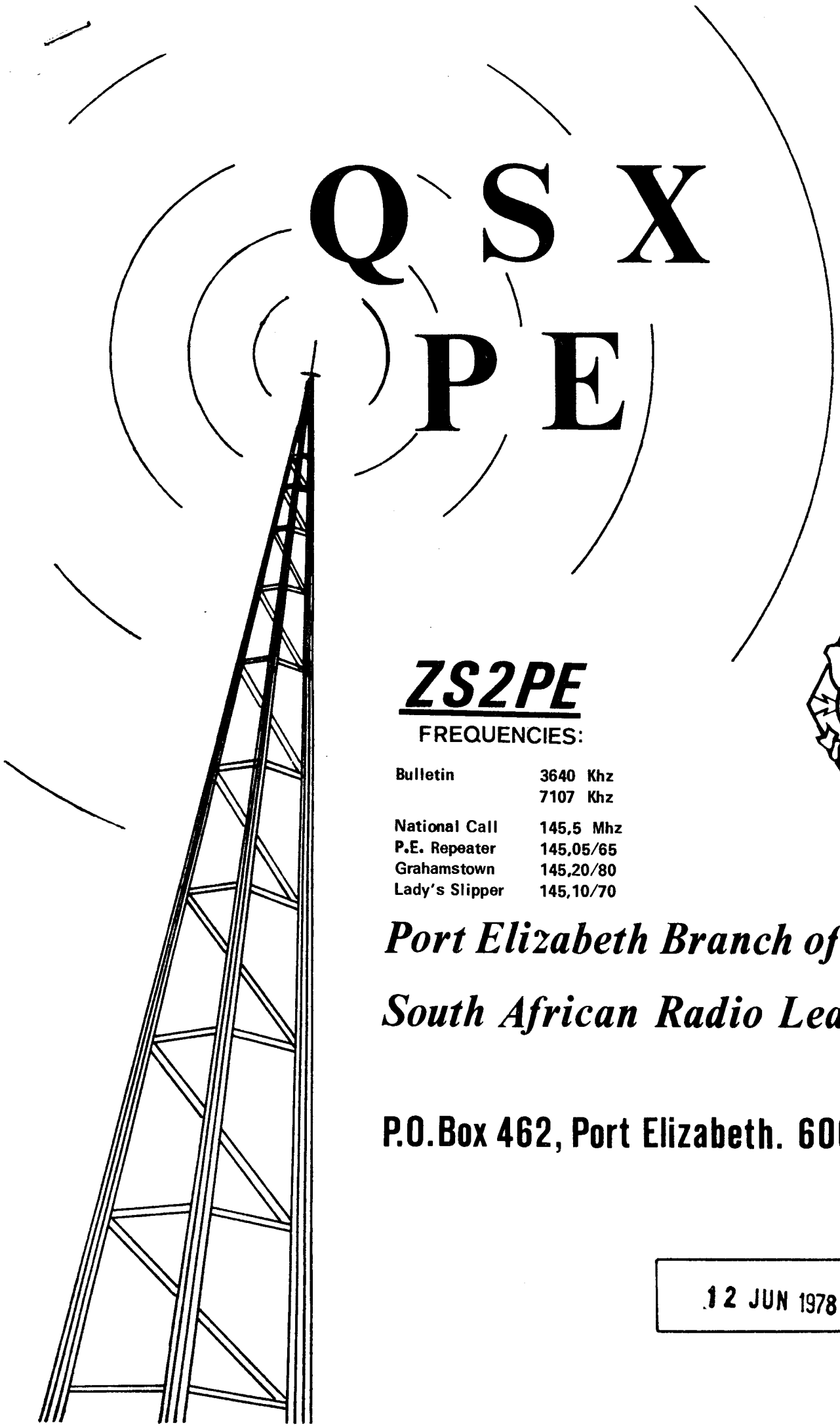
Q S X
P E



ZS2PE

FREQUENCIES:

Bulletin	3640 Khz
	7107 Khz
National Call	145,5 Mhz
P.E. Repeater	145,05/65
Grahamstown	145,20/80
Lady's Slipper	145,10/70

Port Elizabeth Branch of the

South African Radio League

P.O.Box 462, Port Elizabeth. 6000.

12 JUN 1978

MINUTES OF THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE S.A.R.L. HELD ON FRIDAY 19th MAY 1978.

