



# FIVE AND NINE PLUS

THE OFFICIAL NEWSLETTER  
OF THE  
APPLEDORE AND DISTRICT  
AMATEUR RADIO CLUB

Club Callsigns: G2FKO and GX2FKO  
Web Site : [www.adarc.co.uk](http://www.adarc.co.uk)

### CLUB'S OFFICERS

President	John Jeffers	G0UNB	
Chairman	Terry Adams	G4CHD	
Vice Chairman	Mike Hammond	G3PGA	
Secretary	Alan Fisher	M6CCH	01237 422833 Email: <a href="mailto:fisheralan@btinternet.com">fisheralan@btinternet.com</a>
Treasurer	Mike Wogden	G4KXQ	
Committee	Laurence Soutter	G4XHK	
	John Lovell	G3JKL	
	Graham Bailey	G1ZTJ	
QSL Manager	John Lovell	G3JKL	
Web Master	John Lovell	G3JKL	
Exam Secretary	John Lovell	G3JKL	
Editor	Terry Adams	G4CHD	

February, 2015

### EDITORIAL

Welcome to another Club 5&9 Newsletter.

**This month we are fortunate to have another talk by Mike (G4KXQ) - this time on 'Whisper and WebSDRs'** which promises to be a most fascinating subject and a Meeting not to be missed.



Most of you will know that our **March Meeting is always our AGM** where it is your opportunity to choose your new Club Committee to guide your Club through the next year. It is therefore most important that as many members attend as can and are therefore able to use their vote. As mentioned in last month's 5&9, it would seem that **at least two new members will be needed on the Committee** and could result in fairly major changes within the Committee.

**So please try to attend and have your say.**

It was very pleasing to welcome 2 visitors to our last meeting - Shannon Basley & Dave Blackmore. I hope you both enjoyed your visit and look forward to seeing you again and hopefully joining at our AGM in March.

Terry (G4CHD)

**REMEMBER  
NEXT MONTH'S MEETING  
MARCH 16TH  
IS OUR CLUB AGM**

**See You All There**

### CLUB MEETINGS

Unless otherwise stated, Meetings are held at the Appledore Football Social Club starting at 7.30pm for 8.00pm. Visitors are always welcome.

- February 16th "Whisper & WebSDRs" by Mike (G4KXQ)
- March 16th Club AGM
- April 20th TBA

For further information, contact Alan (M6CCH)

### LOCAL REPEATERS

**70cm Handy Cross Repeater/Echolink (#221334)  
Gateway (GB3ND)**

User: Listen 433.35MHz - Transmit 434.95MHz  
Access 1750Hz Tone (Timeout 4.25 mins)/ 77Hz CTCSS  
Repeater keeper is Jeff (G4SOF)

**2m Stibb Cross Repeater (GB3DN)**

<http://www.g0rql.co.uk/gb3dn.htm>

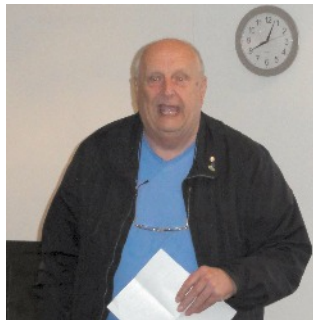
User: Listen 145.6375MHz - Transmit 145.0375 MHz.  
Access 1750 Hz Tone or 77 Hz CTCSS Repeater keeper is Tony (G1BHM).

Yahoo users group for general chat and banter at :-  
<http://groups.yahoo.com/group/GB3DN/>

## REPORT ON THE JANUARY MEETING

### **Contests - Beauty or a Beast? by Mike (G3PGA) and Terry (G4CHD)**

This type of Meeting was a new venture for the Club and it



is hoped that it proved to be an enjoyable one for those who attended.

After a toss of a coin, Mike won and proceeded to put forward an extremely well reasoned argument in favour of contests. They certainly bring DX stations onto the bands and contest working can hone your operating skills.

This was followed by Terry putting forward strongly the case to have contests removed from the bands particularly at weekends.



