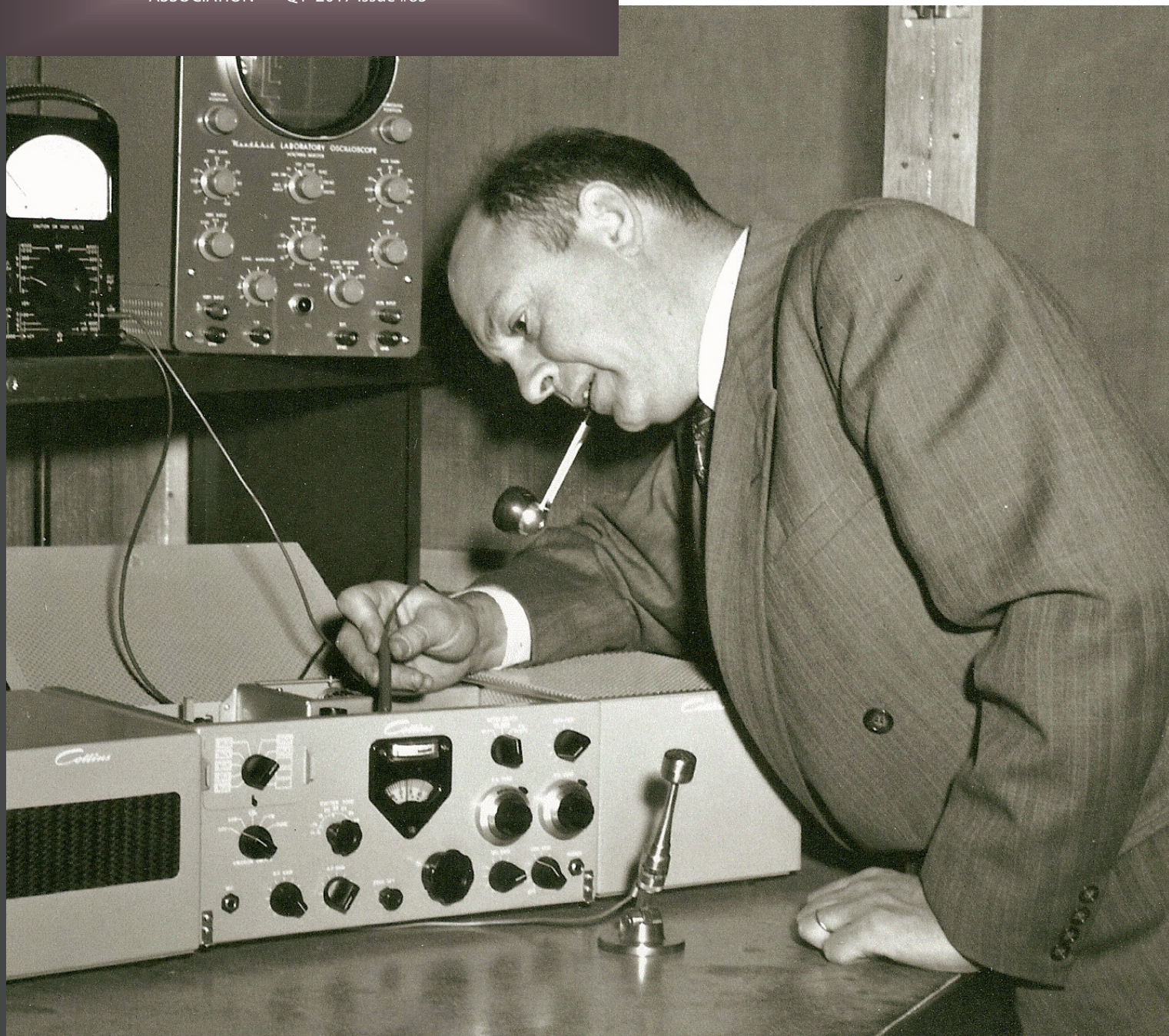


The Signal

OFFICIAL MAGAZINE OF THE COLLINS COLLECTORS
ASSOCIATION * Q1 2017 Issue #85



Gene Senti Creator of the KWM-1

From the President's Desk...

We are excited to see this first issue of the Signal for 1Q, 2017 come off the press. Scott Kerr KE1RR and his team (Don Jackson - W5QN and Josephine Toynette) continue to put amazing effort into the Signal so that when it arrives we just have to put everything aside to read it cover to cover. We are very blessed when different aspects of our hobby are suffering from lack of interest and a number of dear hams are becoming SK's. The Signal continues to breathe new life and vision into the amazing contribution of Mr. Collins and the Collins Radio Company. We look forward to an exciting year of Collins collecting and use of our valuable equipment.

These past few months, while recovering from some health issues, I began sorting through the amazing amount of Collins equipment I have been able to pull together to eliminate some projects I will never finish and to find some unfinished projects that I want to devote 2017 to bringing to conclusion. I began by re-arranging my Shack a bit to make it more functional. I plan to put up a new antenna next! The final chapter will be the completion of my AN/TSC60(V)5 HF-80 Comm Central Shelter. Maybe you have projects like this that can be finished this year.

