YAVAPAI SIGNAL

The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 26 - No. 5 • May 2011

From the President's Desk...

Greetings fellow amateurs!

First, let me review again some of the things on the YARC calendar that are coming up. The three-day Whiskey Off-Road Bicycle Event will run **Friday, April 29th through Sunday, May 1st.** The most recent information I have on that indicates that the event is fully staffed, but additional operators would be welcome to double up some positions and work in teams. If you're looking to receive or upgrade your license, a testing session has been scheduled for **Friday, May 6, 2011 - 6:00 P.M.** at the Jeep Posse Bldg. in Pioneer Park. (Located on Commerce Drive, behind the outdoor hockey rink between Willow Creek road and Pioneer Parkway)

Additionally, the 33rd running of the Whisky Row Marathon is scheduled for **Saturday, May 14.** Again, the information I have indicates operators are still needed for that event. Operators interested in participating in Special Events Communications should contact Lloyd (WA6ZZJ).

A special thank you goes out to Pete (K6VVR), Jim (WB7UZV), Neal(K7SEN), Terry (KB7TRE) and all the others who facilitated our meeting presentation/project in April. Constructing the flexible 2-meter J-pole ran a little late, but it was an excellent skill-building opportunity for those who participated. The program for the May meeting will include, as noted elsewhere in this newsletter, a 45 minute video featuring the K7C Dxpedition to the Kure Atoll. Don't forget the popcorn!

Creighton

AD7YR

MAY PROGRAM

A video of the K7C Expedition to the Kure Atoll will be shown.

Kure Atoll is the most remote of the Northwestern Hawaiian Islands, and the northern-most coral atoll in the world. Kure is an oval-shaped atoll, which is 6 miles at its maximum diameter. ■

YARC Officers for 2011

President	*Vice President*
Creighton Grotbeck, AD7YR	Jim Ball, WB7UZV
cgrotbeck@gmail.com	*wb7uzv@gmail.com*
Secretary	***Treasurer***
George Imburgia, AD7RL	Tom Griswold, WN7E
ad7rl@netsecs.us	mrgriz@cableone.net

Board of Directors (includes Club Officers)

Pete Morrison -- K6VVR
Will Taylor -- AD7WW
Ellis Rackoff -- KE7NAP
Neil Vince -- K7SEN

Newsletter Editor: Joe Oliver, AC6AA
joliver@cableone.net

Inside this issue:

Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated Special Service Club. The club participates in many activities in the tri-city area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are $20.00/year (Full-time students $15). The YARC meets at 7:00 p.m. local time on the first Thursday of every month in the Technology Room 404, at the Granite Mountain Middle School, 1800 Williamson Valley Road in Prescott. It is about ½ mile north of Iron Springs road, and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting.

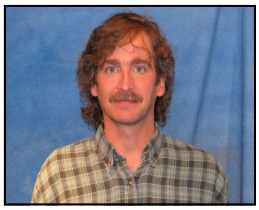
The weekly Net is held every Wednesday at 7:00 p.m. local time on 146.880- repeater. All amateurs are invited to participate, and visitors are always welcome.

The Yavapai County ARES/ RACES Net is held on Monday nights approximately at 7:00 p.m. local time on the 145.290- repeater on Mingus Mountain. A PL of 127.3 is required.

Club Repeater

The YARC 146.880- repeater is located on the hill above Willow Creek road and requires a PL of 100.0 Hz. Our deepest gratitude to Bill Kafka, W2YAV for allowing us to acquire the original club repeater. ■

Minutes of April 7, 2011 Board Meeting



Meeting was called to order at 1810 hrs. by the President, AD7YR. Also in attendance: K6VVR, AD7WW, AD7RL, WB7UZV, WN7E, and K7SEN.

A post-card, promoting YARC was sent to area hams. Some were returned to the YARC PO Box. Information on the cards is accurate, but the board doesn't know who sent them out.

Progress and plans for IRLP discussed.

AD7YR reports a video of a DXpedition has been made available by AC6AA for a future meeting.

Membership kit mailing vs. handing out at meetings debated. Consensus to mail.

Need for Field Day committee reviewed; action plan developed.

YARC Party committee needed.

ARCA robbery discussed. Donation deferred to a vote by the General Membership.

7 area QSO party coming up on May 7th, and the Arizona QSO party in October. Plaque sponsorships approved, and member participation encouraged.

General Meeting agenda discussed.

Meeting adjourned at 1851 hrs.

Minutes of April 7, 2011 General Meeting

Meeting was called to order at 1900 hrs. by the President, AD7YR. Following the Pledge of Allegiance, introductions were made.

Attendance: 73 of whom 43 signed in.

Visitors welcomed.

New members unanimously welcomed.

Minutes of the March meeting were approved as published with no dissenting.

