HAMS Haywire News
September 2010
www.marc.org.za
PO Box 1076, Hilton, 3245

MIDLANDS AMATEUR RADIO CLUB

AFFILIATED TO THE SARL & IN ASSOCIATION WITH THE NATAL CARBINEERS

CLUB COMMITTEE 2010-2011

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Club House Manager
Gavin Claasen ZR5GAV
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The Outgoing Chairman's Report

The 2009 -2010 year has been a most successful year.

In September at a Special General Meeting our new constitution was approved by the members. This allowed for Honorary Life membership and Hill ZSSHL, Hartwig ZS5WA, Rod ZL1RK,(ZS5RK) and the late Milne ZS5NZ, were given this honour for their outstanding contribution to the club over many many years.

We have had 14 new members join the club, 12 of theses have passed RAE and 8 of them passed the Class A exams. This is a significant achievement for the club. A special thanks goes out to our instructors Evert ZS5EFP, and to Craig ZS5CD who assisted with the October 2009 batch, they have given up many Sunday afternoons devoted to lecturing. They had 12 class B students passing in October 2009 and in March this year, one the class B and eight passed the class A, two of whom are now ZS licensee with more to soon follow. Evert's success rate is 95% (20 out of 21) There are 7 candidates to write the ZU exams in October.

These new members now some 40% of the membership have injected much needed life into the club and trust that this enthusiasm will rub off on all of us. Long may this recruitment of new member continue. I would encourage all of you to promote our hobby to all we are in contact with.

Our repeater net work was also completed with the linking via UHF Gilboa 439.225 to the following repeaters, Worlds View 750, Greytown 775 , Alverstone 600, Estcourt 700, and then via the Swartberg UHF link 438.775 to the Underberg 7875, and Franklin 725. So there are 6 VHF repeater and 2 UHF links. This is a major network system for any club. We have replaced the Gilboa repeater with a new Yaesu repeater.

In addition the club has an extensive APRS digipeater net work located at Groenekloof, Underberg Durban and Gilboa. I must congratulate Shaun ZR5S for all the work in setting up system and Craig ZS5CID for all his work repairing and setting in the UHF link radios. We as a club must be very proud of our repeater network which covers most of the Natal Midlands.

Shaun ZR5SF has also done great work on the club house and there is more to be done. Our thanks to you.

The club meetings have been well attended and two were combined with SARL field at Midmar and at Illovo beach. There was also one meeting held at Groenekloof.

73
Mike ZS5BGV

Diary of Events

29 September	SARL 80 m digimodes club competition
30 September	Closing date for phase 1 of the innovation project
01 October	Take-your-handheld- to-work-day
09/10 October	October Antique Wireless Association AM/SSB Valve QSO Party
15 October	Last day to enter your photos taken at "Take your hand-held to Work Day
20/21 November	SARL HF filed day at Midmar Dam

The M.A.R.C. Infrastructure

Voice Repeaters (FM) *Visit www.marc.org.za/pages/freq.htm for updates of this list*

VHF	Tx	Rx	Equipment
Hilton	145.6625MHz CTSS 88.5	145.0625 MHz	SCR200 20W, Diamond X-200 rx and tx
Estcourt	145.700 MHz	145.100 MHz	Emcom SA256 25W, Diamond X-200 rx
Franklin	145.725 MHz	145.125 MHz	GE MVP 10W
Worlds View	145.750 MHz CTSS 88.5	145.150 MHz	Emcom SA256 25W, Diamond X-200 rx and tx
Greytown	145.775 MHz	145.175 MHz	Home Brew @ 20w, Diamond X-200 rx and tx
Underberg	145.7875MHz CTSS 88.5	145.1875MHz	Q8000 30W
Windy Hill	145.700MHz	145.100MHz	Hamnet repeater.
UHF			
Mt Gilboa	439.225 MHz	431.625 MHz	Vertex Standard VXR-9000, Diamond X-200 rx and tx
Zwartberg	438.775 MHz CTSS 110.9	431 .175 MHz	GE MVP 15W

APRS
The national APRS frequency is 144.800 MHZ (Tx & Rx). The I-Gate is at Hilton (ZR5S). Fixed stations should beacon at approximately 30min intervals with a path of WIDE5-5. Mobile stations should beacon at approximately 1min intervals with a path of "WIDE1-1, WIDE5-5". We have aprs digi's throughout KZN. A PBBS (mailbox) is on ZS0PMB-1 for emergency use. A KA-NODE is on ZS0PMB-7

Packet Radio
No packet radio frequency. However, limited packet radio facilities are available on 144.800MHz

ECHO-LINK "voip"
Our node number is 244279 Call Sign ZS5PMB. This Echo-link facility is available on the Midlands linked Repeater network.

