FIVE AND NINE PLUS

THE OFFICIAL NEWSLETTER OF THE APPLEDORE AND DISTRICT AMATEUR RADIO CLUB

Club Callsigns: G2FKO and GX2FKO
Website: www.adarc.co.uk

CLUB OFFICERS

President	Terry Adams	G4CHD		Committee	Ben Louder	2E0FTZ
Chairman	Mike Wogden	G4KXQ			Mark Wildig	G6BNB
Vice-Chairman	Dave Boyes	2E0KVJ				
Treasurer	Alan Fisher	2E0EUZ		QSL Manager	John Lovell	G3JKL
Secretary	John Lovell	G3JKL		Web Master	John Lovell	G3JKL
				Exam Secretary	John Lovell	G3JKL
				Editor	Mike Wogden	G4KXQ
				Mikewogden@gmail.com		

EDITORIAL

On behalf of the Committee and me, I wish all the members a Happy Christmas and a prosperous New Year.

The final meeting for 2025 is our annual Christmas Party. The decision at last month's committee meeting was to provide mince pies to go alongside Dave's teas and coffee. We will have the big raffle where everyone gets a prize. There will be no need for members to bring their own food.

This is my twelfth edition of the newsletter. In the absence of any feedback, I assume the members approve of the content. I would appreciate any additional input from the members on any or all topics.

For this month's technical input, I have prepared an article on using Artificial Intelligence to remove noise from received signals.

73 Mike (G4KXQ)

CLUB PROGRAM

Dec 15th, 2025	Christmas Party	
Jan 19th, 2026	External Speaker : Basic Fault Finding	Martin Butler M1MRB
Feb 16th, 2026	Antenna Build – Practical	Mike G4KXQ, Mark G6BNB
March 16th, 2026	Annual General Meeting	

LOCAL NETS

2m Elevenses FM Net: Mon/Wed/Fri :
11 - 12.00 noon via GB3DN Net Control; Mike (G3PGA)

Friday Night 2m Net: Friday : 145.450 FM, 8 -9pm

Sunday Top Band Net: Sunday 1.860 MHz
9.30 - 10.15am
(LSB - 32W pep max)

2m SSB Nets: Wed: 8 - 9pm 144.260MHz USB SSB (Vertical polarised)
Sun: approx 10.30am (follows Top Band Net) 144.260MHz USB SSB (Vertical polarised)

Sunday FM Net: Sunday: 11 to noon via GB3DN
Net Control : Chris (G0FJY)

Note :- FM Nets which use GB3DN as shown above will continue despite the recent changes. GB3DN is disconnected from the Wires-X/ Southern Fusion Room just before the listed start and end of each FM Net

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Winkleigh Rally

On Sunday 7 December, Mark G6BNB and I ventured out to Winkleigh through some very waterlogged roads to visit the Mid Devon Amateur Radio and Computer Fair.
The event was very well attended with spaces at a premium in the carpark. There were plenty of stalls selling various equipment both ancient and modern. Our illustrious Club secretary John G3JKL was manning the RSGB Book Stall. I came away with a few microprocessor parts ready for my next project.

Thanks to Martin Lynch, G4HKS for sponsoring the teas and coffee.

Photos courtesy of Phil Bridges G6DLJ

CONTEST CALENDAR

Only a few contests this month over the Christmas New Year period. The ARRL 10 meter contest is always lively if the sunspot gods allow.

