



# Cleveland Chapter One **NEWSLETTER** Established 1951

Winter Quarter 2016

W8LYD 146.850 PL 110.9

<http://qcwa-cleveland-1.org>

## Winter Luncheon is January 9th at *The Play Arcade and Kitchen* in Mayfield Heights

### DIGITAL VOICE MODES IN AMATEUR RADIO



Our **Saturday, January 9th** meeting will feature ARRL Technical Specialist **David Andrzejewski, KD8TWG** discussing the various digital voice modes in ham radio. For years, the ham community has developed its skills in advanced digital non-voice modes such as PSK-31. Digital voice, which is commonplace in the public service arena, is making headway in our hobby, too.

David will discuss the various digital modes that are available such as D\*Star, DMR, Fusion and P25. He will compare the features, advantages and disadvantages of these platforms.

Join us starting at 11:30 a.m. for our quarterly luncheon. **The Play Arcade and Kitchen is the old Boneyard where we used to meet at 5900 Mayfield Road in Mayfield Heights.** Eat off the lunch menu for about \$10.00. Door prizes, 50-50 raffle, music, and fellowship awaits! Please bring a friend! ■

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### DUES NOTICE

Chapter dues for 2016 are now due. Please keep our club strong by paying your dues on time. We have had no increase in over a decade.

Mail your \$10.00 check, payable to **QCWA Cleveland Chapter 1**, to our treasurer:

**Dave Foran, WB8APD**  
**5439 Nan Linn Drive**  
**Willoughby, Ohio 44094-4365**  
**Thank you!**

### DIRECTIONS TO LUNCHEON

Exit I-271 at Mayfield Road (US 322) Westbound. Travel about 1 mile to Lander Road. Drive past Lander Road and the restaurant will be on your left after Staples. Enter through front door!



## Cleveland Chapter One Newsletter

**Editor:** Robert M. Winston, W2THU

**Past editors:** George Mistic, KE8RN; "Dee" Logan, W1HEO; Bernie Hinrichsen, W2NTB (SK); Joe Zelle, W8FAZ (SK); Joe Tomazic, WT8P (SK).

**Distribution:** Robert M. Winston, W2THU

**Roster changes:** Notify Secretary Al Moriarty, N8CX; (216) 221-3682; <n8cx@mindspring.com>

**Meetings:** Second Saturday of January, April, July, and October at the *Play Arcade and Kitchen*

**Dues:** \$10.00 per year.

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### Chapter One Officers

**President:** Robert M. Winston, W2THU; (216) 924-3314, <w2thu@arrl.net.>

**Vice President:** Al Moriarty, N8CX

**Secretary:** Al Moriarty, N8CX; (216) 221-3682 <n8cx@mindspring.com>

**Treasurer:** Dave Foran, WB8APD; 5439 Nan Linn Drive, Willoughby, OH 44094; (440) 942-0618 <wb8apd@hamnet.org>

### Operational Group

**Membership:** KE9UL

**Net controls:** N8ZT, KC8UIQ

**QCWA Journal reporter:** WB8N

**License trustee:** W8WGO

**Awards chairman:** W8WGO

**Chief radio officer:** K8QOT

**Chapter musicians:** WA8OZC, WB8ADF

**Sunshine reporter:** Dick Ingraham, WA8TPP, <reingraham@sbcglobal.net >

**Web administrator:** K8ZGW, <dritchie@dr.com>



*Please notify Secretary Al Moriarty of any changes in your address, e-mail etc. so your roster information can be kept current. Thanks.*

## PEOPLE

### New Member:

**Patricia Turpin, AB4CT**, Westerville, Ohio. Welcome!

### Sunshine:

**Tom Wayne, WB8N**, is rehabbing at a facility on the east side after a couple of stays at South Pointe Hospital.

### Recent Activities:

**Gary Zimmet, WA8TJL**, built a homebrew pneumatic antenna launcher for LEARA Field Day, that he demonstrated at our fall luncheon.

**Dave Foran, WB8APD**, retired from the LEARA board of trustees after 40 years of service. (Dave remains as QCWA Chapter 1 treasurer.)