E-QSO "voip"
We are in the "101ENGLISH" virtual room, on the "repeater.dns2go.com" server. This is linked to RF at Hilton on 433.000 MHz simplex.

BEACONS
Greytown 50.321 MHz (Tx) ZS5SIX FSK

WEB SITES

MARC'S very own website	www.marc.org.za
SARL's website	www.sarl.org.za
HAMNET website	www.hamnetkzn.org.za

Regular Events

The KwaZulu Natal Net (Early Birds):
Starts at 06h00 on 7.055 MHz. in winter and 3.650Mhz in summer and continues until 07h40. Colin ZS5CF hosts the net from 06h00 & Gary Potgieter (ZS5NK)-takes over later on.

MARC Sunday Morning Net:
Times: 07h45. Club bulletin is presented at 08h0.
Frequencies: VHF: 145.750MHz, 145.6625MHz, 145.775MHz, 145.725MHz, 145.7875MHz, 145.700MHz
UHF: 439.225MHz

Hamnet Bulletins: Sundays at 07h00 on 145.625MHz and 3.760MHz
Wednesdays at 19h30 on 145.625MHz and 3.760MHz

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Experiments 2 and 6:
See Fig. 9. The dipole was symmetrical for experiment 2, nonsymmetrical for experiment 6.

Discussion
The results of these experiments should duplicate those of the previous pair, since the feed line is placed symmetrically relative to the antenna to avoid induced current. The only difference is that the balun is placed farther down in a symmetrical or nonsymmetrical system.

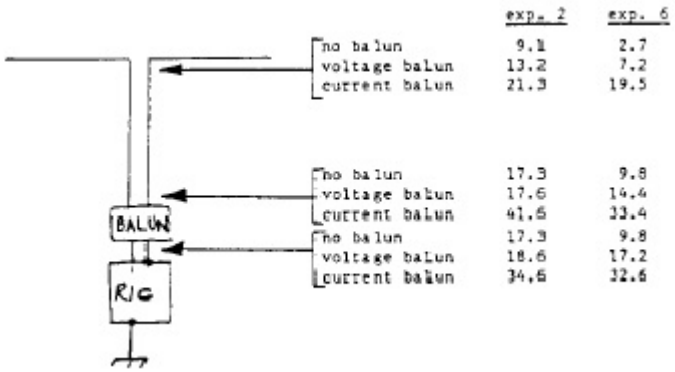


Fig. 9 – Setup and results of experiment 2 and 6. Numbers are measured in dB

Results
The trend is clearly the same as in experiments 1 and 5; the current balun provides the best bal- ance, the voltage balun is second best, and a feed line with no balun is the worst case. The balance with no balun was better in this experiment, however, (except at the rig end with the non- symmetrical antenna, which was about the same), and the balance at the rig end was substantially better when using the current balun. Time did not permit me to run additional experiments to explain these differences, but the ability of the current balun to achieve superior balance was again illustrated.

Experiments 3 and 7:
See Fig. l0. The dipole was symmetrical for experiment 3, nonsymmetrical for experiment 7. The voltage balun was connected with the balanced port toward the antenna.

Discusion:
These experiments, and experiment 4, were conducted to test the idea that coaxial cable and twin-lead feed lines would behave in the same fashion, as theorized earlier. If so, the results of these experiments should be similar to those of the previous pair.