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Contest Name	Start Time (GMT)	End Time (GMT)	Date (UK)
--- December Contests ---			
ARRL 10-Meter Contest	00:00	23:59	13 -15 Dec 25
PODXS 070 Club Triple Play Low Band Sprint	00:00	23:59	13 -14 Dec 25
TRC Digi Contest	00:00	23:59	13 -14 Dec 25
SKCC Weekend Sprintathon	00:00	23:59	13 -14 Dec 25
ARI 40/80 Contest	18:00	17:59	13 -14 Dec 25
International Naval Contest	14:00	13:59	13 -14 Dec 25
Feld Hell Sprint	18:00	19:59	20 -20 Dec 25
OK DX RTTY Contest	06:00	11:59	20 -20 Dec 25
RAC Winter Contest	00:00	23:59	20 -20 Dec 25
Croatian DX Contest	14:00	13:59	20 -21 Dec 25
Stew Perry Topband Challenge	15:00	15:00	27 - 28 Dec 25
RAC Winter Contest	00:00	23:59	27 - 27 Dec 25
--- January Contests ---			
ARRL RTTY Roundup	18:00	23:59	03 -04 Jan 26
G-QRP Club Winter Sports	00:00	23:59	03 -04 Jan 26

Data Thanks to WA7BNM Contest Calendar

DX NEWS

DXCC Entity	Callsign	Start – End Date	Key Info
Burundi	9U1RU	31 Oct – 20 Nov 2025	160-6m, CW, SSB, FT8.
Br Virgin Is	VP2V/K6TOP	01 – 07 Nov 2025	40-10m, mainly CW.
Falkland Is	VP8THW	01 -22 Nov 2025	20, 17, 15, 12, 10m, SSB, FT8.
Central African Rep	TL8GD	01 – 30 Nov 2025	HF, SSB, CW.
Chatham I	ZL7/LZ1GC	03 - 20 Nov 2025	160-6m, CW, SSB, FT8, FT4. From IOTA OC-038.
Lesotho	7P8EA	03 -27 Nov 2025	15m (SSB/CW), perhaps 17, 12, 10m.
Togo	5V7RU	05 – 19 Nov 2025	HF (focus 160/80m), CW, SSB, FT8.
Uganda	5X7W	14 Nov -08 Dec 2025	80-10m, CW, FT8, FT4. QRV for CQWW DX CW.
Tuvalu	T2JK	15 -21 Nov 2025	80-6m, FT8.
St Kitts & Nevis	V47JA	17 -23 Nov 2025	160-6m, SSB, FT8.
San Andres I	5J0EA	20 -30 Nov 2025	160-10m, CW, SSB + digital. From IOTA NA-003
Bonaire	PJ4KV	20 Nov – 03 Dec 2025	HF, CW.

DXCC Entity	Callsign	Start – End Date	Key Info
Namibia	V51WH	20 Nov – 31 Nov 2025	160-6m (incl 60m). QRV for CQWW DX RTTY (using V55Y)
Chatham I	ZL7/LZ1GC	23 Nov – 05 Dec 2025	Second ZL7 operation by LZ1GC. 160-6m, CW, SSB, FT8, FT4
Bermuda	VP9/WE9G	24 Nov – 04 Dec 2025	160-6m, FT8, CW, SSB.
Cambodia	XU7RRC	25 Nov -03 Dec 2025	80-10m, CW, SSB, FT8. From Ta Kiev I (AS-133)
Bhutan	A52AA	25 Nov -05 Dec 2025	40-10m (perhaps 160/80m), SSB. Dates tentative
St Martin	TO9W	30 Nov – 12 Dec 2025	160-10m, CW, SSB, FT8, FT4.
Maldives	8Q7HT	01 - 10 Dec 2025	40-6m, mainly FT8. Holiday style.
Guatemala	TG9/AF4CZ	07 Dec - 05 Jan 2026	40-10m, FT8, FT4, perhaps SSB. Spare time.
Palau	T88AC	10 – 17 Dec 2025	HF. QRV for ARRL 10m Contest.

Data courtesy of Ng3K.com DX Operations : 2025

LOCAL REPEATERS/GATEWAYS

At the Winkleigh Rally, Mark G6BNB took delivery of the Repeater hardware for GB3XM. The hardware is currently under test at Mark's QTH near Gunn.

