Short Skip

Volume 68 Issue 10 October 2019

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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 President

Next Club Meeting: Friday October 11th @ 7:30. Mark your calendars!

Station Grounding: After one of the longest and biggest lightning filled storms I can remember Friday the 27th with each lightning flash I thought about my antenna grounds. When not using my station, I disconnect the coax from the back of my radios, switch the antenna to ground position and UNPLUG THE 120VAC WALL PLUGS. I sleep just fine now.

Lightning will most likely enter your house via electrical grid surges. If the shortest path for those surges to find ground is through your well-grounded radio equipment, then that is the path it is going to take. Unplugging your equipment and the coax when not in use eliminates that short cut.

Consider purchasing the book from the ARRL on station grounding techniques. Also if you do a search at ARRL.org on "lightning" you can download multiple articles on the matter. Apply what measures you can. It is unlikely you can prevent all lightning damage if it finds you, but you can blunt the damage.

FALL IS HERE, Winter is coming: with cooler weather now is a great time to plan, install, or upgrade your antenna and ground system. Remember… "Don't Delay, Because Time Will Not".

AMSAT REPORTS; that an Antares II launch vehicle will carry 15 CubeSats into orbit on October 21 from Wallops Island as part of NASA Educational Launch of Nanosatellites (ELaNa) Mission 25.

TJ REVERB, developed by students at Thomas Jefferson High School in Alexandria, Virginia, will carry a 145.825 MHz APRS digipeater.

HuskySat, a University of Washington - Seattle project, will be boosted into a 500-kilometer (approximately 310-mile) orbit via the Cygnus external deployment device. HuskySat will carry a V/U linear transponder provided in cooperation with AMSAT. (Usual LEO orbit height is

Other satellites announced for the ELaNa 25 launch include Argus (St. Louis University), 437 MHz telemetry; AzTechSat-1 (NASA Ames Research Center) 437 MHz telemetry; CySat (Iowa State University) 436 MHz telemetry; Phoenix (Arizona State University) 437 and 2400 MHz telemetry; RadSat-U (Montana State University) 437 MHz telemetry; SPOC (University of Georgia) 437 and 2400 MHz telemetry, and SwampSat II (University of Florida) 437 and 2400 MHz telemetry.

IS KENWOOD RADIO Dropping Out of Amateur Radio Equpment???

This has been discussed as happening "any day" since 2007. It is Kenwood Australia that has no interest in amateur radio because presumably there is very little or no money in it for them.

THE ARDC has announced what's being called "a very generous grant" to Amateur Radio on the International Space Station (ARISS) to help fund its next-generation Interoperable Radio System (IORS) and associated infrastructure improvements and enhancements. ARISS said the IORS will replace the aging amateur stations on the ISS to ensure the continuation of its primary program that lets students speak to ISS crew members via Amateur Radio. New would be; SSTV, and APRS. The donation amount was not disclosed.

LUNAR ORBITING SPACE STATION 2022: The ARISS International team has already begun planning for an Amateur Radio role for NASA's Lunar Gateway initiative About the Lunar Gateway

The Gateway will be a small spaceship in orbit around the Moon that will provide access to more of the lunar surface than ever before with living quarters for astronauts, a lab for science and research, ports for visiting spacecraft, and more. The Gateway will have living quarters, laboratories for sci-

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MEETING MINUTES

September 13 2019— Russ, KB9HO

Meeting called to order at 7:31PM

Tim spoke about the club and Amateur Radio.

Introductions were made with 18 members and 2 guests.

Tim talked about the Wed 2 meter net and what its purpose is for.

The ARRL is selling a 3 book set to teach new amateur radio operators on how to get your station up and running. Also, Tim spoke about Pod casts with a program on every two weeks called What's next about helping new amateur radio operators get on the air. The club also has a list of Elmers on the club website.

France has withdrawn the motion to put Aeronautical mobile on the 2 meter band.

The treasury's report was read. We now have 58 members with a new member now for a total now of 59.

The minutes were read and accepted as read.

The Porter county Amateur radio club will have a ham cram class on Sept 28 at the EMA building. The class is free with lunch at a nominal charge and the cost of the test afterwards.

Tim was asking about interference on the 240 machine as the new repeater is now in operation. Bill has asked to have members when using the repeater to put out the call sign and then wait 15 seconds and call again with what repeater he is using.

The program started about the ITU International Telecommunications Union which is sponsored by the UN.