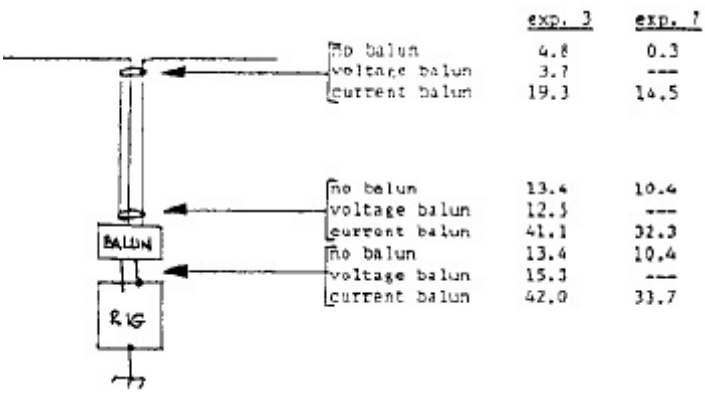


Fig. 10 – Setup and results of experiment 3 and 7. Numbers are measured in dB

Results:
With no balun, the results were those of experiments 1 and 5 (the test with no balun was not rerun). With the current balun, the results were similar to those of experiments 2 and 6, indicating that coaxial cable can be used as a balanced feed line (in the sense discussed earlier) with a balanced or somewhat unbalanced load. This data also points to the possibility that a current balun could be added to an existing antenna system at the rig end of the line, with results similar to those obtained by placing it at the antenna, in some cases at least. This would certainly be worth a try in systems where the symptoms indicate the need for a balun, but the antenna itself is difficult to get to. With the symmetrical antenna, the voltage balun made balance worse at both ends of the feed line than no balun at all. The balanced port of the voltage balun sees two unequal impedances to ground: the coaxial center conductor, ending in one dipole half, and the coaxial shield terminating in the other. The shield is capable of radiating but the inner conductor isn't, and the two are of different diameters, accounting for the different impedances. The voltage balun predictably generates unequal currents in the different impedances, causing additional current imbalance. A voltage balun was not evaluated in this application with a non- symmetrical dipolc, having shown distinctly inferior results even with a symmetrical one.

Experiment 4:
See Fig. 11. The dipole was symmetrical. The voltage balun was connected with the balanced port toward the antenna.

Discussion:
Like experiments 3 and 7, this was intended to test the similarity between performance of the two kinds of feed Line, provided that all other conditions and connections are the same. If the two feed lines act the same, the results should duplicate those of experiment 1.

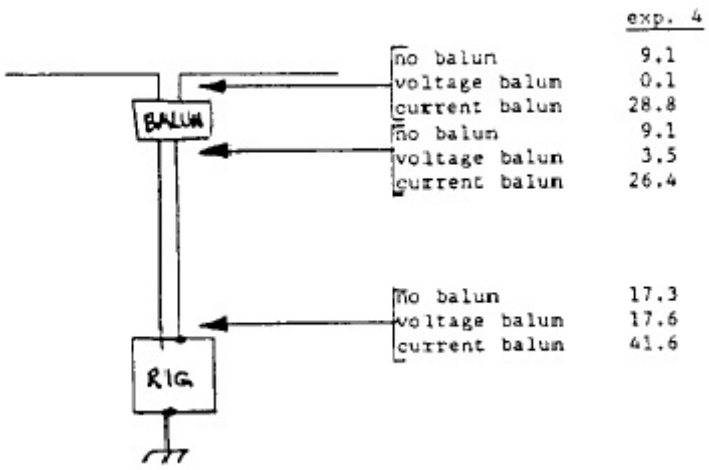


Fig. 11 – Setup and results of experiment 4. Numbers are measured balance in dB

Results:
The current balun again causes the predicted results, except it shows improved performance at the rig over experiment I. In contrast, the voltage balun gave strikingly poorer balance at the antenna, and markedly poorer performance at the antenna end of the feed line, compared to no balun at all. if the antenna were completely symmetrical, there should be no current imbalance at the input end of the voltage balun, but with the moderate (unintentional) imbalance presented by the actual antenna, the current balance on the feed line was seriously degraded. This configuration isn't likely to be used in actual practice, but helps illustrate the operation of the baluns and feed lines.

Conclusions
Although some aspects of the experimental results remain to be explained (as they always will be unless performed under extremely controlled conditions), they certainly support the theoretical analysis. The current balun gave superior balance at every measured point in each experiment. The voltage balun improved balance in most cases, explaining its acceptance in spite of the theoretically and experimentally demonstrated superiority of the current balun to cure the problems we have discussed.

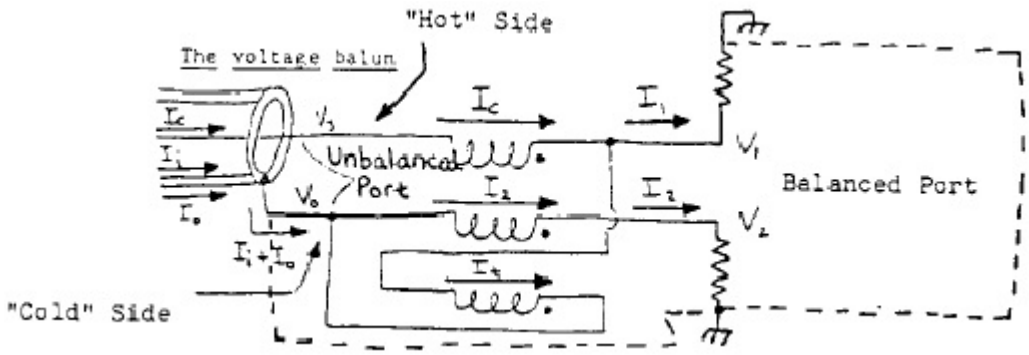
As always, finding the answers to questions generates yet more questions. Lack of time did not permit experiments with the feed line placed non- symmetrically with respect to the antenna, to induce imbalance current into the feed line. The results of such an experiment should be interesting and en- lightening.