**Al Lada, WA8OZC**, is planning a 2016 Caribbean cruise.

**Ken Kling, W8VZT**, and XYL are part of a fundraising team for the Juvenile Diabetes Research Foundation and on the church worship team.

**Craig Kollai, N8ZT**, is now on the Board of Trustees of the Aurora Community Theater. He and Elizabeth are going to Disney World to celebrate his 40th birthday. (No surprise there.)

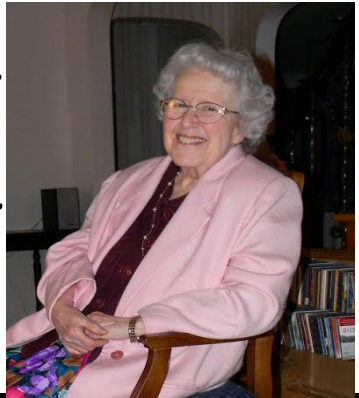
**Jeff Covelli, WA8SAJ**, restored one of the original Swan SW-140 radios built by one of the Swan founders, John Linton, W8DKI.

### Deaths:

**Mary Ingraham**, former First Lady of QCWA Chapter 1 and XYL of **Dick, WA8TPP** (see page 3)

**MARY A. INGRAHAM**  
*Chapter 1 First Lady*  
 (1930-2015)

*QCWA Chapter 1 mourns the loss of this gentle lady. Our thoughts and prayers are with Dick, Brad, Heather and family. May she rest in peace.*



**MESSAGE FROM OUR SECRETARY**

Hi again everyone and please let me wish you and yours a very, very happy, prosperous and healthy New Year.



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I certainly hope that everyone had the very best of Holiday and Christmas seasons.

Well, welcome to the “almost” winter. Getting colder but no snow yet!!! The bands are usually awful unless you have BIG antennas and LOTS of power. We are dropping rapidly into the bottom of the cycle, known as “the pits.” This usually lasts for about 2 to 3 years before we start climbing up again.

A quick mention about our quarterly meeting which will be next Saturday, January 9th. Location is specified elsewhere in this newsletter. Please attend the meeting as this is one of the very few times we get to see and talk with each other during the year.

Okay, that’s about it for now. I hope to see all of you at the meeting and as for one of my New Year’s resolutions, to be on and hear you on the net much more often.

In the meantime, the vy vy best 73s to u es urs.

**AI, N8CX, VP/Secretary**

**CHAPTER 1 DIGITAL VOICE REPEATER IS ON THE AIR**



We reported in the previous newsletter that our chapter had purchased the Yaesu DR-1X digital repeater from the manufacturer for \$500.00. This is the discount price offered to all repeater owners who wish to spread Yaesu’s version of digital voice (system fusion or C4FM) throughout hamdom.

The repeater arrived in mid October and it was installed in a temporary location in Newbury shortly thereafter by club chief radio officer, **Jimmy Procker, K8QOT**. Because repeaters designed for amateur radio have poor out of band rejection, it was necessary to install pass band filters to keep unwanted rf out of the receiver. **Bill Hess, K8SGX**, assisted in this process.

The repeater is temporarily operating on 146.67 MHz, (pl 110.9Hz). I am able to key it up from my QTH in Perry Township, even though there is a lot of dirt between here and Newbury. I am told that my signal is almost full quieting as is the repeater output at my location. Several Chapter 1 members have been heard on our new machine.

I urge everybody to try our new Yaesu repeater. It functions as a traditional FM analog machine as well as a digital voice repeater. Once you have determined that you can talk through it on analog FM, the next step is to obtain a digital voice HT or base radio. Right now, the Yaesu FTM-100DR 2m/70cm dual band mobile or base radio sells for \$340.00, while the FT-1DR-HD dual band HT costs \$270.00. These prices are considerably less than the Icom D\*Star digital voice radios.

Share your experience with the DR-1X by checking into our Wednesday weekly net on 146.85MHz at 8:00 PM.



## *Birthdays this Quarter*

Happy Birthday to the following Chapter 1 members. Many happy returns and many, many more birthdays as well.

