SKYWaves

Jan-Feb-Mar 2026 Issue 4

Whyalla Amateur Radio Club Inc. Quarterly Newsletter

How to get an increase in member participation leading to an increase in membership

Improving a radio club's membership and activities is important for several reasons:

1. **Fun and Social Interaction**: Clubs should also be about socializing and having fun. A larger membership can create a lively atmosphere, making activities more enjoyable and encouraging participation.
2. **Community Engagement**: A larger membership base can enhance community involvement. More members often lead to more diverse ideas and activities, which can attract even more participants.
3. **Skill Development**: Increased membership can facilitate workshops, training sessions, and collaborative projects. This helps members improve their technical skills and knowledge in radio communication and related fields.
4. **Resource Sharing**: More members can lead to better resource sharing, including equipment, knowledge, and brain-storming. This can help the club organize larger events or improve its facilities.
5. **Sustainability**: A growing membership can ensure the longevity of the club. With more members, the club can maintain its activities and possibly expand them, ensuring it remains relevant and engaging.

In summary, improving membership and activities in a radio club can lead to enhanced community engagement, skill development, resource sharing, networking opportunities, sustainability, increased visibility, social interaction, and advocacy. These benefits can create a more dynamic and successful club environment.

The simplest way for a member to improve the club is to take part. Don't be "*Just a Member*", be more than that! Participate, attend, contribute and volunteer. These are all guaranteed ways to make your club more fun for yourself as well as the other members.

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My Dad Told Me...

What's the difference between ignorance and apathy?

A. I don't know and I don't care.

Club Christmas Lunch - 2025

The Sundowner was once again the venue of choice for our Christmas Lunch.

The lunch was well attended with many out of town members making the trip and the wives joining in the good cheer also.

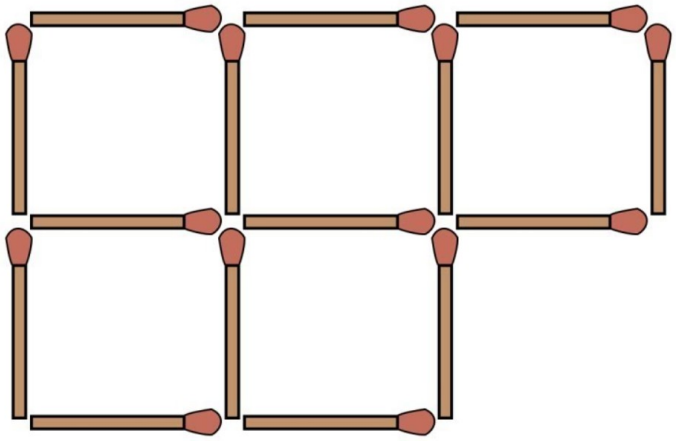
It was good to see Jim VK5JW and Peter Horgan VK5BWH and their wonderful partners.

Roger (Santa Claus) Jordan spread his good cheer once again with fabulous box of Kringle goodies.

Unfortunately, I was too busy partaking of the good food and company this year to take any photos. In fact, I don't think anyone took photos of the dinner, being too busy.

Keep the mind active

Below you will observe 15 matches in the shape of a 5 squares. Using this as your basic starting point, make the following patterns by:-



1. Leave 3 squares by removing 3 matches.

2. Remove 3 matches and leave 5 squares.

3. Remove 5 matches and leave 2 squares.

Burning of matches is not permitted. (It is fire season after all).

50 Year Anniversary of Colour TV:

The recent 50th anniversary of the introduction of Colour TV into Australia reminded me of an incident that I heard from an apprentice (let's call him Fred for anonymity) at the time. He worked with others on the 1st Colour TV transmitter for channel 10 in Sydney.

Another apprentice let's call him Tom (not his real name to protect his identity) and Fred were tasked with adding the finishing touches to the front panel of this huge transmitter. There were a few grubby finger marks on the front panel of this TV transmitter.

The transmitter was the size of a double sized fridge with lots of meters, dials and switches on the front panel. It had been tested and was ready to be delivered.