PRESENT: A total of 21 members and visitors. The Chairman welcomed Marge ZS2OB.

APOLOGIES: ZS2KT, ZS2WG.

MINUTES: These had been published in OSX-PE. ZR2BE proposed and ZS2BA seconded their adoption.

ARISING: (1) The callsign of Alan ZS1AC had been minuted incorrectly.
(2) 19 candidates wrote the PMG examination.

FINANCE: The R1985 required by HQ towards AGM expenses has been sent to HQ.

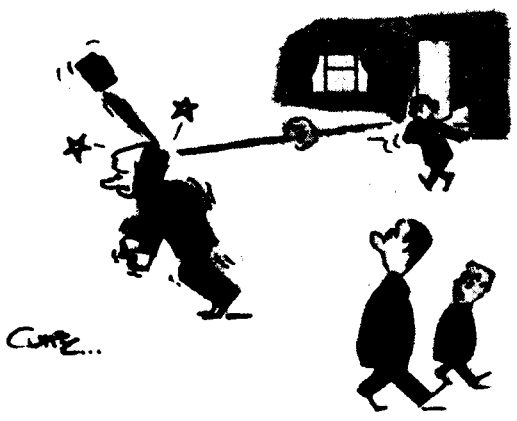
CORRESP: A letter and enclosed cheque for R60 had been received from Bill ZS1J, the money to be used towards the maintenance of our repeaters. The Secretary will write a letter to Bill conveying our thanks.

GENERAL: (1) CW lessons. ZS2AB and ZS2AO are willing to give on-the-air CW practise for those interested. Once the exam results are known, arrangements will be made to transmit CW on ten metres and two metres. Details will be made known in OSX and on bulletins. ZS2U said he thought that Alan ZS2AJ might be approached with a view to giving personal CW tuition to the group as was done before.. The Secretary will ask Alan if he is willing and has the time available to undertake this.
(2) A DF hunt will be held on Sunday the 28th, weather permitting. Details are in OSX. ZS2BK will be the fox.
(3) The Chairman thanked Bert ZS2BA for his TTL notes for OSX. He also thanked others who have sent in articles. He gave the assurance that all material will be printed in due course.

There being no further business the meeting closed at 20h31.

sgd.
R.W.Schonborn ZS2RS
CHAIRMAN.

sgd.
R.A.Weller ZS2AB.
SECRETARY.



"Is that a mobile radio, Dad?"

"I'll be glad when my electric razor is repaired!"

PHONEY PHONETICS - WHY DO THEY DO IT?

Listening on the 2 metre band, I hear 2 Big Fat Daddy in QSO with ZR2 Sloppy Joe. I form a mental picture of Big Fat Daddy as a jovial florid faced individual with a big paunch. Probably a liquor rep. or a car salesman. Sloppy Joe, judging by his voice, is young - probably a University student, and well - just sloppy. Surprisingly when I meet them sometime later at a branch meeting I find that Big Fat Daddy is a slim mild-mannered individual in his late thirties holding a very responsible position in a large organisation. Sloppy Joe is a student, but an above average one who is certainly going to make his mark as a very competent Engineer.

Why do they do it? My psychiatrist thinks that in the case of Big Fat Daddy, his father used to beat him as a child, while Sloppy Joe's mother was too heavy on the cleanliness bit. At best it could be a mild form of exhibitionism.

Phonetics are really only used to simplify identification of certain letters like B.C.D. which sound alike. Admittedly the present phonetic alphabet sounds a bit stupid in parts, and when introduced some years ago, the late Edgar Johnson 2CB stated flatly that he wouldn't use it. "Just imagine Whisky Romeo talking to Hotel Charlie . The casual listener would think we were a bunch of boozy Charlies". Remember those were the days before S.S.B. and any listener with a B.C. receiver could - and did - listen to hams.

The marine and aeronautical services are strict on the use of phonetics, and I could just imagine the conversation that would ensue if the pilot of Cessna ZS-CPO decided to do his own thing. "P.E. Tower this is Cessna Chief Petty Officer requesting take off clearance for flight to Cape Town". Tower "Chief Petty Officer you are clear to take off on Runway 26. After take off turn right onto a heading of 170 degrees. Keep going and call Marion Island in sight - over". Aside - "That should get rid of that Joker - permanently".

