

QRM

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of Australia, Tas. Division.

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As before there will not be a January issue of QRM.

Note that the deadline for the February issue is 20th January,
please submit your articles and notes before then.

At this time I would like to take the opportunity to thank all
who have supplied material and assistance in the production of
QRM this year. On behalf of these people and myself, I wish
our readers a Merry Christmas and a Prosperous New Year.

John VK7JV
Editor

MEETINGS

- Dec. 7 Christmas BarBeQue 1600 hrs at the residence of
Ed VK7HE, 43 Faulkner Rd. Ravenswood.
- Dec.10 North West Branch, Lakins Hall, Ulverstone.
- Dec. 14 Council meeting at the QTH of Steve VK7OA,
137 Penquite Rd. Launceston.
- Jan.10 Northern Branch, AEB rooms, High St.
- There are no YRCS classes until 1975

Dec 31 NEW YEARS EVE FUNCTION AT THE RESIDENCE OF Brian VK7ZBY
at the Launceston airport, start at 2130.

Northern Branch notes by Reg VK7KK.

Those who felt that the lecture arranged for our November meeting wasn't of interest and therefore stayed away certainly made the wrong decision. Rex Kerrison of Repco described the steps pursued in tracking down the reason for the unpredictability of diamond tool life. It seems the tools used to drill bearing housings would fail after cutting anywhere from 10 to 5000 pieces and the major reason found for this was the variability in the orientation of the diamond crystal in the tool.

It was easy to see why Rex won an award from the Institute of Engineers for his lecturing ability. Apparently he had more questions and comments from our meeting than at the engineers meeting, an indication of our interest and knowledge of the topic.

A major project on the horizon continues to be a possible clubroom venture. For those who haven't been to recent meetings, the suggestion is that we lease from the council a building in Canning str. currently used as a H.Q. for Civil Defense. Rental would be nominal, say \$5 per annum. The building contains kitchen, toilet facilities and rooms suited to small meetings and classes. It would probably be desirable to add a larger room to the building.

Obviously there are many "ifs and buts". For instance we would need to safeguard any financial investment in case of council re-use of the property. We'd need to decide how we see the role of a clubhouse in the Branche's activity. A decision will be needed on how much money we need to keep for future spending. Our manpower resources will have to be assessed to ensure we can build, equip, maintain and service such a project.

Every member (and their wives) should be thinking about this project as any decision must have the backing of the whole branch and the advantages and repercussions of such a development must be fully realised. Any decision is still a little way off but please give it plenty of thought and make your ideas known.

Two social events you won't want to miss. Ed VK7HE's QTH is the venue for the Christmas BarBeQue. Much effort has apparently been given to preparing barbeques and you'll just need to bring yourself, Mum, the kids, some food and drink and some good weather around on 7th December.

Apparently the XYL's got wind of a proposed equipment sale on that day. They have joined in by organising a cake stall so while we are spending on the remains of the Flinders Isl. DME and any other goodies which might appear, they won't feel out of it.

The other social event is on New Years Eve and the venue is the area behind VK7ZBY's QTH opposite Launceston Airport. again bring your own supplies and turn up around 9.30 p.m..

Third one ! Congratulations and best wishes to Wally and Shirley on their recent engagement.

He keeps running into things. Usually its a car, this time it was a squash court (yes, without his car) Brian VK7RR now sports a broken foot.

North West Branch notes by Max VK7MX.

What a busy month. Its hard to know where to start. Oh yes, our meeting, and what a busy affair. We had a good attendance, around 26. There was a lot of business to wade through, including the hamfest.

It was resolved to investigate the possibility of commencing an instructional class under the YRCS and possibly in the new year. We welcomed two new licensees to our ranks, namely Brian Lord VK7ZRL and Adrian Sherriff VK7ZAT, they are both operative. At the conclusion of business we were treated to a talk by Winston VK7EM on his ATV camera suitably illustrated with diagrams and the camera in operation. Harold VK7MZ gave the usual Morse practice.

And so came the hamfest at Turners Beach on 16 and 17 November. The attack on the Hall commenced on Friday P.M. and went on into the night. Both sexes were very busy preparing decorations, tables, chairs and a large array of aerials from 2 to 80 metres. It was on again early Saturday morning, preparing displays and the 101 jobs that go with such a function. Things were really shipshape before the crowd started to arrive. About 80 adults and 20 children came along. It is difficult to describe the layout and the vast array of equipment. Fred Bail VK3YS put on a very good display of new commercial gear, and we were fortunate to have on loan from Jim Davis, Latrobe, some beautifully preserved vintage radios etc., some even working. In between there was everything from a complete amateur station to SSTV, ATV video replays, home brew gear etc. etc.. No wonder Graham VK7ZAQ slept in the hall overnight as guard.