Treasurer's report was approved as published with no dissenting.

Club stickers and patches are available from the Treasurer.

COMMITTEE REPORTS:

VE: AB7NK reports the next testing session will be on Friday, May 6th at the Jeep Posse bldg. Another will be held on Friday, June 24th at 6PM (Field Day weekend). The March 19th testing session resulted in 6 new Technicians and 3 upgrades to General.

ARES/RACES: WA6ZZJ announced the Tour de PV will be Saturday September 24th. The Whiskey Off-Road preliminary schedule begun, more operators are needed.

Newsletter: AC6AA doing fine with Yavapai Signal.

Shirts: K6VVR has XL and M club shirts on hand; please make needs known if other sizes needed.

Badges: WB6ODR reports a list of

badges to be delivered; $ 6.75 to order custom engraved club name badge.

Repeater: WB6ODR reports repeater working fine.

Refreshments: K6UWV has provided cake and soft-drinks and lots of coffee. Please recycle.

Elmers: K7SEN is looking for net controls for the Wednesday night net. Feel free to check in to the net.

Nets: WB7UZV reports on 146.88 nets: Sunday slow code, 7:30 pm; club net every Wednesday 7:00 pm. Net Control positions available for March, April and May. All please check in.

School Clubs: KB7TRE had 20 students at the last K7GMG club meeting/class. One student is preparing to test. The club is getting on the air twice a week, 2:40 – 3:05 PM, Tuesday and Friday.

T-hunt: K6VVR reports the T-hunt will be held the Sunday following the meeting. WB7RFY and K6VVR will be hiding two transmitters this month. Event held at 1 PM, starting at Walgreens on Willow Creek Road.

Food Bank: KB7TRE reminds us that any time is good to contribute to community food bank; please continue to bring non-perishable items to each meeting.

OLD BUSINESS:

Members reminded of handicapped parking availability in small parking lot.

Success of M1911 special event station at Gunsite noted. KB7TRE requests $ for printing certificates.

NEW BUSINESS:

YARC Party committee needed.

ARCA burglary discussed. Donation of $100 proposed and accepted unanimously.

Field Day committee needed.

May 7th, Area 7 QSO party and October Arizona QSO party plaque sponsorship announced. Member participation encouraged.

Participation in County Fair discussed. Scheduling conflict with Prescott Rally noted.

50/50: of $54 was won by KE7DTR.

Adjourned at 2002 hrs.

Respectfully submitted,
George Imbrugia, AD7RL
YARC Secretary

VE TESTING

By Mary , AB7NK

There will be testing for all license classes on Friday, May 6, 2011 and Friday, June 25, 2011 at 6:00 P.M.

Testing will be held at the Jeep Posse Bldg in Pioneer Park off Commerce Drive between Willow Creek and Pioneer Parkway.

This will be the last opportunity to obtain the General upgrade using the current study material.

For more information or to pre-register, please email b7nk@arrl.net

Upcoming Events

- **April 29, 30 & May 1, 2011** -Whiskey Off Road Mountain Bike event.
- **May 6, 2011** - VE Testing at Jeep Posse Bldg.
- **May 14, 2011** - Whiskey Row Marathon.
- **June 25, 2011** - VE Testing at Jeep Posse Bldg.

Remember to check into the Wed. Night Net at 1900 MST on the 146.880 -pl 100 Hz Repeater.

Net Controls are still needed -- contact k7sen@arrl.net or call 775-2158

7th Area QSO Party

will be held for 18 hrs on May 7 - 8, 2011, 1300Z (7th) - 0700Z (8th). For more Information visit their website at:

http://tinyurl.com/3qpb9kc

or contact the AZ Co-captain, Guff, KS5A at ks5a@cox.net.

YAVAPAI AMATEUR RADIO CLUB

April **Treasurer's Report** **Tom Griswold WN7E**

Income

Date	Callsign	Name	Code	Check#	Amt. Pd	G. F. Amt.	Rep.Fund	ARRL
04/07/11	K7NPD	Delucchi, Norman P.	R	7925	$20.00	$18.00	$2.00	
04/07/11	WN7E	Griswold, Tom	A R	3632	$39.00	$2.00		$37.00
04/07/11	WV9G	Lahr, Don R.	N	655	$20.00	$18.00	$2.00	
04/09/11	KE7TDR	Jaeger, Bruce M.	R	6064	$20.00	$18.00	$2.00	
04/07/11	KE7TDR	Jaeger, Bruce M.	A N	6065	$39.00	$15.00		$24.00
04/07/11	K7CBK	Cunningham, Lee T.	A R	7848	$39.00	$2.00		$37.00
04/07/11	KE7KWH	Henson, Ken	R	cash	$20.00	$18.00	$2.00	
04/07/11	AD7YR	Grotbeck, Creighton	R	cash	$20.00	$18.00	$2.00	
04/07/11	W7QHE	Diddams, Richard L.	R	cash	$20.00	$18.00	$2.00	
04/07/11		Decals - 3		cash	$3.00	$3.00		
04/07/11		Fifty-fifty		cash	$93.00	$93.00		
Income Totals					**$333.00**	**$223.00**	**$12.00**	$98.00