Meeting adjourned at 8:20PM

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ence and research, docking ports (like doors) for visiting spacecraft, and more. It will provide NASA and its partners access to more of the lunar surface than ever before, supporting both human and robotic missions. The module would allow astronauts 3 month stays and will be 1/16 the size of the ISS.

AND it will have an amateur radio station onboard!

LINKS OF INTEREST

The End of KIenwood? Check this out **https://lhspodcast.info/2019/09/lhs-episode-302-the-end-of-kenwood/**

Want to Scan DMR? Check this article: **https://www.scanner-school.com/how-to-scan-amateur-radio-dmr/**

NEED HELP? CALL ON THESE ELMERS

Tim N9CA

Bill N4GIX

Bill Young N9QLS

Russ KB9HO

Andy W9FXT.

Also it was mentioned Mark K9MQ is an ARRL Tech Specialist and can be called on.

The club has been informed that Bowman Electronics in Valparaiso will do tower climbing and antenna repair. Give them a call at: (219) 462-7933 or stop and see them at: 504 Marquette St, Valparaiso, IN 46383

FCC PROPOSES TO MAKE ALL UNIVERSAL LICENSING SYSTEM FILINGS ELECTRONIC

From ARRL Letter Sep 9, 2019

The FCC is seeking comment on a Notice of Proposed Rulemaking (NPRM) that is part of an overall plan to transition completely to electronic filing, licenses, authorizations, and correspondence. The notice proposes to make all filings to the Universal Licensing System (ULS) completely electronic, expand electronic filing and correspondence elements for related systems, and require applicants to provide an email address on the FCC Forms related to these systems. Although much of the FCC's ULS filings are already electronic, the changes suggested in the NPRM (in WT Docket No. 19-212) would require all Amateur Radio Service applications to be filed electronically. Under current rules, Amateur Radio applications may still be filed manually, with the exception of those filed by Volunteer Examiner Coordinators (VECs).

"Given the drastic changes that have occurred with regard to the ubiquity of the internet and increased personal computer access, we find it unlikely that electronic filing remains infeasible or cost-prohibitive for the previously exempted types of filers, or that they lack resources to file electronically," the FCC said in the NPRM, which was released on September 6. "We therefore propose to eliminate Section 1.913's exemptions to mandatory electronic filing."

The FCC said that while the vast majority of ULS applications today are submitted electronically, some are still manually filed, largely from exempted filers, such as radio amateurs. Last year, the FCC received some 5,000 manually filed applications out of a total of some 425,000 applications. Among other aspects, the FCC is seeking comment on whether its underlying assumptions about the ease of electronic filing for previously exempted filers are valid.

This NPRM also seeks comment on additional rule changes that would further expand the use of electronic filing and electronic service.

"Together, these proposals will facilitate the remaining steps to transition these systems from paper to electronic, reducing regulatory burdens and environmental waste, and making interaction with these systems more accessible and efficient for those who rely on them," the FCC said.

Comments are due within 30 days of the NPRM's release.

OCTOBER PROGRAM

It will be a surprise! You will have to come and see!!

Scan this code to go directly to our web page w9lj.org

Becoming a Ham

Guy Johnson, N4DEL

A few days ago I was tuning 40 meters, I heard some slow CW, about 8 wpm. As I mentally copied the CW, my mind drifted back to 1956 when I first became a ham. Back then, to be a Novice, you had to know CW at 5 wpm and pass a written test.

Well, the anticipation of being able to communicate with people by radio from your home was a tremendous turn-on for me.

At an early age, I built crystal radios, and would listen far into the night, sliding my contact arm on the home wound coil and using a cat whisker to peck around in the crystal. My earphones gave just enough volume to hear baseball games, storytellers and even picked up some stations with languages foreign for a ten year old.

Later, I would pull my red wagon up and down alleys, and gather anything that was remotely connected to electricity. Motors from washing machines, junked radios, and on one occasion I hit the jackpot with a television!

With an old coal bin in the basement turned into my "shack," I would spend hours tearing apart motors, radios, vacuums and getting them running. My greatest accomplishment was repairing a TV, as at that time my parents did not have one! What a surprise when they returned home from work and found me watching a RCA 9" TV with Howdy Doody!

The year before I entered High School I took my Novice test and passed and became a Novice. With money from my paper route I had bought a used **SX-99 Hallicrafters receiver** and a Heathkit transmitter. I strung a dipole between my neighbors house and mine. With a few fixed crystals I was ready to talk to the world. Hour after hour I would send out CQ's and tune up and down for reply's. I made hundreds of CW contacts from all over the US and even some DX!