Is there an optimum point in the feed line to place a balun? Suppose the effective distance along the feed line/ground wire from the antenna to ground is an integral number of half wavelengths, and the balun is placed a quarter wavelength below the antenna, as sometimes recommended. Wouldn‘t the imbalance current be conducted as before? Would induced current, it present, be reduced? What‘s the effect of poor coaxial shield coverage?

More work needs to be done in evaluating the various styles of current baluns (such as coaxial cable wound into a choke, coaxial cable wound on a ferrite or powdered iron core, insertion of the feed line through one or more ferrite cores, and so on) for their primary characteristic: causing currents to be equal in magnitude and out of phase. The method I've used is briefly described in Appendix 2, but how good is good enough?

The basic investigation reported here does answer some of the major questions regarding baluns. 1 now know what symptoms I can expect a balun to cure, why it will (or won‘t!) cure them, how to predict and measure the balun‘s success in doing so, and what type of balun to use. I hope you do, too!

Appendix 1:
A Brief Analysis of Balun Operation Analysis of both balun types assumes "ideal" operation: A11 flux is linked to all windings (coefficient of coupling is one), and each winding has sufficient self-impedance to make the magnetizing current negligible.

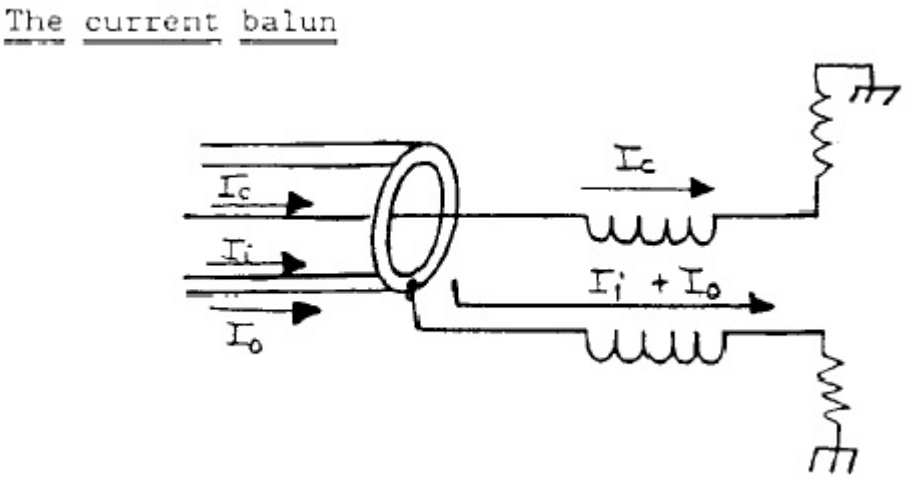


The Voltage Balun
Because of transformer action, V1 - V3 = V2 - V0 = V0 - V1. The third term comes about because of the "tertiary" winding shown at the bottom. Rearranging the last two terms, V2 - V0 = - (V1 - V0). So relative to V0 (the voltage at the cold side of the unbalanced port), the voltages at the balanced port are equal and opposite. The current It flowing in the tertiary

winding is, by inspection, - (Ii + I0 - I2) and also (Ic - I1), so -(Ii + I0 - I2) = (Ic - I1). Because of the property of coaxial cable discussed in the body of the article, Ii = -Ic, so Ic - I0 + I2 = Ic - I1; thus I0 = I1 + I2. So for the current on the outside of the shield, I0, to be zero, load currents I1 and I2 must be equal and opposite. Since V1 and V2 are forced to be equal and opposite relative to V0, the only way for I1 and I2 to fulfill this requirement is for the impedances from each side of the balanced port to the cold side of the unbalanced port to be equal. Thus, only a perfectly balanced load will cause no current on the outside of the coaxial cable. Ironically, if this does occur, current It = 0, and the tertiary winding accomplishes no function.

The Current Balun

In an ideal transformer of two windings having an equal number of turns, the currents in the windings are forced to be equal and opposite. So Ic = -(Ii + Io). Again, Ii = -Ic, so Ic = Ic - Io, resulting in Io = 0. This result is independent of the load impedances. And, since the load currents are the winding currents, they are also equal in magnitude and opposite in phase. If the balun is constructed by winding coaxial cable on a core or into an air-core coil, or by stringing ferrite beads on the outside, the operation can be understood by observing that the inside of the coaxial cable "can't tell" what's going on outside. The currents on the inside - equal and opposite - happen regardless of the outside environment, but the construction causes a high impedance to current flow on the outside, acting like a choke to the imbalance current (hence the appropriate name choke balun). When constructed of twisted-pair line, the effect on imbalance current is the same and for the same reasons, but operation is more difficult to visualize.