Our Dayton Banquet is really coming together. I am looking forward to Francisco Ledda's talk on unknown Collins Communications Equipment. Several years ago I helped him obtain an AN/TSC 60(V) 2 shelter and visited his Shack. Francesco - K5URG has an amazing grasp of Collins equipment many of us have never seen. If you have not signed up for the banquet I urge you to sign up now. We have seen enough hints of the inner-workings of the Dayton Hamvention team to know they are working very hard to bring together a great Dayton event in their new venue! Look us up in Building 1 – booth 1005-1006. We will have cold water and a few snacks to enjoy in the sitting area and hope to have a few pieces of Collins equipment on display. I hope to see many of you there!

I want to conclude this note by saying thank you to all of those who work behind the scenes to make the CCA what it is. Thank you to all of you who contribute to our Reflector. The knowledge base of our members is amazing, and we do appreciate you sharing with others what you have learned! Thanks to the team who work to keep us on topic and diligently maintain the quality of the reflector. Thanks to all of you who diligently and professionally run our nets with dignity and faithfulness, from our leadership team down to the check in's. Thanks to all of you Elmers who invest your time in training up a new generation of Collins Collectors!

As we begin a new year I am anxious for your input to help us continue to reinvigorate the CCA and the preservation on Collins Radio. I look forward to hearing from you.

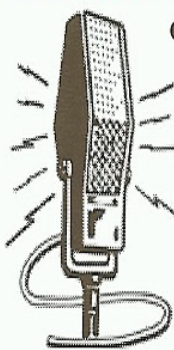
- Jim Stitzinger WA3CEX
President, CCA

The Signal Magazine

OFFICIAL JOURNAL OF THE COLLINS COLLECTORS ASSOCIATION ©

Issue Number Eighty Five - 1st Quarter 2017

Join Us on the Air!



- Sunday 14.263 MHz at 2000Z
- Tuesday 3805 kHz at 8pm CST
- Thursday 3805 kHz at 8pm CST
- Friday (West Coast) 3895 kHz at 10pm CST
- Sunday 10m AM 29.050 MHz

The Signal Magazine

The CCA is licensed by Rockwell Collins to reproduce and disseminate Collins copyrighted documents related to Collins products used in amateur radio applications.

The Collins Collectors Association
P.O. Box 1269
Wimberley, TX 78676-1269

www.collinsradio.org

You can renew your membership or join the CCA on our website using the "JOIN US" link.

From the Editor

On the cover – This is a famous picture of the creator of the KWM--1 – Gene Senti. He designed and built the prototype of the KWM-1 in his basement at home – forever changing ham radio. A 20-15-10 meter SSB transceiver in a small package that could be used both mobile and fixed base. This paved the way for the KWM-2 which, of course, covers 80-10 meters. Notice the Heathkit O-Scope and what looks like a Simpson VOM.

In this issue of the Signal, we have a story by Marshall Simmons as he restores a KWM-1. We have not done much in the Signal on the KWM-1 but this is a great little radio and one of the few 'Grey' radios that I do not own (but would love to find one!) There is also a great article by Karl-Arne Markstrom, SM0AOM, and Gunnar Tornqvist, SM0OTX, about the Collins Exhibition at the Nordic HF Conference HF16. We often forget that we have members all over the world who are passionate about Collins and there is a very active European CCA.

We are also including a recap of the financials for 2016. As you can see we broke even last year after a switch in printers for the Signal resulted in significant savings in both printing costs and postage. We should see a surplus this year which will allow us to start building some reserves.

Our In The Shack features Clarence Marshal - K5CGM - a long time Collins enthusiast. He wrote a very interesting history on his passion for Collins and he has acquired a nice collection. He is a faithful contributor and net control on our Tuesday / Thursday SSB net. Also, from Bill, is a great story about a 1925 Art Collins QSL card that has surfaced. This is a rare find and I am sure you will enjoy the story.

Finally, there is a significant announcement about a new CCA group – The HF Comm group. Several of us have become excited about restoring and collecting URG I, URG II and HF-80 Collins gear. Bill Carns – N7OTQ is going to head this new group and this will be an avenue for us to share ideas and resources for these radios. The next Signal (Q2 – 2017) will be dedicated to the HF Comm history and repair. Enjoy!

Editor in Chief,
Scott – KE1RR

Electric Radio Magazine Serving the Dedicated Collector



Electric Radio magazine is published monthly for those who appreciate Vintage military & commercial radio and the associated history.

- ◊ Edited & Published by:
Ray Osterwald, NØDMS
- ◊ Visit our website
<http://www.ermag.com/>

Subscription Rates: Periodical: \$34.00 - US 1st Class: \$45.00 - Canada: \$54.00 (US) - All Other: \$70.00



The Ugly Duckling

By Marshall Simmons, W6MWS

Ham radio collectors are always looking for something that is rare, restorable, and no one else knows about it. Most of the low hanging fruit was snatched up years ago.