Expenses

04/07/11	WN7E	Griswold, Tom	office sup	1048		$31.34		
04/07/11	K6UWV	Passell, David	refreshm	1049		$14.25		
04/07/11	AC6AA	Oliver, Joe	labels	1050		$13.99		
04/07/11		ARCA - Donation	trl. Loss	1051		$100.00		
04/07/11	KB6TRE	Pemberton, Terry - 1911 day	refreshm	1052		$62.36		
04/07/11		Swaney, Robert - plaque	7area qso	1053		$39.00		
04/07/11	W6HMC	Spencer, Robert	50-50	cash		$46.50		
04/09/11		Allegra	Newsletter	1054		$28.22		
Total Expenses						**$335.66**		

Beginning Balance	$4,636.32			
April Income	$223.00	Mar. End Repeater Fund		$1,274.92
		Apr. 2011 Repeater Fund		$12.00
Sub Total	$4,859.32	Interest earned		$0.09
Expenses	$335.66	Apr. Repeater Fund Bal.		$1,287.01
		ARRL Payments	Ck. 1055	$98.00
General Fund Balance	$4,523.66			
Net Loss/Gain	($112.66)			

By Lloyd, WA6ZZJ

NEEDS & BEHAVIORS FOR EMERGENCY RESPONSE…..

Emergency Communications is specific and often may deal with life-and-death situations and vital information. An untrained, unpracticed and inadequately equipped Ham radio operator is a burden to their fellow team members and a liability to both the victims and responders.

What is the mark of a good emergency communicator?

A good ARES/RACES operator:

1. They are accurate, clear, and concise in all communications.
2. They listen and are aware of the activity on the assigned frequencies, and they don't "walk on" others using a frequency.
3. They always use plain language, no "Q signals," "10-codes" or ham-specific "jargon".
4. They know and use common terminology.
5. They use ITU phonetics and pro-words correctly.
6. They handle "formal" and "tactical" traffic equally well.
7. They work cooperatively with others, even under pressure and follow instructions.
8. They have a working familiarity with and can operate effectively within the Incident Command System.

The specific goal of all ARES/RACES members, and amateur radio operators in general, should be in maintaining the highest standards, not only in performance but also in behavior.

As an Emergency Communications operator, you are working with professionals, who expect professionalism in return. Recognize that amateur radio operators are individuals, but when you "step up to the plate" and volunteer to serve your community you are part of a team which has been formed for the purpose of executing an approved plan, in accordance with policies, procedures and rules!

Some Duties and Activities:

There are a number of duties that you may be asked to do in the course of a mission. The most common of these are:

Portable Station: A portable station is a solo assignment of a tactical nature. This usually involves carrying a VHF, UHF or dual-band radio and walking around. You may be assisting in damage assessment, neighborhood patrol, securing a foot perimeter on a Search and Rescue mission, observation, weather spotting, and other activities that require being on foot. Your gear should be carried so that you are self-contained for at least 12 hours, including food, water, and battery power. The standard of service expected is the ability to maintain communications for a full operational period without re-supply from your vehicle.

Shadow Station: This is a specialized form of "Portable" (or occasionally Mobile) assignment in which you are assigned to "shadow" an official or ICS Command Staff personnel, to ensure that they have "instant and continuously ready" access to radio communications. When the official you're shadowing needs to make or receive a call, you must be "right there, right now" to hand him/her the microphone.

Mobile Station: From your vehicle, you should be able to drive and perform a number of tactical or logistic functions. This may include road searches, sound sweeps, perimeter patrol, wide-area damage reports, storm tracking, personnel, equipment and supply transport, which require the use of Mobile Stations. This can usually be a two-person team, with one person doing the driving and operating the radio and the other navigating, spotting and logging all traffic.

Relay Station: This is a combination of Fixed and Mobile operating and should always be a two person team, with one handling the radio and the other logging all traffic. You drive to a designated location, establish an operational position and relay traffic assigned to you. The relay may be performed on two or more frequencies, possibly requiring cross-band or cross mode operation, and may require setup of larger antennas thus making the Relay Station more demanding of equipment inventory and operating expertise than other assignments.