Appendix 2: Construction and Test of Baluns, Current Probes and Detector

Voltage Balun

The voltage balun was constructed using the method described in Ref. 8. A piece of no. 26 wire was laid along a length of RG-178/U cable (small- diameter Teflon-insulated coaxial cable), and heat-shrinkable tubing was applied over the assembly. The modified cable was wound on an FT82-61 core using ten turns. This construction method was decided on after trying to wind a balun with two pieces of coaxial cable in bifilar fashion, the shield of the second being connected as the tertiary winding. The latter construction method was much poorer in providing good voltage balance.

Voltage balance was evaluated by connecting the cold side of the unbalanced port to a ground plane and the balanced port to two resistors of unequal value, the other ends of which were connected to the same point on the ground plane. Using resistors of 27 and 54 ohms, the ratios of voltages appearing at the two resistors were measured as about 3/4 and 1-1/2 dB, depending on which resistor was connected to which lead of the balanced output.

Current Balun

The current balun consisted of 15 turns of RG-178/U coaxial cable on an FTB2-S1 core. Performance was evaluated by connecting the output end to 27- and 54-ohm resistors to ground, and measuring the voltages across them. A properly working current balun should generate twice the voltage across the 54-ohm resistor than across the 27-ohm resistor, regardless of which lead is connected to each resistor. The results were within 0.2 dB of theoretical, with either lead connected to either resistor.

Current Probe

The current probes were constructed as shown in Fig. 12. The output voltage equals ten times the current, in amperes, being measured. Insertion resistance is one ohm.

Detector

The detector is shown in Fig. 13. It was calibrated using a signal source and precision attenuators, at the operating frequency. Calibration using a dc source was found to be inaccurate.

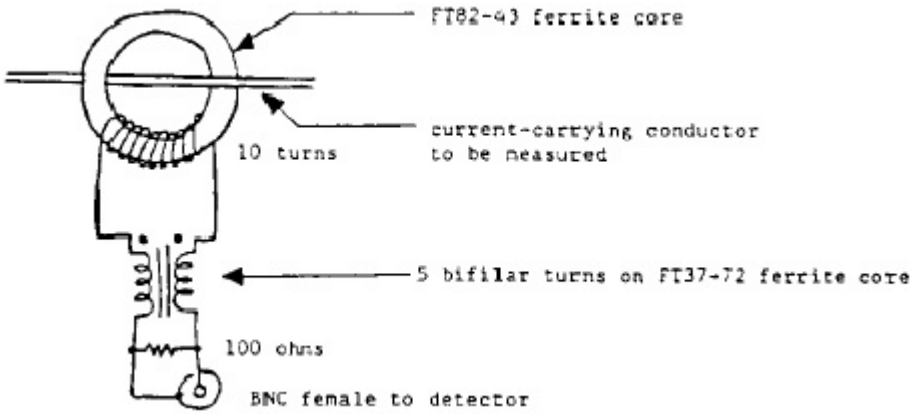


Fig. 12 - Current probe

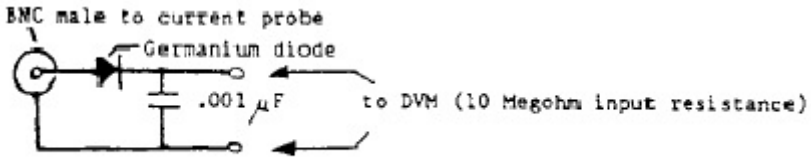


Fig. 13 - Detector

Appendix 3: Impedance—Transforming (4:1) Baluns

The common 4:1 balun, shown schematically in Fig. A3-1, is a voltage balun. If used with a current balun as in Fig. A3-2, the combination acts like a 4:1 current balun. Or it can be converted to a 4:1 transforming current balun by adding a third winding, as shown in Fig. A3-3. A 1:1 voltage balun could be converted to a 4:1 current balun by re- connecting the existing windings. The difficulty with using this configuration is that, like the 1:1 voltage balun, all windings must be closely coupled, and rather severe impedance changes can occur because of transformer imperfections.

A better approach is shown in Fig. A3-4. Old timers will recognize this as the configuration used by the balun coils commonly used some years ago. This balun does force equal and opposite currents at the input and output, so it is a true current balun, and it performs a 4:1 impedance transformation. Although it does require two cores which must not be coupled,* it has several advantages: It's much easier to tightly couple two conductors than three, it's much more forgiving than the other configurations, and it lends itself to easy construction. One method is simply to wind coaxial cable on two cores, with the center conductors being the con- ductors shown on the outsides in the figure. This balun can also be used in all-coaxial-cable systems. Besides effecting a 4:1 impedance transformation, it will greatly reduce any current flowing on the out-sides of the lines.