Not so with my most recent find. Some old radios seem to enjoy a retirement home out of the weather, hidden in repose, just waiting for someone to pay attention to them. Such was the case recently when I stumbled upon a rare KWM-1 in a salvage place right here in my home town. I had seen it sitting on the shelf before, but this time I caught a glimpse of the script "Collins" logo and I asked the owner if I could take a closer look.

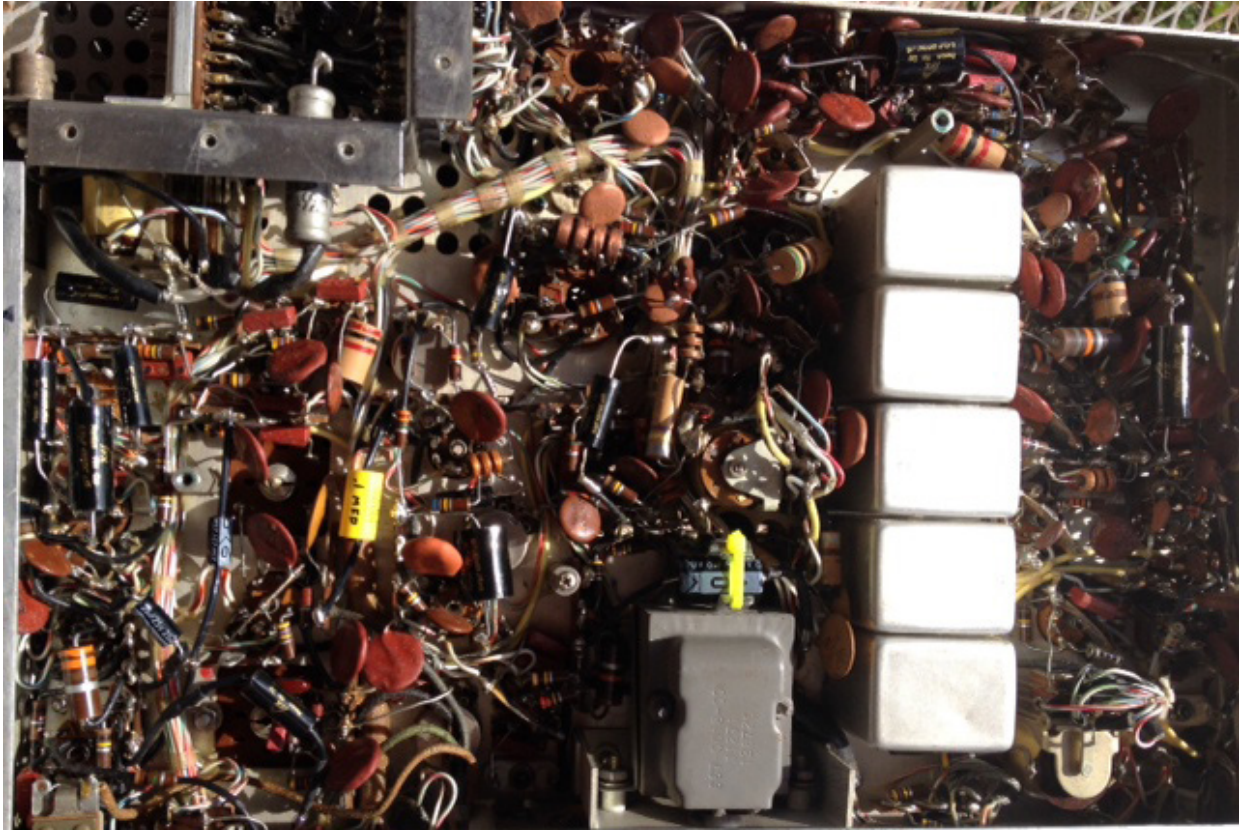
It was covered in dust and I still did not recognize exactly what it was, other than an ugly old box that seemed void of a model number at first look and absent dials or gauges of any significance. But as I began to survey the knob indicators, I recalled seeing one in a recent issue of the Signal, and my lights came on. I was holding a KWM-1, the predecessor of the famous KWM-2.

Without showing my hand, and skillfully holding back emotion, I paid the owner his asking price. As I walked out, I mentally added up the scrap value of the visible components as a means of justification for such a quick transaction.

It was only after I contacted Bill Carns and he asked some specific questions that I realized I had a prototype beta version that had been given to select engineers (and customers – ed,) to test out the design prior to committing to production. One preproduction run was made totaling just 100 units was made using the prototype configuration.. Verifying the authenticity was easy, at least for Bill... It had a 15 pin power plug mounted at right angle to the chassis, the script logo, the Bourns 10 turn knobs on the tuning controls, and a single latch on the crystal deck; all things that were changed in the final production design.



I immediately went to work restoring it to a functional transceiver. Stripping it down was out of the question. One look underneath revealed components stacked three deep and I did not even have a schematic of the beta design. Also, the knobs were obviously used by someone for a long time because much of the original paint was missing off most of them. So I reasoned that it must have been functional for at least a good part of its long life and keeping it in the original state was the prudent thing to do. The P/S was missing so I cobbled together an old 516-F-2 for that purpose.