Fixed Station: Fixed Stations are sometimes believed to only be dedicated net control, net liaison and EOC operators. However, there are many times, particularly in ground

See ARES/RACES Operator, Page 6

Community Collaborative Rain, Hail & Snow Network (CoCoRaHS)

By Bob Spencer/W6HMC

Nancy Selover, PhD, State CoCoRaHS Coordinator and State Climatologist is willing to present a "review" class for current observers and as an initial training for prospective observers. We need to know who would be interested and are compiling a list of attendees. The class will be at a Prescott venue. Please RSVP to W6HMC at: chief-doc7@sbcglobal.net ASAP.

What is CoCoRaHS? (below are excerpts from the Co CoRaHS website).

This is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow). By using low-cost measurement tools, stressing training and education and utilizing an interactive Web-site (http://www.cocorahs.org), our aim is to provide the highest quality data for natural resource, education and research applications. We are now in all fifty states.

Who can participate?

This is a community project. Everyone can help, young, old and in between. The only requirements are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can effect and impact our lives.

What will our volunteer observers be doing ?

Each time a rain, hail or snow storm crosses your area, volunteers take measurements from as many locations as possible. These reports are then recorded on the web site www.cocorahs.org. The data are then displayed and organized for of our end uses, e.g.: National Weather Service, emergency managers, hydrologists, ranchers, farmers and others.

What do we hope to accomplish?

CoCoRaHS has several goals: 1) provide accurate high-quality precipitation data for our many end users on a timely basis; 2) increasing the density of precipitation data available throughout the country by encouraging volunteer weather observing: 3) encouraging citizens to have fun participating in meteorological science and heightening their awareness about weather: 4) providing enrichment activities in water and weather resources for teachers, educators and the community at large to name a few.

What benefits are there in volunteering ?

One of the neat things about participating is coming away with the feeling that you have made an important contribution that helps others. By providing your daily observation, you help to fill in a piece of the puzzle that affects many across your area. ■

• ARES/RACES Operator (Continued from Page 5)

search and rescue, mass casualty, evacuation coordination, debris clearance and wildfire suppression, when ARES/RACES operators are expected to operate from a casualty collection point, staging area, equipment or supply depot, shelter site, Incident Command Post, police, fire station, hospital or temporary EOC. There may already be a pre-positioned antenna with coax terminating in a designated operator position with a desk, checklists and operating aids, in which you simply need to bring in and connect your equipment. In other cases the ARES/RACES operator must begin from scratch and provide all equipment being used. An important part of a Fixed Station assignment is the ability to set up, trouble-shoot, test, maintain and take down that equipment. Once more, this is a two-person assignment, with one person handling the radio and the other logging all traffic.

SPECIAL EVENT COMMUNICATIONS…..

YARC Special Event Communications is underway with the three days Whiskey Off Road Mountain Bike Event. Forty plus YARC members and others 'stepped up to the plate' to assist in this effort. It was rewarding indeed to be able to staff this event with sufficient man/woman power…. More on this event in next month's newsletter.

The Whiskey Row Marathon is the next event on the calendar and is scheduled for Saturday, May 14, 2011. I will have a sign up sheet at the May meeting, but staffing is already close to complete. There is always room for more so that we can double up on positions especially for members new to event communications.

Looking forward to a good event communications season. Thanks to all who take part…… ■

Ham radios find place in high-tech world

By Jon Rabiroff

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U.S. Army Maj. Scott Hedberg talks on the ham radio he has set up in his barracks room at Camp Red Cloud in South Korea.

SEOUL — Ham radios once played a key role in the operations of the U.S. military before fading into the background with the arrival of better and more accessible forms of communication like cell phones, the Internet and Skype.

But just when you start to think ham radios might go the way of rotary phones, 8-track tape players and phonographs, disaster strikes and the old war horses of communications fill a void in the response to emergencies.

Ham radio operators were widely credited with helping with emergency communications in the wake of the 9/11 attacks and Hurricane Katrina. Sixteen days ago when an earthquake and tsunamis devastated Japan, ham radio hobbyists and their outdated technology once again got involved in reconnecting families and guiding emergency aid where it was most needed.

"In the fairly early stages after the earthquake, several radio amateurs were able to activate their stations with car batteries or small-engine generators," Japan Amateur Radio League International Section Manager Ken Yamamoto said in an e-mail to Stars and Stripes. "They transmitted rescue requests and information on the disaster situation, including refugee centers and their needs and/or the availability of basic infrastructures, like electricity, water and gas supplies."

Yamamoto said information gathered from ham radio operators in the hardest hit areas of the country was "reported to the rescue and disaster relief organizations for their appropriate deployment."

Radio equipment manufacturers distributed hundreds of transceivers for use at relief and refugee centers, he said, which "should help ... to facilitate smooth and appropriate delivery of disaster-relief goods."

In some cases, ham radio operators also helped anxious people around the world find out about the welfare of loved ones in Japan.