* If ferrite rods or air-core coils are used, don't place them end to end. Place them side by side and spaced a fair distance, or, better yet, at right angles. Less care needs to be taken with toroidal coils.

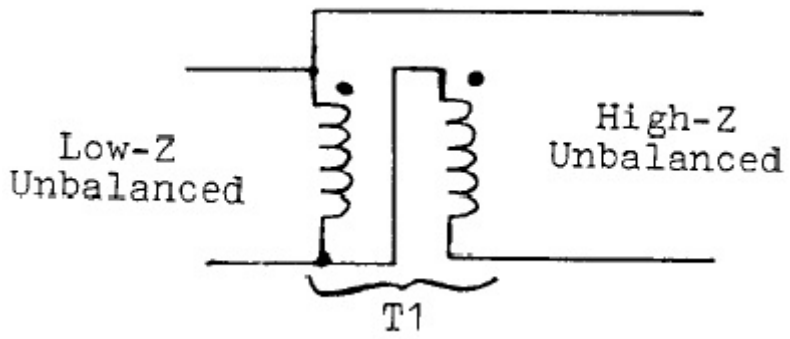


Fig. A3-1 - The 4:1 balun

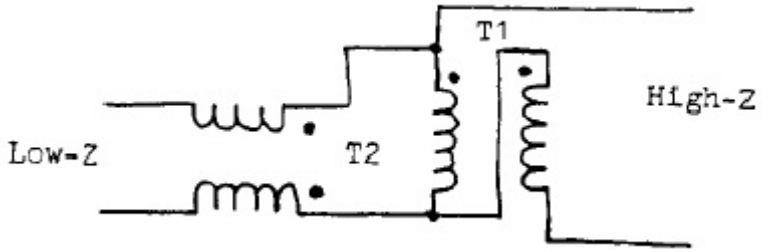


Fig. A3-2 - The 4:1 voltage balun used with a 1:1 current balun

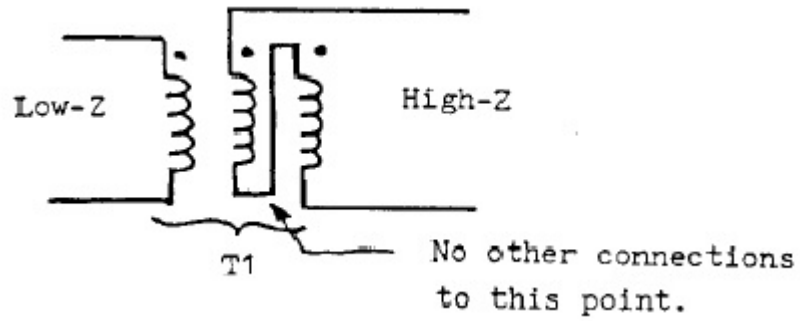


Fig. A3-3 - A 4:1 current balun

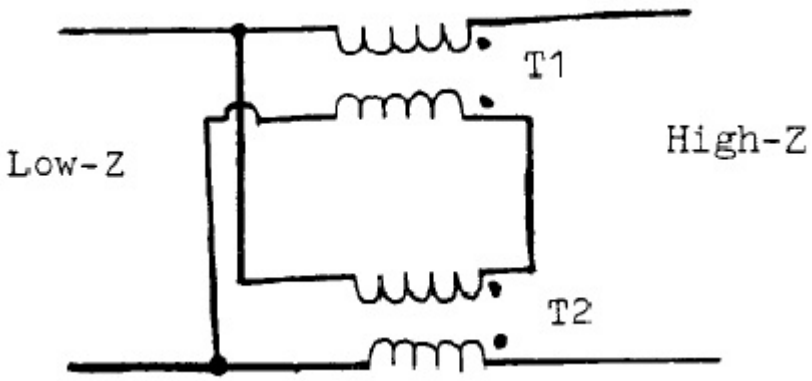


Fig. A3-4 - A superior 4:1 current balun

References

*1 Maxwell, Walter, WZDU, "Some Aspects of the Balun Problem," QST, March 1983, p. 38.

*2 If a perfect shield is assumed (a reasonable approximation for this analysis), the result follows directly from Ampere's Law. For a more detailed explanation, see Electromagnetic Energy Transmission and Radiation, by Richard B. Adler, Lan Jen Chu, and Robert M. Fano (Wiley, 1960).

*3 A very clear development of the phenomenon of skin effect may be found in Chapter 7 of Elec- tric Trarismission Lines by Hugh H. Skilling (McGraw—Hill, 1951).

*4 Winningstad, C. Norman, "Nanosecond Pulse Transformers," IRE Transactions on Nuclear Science, March 1959.

*5 Matick, Richard E., "Transmission Line Pulse Transformers — Theory and Application," Pro- ceedings of the [EEE, Vol. 5S, No. 1, Jan. 1968.

