



SHORT SKIP

Volume 64 Issue 12

December 2016

OFFICERS

Marv, WV9O, President
Tim N9CA, V President
Jim, KE9FX, Treasurer
Russ, KB9HO, Secretary

BOARD OF DIRECTORS

Bill Young, N9QLS
John Gianotti, W9WY
Ken Brown, KE9TC
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Andy Finick W9FXT

OTHERS

Red Cross Liaison
Bill, N9QLS
Trustee, Marv, WV9O
Newsletter Editor and
Webmaster, John, W9WY

REPEATERS

Freq	Location
147.000	Merrillville
147.240	St. John
442.075	Merrillville

All Lake County ARC Repeaters are open to all amateurs. All repeaters must have a PL of 131.8 set in order to access.

From The Parade Stand

by Tim, N9CA, LCARC Vice-President



Hi everyone,
It's hard to believe that 2016 is nearly in the rear view mirror. It's been a great year for the Club and I think we all ought to give ourselves a big pat on the back.

The Club's programs have exposed us to many new things and refreshed the grey brain matter cells on others. Off-the-grid contest events like Field Day and Indiana Parks On The Air (INPOTA) went off without a hitch thanks to the help, support, and cooperation of Club members. They were and are fun! I look forward to them in 2017.

I want each and every Club member to feel a sense of pride and of ownership of The LCARC. After all, it is our Club. We get to choose the Club's direction. How cool is that? There should be no hesitation to invite interested non-Club members to attend a meeting or two. Then take a moment to remind them what night it is with a shout out. Offer a ride. Introduce them and make them feel welcome. I think we all know how awkward it feels to be in a room full of strangers. Be their bridge to the Club.

To help make the Club even better for 2017, I am openly soliciting each and every one for your ideas on program topics and/or community outreach you would like to see the Club accomplish. Give it some thought. Write them down. Put them in the proverbial suggestion box. Send me an email. I don't bite.

73, Tim McGillen/N9CA tim2020@sbcglobal.net — 2017 LCARC President Elect

Ham Radio Technician License Class

Six consecutive Tuesday evenings: 6:30-8:00pm — Starts: January 3rd 2017

At: Lake County Public Library - Merrillville Branch (off Route 30), 1919 W. 81st, Merrillville, IN, 46410

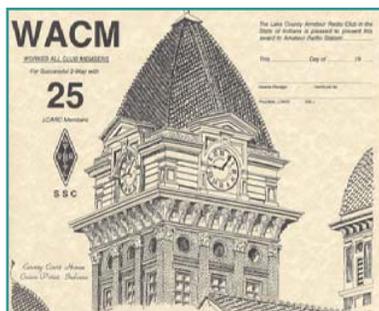
Downstairs Meeting Room "C" Handicapped accessible

ARRL Instructor: Tim McGillen/N9CA 219-769-0673 tim2020@sbcglobal.net

Required: On-Line Course or ARRL "Ham Radio License Manual" item #0222 (arrl.org or amazon.com)

Class Cost: FREE!!!

LCARC WACM Contest!



The LCARC will be having a "WACM" contest starting on Dec. 1st after the net and will run thru Dec. 4th. The "WACM" contest is open to all licensed amateur radio operators. The rules for the contest will be to contact as many members of the LCARC as possible on either of the 2 club repeaters. Tiered certificates will be available to anyone making two or more contacts during the event. A \$25 gift certificate to Teibel's restaurant in Schererville will be given to the person that contacts the most club members. The exchange information will be simple questions. Certificates and top prize will be handed out at the Jan. 13th club meeting. More details about the contest will become available on the club website shortly.

Meeting Minutes

November 11, 2016



Meeting called to order at 7:38PM

Nominations for Club Officers

Tim McGillien N9CA was nominated for President

Bill Leaming N4GIX nominated for Vice President

Jim Harney Sr. KF9EX nominated for Treasury

Russ McComb KB9HO nominated for Secretary

A motion was made to accept the nominations for the officers. Motion carried and now motion made to accept the officers.

Tim then asked to have members for the board and

- Bill Young N9QLS
- John Gianotti W9WY
- Kenny Brown KE9TC
- Steve Vukusic KQ7E
- Dan Ulloa K9ARD

accepted the appointments to be on the board of directors.

Introductions were made with 14 members attending the meeting.