Trevor Jones of British Columbia, Canada, called embassies and checked social media websites immediately after the earthquake, checking on the welfare of his son, Jonathon, but it was the ham radio of Jonathon's grandfather that played a key role in reconnecting him with the 32-year-old English teacher in Sendai, according to the Montreal Gazette.

"I think they've forgotten about ham radios," Trevor Jones is quoted in the Gazette. "If you went back to the time when I was 32 years old, that was the only system that wouldn't break down."

Military connection

Ham radio may be a dying form of communication, but amateur-radio hobbyists don't want any static about their passion — one that appears to have a significant following among members of the U.S. military.

"I will be the first to admit that using ham radio to communicate is far from being the most efficient means of communication," said U.S. Army Maj. Scott Hedberg, a ham-radio operator based at Camp Red Cloud in South Korea. "I think you can best look at it like, 'Why do people go horseback riding or ride bikes? Isn't there a more efficient way to get from A to Z?'

"Sure, but it is the enjoyment of the journey that is the key."

There are still references in military regulations to ham radio use. For example, U.S. Forces Korea regulations state that, "When directed, amateur radio operators will assist in providing communications for all types of disaster and will work with various relief agencies as necessary."

However, Hedberg said, "Just based on the robust communications we have here today ... I would think it would have to be fairly extreme circumstances, from a military standpoint, that they would be coming to me for any sort of assistance."

That has not stopped hobbyists — they number "in the hundreds" among active troops, Hedberg said — from spending their off hours spinning dials and connecting worldwide with others with a passion for the technology and quaintness of ham radio conversations.

Richard A. Bartlett, the 90-year-old author of "The World of Ham Radio, 1901-1950: A Social History," said, "Morse code may be disappearing and hams declining in numbers, but what of the innovators?

"I think the curious, highly intelligent radio gadgeteer deserves a viable place in our society, including the military. Ham radio, in its social aspects, provides these bright, inquisitive people with contacts, rivalries, challenges and, yes, friends with similar interests.

"It would be tragic for their wonderful hobby to disappear."

Still needed

For now, the hobby does not appear to be on its last legs: Today, there are an estimated 2 million ham radio enthusiasts around the world.

Hedberg explained there are a number of reasons people are still attracted to the ham radio hobby, despite the arrival of easier and more advanced forms of communication.

"Just the challenge involved," he said. "It takes a little bit to get everything set up right. There's a little bit of magic involved. Just being able to talk from here back to the United States is pretty cool.

"Can I pick up a phone and do that? Sure I can," he continued. "It's a tougher journey getting there, but I get a lot more satisfaction doing that."

Bartlett said, "Computers and the World Wide Web are wonderful, but dedicated hams are still necessary in times of disaster. They are the initial contacts in cases of natural disasters. Ham members of clubs contact ham members of other clubs. Club members spell their ham brothers during disasters when they are on the air 24 hours or more at a time. Their contributions are vital."

Hall said when disaster strikes, things like cell phones and Skype are not necessarily going to work.

For a ham radio operator to connect to the world, he said, "All you need is a car battery and a coat hanger, and you can 'MacGyver' it."

Yamamoto said one of the lessons learned through the disaster in Japan is that, "Radio amateurs should have periodic training for well-controlled and reliable disaster communications, even in chaotic situations.

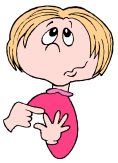
"Amateur radio clubs should coordinate their roles in disaster situations with local rescue and disaster relief organizations, and emergency medical centers," he said.

Bartlett closed his book with a plea to readers to introduce their children to the world of ham radios.

"You will be doing not only your son or daughter a favor but, indirectly, the world at large," he wrote. ■

Membership Count:

1st Thurs. in March.....**183**
Gain/Loss.....**-10**
1st Thurs. in April.....**173**



Need a Hand?

If you need assistance, we want to help you. If you are just starting out in ham radio, or simply have run across something that you could use a hand with... technical assistance or answers to questions about the Yavapai Amateur Radio Club, are available from knowledgeable club members.

Don't Hesitate to Ask for Help!!

CALL:

Neil Vince, K7SEN at: (928) 775-2158
Jim Ball , WB7UZV (928) 445-2997
Will Taylor, AD7WW (928) 445-1717

Collins Radio Company

From "Boat Anchor Manufacturers", at http://www.ominous-valve.com/ba-mfrs.html

In many ways, Collins was the prototype of the modern electronics company. While it started in Art Collins' basement in late summer of 1932, and could not afford to hire even one employee until a year later, Collins evolved into a big-time government and military contractor. It's hard to find a service or agency that doesn't have some Collins stuff around somewhere. Collins was eventually acquired by defense giant Rockwell, and Art Collins, W0CXX, retired a wealthy man.