Their regularity and capacious use of the bands - often with little regard for other non contest users, has brought them into many operators bad books. Love them or hate them - like Marmite - contests evoke strong feelings!!

Much discussion followed both for and against contests, including a suggestion by Mike (G4KXQ) as to whether members would like to form a 'contesting subgroup'. A final vote yielded 9 in favour of contests and 7 against. Bearing in mind some hesitancy by some in casting their vote, it was decided diplomatically to call it a draw!! Many thanks to all for a very entertaining evening.

Terry (G4CHD)

### 70 CMS SUNDAY MORNING NET

There is now a website for the net which can be found at [www.projectzeta.co.uk](http://www.projectzeta.co.uk) entered into the address line of your search engine. This site enables you to see who is currently 'on air' whilst the net is open, leave a message for the net members (if you are 'just listening or unable to get onto RF) or let the net users know that you are there. This is especially useful for SWL users.

General information is also available on the site along with a full e-mail facility. Further enhancements will include a net message option which can be used if the net has an issue, as we sometimes do, both with RF and Echolink. We have had to date 243 'hits' and several SWL messages from local and not so local users including U.S.A! So if you can't join in on 433.350 (transmit 434.950) MHz or on Echolink (node 221334) you can always see what's going on or send a comment via this website.

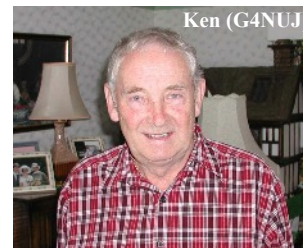
We are there on Sunday morning from 11.00am to 12 noon. My thanks also to John (M0JKL) for his contributions to date.

Kevin (2E0KMG)

## EARLY DAYS OF THE APPLEDORE RADIO CLUB FORMED 30 YEARS AGO

by a founder member - Ken (G4NUJ)

I never thought 30 years ago that the Appledore Club would still be running today. When the three founder amateurs - Peter (G4ZSX), Ron (G0BGL) and myself (G4NUJ) - decided in 1985 to start a radio club, CB was at its most popular.



There was a lot interest in radio at that time, with the DTI catching a lot of Cbers for using the AM bands.

So those that were really interested in radio took the amateur exam.

The Club was formed as more and more people became interested in amateur radio. It started in the 'Coach and Horses' pub in Appledore, with the three of us meeting Sunday lunchtimes for a drink. Dennis (G0FCL) and Dave (G3YGJ) then joined in together with several others.



'Coach and Horses' was our Club meeting place until it got too small, when with the help of Dave (G0PGK) we moved to the Football Club where we are now.

The Club, like all clubs, went through some bad times, and on a couple of

occasions, nearly finished. But luckily with the help of some devoted members, the Club kept going. I'm pleased that it has got to what it is today, with good members and a very good Committee.

What has happened to those three originating amateurs - well, Peter has moved away to god knows where, Ron has health problems and is no longer interested in radio, and myself - I'm still interested in radio and am on 40 and 6 m mainly.

Because my wife is not very well, and my health is not too good, I cannot attend the Club as often as I would like. Well let's look forward to the next 30 years - best wishes to all the members of the Appledore Radio Club.

73s Ken (G4NUJ)

### LOCAL SKEDS

**Zepp Net:** Mon, Tues, Thurs : 145.450 MHz 4pm  
Wed via GB3DN - 4pm

**6m Net:** Wednesday, 8pm, 51.480 MHz FM

**HF Net:** Friday at 3pm 7.145 MHz ± qrm

**Slow Morse:** Run by Dave (G3YGJ) every Tuesday and Thursday, 7pm clock time on 145.250 mode FM.

**70cm Net:** Sunday, via GB3ND, 11am - noon local time.  
Available on Echolink node 221334

**PERSONAL MEMORY OF SIR WINSTON  
CHURCHILL'S FUNERAL - 50TH ANNIVERSARY**

by John (G0UNB)

It all began when I was a Flight Lieutenant posted to RAF St Athan to take over the Maintenance Unit Machine Shop. I called into the Adjutants Office as one does when arriving and she looked at me and said "How tall are you?" On my reply "6 feet" she said "Excellent, the Secondary duty of Guard Commander for Wales needs filling – you have the job".