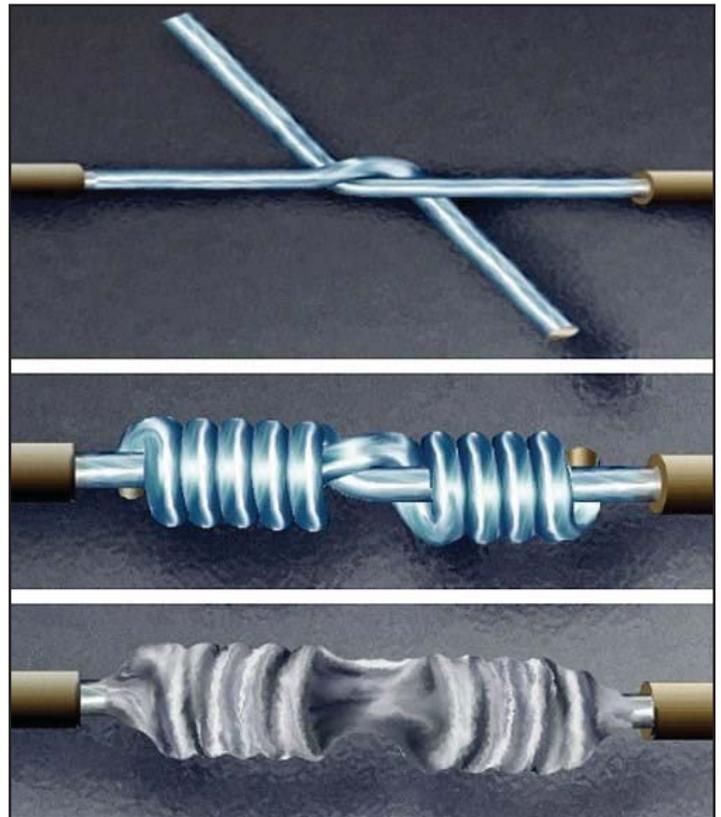
The program on the different digital modes started at 7:40PM

Meeting adjourned at 8:55PM

December Program

The December program is our traditional fellowship meeting. Come and chat with the members and enjoy cake and coffee. The topic will be anything any member cares to discuss. Ham radio or not. Merry Christmas and Happy New Year.

How to Splice Wires to NASA Standards



Developed during the heyday of the telegraph, the Lineman's splice is de-signed for connections that will be under tension. It is commonly claimed that, properly made, a Lineman's splice is stronger than the wires of which it is composed. In any case, it is a time-proven method, and, coolest of all, one of NASA's Required Workmanship Standards. To wit, in a NASA-approved Line-man's splice:

1. The conductors shall be pre-tinned.
2. There shall be at least 3 turns around each conductor and the wraps shall be tight with no gaps between adjacent turns.
3. The wraps shall not overlap and the ends of the wrap shall be trimmed flush prior to soldering to prevent protruding ends.
4. Conductors shall not overlap the insulation of the other wire.

Though the Lineman's splice was originally used without solder, today soldering is common. And NASA insists on it:

1. Solder shall wet all elements of the connection.
2. The solder shall fillet between connection elements over the complete periphery of the connection.

Stamps Commemorate Soyus Spacecraft

By Bill Young, N9QLS



Sent from Moscow, USSR. The stamps commemorate the rendezvous/docking of a Soyus spacecraft and an early Salyut (means "salute" in Russian.) The picture depicts the first "space-walk" by cosmonaut Alexiy Leonov on the Voskhod 2 spaceflight. (Voskhod means "sunshine" in Russian.)

Learning Morse Code without Trying

New study demonstrates silent, eyes-free text entry learned within 4 hours!

October 27, 2016 • Atlanta, GA — Georgia Tech Web Newsletter <http://tinyurl.com/zaf7oju>

It's not exactly beating something into someone's head. More like tapping it into the side.

Researchers at the Georgia Institute of Technology have developed a system that teaches people Morse code within four hours using a series of vibrations felt near the ear. Participants wearing Google Glass learned it without paying attention to the signals — they played games while feeling the taps and hearing the corresponding letters. After those few hours, they were 94 percent accurate keying a sentence that included every letter of the alphabet and 98 percent accurate writing codes for every letter.

This is the latest chapter of passive haptic learning (PHL) studies at Georgia Tech. The same method — using vibrations while participants aren't paying attention — has taught people braille, how to play the piano and improved hand sensation for those with partial spinal cord injury.

The PHL projects are all led by Georgia Tech Professor Thad Starner and his Ph.D. student Caitlyn Seim. The team decided to use Glass for this study because it has both a built-in speaker and tapper (Glass's bone-conduction transducer).

In the study, participants played a game while feeling vibration taps between their temple and ear. The taps represented the dots and dashes of Morse code and passively "taught" users through their tactile senses — even while they were distracted by the game.