(Compiled by Al Moriarty, N8CX)

### January

K8PP	Fred Doob	1/15
KD8OXS	Tim Hunter	1/16
WA8KHL	Robert Rohoton	1/18
N8UIN	Sherrell Wimer	1/21
W8DDD	David Dennis	1/28
WB8LDV	Charles Martin	1/28

### February

KC8FF	Betty Scholtz	2/18
KC8ZOE	Floyd Wimer	2/21
KE8RN	George Mistic	2/22
WB8APD	Dave Foran	2/23
N8IJG	William Wihebrink	2/29

### March

K8EHP	Michael Cegelski	3/2
K8HLJ	George Harizal	3/2
WA8NJP	Charles Whalen	3/2
N8OOG	Jim Wimer	3/4
N8TCN	Charles Collister	3/9
W8AZO	Marv Grossman	3/10
WA8VSJ	Arthur Lewis	3/11
AF8B	Don Norman	3/17
W8KYD	Ronald Mayer	3/18
K8JAD	Jeff Dettmer	3/19
W8DOE	Joe Gutoskey	3/24
W8WGO	Jack Goldfarb	3/29
W8VZT	Kenneth Kling	3/29

### ***Is your birthday missing or wrong?***

*Then, let our secretary know.*

*Birthdays are announced each week during the chapter's Wednesday night net at 8:00 p.m. on 146.850 pl 110.9. Join us! (Corrections to Al Moriarty, N8CX—n8cx@arrl.net)*

## HEARD ON OUR CHAPTER NET



*Instead of trying to answer a trivia question, our nets feature discussion questions.*

On 7 October we asked if you noticed any change to ham radio since the code requirement was removed in 2007.

**John, W8VRJ**, noted no specific difference but knows of an individual who couldn't pass the code but is a ham now. Likewise, **Mike, K8EHP** observed older folks getting into the hobby who wanted to be hams when they were younger but couldn't pass the CW test. **Dick, W8FDN** said that there are a lot more new hams since the code requirement was dropped. Nobody complained about poor operating. Rather, there is an increase in CW activity according to K8EHP.

The 11 November net shared interesting antenna installation stories. **Al, WA8OZC** explained that his vertical antenna was bent out of shape by the wind. He took the pipe to a muffler shop and they straightened it because they straighten exhaust pipes routinely! **Craig, N8ZT** told a funny story about tying a shoe to a line to get a wire antenna up in a tree. When the shoe got stuck in the tree he knocked it free with a soft ball. **Dwaine, K8ME** rented an 85 foot boom crane to erect his tower. A helper guided the antenna with a tag line when a burst of wind caught the beam and it just missed going through the living room window.

Should the U.S. adopt the metric system was discussed on 2 December. **Bob, W2THU** said yes because we already use it in electrical engineering, you don't have to memorize how many feet in a mile since it is all based on powers of ten and the entire industrialized world already uses it. **Ken, K8YLY** said he works in the machine industry and we should have converted years ago. It is easy to use and we use it in medicine.

*Why not add your 2 cents worth by checking into our weekly chapter net every Wednesday evening at 8:00 pm on 146.85*



# President's Perspective

By Bob Winston, W2THU

Happy New Year 2016 to all of our members and their families. My new year's resolution is that we all stay healthy, enjoy our families and friends and remain active in amateur radio.

Yesterday I received the monthly email message from QCWA National advising that the January 2016 *QCWA Journal* was posted on the website (qcwa.org). I was pleased to see our Cleveland Chapter 1 report was published, along with photos from our fall luncheon.

If you missed the luncheon, we presented awards to **Ken Kling, W8VZT** for 60 years, **George Pindroh, K8KR** for 55 years and **Jeff Covelli, WA8SAJ** for 50 years of service as licensed radio amateurs. Congratulations and many more years of activity in our great hobby.



For those who like contests, don't forget that our own QCWA QSO party is coming up the weekend of 12 & 13 March. Many states have QSO parties, but there is only one for QCWA members, so I urge you to participate.

I can think of two ways that you, our Chapter 1 member, can actively participate in our club. You can attend our quarterly luncheons and/or check into our weekly nets. Some members do both, some do one or the other, and some do neither. If you fit into the latter group, why not make it a new year's resolution to join us on the net or at a luncheon? Try it, you'll like it!