Lighter fluid was used throughout the organisation for cleaning down finished products to remove grease and finger marks. It never occurred to me how dangerous cans of flammable lighter fluid sitting under many work and assembly benches in all departments could be! Tom the other apprentice picked up some clean rag and lighter fluid which was plentiful within Amalgamated Wireless Australasia. He commenced using the cleaning rag to remove the marks with a large wiping arm action with his right arm.

To both our surprise it took the paintwork and stencilling away and it was back to bare aluminium. A lovely arch of bare metal was now showing. Tom said "what are we going to do?" Fred said " I am doing nothing; you're going over to the supervisor to tell him what you did.

"Fred said "well if you don't tell Louis the supervisor I'm going to!"

He plucked up the courage and told him. Immediately Louis walked over almost in tears with his hands resting on his hips. This was one of the biggest contracts assigned to our department. This incident occurred late in the afternoon on a Thursday. The handover of the transmitter to the General Manager of Channel Ten was due on the Monday morning at 9am.

All staff in the section were called together and advised no one was going home until the transmitter front panel had been stripped, repainted, re- stencilled , all meters and switches replaced and wired. This required enormous resources from the plating shop, mechanical and electrical fitters to test room staff.

We all did our bit with the panel finally being finished on the Sunday before the handover. Totally exhausted due to the workload and lack of sleep we finally stepped back, away from the transmitter. We all went home ready for the next workday.

At the designated time the entourage of big wigs arrived to inspect the first Colour Television Transmitter.

The AWA General Manager and other department managers posed for photographs. All very proud of their new transmitter with lots of discussion occurring.

These photos later appeared in major newspapers of the day and of course the companies own news letter.

To this day, no one would ever know about this incident other than those 20 people who worked at the AWA plant at North Ryde .

Amateur Radio Helps Locate Missing Mother and Son

25/7/2025

Amateur radio had a crucial role in locating a mother and her 9-year son lost in California's Stanislaus National Forest. On Friday July 11, 2025, the pair was reported overdue from a day trip to Camp Wolfeboro, a popular scout camp in the Sierra Nevada Mountains, according to a news release.

On Saturday July 12, the Calaveras County Volunteer Search and Rescue Team (SAR) was conducting its monthly training exercise along the Stanislaus River when members received notification that Tami and son Stirling had been reported missing since Friday afternoon and were not answering their cell phones.

The SAR team set up a command post at Black Springs Off-Highway Vehicle riding (OHV) Recreational Area and quickly began initiating a road-based search using four-wheel-drive vehicles and air support from the California Highway Patrol.

Joining the search was a Deputy and a Forest Service Law Enforcement Ranger who responded to 911 texts from campers in the area that a vehicle possibly matching the description of the pair's missing car had been found. The SAR team began to find handwritten notes posted near a remote Forest Service road and then another about a mile away that included a telephone number and the names of the missing individuals. Just before 6:00 PM, the car and the lost mother and son were found. But the rescue was not over.

SAR team members were unable to communicate with their command post using conventional frequencies and cell phones from their deep woods location. So they used amateur radio frequency to report their emergency traffic. The call was immediately answered by a retired El Dorado County communications supervisor, who is also an amateur radio operator, monitoring from his home. He contacted the El Dorado 911 centre, which provided the information to Calaveras County Dispatch. The SAR command post was notified, and the mother and her son were transported to waiting family members.

Young Stirling also had a hand with the rescue. He used his scout whistle to blow SOS, the internationally recognized Morse code distress signal, to give searchers a better chance of locating their position.

CLUB ACTIVITIES

Whyalla Amateur Radio Club Inc.

January 2026

M	Tu	W	Th	F	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

January

9	26/01/26 (Mon)	Australia Day Contest	event
20	03/01/26 (Sat)	ARRL RTTY	Event
20	04/01/26 (Sun)	ARRL RTTY	Event
1	07/01/26 (Wed)	WARC RMN Net	RMN
7	03/01/26 (Sat)	VHF/UHF Field Days	Contest
7	04/01/26 (Sun)	VHF/UHF Field Days	Contest
2	14/01/26 (Wed)	WARC Social Night	Social Night
3	21/01/26 (Wed)	WARC ZOOM Mtg	ZOOM
4	28/01/26 (Wed)	Club Mtg Night	Meeting
20	25/01/26 (Sun)	ARRL RTTY	Event