The taps were created when researchers sent a very low-frequency signal to Glass's speaker system. At less than 15 Hz, the signal was below hearing range but, because it was played very slowly, the sound was felt as a vibration.

Half of the participants in the study felt the vibration taps and heard a voice prompt for each corresponding letter. The other half — the control group — felt no taps to help them learn.

Participants were tested throughout the study on their knowledge of Morse code and their ability to type it. After less than four hours of feeling every letter, everyone was challenged to type the alphabet in Morse code in a final test.

The control group was accurate only half the time. Those who felt the passive cues were nearly perfect.

The research was recently presented in Germany at the 20th International Symposium on Wearable Computers.

"Does this new study mean that people will rush out to learn Morse code? Probably not," said Starner. "It shows that PHL lowers the barrier to learn text-entry methods — something we need for smartwatches and any text-entry that doesn't require you to look at your device or keyboard."

Previous research on PHL used custom hardware to provide the tactile stimuli, but here researchers use an existing wearable device.

"This research also shows that other common devices with an actuator could be used for passive haptic learning," he says. "Your smartwatch, Bluetooth headset, fitness tracker or phone."

"In our Braille and piano PHL studies, people felt vibrations on their fingers, then used their fingers for the task," said Seim. "This study was different and surprising. People were tapped on their heads, but the skill they learned was using their finger."

Seim's next study will go a step further, investigating whether PHL can teach people how to type on the trusted QWERTY keyboard. That would mean several letters assigned to the same finger, rather than using only one finger like Morse code.

The work is supported in part by the National Science Foundation (Grant Number 1217473). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the sponsors.

HOBART Balloon Launch - Nov 5, 2016

by Mark, K9MQ



Yesterday's balloon launch from Hobart High School with Brent Vermeulen's Senior Engineering Design class as a success. I am grateful to everyone who commented on Facebook or sent me direct emails. I'm glad this is generating some excitement in the state. We were blessed with great weather, clear skies, and a low wind speed. Once again the school bused in the fourth grade classes from the elementary schools to watch as they also have a Project Lead the Way (PLTW) program. Project Lead the Way is a nonprofit organization out of Indianapolis that supplies STEM educational curriculum to schools. The teachers are also certified by them to teach their programs.

Chuck Hill, KC9OYE and his wife Cheri Hill tracked last year's launch and wanted to get further involved. The morning of the launch, we got his Yaesu VX8 working on APRS for him to help track along with his smartphone. I contacted Richard, K9ILU from Culver (he helped us last year with recovery). He had something going on earlier in the day and possibly would not be able to participate, but he forwarded my emails to others in the Peru and Indianapolis area that also chase balloons.

The teacher streamed the pre-launch and launch on Facebook Live (link below). They also had a drone this year filming from above. We launched at approximately 9:57am Central (K9MQ-11).

The latest prediction had us landing about 5 miles south east of Logansport, IN. We sent Chuck down US 30 to Logansport via US 421/35. I rode with the teacher and students on the school bus. A parent with a truck follow us with an extension ladder and kayak. The bus had its own APRS tracker (K9MQ-9) so students back at Hobart High School could track us.

The balloon was predicted to burst north east of Royal Center, IN, but ended up being quite a bit west of Royal Center and nowhere near burst altitude. Our original plan was to take US24 thru Monticello over to Logansport. We decided to go further south on I 65. We decided to take Indiana State Road 18 instead.

Around 12:30 pm Central, the balloon burst directly south of Logansport, IN. It quickly became apparent that the balloon was going to go further south east than what had originally been predicted. While ascending the balloon was heading towards the Grissom Air Force Base.

The balloon did cross the south end of the runway at Grissom at 35,000 ft. It continued heading south east towards Kokomo. We were concerned that the balloon might land on the US35 Bypass, but it actually landed approximately a 1/3 of a mile west of the bypass. The balloon's position was still being received on APRS after it has landed. From past experience this usually indicates it landed in a tree.

All of the other chasers were at the landing site before us (see list below for everyone that helped with recovery). It landed in a tree about 20 feet high at a residential property with some acreage. The other chasers found the balloon and already secured permission with the home owner (nice fellow) for recovery. There were so many hams on APRS at the site it was interesting to view APRS. FI maps. The ham community in Northern and Central Indiana really came together! The extension ladder made quick recovery work and the payload was recovered with no damage.