For two years about 60 men and I paraded once a week familiarising ourselves with the duties of Guards of Honour, lining the route etc., and of Operation 'Hope Not'.



The services make provision for any foreseeable situation - Churchill's funeral was one, hence 'Operation Hope Not.' The day came and we assembled in London, were billeted overnight in the Artillery Barracks at Woolwich, and bussed to our appointed place on the Route. There should have been 4 Flights of Airmen but the Fourth Flight was stood down and the Squadron Commander had some ailment so it fell upon me to take charge which was no problem and altered little except that there was a spare Flight Lieutenant. So the day being freezing cold, after deploying the men and to take advantage of the situation I arranged with the 'spare officer' to alternate parading with me every 15 minutes to allow us to 'thaw out'.

After 15 minutes I looked around for my relief who should have been standing in the crowd of onlookers but there was no sign of him which left me on duty until the Gun carriage passed by. So almost frozen to the marrow we marched back to our transport and there with a silly smile on his face was the missing officer.

"Oh " said I "and what happened to you?" His tale went like this - he was standing in the crowd when a chap in some sort of livery tapped him on the shoulder and told him that the owners of the property immediately behind him (which turned out to be a private Bank of some sort) would be pleased if he would join them in an upstairs room overlooking the route. Nothing loath he accepted the invite and spent the time in a comfortable seat being given a large glass of brandy, a warm room, convivial company and an excellent view of the parade!

Oh well! Just my Luck!

John (G0UNB)

**CROSSWORD**

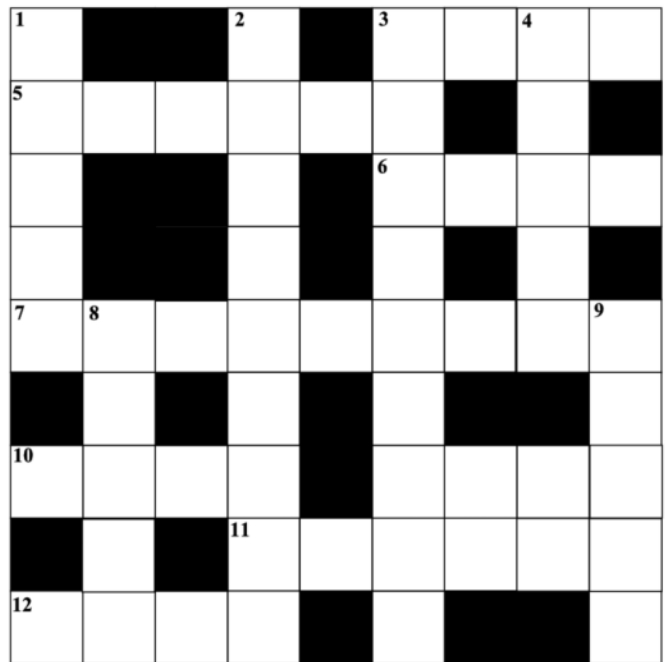
This month's Crossword is by Stuart (M1FWD). The answers will be published in the next month's Newsletter. Good luck !

**Clues Across**

- 3) Circuit-protection device (4)
- 5) The festival commemorating Christ's resurrection (6)
- 6) Send out (heat, light, etc.) (4)
- 7) The capital city of Golf Mike land (9)
- 10) The largest continent (4)
- 11) In the USA, a five-cent coin (6)
- 12) Name given to the part of the River Thames above Iffley Lock (4)

**Clues Down**

- 1) The Wild ? - 1978 film starring Richard Burton, Roger Moore, Richard Harris and Hardy Kruger (5)
- 2) Natives of the capital city of Sierra Victor land (9)
- 3) The rate of recurrence of a vibration, oscillation, cycle, etc. (9)
- 4) A bandage looped round the neck to support an injured arm (5)
- 8) Computer storage devices (5)
- 9) Becomes healthy again (5)



**Last month's answers :-**

**Across** 1) karma 5) Beta 6) litre 8) string 10) Easter  
12) range 13) turn 14) Osage

**Down** 1) kilohertz 2) Mars 3) Benin 4) manganese  
7) ether 9) astro 11) rays

Stuart (M1FWD)