What else can we do this year to enhance our

ham radio experience? I suggest you try a new mode or band. If you find yourself on HF all the time, try VHF/UHF activities and vice-versa. Instead of operating CW, spend more time on phone. Instead of analogue, try digital. Never been on IRLP or Echolink or D\*Star, then give it a try. (The first two modes don't need any special equipment.)

If you haven't gone to a hamfest or Field Day, or taken your rig into the park or volunteered for a public service event, then 2016 is the year to make that happen.

How many of you look up the ham you are talking to on qrz.com during the QSO? Oftentimes you see a picture of the other ham's shack or tower. I was talking to an amateur in Spokane, Washington today and discovered he had a webcam in his shack. I could see him adjust the controls of his rig while he was talking to me. Cool or not? Are we letting the internet show up ham radio or is it just more fun? What do you think? Let me know.

In mid December **Dick Ingraham, WA8TPP**, **Jack Goldfarb, W8WGO** and I visited the ham station, **WA8VA** at the Cleveland VA Hospital. Jack and Dick had been very active in establishing and operating the original shack years ago and wished to see the new facility. We enjoyed our visit with **Dennis Doran, WB8WTU**, license trustee.

See you this Saturday for a great program and luncheon!

Best 73, Bob Winston W2THU



**Dick Ingraham, WA8TPP** and **Jack Goldfarb, W8WGO** at the Cleveland VA ham shack on 16 December 2015.

## A VERY UNUSUAL SWAN -140 TRANSCEIVER REVIVED

by Jeff Covelli, WA8SAJ

Recently I received a telephone call from one of my ham radio Elmer's John Linton (W8DKI, ex-W7IXX). Sadly John and his Wife Gerri are in an assisted home and John cannot operate H.F. from that location. John wanted me to have his 40-meter Swan SW-140 he built after Swan got started in Benson, Arizona.



### Some History:

The history of this 40-meter SW-140 goes back to the beginning of Swan in Benson, AZ. Circa: 1960. Herb Johnson (W7GRA) was going to build just the 40-meter version, but the demand for these great simple designed radios changed that, and then along came the 20-meter (SW-120) and the 75-meter (SW-175) versions. Herb had moved Swan manufacturing to Oceanside, California in 1962 to keep up with demand and in 1963 announced the Tri-Band version SW-240.

The radio I received from John was actually on a tri-band SW-240 chassis, because at the time John was not ready to build it until after he left Arizona in 1962 and moved to Eastlake, Ohio. Herb gave him the SW-240 chassis, front panel, cabinet, and VFO parts since Herb was now only making the SW-240 tri-band transceiver. John finally built it when he moved to Ohio and purchased some additional parts from Allied Radio. To complete the SW-140, he did have the VFO components for the 40-meter band, and plate current meter (with W8DKI labeled inside), VFO escutcheon and the rest were off the shelf items. I did not realize the chassis is all aluminum, not common in those days, but makes the radio very light and great for R.F. applications.

### Circuit Description:

As many of you know, Swan radios were very simple in design, using a single conversion scheme with no frills compared to the other manufactures. The early single band radios did not have an Automatic Gain Control (AGC) until the SW-240 tri-band radio came out and even with the added AGC; it had very fast delay time and you were always turning the R.F. gain control back to have the recovered audio sound pleasing, but for DX it was great. NOTE: Herb Johnson was a big time DX'er, so this is one reason I'm sure. I'll describe the SW-140 to make things easy to understand. The I.F. frequency Herb Johnson decided to use was around 5.500 kHz. This was in his opinion the best for the crystal filters he designed and all future Swan radios were built around. NOTE: Many years prior, Herb Johnson worked for Bliley Crystal in Erie, PA not far from where he was raised in Ashtabula, Ohio and he got plenty of experience with crystals at Bliley Crystal. By the way, Bliley is still around in Erie, PA. Now remember this was in the year 1960 when all this was done, so having a 4-pole filter was just the beginning of much better crystal filters to come from Swan, such as the very narrow standard 60dB to 6dB 1.7 to 1 shape factor for the 8-pole filter and the 1.28 to 1 shape factor for the 16-pole filter.