Busy Busy Busy KWM-1 Prototype Underside
(Note the power plug area at the top rear left in the picture with the plug exiting to the side)



I ordered replacement capacitors for the old molded Black Beauties and the electrolytics. While I was waiting for delivery of components, I conducted a resistance check of every test point in the manual and made a note of any extreme variances in either direction. I also tested all tubes on my Hickock, and I looked for any shoddy repair work. The K2 relay had been changed and it was not a clean repair, but it might be functional if not pretty. I left it alone for the moment.

When the caps were delivered and I started replacing them, I found a couple of marked capacitor values that did not match the parts list, but the solder connections had the original marker paint on them, so I replaced them with the original values in the unit. Also, two of the Black Beauties were specified at 1,000 wvdc, while the original component had a 400 volt stripe. I had new 630 volts parts, and felt comfortable using them given the voltages present in the 516F-2 for other than the PA High Voltage. I also found two connections to tubes that had never been soldered; understandable, given the component density of this first transceiver ever built.

Installing new caps was a real challenge. Where possible, I would disconnect the old component from its connection points and install the new component as original. But when I came upon a multiple wire solder point underneath one or two other components, I simply snipped the original wire as a pig tail, coiled the new lead wire around a straight wire of the same dimension as a pattern, and slipped the coil over the old wire and soldered it. The purists would frown on this, but they probably never worked on a hand built prototype KWM-1.

The Collins Service Bulletin cautions against making changes to this radio unless the condition identified is actually causing a problem, for the reasons of compactness in the underside. This statement should not be ignored....it is the most difficult radio I have ever worked on underneath.

The filament layout is somewhat different from the production version. Three pins of the connector are contact-first, and I reasoned that some combination of those would power all tubes. I found one pin common to all tubes and it became the hot side and another pin was grounded for half the tubes, but not the other half. The third pin was routed through as the return for the second half of tubes, so I grounded it in the plug. The production model featured two hot side pins and two ground pins. I am assuming the difference in design had to do with several power input options that were available for mobile purposes. Anyway, they all light up and they all work.

I used small voltages in the Variac each time I tested anything, in hopes of suffering a little fire instead of a big one in case something went awry. I rechecked the B+ voltages several times since they too used different pin assignments, as did the negative bias voltage. The production schematic offered few clues to why the filament wiring was so different, or why some of the voltages had been moved around on the connectors.

Quite by accident, I found that the 15 pin Amphenol plug they used in the beta units was also used in some of the accessories for the KWM-1, and I found a new one on Ebay advertised as for that accessory. I made a patch cord to mate all the wires from the KWM-1 to the standard 11pin octal plug out of the 516-F-2. The F2 now remains stock and would need only a bias adjustment if I ever need it for the S line. Low voltage B+ is higher than I would like as is the high voltage B+, but I will run it on one of my Variacs at a comfortable 110 volts, which helps the problem. Filament voltage is right on 6.3vac at 110volts input.

After firing it up on receive, I had gained some confidence that it was going to function, and I started tweaking it a bit. The calibration crystal is off a bit according to my frequency counter and the adjustment trimmer did not want to correct it, so I needed to look at that again. The multipurpose meter was off and I adjusted it. No attempt at alignment has been made, but the receiver seemed to be quite good with excellent selectivity. It had a minor drift downward for the first thirty minutes, and then stable as a rock.

When I turned it to TUNE, the needles started to move and I found out how long it takes to dip the plate when you have ten possible turns to do it. Even though I had cleaned the rollers quite well in the tank circuit, I was still getting jumpy needles. I went back in there with Dawn dish soap on a rag and my dental probes and scrubbed all surfaces with vengeance. This time it came up with a very smooth Q and dip and it was running one hundred watts after who knows how many years of intermission. I started working stations from coast to coast on 20, using just a G5RV. The dip and max power seem to coincide, so I bypassed neutralization. This "ugly duckling" of a transceiver is now an attractive piece to sit next to my S line, and it is not for sale. It makes me want to buy a KWM-2 to complete the history trail.

de Marshall, W6MWS

Editor's Note: It is known that when the KWM-1 was going through its final design iterations and getting ready for production, 10 engineering built prototypes were built and evaluated by the engineering community including Art himself. After some early changes, this design was used to build a line prototype of 100 units which were then given to engineers and favored customers to use and provide the factory and engineering group with feedback for the final design. The first engineering KWM-1 prototypes were not serialized but carried only the engineering prototype PTOs, which were serialized E1 through E10.

The historical Collins Exhibition at the Nordic HF Conference HF16

By Karl-Arne Markström, SM0AOM

Introduction

Since 1986, the Nordic HF Conferences have been arranged triennially in Sweden. They attract a representative profile of the HF Community world-wide. www.nordichf.org

Major topics include propagation, network design, modulation and coding, spectrum management, systems integration and hardware design.

The conferences are the results of a long-standing cooperation between academia, industry and Government players, and were originally the brain-child of Carl-Henrik Walde SM5BF, at the time manager of the radio operations at the Swedish Defense Materials Administration.

Nowadays, they are arranged by the Nordic Radio Society NRS, and the Swedish National Committee for Scientific Radio, SNRV.