One student popped the SD cards from the balloon's cameras into a phone and it looks like we have some good video footage. It looks like the 360 camera caught the balloon bursting. The Go Pro camera appears to have shut off about 20 to 25 minutes after launching. We were also carrying a Spot Gen3 tracker (a commercial GPS tracker made for back country hikers) with the payload, as a backup tracking device. Last year this device did not work at all, and if wasn't for APRS, we wouldn't have recovered the payload. The students worked hard on testing the Spot tracker this year including taking it to the Porter County airport and having a pilot fly it around the area. The tracker worked better than expected and showed its position at the landing site.

The Hoosier DMR network of repeaters and Indiana Statewide Talkgroup #3118 was once again a great asset. I used Statewide during last year's launch. I had my DMR HT with me and was talking with hams across the state from Hobart and then with the chasers via W9SMJ's Galveston and Kokomo DMR repeaters. If it wasn't for Hoosier DMR, I would never would have made a lot of these connections with people down state that helped make this launch and recovery a success. Thanks to Tony, W9AMT and Steve, W9SMJ for building the network that we have today in Indiana!

The teacher and I are really impressed by how much the ham community has embraced us. I was really excited that the ARRL posted about the launch twice (day before and during) on their Facebook page and Twitter channel thanks to the help of our ARRL Indiana Section Manager Brent, N9BA. I received many emails of encouragement/inquiry and comments on Facebook. Project Lead the Way shared our post on their Facebook page. It was quite the honor for the teacher.

It will be awhile before I have any video or data from the balloon. The students will be making a "best of" video. Once they get that done, I will make sure everyone gets the link.

I would like to thank everyone who made this project a success for the second year especially the recovery team, and digipeater/repeater owners. We are already talking about next year! If anyone has any questions about anything let me know. I will be writing an article concerning the launch for a future edition of the ARRL Indiana Section Newsletter.

HRO Makes AES Great Again!

by Mark, K9MQ

Recovery Team (Big shout out and thanks to them!)

Chuck, KC9OYE (Valparaiso, IN)
Greg, W9GND (Argos, IN)
Michael, N9MRC (Hancock County, IN)
Richard, K9ILU (Culver, IN)
John, N9VOB (Kokomo, IN)
Bill, WD9GIU (Peru, IN)
Mark, K9MQ

Payload:

Byonics MT-1000 APRS Tracker with dipole antenna
Spot Gen3 Tracker
360 HD Camera
Data Recorder inside payload temperature and outside temperature

Stats/Facts:

Maximum Altitude Reported by APRS: 98,691 FT
Direct Miles from Hobart: 92.28 miles
Ground Miles (actually flown) from Hobart: 110.69 miles
Maximum Speed: 85mph
Flight time: 2 hours 33 minutes
Ascending time: 1 hour 59 minutes
Descending: 34 minutes
How far off of Prediction: 17 miles to the Southeast
Balloon Flights since starting project: 2 (2015 and 2016).
Successful Recoveries: 2
Recoveries from trees: 2

Facebook Live Launch Video:

https://www.facebook.com/brent.vermeulen.31/videos/10107105521614658/?hc_ref=PAGES_TIMELINE

Pictures/Screenshots:

<https://flic.kr/s/aHskGzLC1i>

73 Mark, K9MQ
mark@k9mq.com



Milwaukee location. The store was closed for a little less than a month while HRO remodeled it.

My last visit to the Milwaukee location was approximately five or six years ago when we took a group trip to visit. We were greeted to empty shelves, empty pegs, and in the demo area all of the microphones were removed from the remaining radios. It looked like they were getting ready to shut down. At that time, we decided that it was no longer worth traveling up there.

When HRO announced that they were taking over the Milwaukee location, I was ecstatic. It could only get better. HRO posted many pictures and videos on Facebook showing the remodeled store and I could hardly wait to get up there to check it out.

When I got up there and walked in, the store looked a lot better. All the walls, shelves, pegs were full with product. For the first time ever, someone actually came from behind the counter out on to the sales floor to see if I needed help. There was a table setup on the sales floor with donuts, water, and pop. AES used to have full wall dedicated to used equipment, HRO only dedicated an endcap to it.

The wall that used to be dedicated to used equipment, is now the demo wall. This is probably one of the best parts of the store. They built a bench that runs a good length down this wall allowing customers to evaluate many different radios. I counted over thirty-three radios that were ready to be used on the air. All major brands were represented, all different price points from entry price all the way up to the Kenwood TS-990S being sold for \$6800 could be used. They had HF, VHF, and UHF rigs. They also were demonstrating a DVAP dongle (for DSTAR) and a scanner.

It was definitely worth the trip up there. I came home with a full shopping bag of miscellaneous odds and ends. Hopefully they bring back Superfest. HRO should be able to have great success with it and I would definitely attend.