GB3XM – UHF DMR Repeater - Brayford

TX 439.5625 MHz RX 430.5625
Colour code 1, Slot 1 Talkgroup 9 local and direct dial, Slot 2 South West Cluster

GB7MX – VHF FM Tiverton *(QRP, Solar powered)*
TX 145.075, RX 145.575, Tone 77Hz – *Keeper Steve M0ZZT*

GB7MZ UHF DMR Repeater - Tiverton, *(daylight hours solar powered)*
TX 439.5625 MHz RX 430.5625
Colour code 1, Slot 1 Talkgroup 9 local and direct dial, Slot 2 South West Cluster.
Keepers Phil G6DLJ and Cliff G4PZK

GB3ND UHF DMR Repeater - Holsworthy Beacon TX 439.7375 RX 430.7375 Colour code 1
Slot 1 local RF, Slot 2 SW Cluster Keeper G1BHM

GB3DN VHF FM/C4FM Repeater - Stibb Cross
Tone 77Hz (for analogue FM) TX 145.6375 RX 145.0375, Default Digital Connection : Wires-X Southern Fusion http://www.g0rql.co.uk/gb3dn.htm. Keeper Tony G1BHM

GB7FB UHF DMR Repeater - Bideford TX 439.475 RX 430.4750 Colour code 5 Slot 1 Local RF/DoD Slot 2 SW Cluster . Keeper Drew M0MFS

GB3LZ VHF FM/C4FM Repeater - Winkleigh
Tone 77Hz (for analogue FM) TX 145.6625 RX 145.0625, Digital Connection : Wires-X SOUTHERN ENGLAND. Keeper Simon G4MQQ

GB7LZ UHF DMR Repeater - Winkleigh
TX 430.9125 RX 438.5125 Colour code 1, Slot 1 Talkgroup 9 local and direct dial, Slot 2 South West Cluster. Keeper G4MQQ

MB6DT VHF Fusion Gateway - Barnstaple
Frequency 144.8125 MHz. Gateway. Keeper Darren (2E0LVC)

GB7TG - UHF DMR Repeater - Wembworthy
TX 430.9750 RX 438.5750 Colour Code 7, Default Connection : Slot 1 Local/DoD Slot 2 SW Cluster Keeper G7SOJ

GB3NX VHF FM Allstar Holsworthy Beacon TX 145.7375 RX 144.1375. CTCSS tone 77hz Connection SW AllStar network (SWAN). Wires-X default room: Southern-Fusion, Keeper G1BHM

GB3BU - UHF DMR Repeater - Bude
TX 430.9625 RX 438.5625 Colour Code 1
Default Connection: Slot 1 Local/DoD Slot 2 SW Cluster Keeper G1BHM

GB3JH – UHF Analogue Repeater – Tiverton
TX 430.8625 RX 438.4625, Tone 77Hz – Keeper G6ASK

Frequencies are those transmitted and received by the Repeater

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The Sound of Silence: Using AI with RM Noise to Clean Up Your QSOs

If, like me, you're lucky enough to own a modern SDR-based rig, you may marvel at the performance of the in-built noise reduction functionality. Pulling CW or even sideband voice out of what seems near mush is quite a feat.

Amateur radio operators have always battled the relentless roar of noise—from power line interference and LED lighting hash to the crackle of distant lightning. This background racket, often called the **noise floor**, can bury weak signals, making that coveted DX contact frustratingly difficult. **But what if you could teach a computer to listen better than you?** To distinguish between the signal you want and the noise you don't? Of course, being 2025, it's got to involve Artificial Intelligence (AI).