Many of the attendees are radio amateurs, and conference scholarships are made available for Swedish radio amateurs that pursue University courses related to HF techniques.

Radio amateurs at HF16

The very “rare” call SL1HF was again activated by visiting amateurs.



The QSL-card from a previous conference

Exhibitions

A very popular part of the conferences are the exhibitions, which provide an opportunity for hands-on evaluation and presentations of both concepts and hardware.

Most are major players in the HF exhibit, together with some amateur radio organizations.

Rockwell-Collins had expressed its intention to participate and exhibit at the conference, and the management of their local representative Amtele AB was approached if they were interested in sponsoring an exhibition of historical Collins equipment, along the same lines at the exhibition shown at the SSA Annual Assembly Meeting earlier this year.

The required sponsoring with the equipment transportation and handling was graciously provided, and a comprehensive selection of legacy Collins equipment from the 1940's onwards were loaned for the event.



The Rockwell-Collins Swedish representative, Morgan Hjelm from Amtele AB, was an exhibitor at HF16



The historical Collins exhibit with Gunnar SM0OTX and conference staff Karl-Arne SM0AOM (photo: Ann SM0ZEU)



Exhibited equipment, in roughly chronological order from the left: ART-13 from 1940 and 95S-1 1995. The SSA-exhibit at the right (photo: Ann SM0ZEU)

The exhibition attracted many visitors, and many "old-timers" seized the opportunity to take a closer look at the "rig of their dreams" from their Novice days.

Exhibited equipment was:

ART-13
51N-1
75A4
KWM-1+180S-1
75S-1
KWM-2A
62S-1
51X-2+17L-7
51S-1
651S-1
KWM-380
95S-1



Co-presenter Ann SM0ZEU and conference staff SM0AOM
in front of the Collins Collectors Association exhibition poster. (photo: Gunnar SM0OTX)

Also were vacation visitors Gunnar SM0OTX with spouse Ann SM0ZEU invited by the conference to assist with presenting the exhibition!

Biography: Karl-Arne Markström, born 1956.

Licensed radio amateur since 1970.

Studied at Chalmers Univ. of Tech. in Gothenburg (MSEE) in the late 70's.

Have since worked in the radio systems engineering field since the early 1980's.

Current occupation is as Senior Consultant in communication systems at ÅF Technology AB in Stockholm.

Affiliated with the Swedish National Committee of Scientific Radio,
the Nordic Radio Society and the Swedish Radio Navigation Board.

Current chairman of the Programme Committee of the Nordic HF Conferences.

Notice of HF COMM Users Group and New NET(S)

Over the last years, we have received an increasing volume of inquiries regarding interest in a CCA net that would be oriented around both the HF-80 generation of equipment, and also some of the related other product lines like the URG-X series, shelters and even some of the SSB Airborne Comm gear like the 718U-(X)/671U-(Y).



Nice Rockwell Collins 671U-4A station assembled by Dave Ross – Now SK
Anybody know where this went?

I like that idea because I am running both the HF-80 equipment and also a 671U-4A station that drives my 204F-1.

In addition to the net interest, because of the increasing number of members that are running HF-80, URG and 671U-(Y) gear, there is a need for exchange of information relating to maintenance and operation of same.



With all of this in mind, I have been gathering names and requests for different types of information – along with comments regarding nets and when we might hold them. I have started a list but it is incomplete.

It is my feeling now that there is enough interest and I have seen enough inputs to know that this is going to be a winner.

It is with all this in mind that the CCA announces that we will be starting – probably two – nets for our new – now announced here – HF COMM USERS GROUP.

TO THE LEFT: Complete HF-80 1 KW Solid State PA system in use at K0CXX – Complete with GRID remote



Jim Stitzinger's (WA3CEX) beautiful HF-80 based TSC-60 Shelter seen at several of our meetings.
Jim is the current President of the CCA

We have not decided on the net times or even for sure the net bands or frequencies. At this time, I think we are going to have a 20 meter net that meets once a month, and then a low band – probably 40 meter – net, so that we have different shots at the propagation issues. The “Low Band” net will also start out at once a month, and be held two weeks out of sync with the 20 meter net. If there is sufficient interest as time goes on, and good participation, then we will consider holding the nets more frequently.

So, I already have a list of names. Some I have gotten second hand and I do not have good contact info on these in some cases. I am therefore asking everyone who has any interest in participating – either net, or just as a “List Member” that wants to receive or have access to the information on the HF COMM gear mentioned above, to send me an email with the following info in it:

- o Interested in net participation – Yes or No
- o Interested in being a Net Control Station – Yes or No
- o If you are interested in a net, what bands or frequencies would you recommend?
- o Interested in having access to or receiving info on the HF SSB gear mentioned?

PLEASE SEND THIS INFO to me in a concise format and then add comments if you wish. Please do this EVEN IF YOU HAVE PREVIOUSLY COMMUNICATED WITH ME OR WITH JIM.

