, for all you have done and are doing.”

Pollack, a retired MD, join the National Wildlife Habitat Steward Training workshop in Los Angeles organized and conducted by Saifon and Greg Lee for the National Wildlife Federation. During the training, Alan began to inventory his yard and was surprised to find so few native plants. He immediately began to make changes to create a friendlier habitat for native plants and wildlife.

Alan with his lecture poster "Restoring Habitat, One Yard at a Time"

Once he became a certified Habitat Steward, Alan literally threw himself into spreading the word about Backyard Wildlife habitats. His wife was concerned about Alan getting underfoot when he retired. The NWF habitat steward training gave him a venue to get out of the house and making a positive difference in the community

Alan’s approach of “One Yard at a Time” parallels the RTC-TH community-based effort of one mind at a time. Focusing on the grassroots or local level makes sense because it is manageable for an individual. When it comes to the environment, don’t bite off more than you can chew is a sound approach.