February 2026

M	Tu	W	Th	F	Sa	Su
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

February

04/02/26 (Wed)	WARC RMN Net	RMN
11/02/26 (Wed)	WARC Social Night	Social Night
18/02/26 (Wed)	WARC ZOOM Mtg	ZOOM
25/02/26 (Wed)	Club Mtg Night	Meeting

March 2026

M	Tu	W	Th	F	Sa	Su
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

March

04/03/26 (Wed)	WARC RMN Net	RMN
11/03/26 (Wed)	WARC Social Night	Social Night
18/03/26 (Wed)	WARC ZOOM Mtg	ZOOM
21/03/26 (Sat)	JM Mem Day	Event
22/03/26 (Sun)	JM Mem Day	Event
25/03/26 (Wed)	Club Mtg Night	Meeting

Installing HamClock on a Raspberry Pi

HamClock is a powerful tool designed for amateur radio operators, providing real-time propagation data, satellite tracking, and more. This guide will walk you through installing HamClock on Raspberry Pi, Debian.

Whether you're using HamClock for monitoring solar conditions, DX cluster spots, or tracking satellites, this step-by-step tutorial will help you get started.

Before installing HamClock, ensure your system has the necessary dependencies installed. These dependencies vary by operating system: For Raspberry Pi and Debian-based Systems do the following two commands:

sudo apt-get update

sudo apt-get -y install curl make g++ libx11-dev libgpiod-dev xdg-utils

Once the dependencies are installed, proceed with downloading and installing HamClock. The commands below will do an automated install. Enter the commands EXACTLY as written.

cd curl -O https://www.clearskyinstitute.com/ham/HamClock/install-hc-rpi

chmod u+x install-hc-rpi

./install-hc-rpi

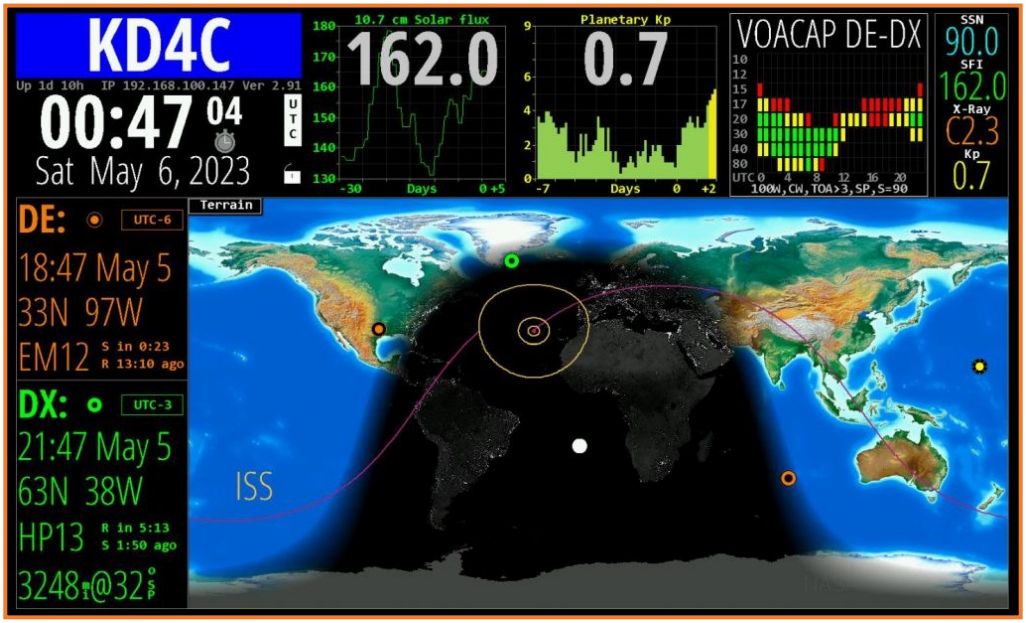
Click **y** to proceed and hit enter.

After the helper packages install, you will be asked if you want to build for web access only. If you are building this on a Raspberry Pi with a monitor attached, you should answer **n** to this.

When this has been completed, it will ask you what resolution you want to use. You will notice that it has detected your display. You should pick the highest resolution that your monitor can display. HamClock will now build and give you a handy progress indicator. This may take a while and may appear to be hung. Be patient, it **will** complete.