A 6DQ5 final PA was chosen for the cost and also could be used at high peak power for this particular application & horizontal mounting. Many hams don't like the use of sweep tubes for finals, but there were many radios using them for years and are still in operation today working just fine with sweep tubes. This SW-140 did not have any other extras like S-meter, VOX, CW side-tone, and transmit ALC, but John did use the socket cut out for the added receive "AGC" (V-14 12AL5) which was now used in the SW-240 and does improve the recovered audio as compared to a stock SW-140.

### Making it Work Again:

I had to rummage through all of John's notes and original manual along with many added goodies he put into his radio and finally it all made sense. I found out the VFO did not work on the 13 MHz frequency and wondered why, so I fortunately was able to see on the spectrum (page 7.)

**SWAN 140 (continued)**

analyzer, the VFO had been changed for some reason. So I re-tapped the Air-Dux coil and voila, the 40-meter band came to life! I also had low drive, so I made a few changes in the VFO area; caps, resistors, and a little tweaking was able to get about 1-volt P/P output and later found replacing the 12AU6 with a 12BA6 increased the output even more and that is what I'm currently using.

I thought it might be nice to have a digital readout, since the dial is crudely calibrated in 5 kHz steps and the overall wider spread I wanted for the newer expanded 40-meter phone band would not work very well, so I added one of the inexpensive LED readouts you see on the WEB these days. By the way, the dial that is in John's radio is also for the SW-240 tri-band version, so you will see the 75 and 20-meter band labeled on it.

I aligned the receiver and it came to life, not bad for 50 years of sitting around. Getting power output took a little more work, and I found out the 6DQ5 final filament is in series with many other tubes and the filament voltage dropped more than 1-volt from 6.3 to 5.5-VAC, so I had to get some other 6DQ5 tubes and found the Sylvania type did not drop as much for the rest of the tube filament line up. I could re-wire the string of filaments, but for now it works fine. I used the sweep generator and spectrum analyzer to align the SSB filter. Now I was getting somewhere and with the four-pole SSB filter the reduced opposite upper side-band (USB) is not bad with LSB bandwidth around 3 kHz wide (300~ to 3300 kHz). Along with adding the digital readout, I decided the lack of an S-meter on this early radio was going to have to change for me, so I rigged up a simple 1 milliamp meter in a small box which I could mount next to the readout and have an S-meter to look at and it works great.

The plate current meter on the front panel is in series with the cathode line of the 6DQ5 final amplifier and I did not want to re-engineer the meter circuit, so I left it alone. Again Herb tried to keep things simple and his Keep It Simple (KIS) principle was certainly applied here. A cooling fan was also added on the back of the final cage to keep the 6DQ5 final cool.

There were many parts that had to be replaced because of age, mostly capacitors. I replaced all the filter caps, along with many of the bypass disc caps. I did change some of the coupling caps for improved AGC and audio response for receive and transmit. Most Swans have plenty of treble response and a little more bass response helps for rag chewing. Now if you are DX'ing, the treble response helps get through better.

**Final Thoughts:**

Some of the things I did to John's SW-140 were to install new knobs, new toggle switches, new "red" dial indicator behind the escutcheon, which is a Drake R-4B dial window with a red line. The red lamp next to the dial was a clear one and I thought the red would look better. Now the lamp mounted above the plate current meter was not stock and I added a red coated lamp along with a white lens material over it to shine light on top of the meter. Other than the added features; the radio is a 40-meter SW-140 inside a SW-240 tri-band, case, chassis, and front panel, hence the unusual title above.

I've had good audio reports with a little frequency drift, since it is a tube VFO and after an hour or so, it settles down. I have measured the VFO frequency and it holds well from receive to transmit. This was a great idea Herb Johnson had and I'm glad John was able to help out in getting the Swan Company off the ground in the year 1960.

A little side note on my relationship with John Linton. I met John in 1963 at Pioneer Standard in Cleveland, Oh when he was the manager of the ham-radio dept. John introduced me to many ham radio friends I still have today and many radio clubs in the Cleveland area. Speaking about radio clubs, John belonged to the Indian Hills Radio Club (Cleveland) and they were always on 75-meters, so this is why he might have changed the SW-140 to 75-meters. He also took me to my first Hamfest in Warren, Oh. John was my boss when I worked for Cleveland Mobile Radio & Mobile Telephone (Circa 1973). So having all these years of friendship means a lot to me and I thank you John for all the great memories.