Yes, I know, I can hear it - "Leave us alone, we're only hams, it's a hobby and we're enjoying ourselves".

In Uncle Sam's America - commercial interests - value Spectrum Space at one Million Dollars per Megahertz. That gives hams in that enlightened country 12 million dollars worth of spectrum between 50 and 500 mHz. We can only hope that aforementioned Commercial interests - what with an international allocations conference coming up - also echo the "were only amateurs" sentiment. Sure we're only amateurs but at least let us sound professional. ZS2 YESTERDAY.

June QSX

DIRECTION-FINDING HUNT.

A d.f. hunt will be held on Sunday, 18th June, at 2:30 p.m., starting at the corner of William Moffet Way and Bayley St., Charlo. The same times and rules will apply as for the last two hunts.

Tea as usual at the Graydawn Bird Park tea-room after the hunt.

TECHNICAL CLASSES.

To overcome problems which have arisen, especially during my last course, I have decided on the following: Weekly classes will be held for the November, 1978 examination, commencing on Wednesday, 19th July at 8 p.m. These will be held at my home.(53, Clarence St., Westering.) A maximum of ten students will be accepted and a charge of ten rand per student will be made to cover all costs. First come, first served.

Al. ZS2U.

For Sale.

One set crystals for Philips Zephyr transceiver for Grahamstown repeater channel.(7752,632 kHz and 5377,778 kHZ) R14.

Al. ZS2U.

The 80 metre bulletin on Sunday mornings will cease forthwith. Until such time as conditions improve sufficiently, only the 40metre transmission on 7107 mhz will be heard.

The next meeting of the Port Elizabeth Branch will take place on Friday 16th June at 8pm at the Y.M.C.A. Havelock Street, Port Elizabeth.
It is hoped to have an interesting guest speaker, so - see you there.

OM Frank ZS2CY suffered a most unfortunate fall last week and broke his hip. At present he is laid up in the Provincial Hospital in Frankel ward. Whilst we realize the recovery is going to be long and uncomfortable, we all nevertheless wish you a speedy and complete one.