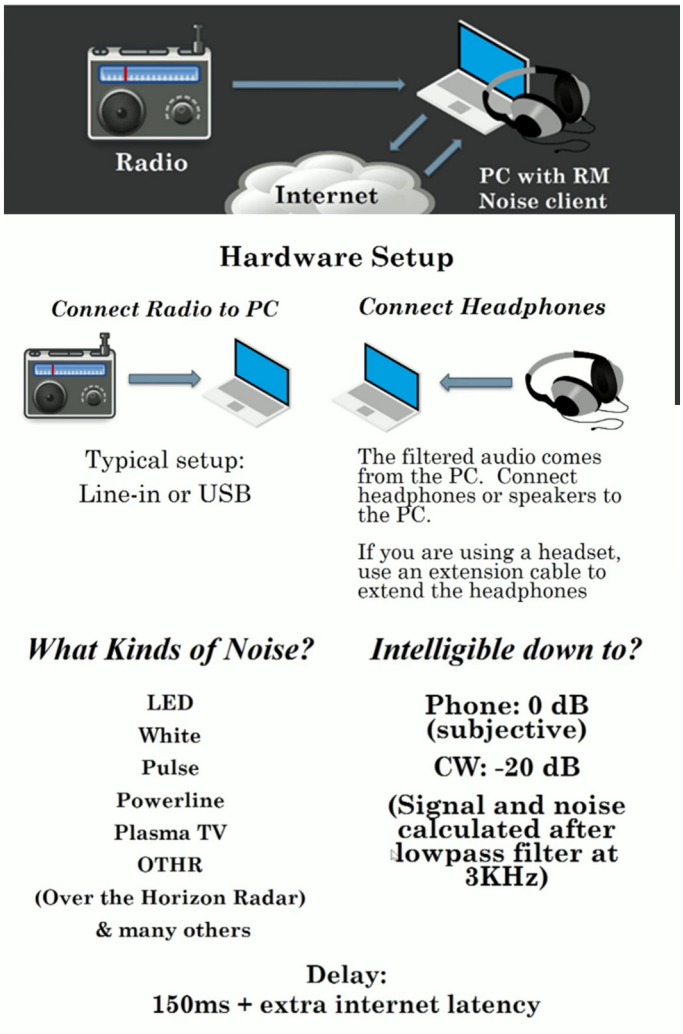
The great news is this technology can be used with all receivers, modern and ancient, as long as you can get the audio into your internet-enabled computer.

Let me introduce **RM Noise**, an exciting, free innovation that leverages Artificial Intelligence (AI) to dramatically reduce unwanted noise in SSB voice and CW signals. This project is a **game-changer**, offering a new lease of life to receivers new and old, without the need for costly hardware upgrades.

How Does RM Noise Work?
Unlike traditional Digital Signal Processing (DSP) found in modern radios—which often relies on static filters or spectral subtraction—RM Noise uses a **sophisticated neural network model**. This AI has been extensively trained on thousands of hours of actual amateur radio noise recordings, capturing the unique "fingerprints" of RFI (Radio Frequency Interference), man-made noise, and atmospheric static.

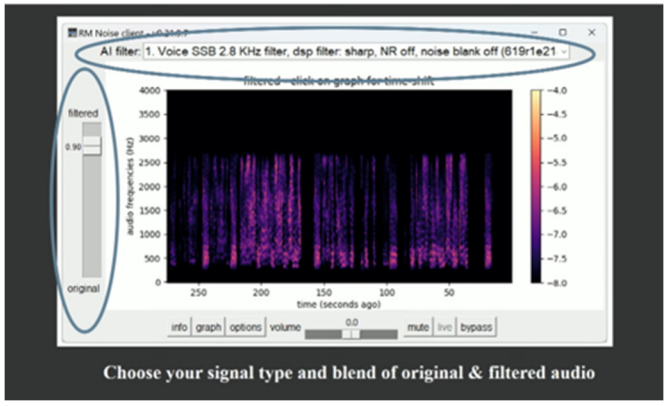
The system operates as a cloud-based service with a small Windows-based client application on your PC:

- **Audio In:** You pipe the noisy audio output from your radio (via a sound card or virtual audio cable) to your computer.
- **To the Cloud:** The RM Noise client sends this noisy audio stream over the internet to a dedicated server.
- **AI Filtering:** The AI model on the server analyzes the incoming audio in **near-real-time**, **stripping away** the learned noise patterns.
- **Clean Audio Out:** The significantly improved, clean signal is sent back to your PC for you to listen to. The latency is often low enough (around 100–150 milliseconds) for it to work in a practical, **real-time** environment



The Proof is in the Copy
The results reported by early adopters are nothing short of astonishing. Operators have demonstrated improvements of up to 20 dB in signal clarity on CW. Imagine a weak S1 signal, previously drowned out by an S9 noise floor, becoming perfectly readable—almost as clean as local broadcast radio.
For operators focusing on weak signals or working DX in noisy urban environments, RM Noise can make the difference between a successful QSO and a missed opportunity. It provides an immediate and profound enhancement to the listening experience, reducing fatigue during long hours of ragchewing or contesting.