The dinner was a gastronomical dream, with no hope of trying each of dozens of different dishes.

Then came the cabaret, highlighted by a fashion parade in the main displaying naughty nighties (I think). One gentleman was noticed fanning himself with a paper plate to keep cool (it was the only thing I could find). Bob VK7ZJS managed to keep his equilibrium while compering the show. Doubt if he will ever be the same.

Sunday came and once again the crowd rolled up, this time some new faces as well. The usual perennial get togethers went on. Some transmitter hunts took place and the lunch was grilled on the biggest steel hotplate I have seen. Great loads of hamburgers, sausages etc. made a mouthwatering fare. Afterwards more outside activity and the final ceremony indoors about 3 p.m. when the Divisional President Reg VK7KK presented awards and prizes to the lucky winners. These have been listed elsewhere.

Strangely enough, I heard no adverse comment from anyone (someone usually moans) but many compliments were passed.

One thing that impressed me was that all the little children seemed to have a wonderful time, were well behaved, and interfered with nothing (bless them). They contributed to the happy atmosphere.

During Saturday afternoon two tours were conducted into the country, one to Leven Canyon by Terry VK7TT and the other to the H.E.C. control centre at Nook and power stations. Neither were well attended but were thoroughly enjoyed. Thanks to Collin Ives who gave his Saturday afternoon to conduct the H.E.C. tour.



LADIES $\frac{1}{2}$ PAGE

On behalf of the Ladies committee and myself I would like to thank all the hams, XYL's, YL's and harmonics who attended our hamfest. I do hope those who attended enjoyed it as much as we did.

It is wonderful to meet and make so many more friends. Also that these friendships become stronger all the time through radio contacts.

Thanks again to all those who attended and making it the wonderful success it was.

XYL VK7ZIE

Lyn Ellings

The Editor

"Q.R.M."

Dear Sir,

The article by Peter Dodd, VK3CIF, in November "A.R." is well worth reading and remembering. In my opinion, the amateur radio fraternity should ban the word "Ham" and come up with a suitable substitute as soon as possible. In its theatrical use it denotes some sort of a clown and that is what the general public think of us as a race.

I suggest that "Q.R.M." and/or "A.R." should run a competition for a new name and hope that it produces something better than our National Anthems.

73's Bob Jackson

L70018

North West Branch notes continued from page 3.

Summing up the general opinion was that the Hamfest was a great success and great credit goes to the organisers who said that it could be done and got on with it.

Thats about it for 1974. The compliments of the season to all from the boys and girls from the North West Branch.

Max VK7MX

November on the DX bands, by Col VK7LZ.

To generalize, conditions started off relatively good with stations from most areas coming through at reasonable strength, however as the month progressed signals have gradually deteriorated and by the middle of the month little of any importance was being heard.

VP8HZ in the Falkland Islands made his annual appearance on the first of the month together with his son VP8NX and during the next few days stations in Asia, Europe, South America, Antarctica and the Pacific area together with the odd African could be heard on 14Mhz.

7Mhz. I have not been able to listen for prolonged periods on this band however around 0600Z to 0800Z the following stations have been copied, HR1AT, VK9RH, EA8CR, EA8DI, FWØIC also Europeans, North Americans and dozens of JA's both on SSB and CW. EA8CR and EA8DI appear to be on regularly on SSB with signals at times peaking to S8.

14Mhz. The following stations have been copied, all times given in GMT.

0500 to 0600 CX7BF, FYØBHI, OD5GC, SV1BR, VKØMX, OA4AHO, HP1KG.
 0600 to 0800 CX7BF, HC2WP, FWØDX, IC8HBR, VR6TC, ZL3OG/C, KX6LP, LU3AAT
 0800 to 1000 VP1FF, KC6VE, 4U1ITU, GW4NZ, C21NI, EA7LE, EA3UU, KC4AAA, PZ1AK.
 1000 to 1200 VP8HZ, VP8NX, LU7AJF, A4XFE, S21CW, FWØGA, HS4ACN, VQ9M together with the more usual Asiatic stations including, VU, XW, XV and various stations from the USSR. (all the above were heard on SSB)

QSL information

FWØDX	via WB6LTJ	3D2DD	via VE3GUS
FWØIC	via K6YFZ	KC6VE	via W7PHO
FWØGA	via K6RIR	S21CW	via JAØCUV
FYØBHI	via F2QQ		
C21NI	P.O. Box 173 Republic of Nauru		
IC8HBR	P.O. Box 1 Icchia Island 80077 Italy		
ZL3OG/C	(Chatham Isl.) QSL to ZL3OG		
9M8VLC	P.O. Box 908 Kuching Sarawak		
XW8GV	P.O. Box 312 Vientiane, Laos		
CR8AC	P.O. Box 59 Dili, Portuguese Timor		
OA4BV	P.O. Box 538 Lima, Peru		
KX6LP	P.O. Box 1604, APO San Francisco 96555		
P29GA	P.O. Box 757 Lae, Papua New Guinea		
ZL1AA/C	P.O. Box 23-508 Papatoetoe, East Auckland N.Z.		