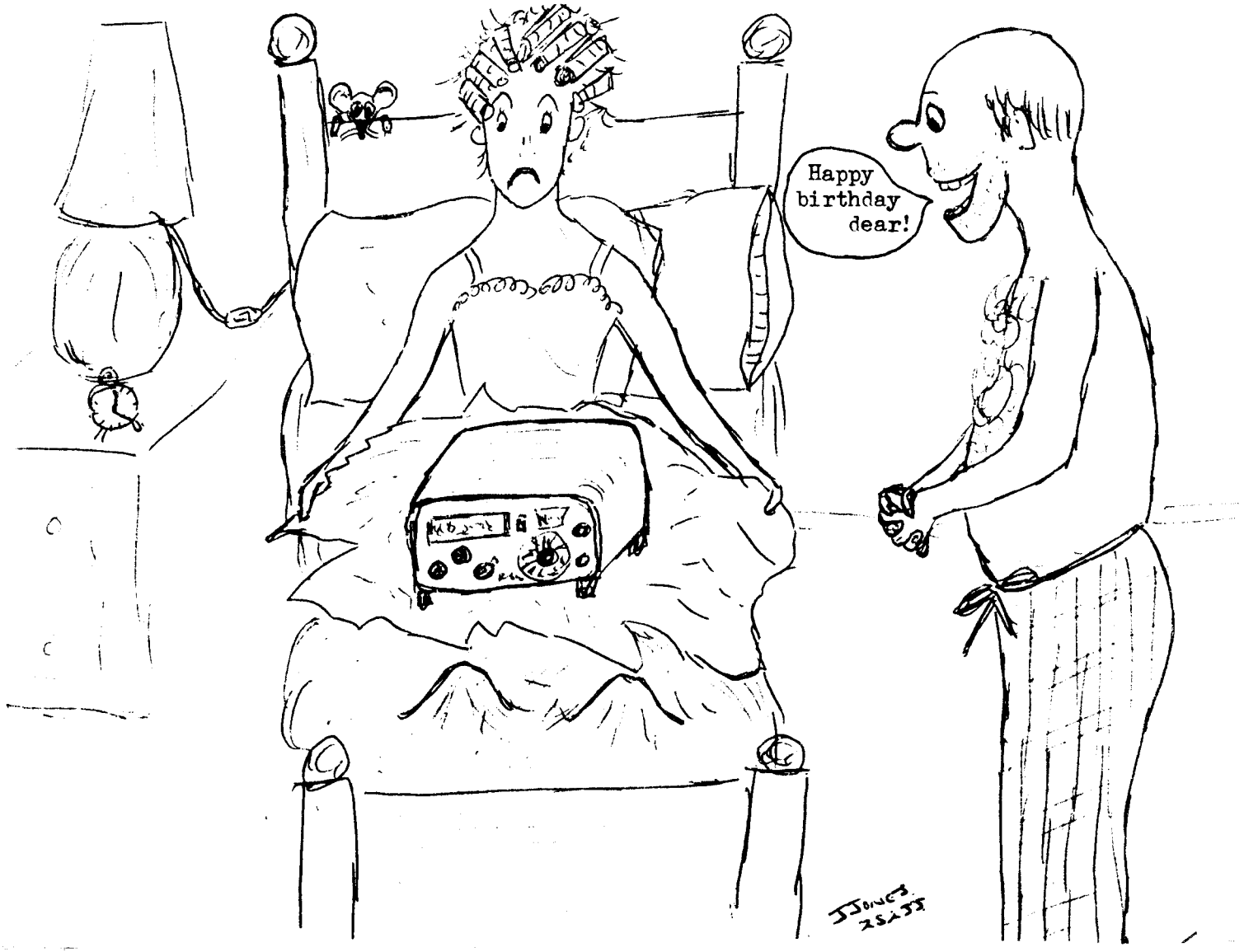
FOR SALE

1 x Heathkit HW 2021 Walkie Talkie. 5 Channels. 4 crystals fitted. This set requires only one crystal per channel. Complete with carrying case, charger and Rubber Duck.

The unit was assembled from a kit, but is not operating satisfactorily on transmit as yet. The owner does not have the time or inclination to "sort it out"

Make me an offer! Van ZS2Y.

The Ladys' Slipper repeater suffered a gremlin attack recently. This was the first time since installation that it has been off the air. In brief, the pre-amp was removed and the unit is once again operational albeit with reduced sensitivity. However, the Gods were smiling and Brian ZS2AB once again took pity (he also took his hand off his heart-believe it or not, he is reputed to have one) on us and has donated a new receiver. The crystal is expected very soon and installation will take place soon after.



Harry Bourne comes through again with another simple antenna design that will add to your enjoyment of amateur radio.

A MINIATURE QUAD LOOP ANTENNA FOR 15/20 METERS

BY HARRY K. BOURNE*, ZL1OI

Amateurs living in suburban areas with a small space around the house, often obstructed by trees or by an overhead power line, with insufficient space for the erection of a full size Yagi or quad antenna, may obtain quite good DX results with a single element quad of reduced size. This antenna is very light in weight, has little wind resistance, is inexpensive to build and uses easily available materials. It may be erected by one person without assistance, is much less obtrusive than a normal quad and is suitable for use when height and space are limited.

The quad loop is an efficient radiator and has useful directional properties. The theoretical gain over a dipole is about 2 dB, but in practice, especially on reception, the effective gain often exceeds this. With its low angle of radiation, even at a low mounting height, the loop can give good DX performance. At ZL1OI, good results have been