While Collins had started to sell gear to other hams, he also outfitted aircraft, expeditions, and the like. This history was exploited by the company's series of 'wing' logos, finally replaced by a dumb looking circle in the 1960s. When it came time to modernize Air Force communication by going to SSB, Collins was the logical choice. It didn't hurt that Curtis Le May and Art Collins were ham buddies.

Larger rigs, like the Collins broadcast and commercial transmitters, are perhaps the ultimate boat anchors. Like the ones made by RCA, Gates, Continental and the others, they are built to pump out photons on a 24/7 schedule, forever, with proper maintenance. They were, and are, incredibly expensive, often exceeding the cost of the buildings housing them, and they were, and are, ridiculously overdesigned for amateur use. They come in black, ominous racks, with meters all along the top, and windows where the operator can peer in and make sure the PA tubes are glowing the proper shade of red. An only slightly scaled down amateur example is the KW-1, perhaps the most formidable looking kilowatt ever made, which cost $5000 in the 1950s, when a veteran could buy a house for $15k.

A 1950 Collins military design, the R-390/URR, pretty much started boat anchor collecting when it turned up in quantity on the surplus market. This 32-tube, 80-pound supermachine was probably the most complex vacuum-tube short wave receiver ever made. Even in the "$600-screwdriver" defense market, its price was an issue. In 1951, Collins designed a less expensive version, the R-390A, with "only" 26 tubes, but for the first time with mechanical filters in the IF. This one, as made by Collins and 15-25 other companies, sold 54,000+ units over a period of around 25 years. All went to government and military, except for one public 3rd-party sale in 1968. There is also a very rare R-391, with channel presets.

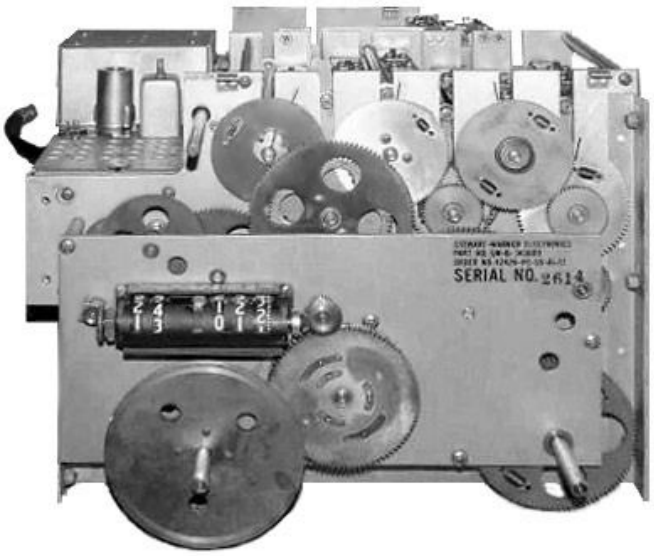
Classic BA #1:
Collins R-390/URR

All 3 versions had two small meters, one for RF carrier level (an "S" meter) and one for audio line output. The numbers on these meters glowed in the dark. Therefore, they are now considered a radiation hazard (this IS the government we're dealing with here), and they are often missing, or bearing ominous yellow nuke stickers which you are supposed to leave on. Needless to say, there is something of a black market in R-390 meters.

The first real boat anchor magazine, Electric Radio, originally started for the many people who'd become hooked on restoring and using these superboxes. When they first came on the market, they offered a level of performance on short wave broadcast reception that even the best new solid-state rigs could not exceed, and for usually only a couple hundred bucks.

As word spread about what great radios these were, the price gradually took off. Just as the buzz was getting started, someone consigned a very nice Collins R-390A, in excellent condition and with meters, not to mention a little tool kit and extra tubes, for $200 cash-only no-return at Jun's Electronics in L.A.. After several months, I finally decided I had to have the thing. I cleared out a spot in my apartment, got the two hundred out of the bank, and arrived at the store to find the radio gone - sold that day. It's probably worth over $1000 now. You learn to move fast in the boat anchor business!

Although it's an analog tube receiver, the R-390 has digital tuning, and it's completely mechanical! You don't service this subsystem with an alignment wand and a VTVM or scope. You service it with a wrench. It looks like the insides of a fine old grandfather clock. A bandswitching system of cams and lord-knows-what-else (the "Megacycle Change") turns a mechanical counter and selects the proper strip of huge cans behind all the gears and stuff. Then a "Kilocycle Change" knob dials a second mechanical counter while turning a huge canned PTO and simultaneously moving gangs of slugs in and out of the selected strip! Gee whiz, Mister Wizard!



R-390A RF deck made in this case by Stewart-Warner. Megacycles are the two numbers at the left, kilocycles the rest. Note the complex gear train which effects a number of simultaneous mechanical adjustments in this heroic subassembly.