- o ALSO let me know if you are good in QRZ, the correct email address to use for the list, and your home phone number or best number to call during the day.
- o THEN _ IMPORTANT _ PLEASE let me know if I can include this info on a list that will be circulated to members so you all can communicate directly. If you indicate “No” regarding sharing, then I will guard it and only use it personally.
- o Gosh, 618Ts might count too – Let's negotiate

NOTE – Send this info by email to: collinsguy@gmail.com

It would also be fun if you all would send me station photos of this gear in action so that I have them and we can share them in some form – TBD.

Send me the above info and we will then make some decisions on when and where the new nets will be held, and how we will share information.

We will ask, regarding the nets, that those checking in do so on the referenced equipment or be in the process of bringing up the systems. Actively hunting for the equipment and asking for information leading to acquisition counts too. We are anxious to see this group grow, and I am sure it will. It is exciting equipment - and it sure sounds great on the air.

Standing By! . . . for your inputs and let's have some fun,

Bill – N7OTQ/K0CXX

MEMBERSHIP AND FINANCIAL REPORT

The CCA Board of Directors has again decided to publish End of the Year Financials. Last year we changed printers for the Signal Magazine and this has reduced our printing and postage costs by almost one-half. Since this is the CCA's biggest budget item, we moved from a net loss for 2015 to a break even (well, we lost \$4.95) for 2016. We should be able to have a net gain for 2017 since we will have these reduced costs for all four issues.

Membership has stayed almost exactly the same this last year. We are mailing almost 900 issues of the Signal and still have about 300 associate members. We do lose a few members each year to age and sickness but have seen new and younger members join us as they find a passion for boat-anchor gear and find that the best of it is, of course, Collins.

- Scott KE1RR	Income	\$26, 314.60
	Expenses	
	Dayton	\$6996.90
	Paypal fees	\$909.51
	IT	\$952.59
	Travel	\$1010.99
	Signal	\$15,903.84
	Misc	\$545.72
	Total Expenses	\$26,319.55
	Net Profit (loss)	(\$4.95)

In The Shack with Clarence Marshall - K5CTM

In February 1967 I completed my military active duty in the U.S. Army Signal Corps. I was a 1st LT and soon to be a reserve Captain. Unfortunately the absence of a Signal Corps unit in Northeast Iowa ended my military career. When I graduated from Oklahoma State University with a BSEE in 1963 I worked at Collins Radio in Cedar Rapids. I was in Division A under Stu Morrison working directly for Keith Rathjen and Larry Hungerford. This division was responsible for C8401 development which was the first computer product of Collins. I have to tell you the six months I spent before my all expense paid vacation to Southeast Asia was heaven for a young engineer. No I was not a radio amateur even though I was soon exposed to a bunch of them right there in Building 107. I was a highly ranked recently graduated electrical engineer who fell in love with the laboratories and technology of Collins. My first project I worked on was an HF selective calling system for Minuteman Silos that used the mechanical filter equipped TE204 modem. Before I went off for active duty I was able to accomplish on the air testing through Liberty Station in building 120.

When I returned from active duty I was pleased to learn that I had been given two years employment credit for my military service by Collins and thus earned a nice raise. By this time Division A was gone and a new division under Robert L. Cattoi, the computer switching division, was my home. Over the next few years I was very involved in all of Collins computer activities as a designer, as an engineering group head, and as a department head. I am told at the age of 26, I was the youngest department head ever. I became the company's expert on low speed (less than 56KBS) computer input output. Ten years later I was the chief engineer of the Computer Switching Systems Division of now Rockwell Collins. That career is not however what I write about.

Shortly after returning from the military at lunch one day my partner in crime Richard Christianson asked me if I would like to play bridge. In those days I had developed a pretty good bridge game, so I said yes. In addition to Dick the game included Larry Cowan a computer guy and a new guy Gene Senti. I had seen Gene around at coffee break and knew him as one of those strange RF guys in the next bay. By the way Dick ended up being the first employee of A.A. Collins, Inc. after the Rockwell takeover. At the time even though I was working on my Masters Degree at ISU I did not know a lot about radios. I was digital all the way. Anyway Gene and I hit it off pretty well at the bridge table.

About two years later I had been involved deeply in the C-System development both in Richardson and Cedar. I got a call from Mr. Collins secretary that I wanted to attend a meeting in his office in about two hours. Not an invitation you turned down even though I had been there often. When I arrived Larry Hungerford, Dave Webber, Bob Cattoi and Gene Senti were in the office. Now I need to digress a little bit. At the time I had been writing the specs and doing a lot of the high level development of low speed devices to the C-System. You need to understand that the C-System at this time was not just a computer. In Mr. Collins mind it was the communications, computation, and control entity of the future. My experience was more with low TTY and NC machines but it theoretically extended to the entire enterprise.

Mr. Collins opened the meeting by stating that I had been working on communications interfaces like HF modems and TTY and other computer input output devices. He felt remiss that the company had been ignoring their legacy in amateur radio. He said he wanted Mr. Senti and I to design an interface for the amateur radios to the digital computer. To jump to the end, the ultimate outcome was the 651S-1 receiver and 821A-1 high power HF transmitter. The KWM-380 can probably included in this legacy. He asked me and Gene to go take a couple of weeks and design a computer interface for the S-Line. At the time my good friend and former boss Robert Hirvela was also developing the C-8311 small airborne computer that was eventually used for Loran C and AACP applications. I had been consulting with his project to ensure compatibility with the airborne computers. Mr. Collins felt that all radio control interfaces would be serial transport even though at the time ARINC was pursuing multiwire interfaces.