*6 Hall, Gerald L., Kl'l`D, ed., 'l"he ARRL Antenna Book, 14th ed., Chapter 5, (ARRL, 1982).

*7 In practice, there is always an RF path from the rig to ground, and its impedance should be made as low as possible. The rig should always be dc grounded for safety.

*8 See Ref. S.

*9 Nagle, John J., K4KJ, "Hig'h-Performance Broadband Balun," Ham Radio, Feb. 1980, p. 28.

*10 See Ref. 1 .

*11 Reisert, Joe, W1JR, "Simple and Efficient Broadband Balun," Ham Radio, Sept. 1978, p. 12.

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Editor's Waffle

The outgoing committee worked well together under Mike's (ZS5BGV) leadership. As Mike mentioned in his report, a lot was achieved in the last year, progressing from where the last committee handed over the reigns.

Something not mentioned was D-Star. Shaun's (ZR5S) initiative to build a repeater has paid dividends. Not only is it the first fully operational D-Star repeater in Africa, but has helped to increase the interest levels around the country. The chances are good that the South Coast and Durban will boast D-Star repeaters in the near future - equipment has been ordered already.

My aim is that our new committee builds on the constructive work done by the previous committees. I knew that Mike ZS5BGV did a lot of unseen work behind the scenes in the last few years, and only realised now to what an extent - a big thank you Mike, from most members, I'm sure!

Our new committee had it's first meeting, and the new portfolios have been determined. A big thank you to Gavin ZR5GAV, who volunteered his services. Due to logistical reasons he withdrew from the committee, but will be very active in the club, and will be managing the club house, amongst other things. Shaun ZR5SF will organise the RAE training, PRO and our events. Ian ZS5AZ has stepped in as treasurer and secretary. Shaun ZR5S retained his previous portfolio of looking after the technical aspects (repeater sites and repeaters, digital etc) and is our new Vice Chairman. Des ZU5DM has a new portfolio of Disaster Management, liaising with different emergency services and Hamnet. I have been elected Chairman and will carry on with the website, HHN and email forums.

Quite a few issues were discussed at this meeting and one of the tasks will be to update our member records. Gavin will help to dig out member particulars from old records, from past, inactive, active to present members. The database of members is not complete, and many basic details are missing, such as previous call signs, date when you joined the club, name of XYL, birthdays etc.

An update form has been compiled and will be sent out shortly. I encourage everyone, both past and present members, to update them. Questions wrt your interests are also included, as well as space to list recommendations. We want to cater more activities in the coming year, and knowing what your interests are will make the task of choosing interesting events that much easier.

We need to make a new banner, and it needs to be attractive and informative. With this in mind, Gudrun ZS5GEL has sponsored a R200 prize for the best design of a MARC logo, slogan and layout. It will be used on banners and tear drops, signs, letter heads, website etc. I will make present logos available. Use your imagination. This competition is open to everyone, not just members. Get the kids involved - they often have the most creative designs. Please send the designs to competition@marc.org.za. The closing date for the designs will be 15 October and the winning design will be chosen at the club meeting on Saturday, 16 October.

Shaun ZR5SF is busy looking at a few options of venues for our Year End Christmas function. If you have any ideas of where to hold it, please contact him direct. Ideally we would like to hold it as close to Pietermaritzburg as possible. Pietermaritzburg and surrounds certainly holds many possibilities, so send Shaun your preference.

One of the events this year will be the SARL HF weekend at Midmar Dam in November. Invitations with booking details have been sent out. This will be the third year that we will be holding it there, together with our Durban neighbours. I think this will be a super outing as with the last outings here. Craig Hardman ZS5C will be there again, no doubt entertaining us with some more new, weird and wonderful antennas. If you cannot make the weekend, join us on one of the days.

We are still looking for volunteers to help with the Sunday Morning Net. Please contact any committee member if you are willing to help.

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Antenna height and range

Submitted by Shaun Fisher ZR5SF

Publication extract from elector electronics 7/8/2006

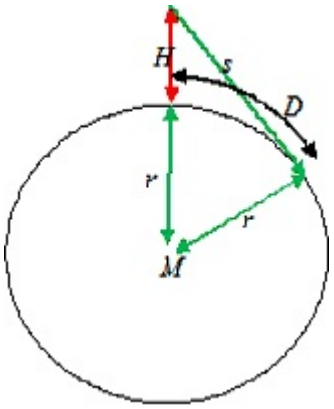
By the receiver below 30 MHZ or so, radio transmitters can normally be received over great distances because certain layers of the ionosphere reflect radio signals with a certain frequency. These reflections normally do not take place at higher frequencies, so the maximum distance that can be covered is, in principle, limited to the visible horizon. How this theoretical distance can be calculated is explain here.