Answer 'y' to the question about installing a HamClock desktop icon.

Answer 'y' to the question about the User Guide. Then answer 'y' or 'n' to auto starting HamClock. It is your prerogative. Assuming it's all worked correctly, you will have a message saying that HamClock installation is complete.



Heathkit HD-10

Electronic Keyer

In very late 1965 or early 1966 Heathkit introduced the HD-10 Electronic Keyer. It is not listed in the main 1966 catalog, which is usually released late in the third-quarter of the prior year. The HD-10 sold for $39.95 throughout its lifetime and was discontinued in the second half of 1974. In 1975 Heathkit introduced its replacement, the HD-1410, which was introduced at $59.95.

The HD-10 Electronic Keyer: The HD-10 (Figure 1) is all solid-state, using eleven transistors and seven diodes. It does not use any integrated circuits, which were just coming onto the market about that time. Table I lists the semiconductors. Sometime during production, Heath switched from the 2N407 to the 2N408 transistor 1. The HD-10 is designed for use with transmitters using grid-block keying only, though there are modifications to allow positive voltage keying 2. The HW-16, SB-110, SB-400 and DX-60A radios Heathkit was selling at the time, all use grid-block keying.

The HD-10 has a built-in paddle. It is not iambic, but it may be used either as an automatic keyer, where both dits and dahs 3 are created electronically, or where dits are automatic and the dahs are manual, similar to using a Vibroplex bug. The paddle may be wired for right or left handed people. Switching between them requires heating up the soldering iron and swapping a couple of internal wires as well as reversing the knobs on the keying paddle.

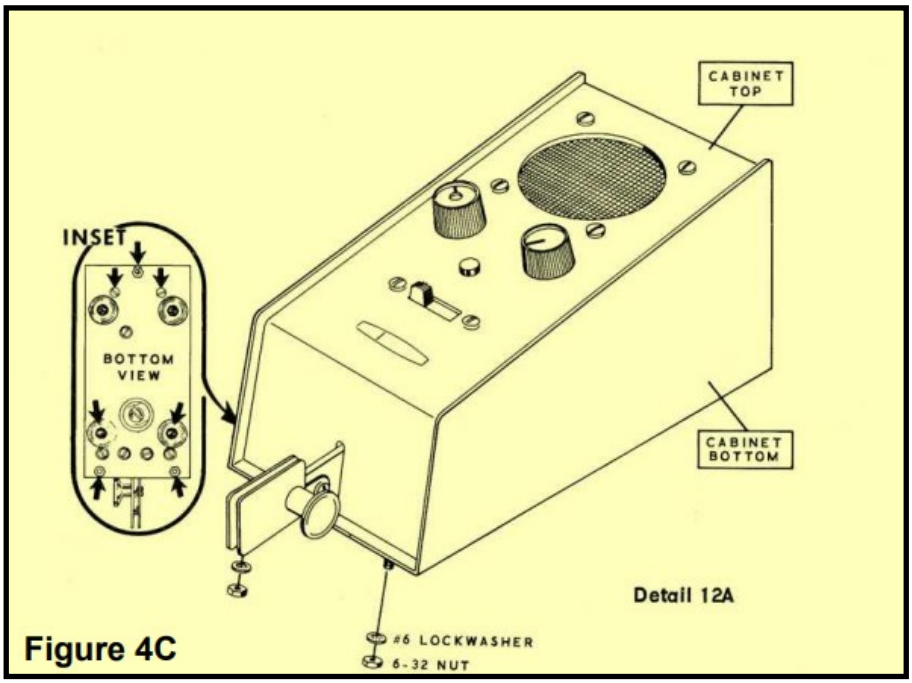
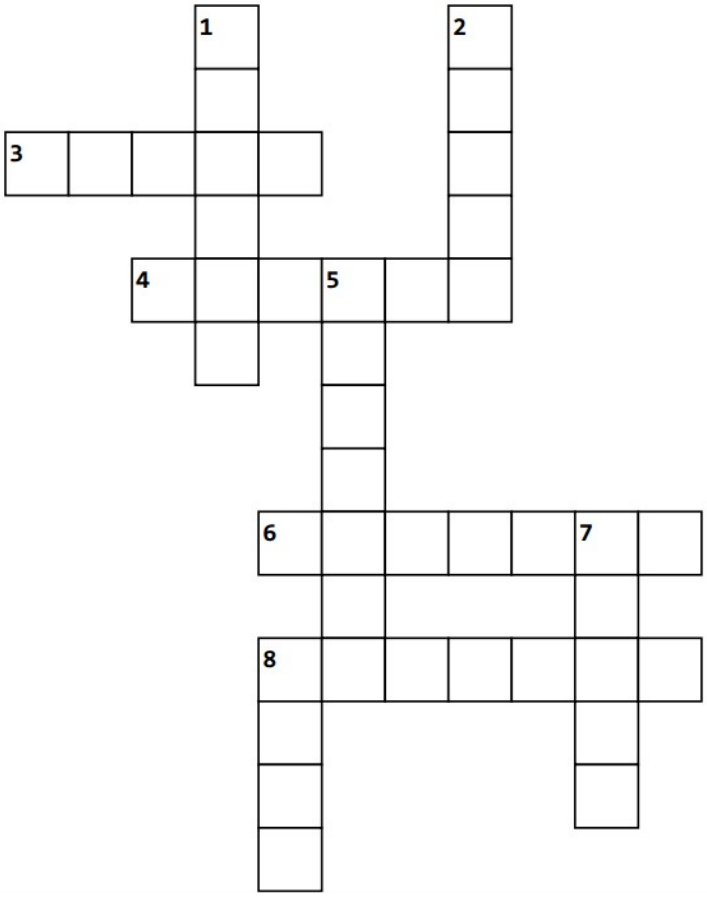