*54 Whitehaven Road, Glendowie, Auckland 5, New Zealand

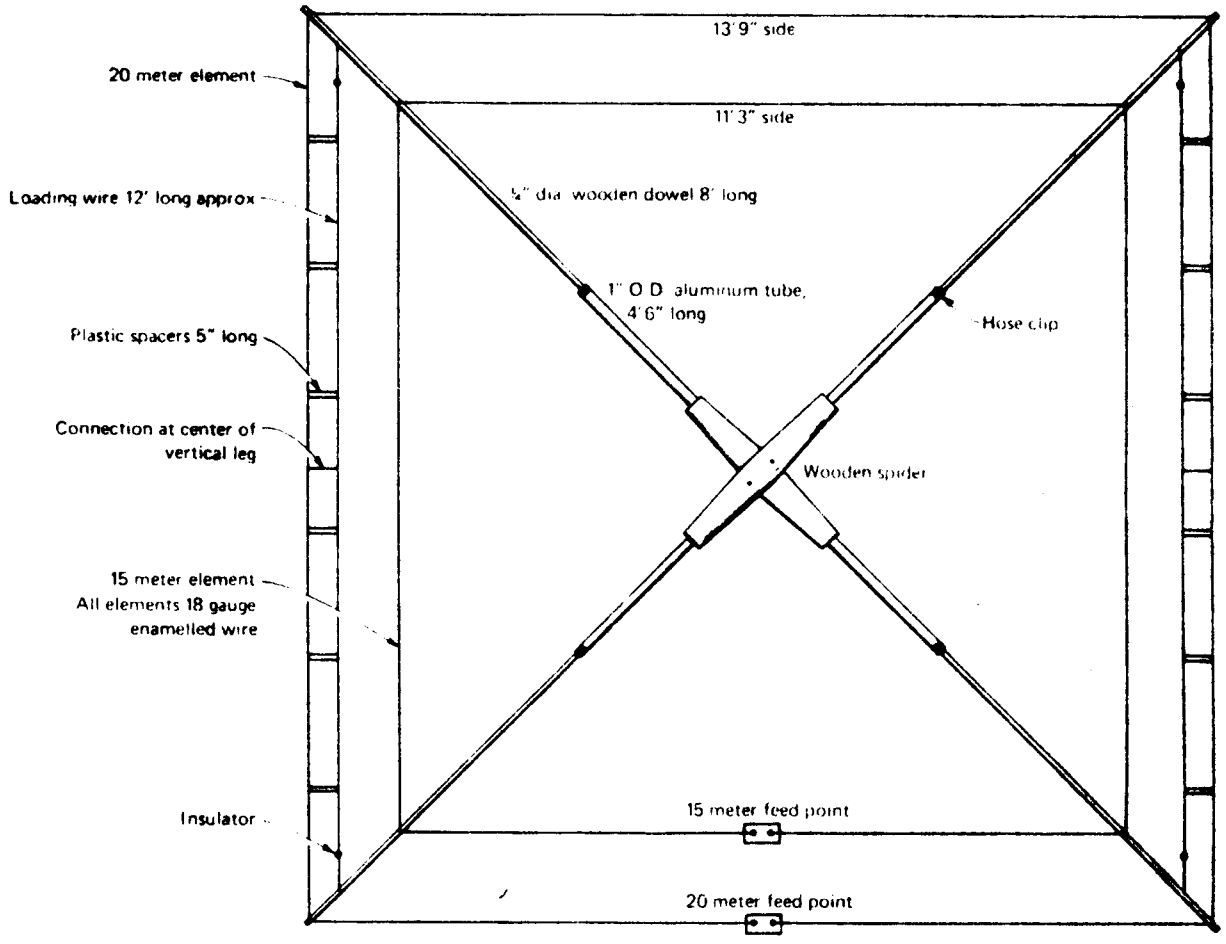


Fig. 1—The miniature 15/20 meter quad loop antenna.

obtained with the center of the quad loop 30 feet above the ground, a height insufficient for the best operation of a dipole or Yagi antenna on 20 meters.

The quad loop is bidirectional, with two broad lobes of radiation in directions perpendicular to the plane of the antenna, towards the front and the back, with strong nuls of over 20 dB on each side. The antenna is a relatively quiet performer and often provides good reception in locations subject to line noise and other man-made interference. As the directional pattern is broad, aiming of the antenna is not critical, and with rotation through only 90 degrees providing complete coverage in all directions, no elaborate turning mechanism is required. At ZL1OI the antenna is mounted on a tubular aluminum mast which may be rotated by hand, generally into one of two set positions, one facing Northeast for working into North America and the other at right angles to this for Europe.

The arrangement and dimensions for a quad loop for 20 and 15 meters are shown in fig. 1. The 20 meter element is less than the normal size with capacity loading by two loading wires with their mid points connected to the centers of the vertical legs and spaced from them by about 5 ins. This method of linear loading is well known and was described some years ago by G3FPQ in *QST* magazine and more recently by G3MWV and G6XN in *Radio Communication*. This method of loading enables the sides of the 20 meter element to be shortened with very little loss of efficiency.

The 15 meter element is full size and is mounted inside the 20 meter loop. Each loop is fed through a quarter wave matching section of 70 ohm coaxial cable to improve the match to a 50 ohm feeder. The length of the matching section is trimmed to give resonance at the lower end of each band with a grid dip oscillator coupled to one end of the matching section which is shortcircuited by a small loop. Connections are shown in fig. 2.