I was now ready for the big time. Phone! Voice! AM! Time to get my General. Aha! 13 wpm CW and a technical test on vacuum tubes, power supplies, receivers, transmitters, rules, and operating procedures. Well I had read, studied, used, and practiced CW till I was blue in the face. Test time came and as I set in the cold, dreary FCC testing room in St. Louis, my palms sweated and my hands trembled. What was this 13 year boy trying to do? Fourteen other adults and me.

Then came the CW test. We had to copy 13 words error free out of a 5 minute test. The tape was turned on. The first sounds were like the blast of a machine gun. Just one continuous stream of 'dits' and 'dahs.' After about one minute I had a jumbo mix of letters and numbers that made little or no sense. Trying to focus I let my mind start leading my fingers with little or no thinking about what I was copying. I did not look back at the words, I just kept copying and writing.

Suddenly the tape ended. The silence was almost deafening. Out of the 15 in the room, four got up and left without turning in their CW copy. I quickly scanned the crooked letters on the paper. There were words! Real words five letters long. Did I have 13 in a row? The monitor quickly gathered the papers. He said that we could not take the written test unless we passed the CW portion. Two more got up and walked out!

Time passed as I watched the second hand on the clock seemingly stop, and at one point it appeared to actually click backwards! The monitor called each individual up to the front. He mumbled a few words and the individual either returned to his seat or if he had failed he would walk out. Then with a thundering roar like God from Mount Sinai, I heard my name! This was the do or die, the beginning or the end, to fly like an Eagle or sink like a rock. I slowly rose, my knees felt weak, a sicken feeling rose from stomach. Did I pass? Would I have to do this all over in 3 months? He looked in my eyes and raised the test paper. Here it comes. "You managed to pass." he mumbled. Return to your seat for the written portion.

I had not really let it sink in. I had actually passed! I had actually passed! As I fell limply into my seat I knew that I was going to be a General Class Amateur. The technical test would be a no-brainer. In about an hour, he said the magic words. "Congratulations K9LLY."

Today I am still active with an Extra Class License and former President of a radio club in Florida. I still love the hobby and find the new technical modes exciting. We are getting young people involved again, despite the competition from cell phones, games and PC's.

Guy Johnson, N4DEL, is a special contributor to AmateurRadio.com and writes from Florida, USA.

SIGNAL IDENTIFICATION GUIDE

Ever hear a signal on the radio and you don't know what it is? Check out this website for audio files of over 377 different digital signals, both amateur and commercial. Most interesting.

https://www.sigidwiki.com/wiki/Signal_Identification_Guide

*FOR SALE: Got some radio gear for sale? Looking for some radio gear to purchase? Check out the new FOR SALE page on the club's website — **https://lcarc.weebly.com/** -sale. Scroll down to see the most current items or click on the ARCHIVE section to see items for sale in previous months. If you have something that has been sold, be sure to contact John, W9WY for information to have your listing removed. There is no charge for club members to list their items. This is a service for members.*

WHO'S HOLDING TELEVISION BACK?

GIANT CORPORATIONS SPEND MILLIONS TO PERFECT "RADIO MOVIES" — STILL SOMEBODY, SOMETHING, DEFIES THEM!

By Alton Cook — from Radio Guide, week ending Feb 6, 1937, pp. 3, 45

Two of radio's huge corporations are staking their biggest brains and fantastic chunks of their money on the wildest, most extravagant gamble science has ever undertaken.

Their prize—if they win—is television, and a good chance that the new device will plunge the whole radio business back into the chaos we used to call "radio's infancy." If they lose—if the big brains and the big chunks of money can't beat the technical obstacles—radio can proceed along the comparatively orderly paths it now is following.

With these stakes what they are, maybe it is not wild to suspect that the heads of the huge corporations sometimes look wearily into the future and hope that the sums lavished in television are being spent in vain. But they don't dare stop. If one corporation stops, the other will carry on—or if they both stop, there will be eager brains and financiers abroad, perhaps others here, to pick up the task. There is no quarter.

Everything about television is staggering in its proportions—the cost of its development, the incredible complexity of the process, the unprecedented sums that will be needed to give the industry its start if television ever does go into its commercial phase. Just what point of development must be reached to make television commercial or when that will happen are guesses no one close to the industry will hazard. The optimistic place it years away.