Ok I retired to my office to meet with Gene because I did not have the foggiest idea what an S-Line was. I had heard KWM-2 and S-Line kicked around at coffee breaks but as an Oklahoma farm boy I did not know amateur. After several weeks of head knocking Gene helped understand what was to be controlled. We basically designed what today would be Ham Radio Deluxe. You can see the port definitions in the 651 and KWM-380 designs for our output. We prepared to report back including what a computer controlled ham station might look like. If you look at an S-Line ad of the era with a neat desk 32S3 and 75S3 on the desk with 30S-1 on the floor and mic and bug on the desk that was it.

We went to give our presentation. My part consisted of describing the serial computer interfaces to both the receive and transmit synthesizers and Gene described what had to happen to the radios to add synthesizers. The climax of our presentation was an artist's rendition of this new ham station. As we presented this last slide Mr. Collins asked what is that bulge on the front of the 30S-1. Gene explained that actually was a Heathkit PA because nobody could afford the 30S-1. The bulge was a servo mechanism with light detecting diodes over the plate meter coupled into our digital interface. Mr. Collins roared and said alright you guys get a B-, but I hope you have a design for the PA. We did. All of that was the beginning of HF80 which unfortunately I did not get to participate in.

For the rest of my life as I traveled around the world for Rockwell in computer ventures I continued to run into Collins Hams. I retired from Rockwell Collins in 1992 and spent 12 years working as the Chief Technology Officer for CenturyTel now CenturyLink. About two years after I retired an old college called me and said he had picked up a KWM-1 at a flea market, and did I want it? Sure, I picked it up and after a couple of days got it on the air. This was 2010 and I was 69 years old. At that point I knew I needed a license and so went to the net to study. A local club Broken Arrow Amateur gave quarterly tests and I was fortunate the first time to test to Extra Class. You know the rest of the story. Today I own and operate five Collins stations ranging from my 32V-1 to the KWM-380. I own other ham rigs but thoroughly enjoy participating in CCA nets.

- Clarence Marshall,







Found - Arthur A. Collins (then 9CXX) Historic QSL Card

By: Bill Carnes, K0CXX

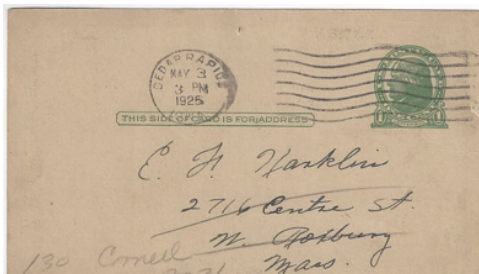


The year was 1925 and it was yet to become a significant milestone in this young man's life of accomplishments. Arthur was just 15 years old and he had not yet taken that "negotiated" vacation east with his parents to meet the radio operator of the Bowdoin.

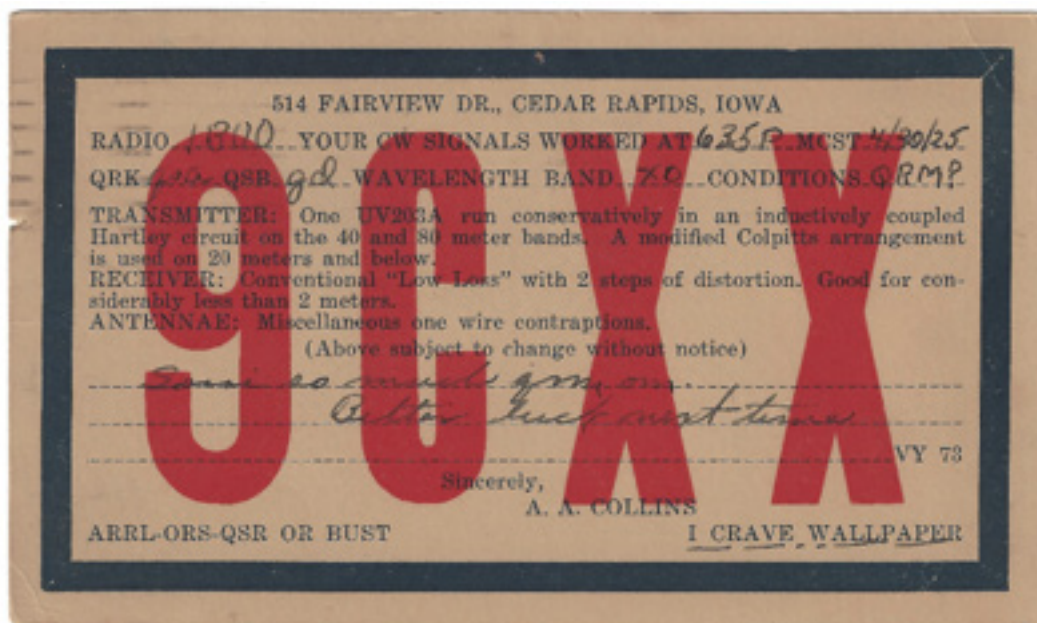
But, let's start a little earlier. Arthur was first licensed as a ham radio operator in 1924 at the age of 14. It did not take him long to get very serious about exploring the limits of the, then, fledgling communication media as well as radio propagation and construction. In this vain he had struck up a friendship with one of the more experienced hams at the time – one John Reinartz, 1QP, who just happened to be the radio operator of the upcoming MacMillen Arctic Expedition. This Arctic Expedition was part of the race to the arctic in the era of global exploration.