Figure 4C

In summary, Heathkit introduced the HD-10 using discrete components. Even though the digital IC introduction quickly followed and, even though the keyer paddle was not ideal, Heath still sold a lot of these keyers. Reviews were good, You can often find the HD-10 at electronic swap-meets and garage sales.

Planets—A Crossword



AMPLIFIERS

A Quick Rundown:

CLASS-A:	360° linearity – low efficiency
CLASS-AB:	180-360° linearity – better efficiency than "A"
CLASS-B:	180° linearity – medium efficiency
CLASS-C:	Less than 180° linearity – high efficiency 65% to 85%
PUSH-PULL AMP:	Even harmonics are cancelled – used commonly for hi-power class-B audio

FLYWHEEL EFFECT:
In electronics, the flywheel effect refers to the continuation of oscillations in a resonant circuit, like a tuned circuit or tank circuit, that continues after the driving stimulus is removed. This effect, caused by the interaction of capacitors and inductors, stores and exchanges energy, resulting in a continuous oscillation that smooths waveforms, like those from Class B or C amplifiers, into a more sinusoidal shape. It is also seen in the electrical analogy of the effect, where a rotating flywheel stores kinetic energy to smooth out power delivery.

Across

3. No longer a officially considered a planet

4. Coldest planet in the solar system

6. The largest planet

8. Closest planet to the sun

Down

1. Famous for its rings

2. Closest planet to Earth

5. The farthest planet from the sun

7. Takes approximately 365 days to rotate around the sun

8. Known as the "Red Planet"

Dad Jokes:

What was a more useful invention than the first Telephone?

The second telephone

Building and putting the first antenna, a simple dipole for 80m.

Left: (Whyalla News photo) Some members of the new Whyalla Amateur Radio Club, at their headquarters in the old 4th Whyalla Scout Building.

From Left to right: John Groffen, Peter Baker, Derek Nelson, Paul Riley, Alan Flack, John Thompson and Frank House.

WARC Inauguration 1983

"Radio Club makes 'Pen friends' over the airwaves". The headline for the Whyalla Amateur Radio Club in a large page 3 article.

Peter Baker and John Groffen were interviewed by the local newspaper at Mr Baker's radio shack.

The club began when a couple of radio enthusiasts decided to become operators. They approached other interested parties and formed a group. The club was formed on October 29, 1983 and soon achieved a membership of 14 operators and SWL'ers.

The club was able to establish a clubroom at the 4th Whyalla Scout Group in Rozee Street where part of a storage shed was able to be used and converted to radio shack.