In the laboratory, television already is a reality. It has been for years. Two powerful new television transmitters are in daily operation: one in Philadelphia, the brain-child of Philco and its youthful genius, Philo Farnsworth; the other at the top of the Empire State building in New York, an extravagance financed by the Radio Corporation of America with Dr. Vladimir Zworykin as head of the invention and experiment corps. Both operate in strict secrecy. They transmit their pictures through the air, but the secret is kept because there are only a handful of receivers in existence to pick up the faint impulses and change them into recognizable images of the original pictures.

Every two or three years each of the corporations cautiously has invited a few outsiders, scientific and journalistic, to see what state the experiments have reached. Carefully minimizing the importance of the whole thing, RCA last summer showed off the green-and-white pictures its television produces.

The visitors were divided into two parties, one at a receiver and the other at the transmitter. First we watched Frank Mullins, an RCA publicity man, stand under a battery of hot, blinding lights, talk casually and smoke a cigarette. Some ten feet away from him was the television camera, shaped approximately like the large-size cash-registers seen in department stores. An operator, eyes glued to a sighting range, manipulated the controls.

Then the Klieg lights went out, the camera was wheeled to a window and its nose turned on some firemen about a hundred feet across a courtyard. The firemen climbed ladders and turned hoses on smokepots burning for the occasion. The controls were moved again and the camera trained on traffic passing over a bridge, about three hundred yards away. For the rest of the transmission, the camera was wheeled away and a motion picture sent out over the air. A standard movie projection machine was used with a special head containing the same sending apparatus used in the camera.

Driving the couple of miles to the receiving station, we went into a dimly lighted room and found two television receivers that looked exactly like medium-sized cabinet radio sets. They had about a dozen dials, each of which had to be carefully adjusted to bring the picture into clear focus.

The top of the set lifted back as it would on a radio set with phonograph attachment. Instead of the phonograph record turntable, there was a hemisphere resembling the end of a huge electric-light bulb, some eight inches in diameter. That was the iconoscope. The picture appeared on the end of the iconoscope, could be watched there directly as one leaned over the top of the set. The picture was reflected also in a mirror inside the lid of the set and could be seen from a circle of chairs a few feet away.

In the mirror appeared a greenish Mr. Mullins, talking again and smoking another cigarette, calling attention to the fact that the cigarette smoke was plainly visible. The firemen obligingly climbed their ladders again, repeating their part in the demonstration. It was a sunny day but the picture was comparatively dark. Features of the firemen could not be distinguished but the distinctive shape of fire hats was clearly discernable.

When the traffic on the bridge was shown, the difference between a sedan and a truck was plain, but it was impossible to tell whether the sedan was a Ford or a Lincoln. The most satisfactory part of the demonstration was the transmission of motion pictures. It was not as good as theater projection, but it approached the standard usually achieved at home with a moderate-priced camera and projector.

In all the pictures there was some flickering, occasional blackout and now and then a blizzard of white dots. The dots are what crackling static does to the television picture.

This was television under the most favorable conditions—laboratory conditions. It was not perfect, but assuming television arrived in homes tomorrow, it would be adequate. Adequate, anyway, until novelty wore off.

The final session of RCA's demonstration was another meeting with Mullins and Zworykin. All the visitors were cautioned not to take the show too seriously. Optimistic talk about television would cut heavily into the sale of radio sets and RCA is in the radio-set manufacturing business.

Not long after that, Philco opened its doors and the same selected observers were permitted to see what Farnsworth, brainy assistants, and huge outlays of Philco cash had accomplished. In performance they have achieved about the same level as has RCA. The methods of sending and reception differed considerably, but to the observer the main difference was that Philco's television pictures were yellowish instead of

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greenish. Talk in the Philco plant is less conservative than it is at RCA, but they make it emphatic that television is nothing to count on immediately. Philco is a radio set manufacturer, too.

This conservative spirit is understandable from a propaganda standpoint. A casual examination of the hurdles television still faces makes the pessimistic attitude seem justified. In fact, one wonders why hard-headed businessmen lavish money on such a visionary thing at all.

In the first place, no progress has been made toward overcoming television's biggest technical bugaboo. Television must use radio's ultra-high frequencies: the short waves—so short that your short-wave radio set is not equipped to receive them. These ultra-short waves, unlike the waves used in standard commercial broadcasts, do not follow the curvature of the earth. They go straight to the horizon and slip off into space. Consequently, a television station will not transmit farther than a man with field-glasses can see from the top of the station's antenna.