## SUDOKU PUZZLE

The aim is to enter a number into each cell so that **any column, or any row, or any block of cells contains all numbers from 1 to 9.**

7								
		3		4			5	
		2		6		4		1
	5	4						7
8	3				2	5		6
6						8	9	
3	2		4				6	
		7	9				3	
								5

Terry (G4CHD)

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## SOME THOUGHTS ON THE W3EDP MULTIBAND ANTENNA

by Terry (G4CHD)

A short article follows on the next 2 pages which I hope some members may find of interest. Any personal comments on this type of aerial would make good reading in next month's Newsletter.

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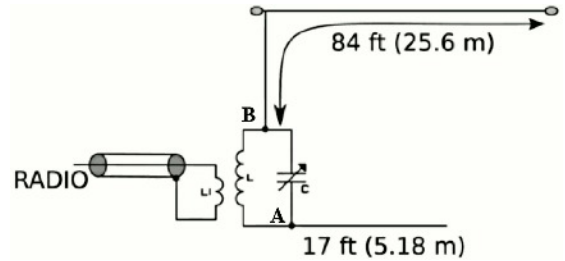
Well that's it for another month, enjoy the read

Terry (G4CHD)



**W3EDP ANTENNA** by Terry (G4CHD)

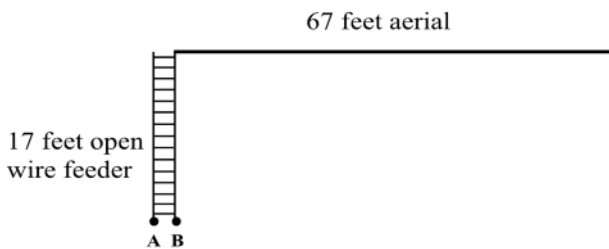
A description of the W3EDP Antenna entitled 'An Unorthodox Antenna' was published in the March 1936 edition of QST. This article described an empirically-derived multi-band antenna designed by the writer's friend Yardley Beers, W3AWH which consisted of 'an 84 ft radiator and a 17 ft 'counterpoise'.



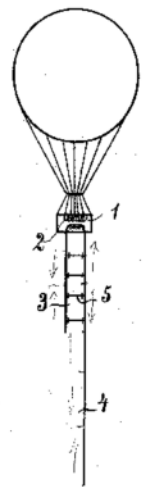
The 17 ft 'counterpoise' doesn't appear to act in the normal way that a counterpoise should - namely to provide a point of minimum (ideally zero) voltage akin to 'ground' potential at the end opposite to its open end. This of course ignores the effects of nearby objects or real ground.

This is achieved when an electrical quarter-wave length of wire has its far end open circuited. However 17 ft (5.18m) of wire is a quarter-wave approx on the 20m band and anything but on the other HF bands. It would appear therefore that the 17 ft of wire is acting in some other way.

A possible explanation as given by Charlie (W6JJZ) is to consider the 17 ft 'counterpoise' wire and the first 17 ft of the 84 ft radiator wire as 17 ft of open line feeder which has been opened out. This results in a radiator wire of  $84 - 17 = 67$  ft.



The resultant diagram shown left is now of an end-fed Zepp fed at A & B as once trailed from Zeppelin Airships and described in the German Patent Number: 225204 published in 1909 by its inventor Hans Beggerow for an airborne wiring diagram, marked by two dangling wires of unequal length, which in the vicinity of the airship form a Lecher system (balanced transmission line) as shown on the right.



An end-fed Zepp will work on any band for which the radiator is a multiple of a half wavelength. Thus for a 67 ft (20.4m) radiator, the antenna should perform reasonably well on the 40, 20, 15 and 10m bands.