Controlling the Filter.
The software is simple to use, featuring a slider that allows you to blend the original noisy audio with the completely filtered audio (from 0% to 100% filtered), giving you control over the final sound.



A Community-Driven AI
The success of RM Noise is tied to the spirit of

amateur radio cooperation. If the AI doesn't perfectly eliminate a specific type of noise at your location, the project encourages you to record your pure noise floor and submit it. This contribution helps retrain and improve the AI model for the benefit of the entire amateur community, making the system smarter for everyone as it learns more diverse noise sources.
You can learn more about this revolutionary technology and see a demonstration by watching the numerous videos available on YouTube such as 'RM Noise - Using AI to Remove Noise from **SSB** and **CW** Signals'. This video provides an in-depth look and demonstration of the RM Noise system for signal clarity.

'Twas the night before Christmas '

Twas the night before Christmas, And all through two-meters,
Not a signal was keying up Any repeaters.

The antennas reached up, From the tower, quite high,
To catch the weak signals, That bounced from the sky.

The children, Technicians, Took their HT's to bed,
And dreamed of the day, They'd be Extras, instead.

Mom put on her headphones, I plugged in the key,
And we tuned 40 meters, For that rare ZK3.

When the meter was pegged, By a signal with power.
It smoked a small diode, And, I swear, shook the tower.

Mom yanked off her phones, And with all she could muster
Logged a spot of the signal, On the DX PacketCluster,

While I ran to the window, And peered up at the sky,
To see what could generate, RF that high.

It was way in the distance, But the moon made it gleam -
A flying sleigh, With an eight element beam,

And a little old driver Who looked slightly mean,
So I though for a moment, That it might be Wayne Green.

But no, it was Santa, The Santa of Hams,
On a mission this Christmas, To clean up the bands.

He circled the tower, Then stopped in his track,
And he slid down the coax Right into the shack.

While Mom and I hid Behind stacks of *CQ,*
This Santa of hamming Knew just what to do.

He cleared off the shack desk Of paper and parts,
And filled out all my late QSLs, for a start.

He ran copper braid, Took a steel rod and pounded
It into the earth Till the station was grounded.

He tightened loose fittings, Resoldered connections,
Cranked down modulation, Installed lightning protection.

He neutralized tubes In my linear amp...
(Never worked right before – Now it works like a champ).

A new low-pass filter Cleaned up the TV.
He corrected the settings In my TNC.

He repaired the computer That wouldn't compute,
And he backed up the hard drive And got it to boot.

Then, he reached really deep In the bag that he brought,
And he pulled out a big box. "A new rig?" I thought!

"A new Kenwood? An Icom? A Yaesu, for me?
An Elecraft, TEN-TEC, Or Flex, could it be!"
(If he thought I'd been bad It might be QRP!)

Yes! The Ultimate station! How could I deserve this?
Could it be all those weekends, I worked Public Service?

He hooked it all up , And in record time, quickly
Worked 100 countries, All down on 160.

I should have been happy. It was *my* call he sent.
But the cards and the postage, Will cost a month's rent!

He made final adjustments, And left a card by the key:
"To Gary, from Santa Claus. Seventy-Three."

Then he grabbed his HT, Looked me straight in the eye,
Punched a code on the pad, And was gone - no good bye.

I ran back to the station, And the pile up was big.
But a card from St. Nick Would be worth my new rig.

Oh, too late, for his final, Came over the air.
It was copied all over. It was heard everywhere.

The Ham's Santa exclaimed, What an old ham expects:
"Merry Christmas to all, And to all, good DX."