Since it was intended for use with external audio amplifying equipment, the R-390 has two 600-ohm line driver outputs instead of an AF power amp. A rugged home stereo works fine for sound. You won't believe how good short wave broadcasting actually can sound on this level of equipment. You'll never listen to the BBC on your rice box again.

Like most old boat anchors, the R-390 has a BFO, but it lacks a product detector for SSB. An expensive, outboard adaptor is available, also surplus. The R-390/390A is still a good first boat anchor. Keep in mind that if you really want an original Collins box you should be prepared to lay out some serious bucks. These are used radios, of course, so their relative level of quality is quite variable depending on the age, maintenance, mods by previous owners, and who made the particular unit in the first place.

In the fifties, Collins got back into the civilian market with the 75A- series of receivers, and its matching 32V- amateur transmitters. Later, there was the 32W-1, a similar transmitter intended as an exciter. This one could be given a larger final and a power supply/ pedestal the size of a bar refrigerator, at which point it became a KWS-1, self-contained kilowatt on SSB and CW. The 75A-4/ KWS-1 combo was a formidable looking station, at a formidable price, so hams started calling these "the gold dust twins." If you had to ask the price, you couldn't afford it.

COLLINS 75A-4 RECEIVER
Less speaker. Net.....$ 595.00

The 75A-4 is a great radio. It was the new state of the art at the time, and some companies spent the rest of the vacuum tube era catching up. You could get an enormous speaker, the 312A-1, that wasn't that much smaller than the receiver. The whole thing made one of the most listenable radios ever made, way better than 99% of ultra-speced solid state boxes with their zillion dB dynamic ranges.

Any of these old Collins are great boat anchors. They're big, and they have some advanced circuits for their time. The receivers were the first to use narrow segments with a precise PTO for tuning, changing bands by switching in 300 or 500 kHz ranges. Collins also made the industry standard mechanical filters that just about everyone used in their 455 kHz second IFs.

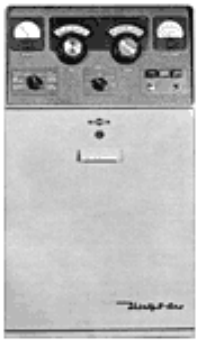
Collins tube radios, with their large, black boxes, and covered with lights, dials and knobs, are among the most purposeful looking radios ever made. Most of the public still sees them on the sets of old movies and TV shows, along with the larger racks by Collins and Motorola. These have therefore pretty much formed the popular image of what really high-powered radios ought to look like, having won wars, gone to the moon, and maybe even shot down your occasional UFO.

The military wasn't ignored, with the high-priced 51J- and 51S- series of receivers, thousands of which were sold. The 51S- was transitional to Collins' later S-line, the sleek, miniaturized (by boat anchor standards) series of HF radios that redefined the medium in the 1960s. Another breakthrough product was the mid-50s KWM-1. This was a very forward-looking mobile/ portable SSB transceiver covering 14-30 MHz. 20 years later, its general design approach with dual-use circuits and choice of power supply became standard in ham radios.

For amateurs, the S-line meant the 75S- series of receivers and 32S- transmitters. The transmitter made good use of the compact 6146, a hot-rod beam pentode roughly derived from the 6L6, that became an industry standard. The receiver continued the "gold dust" design that remained the state of the amateur art.

There was also a heavy-duty linear, the 30S-1, which stood on the floor and looked like a sleeker KWS-1. Finally, there was the popular 30L-1 linear, which used 4 811As in a horizontal position, in a box the same size as the other S-line components. It was one of the first real, desktop KWs. This made it possible to put your whole S-line on a desk that looked like a desk, as opposed to a door and three sawhorses. Along with similar gear from R. L. Drake, these radios got away from the 'battleship'

look of the 50s, while not compromising performance.



Finally, Collins updated its KWM-1 transceiver into the KWM-2, with styling and general design approach much like the S-line. This radio became pretty much standard for certain military and MARS applications, and they ordered a lot of them. It had base-station performance in a truly portable (or mobile, with suitable power) package. You could even get a rather sturdy suitcase that would carry your KWM.

Any old-time ham has very personal feelings about the Collins S-line. It came with a huge number of very useful accessories, third-party mods and goodies. This was awfully nice gear, and everybody wanted it, but, once again, the price was always just a little beyond the means of the average hobbyist with a mortgage and/or family. A lot of dreaming, and drooling, went on. It is no wonder that the mystique lasts to this day, giving the S-line an almost obscene resale value. It's worth it. It's still a great radio, maintainable forever, and a viable choice for the real radio freak who doesn't mind scrounging parts and opening a box now and again.