Twenty-five miles would be an absolute limit. Fifteen to eighteen miles is what is usually achieved. Who will finance the construction of television stations at intervals of thirty miles or less through all the densely populated sections of the country?

Network television broadcasts are prohibitively expensive. Ordinary telephone lines will not carry television as they carry radio. A special cable has been devised—the coaxial cable. One has been strung between New York and Philadelphia because it could be used for multiple telephone messages. The cost for those ninety miles was in excess of a million dollars. Still, if Chicago and New York were to watch the same television show, a similar cable would have to be strung straight across the country and reserved for television.

Zworykin recalled the early days of radio, when any bright youngster with a screw-driver, a pair of pliers and thrift enough to save part of his allowance could build a little radio set. Not a good radio set, perhaps, but good enough to interest Father and Mother in this new device to bring music into the living-room without getting up to change the records.

"There won't be many amateurs tinkering with television," Zworykin went on. "At least not until we can modify the construction a good deal. Television sets are too complex for any tinkerers except advanced technicians. I'm afraid it's going to take a lot longer to get television sets marketed than it took for radio."

Any guess about the cost of sets is a mere conjecture. So much of the equipment is made only in small quantities on an experimental basis, that it is impossible to say exactly what economies could be achieved under quantity production. It is clear, though, that the smallest-size television receivers, showing a picture perhaps four inches square, are not likely to appear on the market for less than $300—and engineers scoff at placing the figure that low.

The tube on which the pictures appear Zworykin's iconoscope or Farnsworth's cathoray tube, can be obtained now for around $100. But the tube is highly perishable. Its ultimate life is one thousand hours at most.

Let us assume that when television does appear on the market, that indispensable tube will be down around $25, certainly a limit in optimism. It will last two months. How many families will be willing to undertake such constant expense of replacement?

Authorities on television evade this question—but there is some talk that television without wires is not likely to become a reality. It may be handled by the telephone company. A receiver is installed in your home. You call to see what tonight's program is and you pay a service charge if you want it.

Reception of television is possible only in a darkened room and it must be watched closely. It will never be a satisfactory accompaniment for reading, bridge games, conversation, or the morning housework.

Sum up all these obstacles and it's easy to see the gallant courage of the men who stubbornly carry on the visionary experiments. So much remains to be done!

For the recent opening of RCA's new television transmitter in New York's Empire State building a brief variety show was staged. After a whole evening of rehearsal; the show was received on about a dozen transmitters.

The next step with that expensive new transmitter is immediate dismantling and modernizing. After only five months of operation, engineers have discovered new factors to make it obsolete. All the receivers built to pick up the picture go into obsolescence with the transmitter.

The end of such rapid change is not yet in sight and each change must be approved not only by engineers but by the Federal Communications Commission. By the time final approval comes for one change, engineers are busy experimenting with another.

The static-ridden air of New York City has confronted television with another bugaboo—though this one was expected. Doctors' diathermic apparatus, very good for the health, perhaps, simply ruins a television picture with static. Of course, the remedy for that is not scientific. It must come through legislation requiring proper shielding for all electrical equipment that might produce static.

There you have what the world has been permitted to know of television. Maybe they have been holding something back. But if you have a vacant corner in the living-room, don't count on a television set to fill it. At least not for a long time.

(Eric's note: Created March 15, 2004. This piece is assumed to be in the public domain as the renewal required under the old copyright rules was not found in Library of Congress records. Any evidence to the contrary can be sent to enwilson(AT)gmail(DOT)com. I'm a scrounger, not a thief.)

Silent Key - Dwayne Thomas KB9PXU

This morning, Sep 12, 2019, I received an email from Andy & Pat that yesterday they received a call advising that Dwayne had passed away that morning.

I considered Dwayne and his late wife to be close friends (after all I did preside at their renewal of vows) but realized that after she passed and Dwayne managed to accidentally burn down his half of the duplex that he wanted to be left alone.

I only spoke with him on Jim's 2m repeater (when it was still analog) briefly when he pulled out his HT and announced he was monitoring, but after a few brief exchanges he signed off and I never heard from him again. Since he had moved and his phone number had changed, I didn't learn where he had moved to until a few years ago. I thought about visiting with him, but decided not to intrude on his privacy.

It was rather odd that he kept his license active, having renewed it 2017-05-10 although I never heard him on the radio at all, but at least his QRZ entry gave his new address...

Nonetheless, I am deeply sorrowed by his passing.

73 de N4GIX - Bill