During QSOs with Reinartz in late 1924 and early 1925, young Art had found out about the coming voyage, and wanted to use it to both test out his equipment and to explore shorter wavelength communication.

This is the stage upon which we find this QSL card set - and then look at its significance. We believe it is the first actual printed QSL card that Art used, and it is one of the few known examples of a completed and great condition card.



Looking at the May 3rd postmark on this card which documents a radio contact made by A. A. Collins in late May, we see that Art sent this not long before the family traveled east in June to make the fateful meeting with Reinartz.



Even though Art had convinced his Father to take the family to the east coast for a “vacation” that summer, he could not have known that his curiosity and desire to meet and ultimately make contacts with Reinartz in the Arctic would lead him into the history books. The ensuing events would also ultimately result in a business that would become one of the premier electronics companies in the world.

In looking at this card, we find ourselves immersed in this era and we also get a solid glimpse of the sense of both the seriousness with which Art took his hobby, and his often suppressed sense of humor. He clearly viewed his “home brew” receiver as less than perfect - “two steps of distortion”, and his antennas as “contraptions”. In these words, and in a later photo taken in 1927 before a propagation expedition, we find an obviously quite dedicated young man, but one that is not afraid to play the funster.

By 1927 (Arthur was then just 17), Art had acquired a reputation as a leading edge Amateur Radio operator and explorer. This resulted in funding from the Naval Research Laboratory in Washington for his trip to probe shorter bandwidth communication and propagation in the US - Not bad for a 17 year old boy!



Taken in 1927 prior to the propagation expedition, Art is the one in front with the raked hat. His companions on the adventure (L to R) are Winfield Salisbury and Paul Engle. In their own right, his companions would go on to become a noted research scientist (Salisbury) and a poet laureate (Engle). The call sign 9ZZA was obtained by Collins for use during what would become one of the first true examples of mobile and portable “expedition” operation.

For more on the events surrounding this wonderful card, you can read details of the fascinating early history of this young man in the following sources. The First 50 Years, a book by Rockwell Collins, Arthur Collins Radio Wizard by Ben Sterns, and enjoy some of the ambiance and backdrop of the era in a fine article by Gary Halverson – In the Beginning, Pg. 8 - in the Q1 2013 Collins Collectors Association Signal Magazine. You can read or download this magazine free here at our website (collinsradio.org). The books are, unfortunately, both out of print. [Credits: The images of this rare card were obtained through Skip Lockhart, W1ZF, and were scanned, and images donated, by David Karklin, W2TA, son of Emil Fred Karklin, 1BUO. It was Emil who had the QSO with AA Collins in 1925. The CCA wishes to thank both these gentlemen for their generosity.]

ANOTHER COLLINS FIRST



KWM-1

With These Firsts

in Amateur Mobile Equipment:

FIRST TRANSCEIVER • FIRST SSB • FIRST VOX AND
SPEAKER ANTI-TRIP CIRCUITS • FIRST ALL-
TRANSISTOR POWER SUPPLY • FIRST AUTOMATIC
LOAD CONTROL • FIRST PRECISION TUNED
VARIABLE FREQUENCY OSCILLATOR • FIRST TO USE
MECHANICAL FILTER • FIRST CRYSTAL-
CONTROLLED BFO AND RECEIVER HF OSCILLATOR.

These are *important* firsts in Amateur mobile communication, and all designed into one compact unit — the 175 watt* 14-30 mc KWM-1. This compactness and the low cost of the KWM-1 are a result of using common components for both transmit and receive, which also results in exact coincidence of signals in frequency-determining elements. Other top features include frequency stability comparable to the KWS-1/75A-4 combination; break-in CW using VOX circuits; side tone for monitoring CW. An optional adaptor will be available to

*RF PEP Input

separate transmit and receive frequencies for working out-of-band DX. Only 6¼" H, 14" W, 10" D. Weighs 15 pounds.

Your Collins distributor has full details on the KWM-1, which will be available from production in August. Contact him today.

KWM-1 Transceiver	\$770.00
516E-1 12 vdc Power Supply	248.00
516F-1 115 vac Power Supply	103.00
312B-2 Speaker Console with directional wattmeter	146.00
312B-1 Speaker in cabinet	25.00
351D-1 Mobile Mounting Tray	TBA

Collins CREATIVE LEADER IN COMMUNICATION