Rockwell/Collins is still making very nice, usually cutting-edge, equipment, mostly for the military. A number of interesting communication services are still provided out of Cedar Rapids, with clients including Aeronautical Radio, Inc., the US Air Force, and the Drug Enforcement Agency. Art Collins died in 1987. His ham callsign is now being used by the Rockwell-Collins Employees Amateur Radio Club at the company's home in Cedar Rapids, Iowa. ■

1911 Pistol's Birthday Special Event Operation

By John Broughton, WB9VGJ

The special event operation from Gunsite Academy to celebrate the 100th birthday of the Colt 1911 pistol was held March 29th. As usual, Buz Mills, K7GST, whose call sign was used for the event, was a most gracious host.

We had 19 people attend the event, several of whom operated. We were active on HF using phone and CW and on 2M. We operated 15M, 20M, and 40M phone and 20M CW. On 2M, we used the Verde Valley Amateur Radio Association's 147.220 repeater and accessed Northlink on Arizona Repeater Association's Mt. Elden 147.140 repeater.

We didn't make as many contacts as we had expected on HF; ironically, we had 100 total contacts: 67 HF Phone, 10 HF CW, 23 2M. The band conditions were not too bad – there seemed to be several stations active. Operators spent considerable time calling CQ without getting responses. We did have a high noise level at times, which made it difficult to copy some stations. My friend in Texas, KD6UY, was the first station to make contact on 20M phone when KB7TRE was operating. He was looking forward to this operation and was waiting patiently on 20M for us. He worked me when we had the K7NRA special event in November.

There were about 100 folks attending Gunsite for some special programs for the 1911 birthday celebration, one being from the CEO of Colt's Manufacturing LLC. They spent a significant amount time on a range getting some good shooting practice.

Jim Supica, Director of the NRA National Firearms Museum was in attendance as was Sheriff Jim Wilson, cowboy, Western entertainer, NRA senior field editor and Outdoor Channel host. An Outdoor Channel crew was there to film the two Jims who talked about the many historic firearms on display from the NRA museum. That was a most interesting presentation and I was fortunate to be able to make a video recording of it.

All in all, it was a most enjoyable day. Pictures I took can be seen at:

Our operation: http://tinyurl.com/4azrox9

The NRA firearms: http://tinyurl.com/4kg2atb

I want to thank Terry, KB7TRE, for his critical assistance in putting this event on the air and everyone who attended and participated in the event. Special thanks to Mike, K7DD, for driving up from Peoria to put his CW station on the air, and to Mary, AB7NK, who will be handling the QSLs. ■

Weekly Breakfasts

Wed. Morning Breakfasts:
7:00 a.m. at
Iron Horse Restaurant
(Hwy 89 in Chino Valley)
(N 34º43'56.5" W112º27'15.4")*
informal – all are invited

8:00 a.m.
Masonic Lodge
(1280 Willow Creek Road,
2nd Floor; above Bank of America)
informal – all are invited

* Location data (per WGS84) provided by Fred Zimmermann, N7PJN

Area Repeaters

Frequency	PL	Location	Owner/Club	Auto-Patch	Rem. BaseOr Linked	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			IRLP	Node 3301
145.290-	127.3	Mingus Mtn.	ARES/RACES				
146.780-	91.5	Williams Mtn.	BWARC			IRLP	
146.880-	100.0	Prescott	YARC				
146.980-	162.2	Flagstaff	CARC				
147.000+	162.2	Mingus Mtn	MMRG				
147.140+	162.2	Flagstaff/-Mt. Elden	ARA		Linked to Mt. Ord -		Mt. Ord=147.36
147.220+	162.2	Mingus Mtn	VVARA				
147.260+	103.5	Mt. Union	ARES/RACES				
224.080-	156.7	Mt. Union	WA7JC				
442.150+	100.0	Mingus Mtn	W1OQ/Northlink				
442.350+	100.0	Glassford Hill	N7KPU			IRLP	
448.475-	100.0	Flagstaff-Elden	ARA	Yes			
448.875-	100.0	Flagstaff-Elden	Northlink		Linked		
449.175-	100.0	Towers Mountain	Northlink		Linked		
449.250-	192.8	Chino Valley	K7POF				
449.675-	88.50	Prescott Airport	WB7BYV		Linked to P Mtn.		P mtn=927.3875
449.725	110.9	Mingus Mtn	WA7JC				
449.750	91.5	Williams	K7NAZ		Linked to Win-Sys		
927.0875-	151.4	Mingus Mtn	WB7BYV				
927.3875-	151.4	Prescott	WB7BYV	Yes	Yes	Echo	Be Nice

For more Repeater Information & Listings refer to:

- ***www.w7ara.org/Web/***
- ***www.azrepeaters.net***
- ***www.azfreqcoord.org/listings.htm***

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Visit us on the web at http://www.w7yrc.org

Many thanks to Dick Hughes, W6CCD, our Webmaster