The accompanying figure indicates the various distances required. *M* is the centre point of the earth, *r* is the radius, *H* is the height at which the antenna is placed, *s* is the length of the signal path between antenna and horizon and *D* is the distance across the earth's curved surface.

Because in practice *H* will be much smaller than *r, s* will be approximately equal to *D*. The signal path *s* between antenna and horizon is perpendicular to the radius of the earth. This means that we can apply Pythagoras' Theorem to find the relationship between antenna height and distance to the horizon.

According to the Theorem:

$$r^2 + s^2 = (r + H)^2$$
$$= r^2 + H^2 + 2rH$$



Collecting terms results in:

$$s^2 = H^2 + 2rH$$

Because H^2 is much smaller than 2rH it can be left out. So it follows that:

$$s^2 = 2rH$$

Or:

$$s = \sqrt{(2rH)}$$

The average radius of the earth is 6371km. $\sqrt{2r}$ is therefore about 113. The formula can now be simplified to:

$$s = 113\sqrt{(H)}$$

Where *s* and *H* have to be expressed in kilometres.

An example: a VHF FM antenna is positioned at a height of 15m. The maximum distance at which a line-of-sight connection is possible amounts to:

$$113\sqrt{(0.015)} = 13.8km$$

In practice these distances turn out to be larger than those computed using the formula. This has to do with the propagation of electromagnetic fields. It appears that the wave is subject to reflection and does curve a little with the surface of the earth. This is readily observed with so-called temperature inversion layers. The weather circumstances are such that hundreds of kilometres can be covered without problems using signal frequencies in the VHF range. But even without these special weather conditions the distances that can be covered appear to be larger than predicted by theory, as already mentioned.

With the antenna height of 15m assumed earlier appears to be of the order of 40km, instead of 13.8km. how the propagation of electromagnetic waves actually works is a complicated matter covered in many excellent books and publications. However, it is known that at frequencies in the GHz range the distance that can be covered becomes progressively smaller as the frequency increases. This is also the reason why parabolic antennas foe SHF frequencies are positioned as high as practicable. The amount of transmitted power plays a secondary role in all this.

What does matter however, is the height of the receiving antenna. The same formula can be used for this antenna (that is $s = 113\sqrt{(H)}$. The theoretical total distance that can be covered is then the sum o distances to the horizon.

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If you have any useful articles for this newsletter, please email them to zs5ml@marc.org.za for publication. Any articles of interest to Amateur Radio, both technical and non technical, will be well received.

If you would like your own email address ending with @marc.org.za, please contact me zs5ml@marc.org.za

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Ham Bulletin Readers
03 October - ZS5ML
10 October- ZS5AZ
17 October- ZS5SF
24 October- ZS5ML
31 October- ZS5AZ

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These glorious insults are from an era before the English language got boiled down to 4-letter words.

The exchange between Churchill & Lady Astor: She said, "If you were my husband I'd give you poison."
He said, "If you were my wife, I'd drink it."

A member of Parliament to Disraeli: "Sir, you will either die on the gallows or of some unspeakable disease."
"That depends, Sir," said Disraeli, "whether I embrace your policies or your mistress."

"He had delusions of adequacy." - Walter Kerr

"He has all the virtues I dislike and none of the vices I admire." - Winston Churchill

"I have never killed a man, but I have read many obituaries with great pleasure." Clarence Darrow

"He has never been known to use a word that might send a reader to the dictionary." - William Faulkner (about Ernest Hemingway).

"Thank you for sending me a copy of your book; I'll waste no time reading it." - Moses Hadas

"I didn't attend the funeral, but I sent a nice letter saying I approved of it." - Mark Twain

"He has no enemies, but is intensely disliked by his friends.." - Oscar Wilde

"I am enclosing two tickets to the first night of my new play; bring a friend.... if you have one." - George Bernard Shaw to Winston Churchill
"Cannot possibly attend first night, will attend second.... if there is one." - Winston Churchill, in response.

"I feel so miserable without you; it's almost like having you here." - Stephen Bishop

"He is a self-made man and worships his creator." - John Bright

"I've just learned about his illness. Let's hope it's nothing trivial." - Irvin S. Cobb

"In order to avoid being called a flirt, she always yielded easily." - Charles, Count Talleyrand

"He loves nature in spite of what it did to him." - Forrest Tucker

"Some cause happiness wherever they go; others, whenever they go.." - Oscar Wilde

"He uses statistics as a drunken man uses lamp-posts.. . for support rather than illumination. " - Andrew Lang (1844-1912)

"He has Van Gogh's ear for music." - Billy Wilder

"I've had a perfectly wonderful evening. But this wasn't it." - Groucho Marx

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