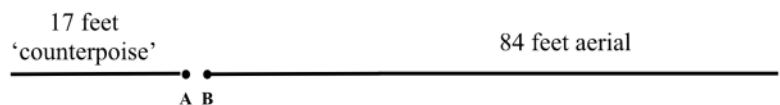
The principle of operation can be described as follows:-

The current at the far end of the radiator wire must be theoretically zero as it has nowhere to go if one ignores nearby objects etc. and hence the impedance at this far end is 'very' high. This impedance at its far end is replicated at multiples of a half wavelength along the wire. Since the end fed Zepp has a half wave or multiple of half waves length of radiator wire, then at the feeder end of the radiator wire, the impedance is also 'very' high.

The impedance at the antenna end of the 'open' side of the feedline is also 'very' high. (Were it not for capacitive coupling to space and various objects, the impedance at the antenna end of the open side of the feedline would be infinitely high, but in reality the current never quite falls to zero.) If the length of the flattop is properly adjusted, then the currents on the two sides of the feedline are 'roughly' in balance, but out of phase, so not much radiation occurs from the feedline.

However, there is controversy over whether such a design should work quite as they're alleged to! The reader is referred to the excellent book by L. A. Moxon 'HF Antennas for All Locations' - page 46 - as to why the Zepp 'should not work'!

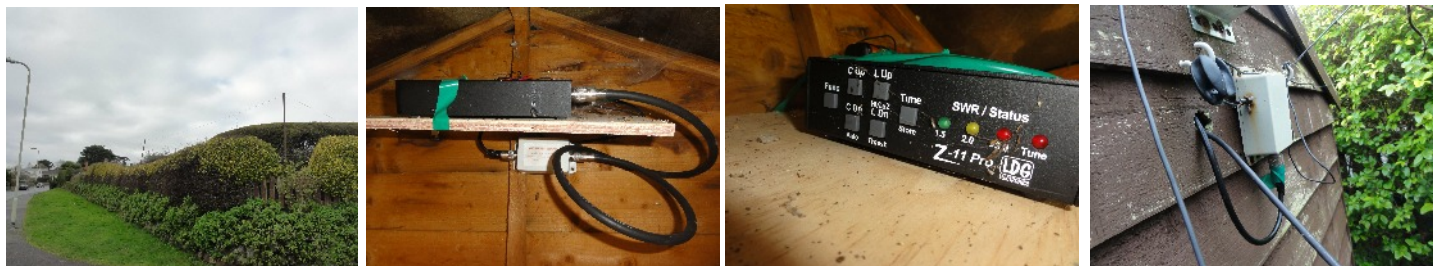
If you now start to pull the 17 ft feedline apart, then as the short wire moves away from the long wire, their feedline properties decrease and the two wires start to radiate. Eventually with the short wire some distance away from the long wire, you now have the W3EDP antenna with both wires radiating. However, the important aspect of this is that the currents at A & B are still approximately equal and out of phase allowing the antenna to be fed as a balanced system. The feedpoint impedance at A & B will be quite high and it is recommended that the antenna be fed via either a 4:1 or 9:1 balun from 50 ohm coax.



The antenna should be erected with the majority of the 84 ft radiator as high as possible. However, since the the 17 ft 'counterpoise' actually radiates when not in close proximity to the 84 ft radiator, it is advisable **to not place it** close to the 'ground' which is 'lossy'. In fact, Charlie (W6JJZ) actually suggests running the 17 ft wire a foot or so below the 84 ft radiator.

My own installation follows this advice and consists of approx 78 ft of aerial wire at roughly 10 ft (due to local 'restrictions') with the first 6 ft dropping down to a 4:1 balun about 5 ft above ground (mounted on the outside of a wooden shed). The 17 ft 'counterpoise' runs from the balun and lies about 4 ft below and parallel with the main radiator. The 50 ohm coaxial feed from the balun is only about 2 ft long and enters the shed where it feeds a M0CVO 1:1 Line Isolator used to prevent unwanted stray RF feedback coming into the shed via the feed line. The output of the Isolator then feeds a (dust covered!) LDG Z11 Pro remote ATU (battery operated) which in turn feeds a long run of 50 ohm coax back to the shack in the bungalow. The use of a remote ATU keeps the SWR on the long coax run back to the shack to less than 1.5 to minimise cable losses.

I am able to operate on all bands from 80m through to 10m and just wish circumstances allowed getting the antenna higher !!!



Terry (G4CHD)