A quad loop has a fairly low Q and will cover the whole 20 or 15 meter band but for maximum efficiency the elements may be trimmed to resonate at the desired frequency of operation with a grid dip oscillator coupled to a one or two turn coil connected across the feed point with the feeder removed. The antenna may be trimmed in a position about 10 feet above the ground but an allowance must be made for a small increase in resonant frequency when it is raised into the operating position. This may be done by measuring the s.w.r. in the two positions of the antenna. The final length of the loading wires will depend on their spacing from the vertical legs of the loop and the amount of metal in the support arms. The 15 meter element is trimmed in the normal way. Balanced operation may be obtained by feeding the antenna through a balun between the matching section and the 50 ohm coaxial feeder. No noticeable improvement by using the balun has been observed at ZL1OI so in this case no balun is used.

Constructional details of the antenna are shown in figs. 1 and 2. A wooden spider supports the arms carrying the elements. The arms are varnished wooden dowels which fit into aluminum tubes bolted to the spider as shown. The loops are of 18 gauge enamelled wire threaded through screw eyes in the wooden dowels.

This antenna has been in use at ZL1OI for a considerable time and has been compared by switch-over tests with a trapped vertical antenna with radials mounted on a 20 foot high pole. On the average, the quad loop gives signals about one S point stronger on transmission, and often more than this on reception. Reception is markedly better than on the vertical antenna as the directional properties of the quad minimize QRM from the sides, and the antenna is much less susceptible to noise pickup. Signals which are unreadable in a background of noise with the vertical antenna may often be copied easily with the quad loop.

The antenna will operate on 28 MHz but in this case the angle of radiation is higher and DX results are not as good. Better results could be obtained by adding a 10 meter loop inside the 15 meter loop for tri-band operation.

It is hoped that this article may be of assistance to those who are unable or unwilling to erect a full size quad or Yagi with reflector, and yet wish to obtain results noticeably better than those from a vertical or dipole antenna. ■

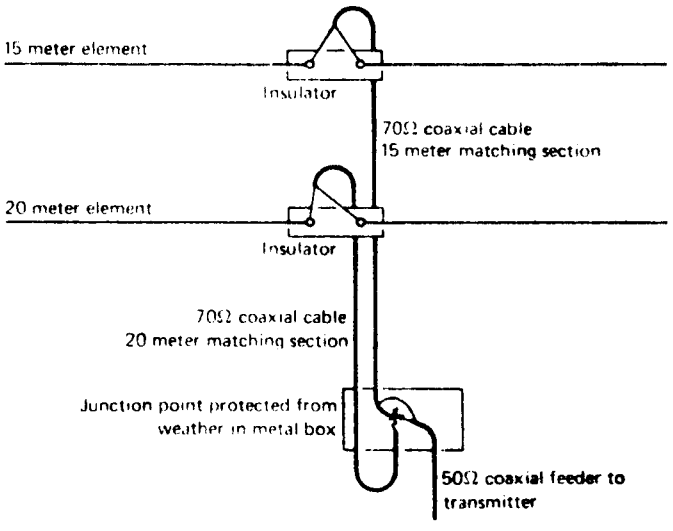
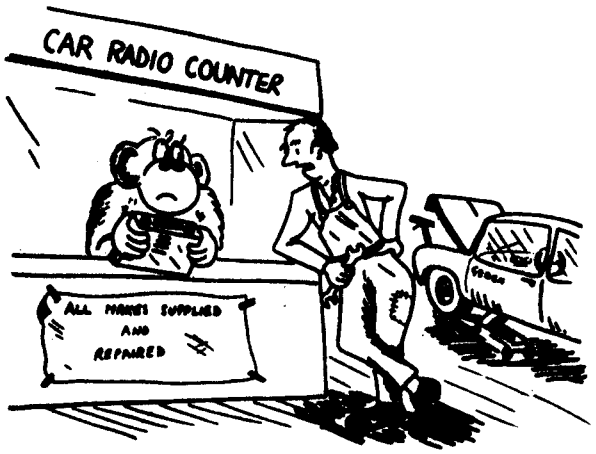


Fig. 2—Arrangement of connections to the loops.

MAXWELL

by G8DSH



"I think it needs a plug change and its valves ground in!"