DXpeditions. There is a possibility of PY1ZAE operating from Trinidade Island for 36 hours on the 11th and 12th of December, frequency 14195Khz, the call sign is expected to be PYØZAE.

At the time these notes are being written conditions appear to be improving again, so keep listening and good hunting.

Col VK7LZ

VHF notes by Joe VK7ZGJ.

CQ DX 6 metres, CQ DX 6 metres, CQ DX CQ DX etc etc.
 No doubt by this you will have heard the above many times.
 To date we have had several good openings to VK2, 4 and 5.

It became rather frustrating on the 15th November when VK4RO in Ayr was heard for a couple of hours rag-chewing with VK2's, the signals were just above the noise but too weak to work him. Finally at 2200 a couple of local stations worked VK4GS George also living in Ayr.

6 metres has also been open to ZL, on November 20th ZL3 and 4 were worked by John VK7JV, Kevin VK7ZAH and myself (VK7ZGJ).

On Sunday 24th November 6 metres remained open from 1000 a.m. till 1930, all states except VK6 and 8 being worked, to finish the day the 3D3AA beacon in Fiji was heard at 22.15 by VK7JV and VK7ZAH for almost 15 minutes R5 S3 T9.

The Mt. Barrow repeater still serves as an early warning of openings to VK3 on 2 metres, it is not uncommon to be driving to work and have a contact with a VK3 while mobile this time of the year.

Oscar 7 is in orbit and to date has been functioning extremely well with signals slightly better than AO6.

So at the present time there is plenty of activity even for the Z call almost any night of the week.

73 Joe VK7ZGJ

FOUR FUNCTION CALCULATORS: by Bob VK5MM
 reprinted from South Australian W.I.A. Journal.

Now that four function electronic calculators are becoming common-place around the shack, here is an idea that can be used to increase their versatility.

To find the square root of a number;

Let " N " be the number whose square root is required.

Let " X " be the first approximation of this.

Now use the formula

$$X_2 = 0.5 \left(\frac{N}{X} + X \right)$$

Perform the following steps;

- 1) enter N
- 2) divide by X
- 3) add X
- 4) divide by 2

Using the X_2 found displayed, repeat once again. This will generally be near enough, but greater accuracy can be obtained by repeating three times.

WANTED

MR6A's as sold by the Northern Branch, preferably not converted, contact Kevin VK7ZAH or John VK7JV

Flinders Island D.M.E. components for SALE. For information contact VK7ZBY, VK7PF or VK7ZRF. Mostly stored at the QTH of VK7ZBY. The more attractive units will be brought to the BBQ on December 7th. circuits supplied.

UNIT	No off	Description	Price ea.
<u>Transformers</u>			
2TN53499	1	5730 VAC 200 mA	\$1.00
1TK54772	2	480 VAC 120 mA	\$1.00
1TH55013	2	110V 3 A, 6.3V 3 A, 6.3V 1A	\$1.00
1TM53506	2	700V 500mA	\$2.00
1TK54776	2	52 VAC, 11V 10A	\$1.00
<u>Chokes</u>			
2TM53494	2	Swinging choke 27 to 200H 250mA	50¢
2TH53495	2	5H 500mA	\$1.00
2TJ53556	2	6H 125mA	\$1.00
1TM53503	2	5H 500mA	\$1.00
1TJ54930	2	Low resistance choke	50¢
<u>Miscellanea</u>			
Reg. Power mtr	1	Reflectometer, 300V 25mA reg. psu	\$2.00
R.F. osc.	2	2 Lecher line oscillator in box	\$1.00
Pulse Modulator	2	807's, 6AS7's, fill.xfm's 6.3V 7A	\$1.00
Control Panel	2	2-1mA 100 ohm meters, fuses, switches etc.	\$2.00
Receiver	2	206Mhz pulse, 30Mhz IF valve and transistor	\$3.00
Pulse select.	2	6J6's switches and components	\$2.00
Delay line	2	Delay lines, mica caps. and multi bank switches	\$1.00
Code motor	1	Keyer	\$1.00
Test interrogtr	2	Valves components and variable C's	\$2.00
Freq. control	2	Small AFC 224Mhz receiver	\$1.00
Monitor	2	6AU6, 6J6's and parts	50¢
Power supply	2	300V regulated, 500V 400mA xfmr	\$2.00
Coax relay	5	70 ohm N type 48V coil	\$2.00
Marker gen.	1	1, 10, 100 micro second pulses, 300V 90mA Power supply	\$2.00
4 diode panel	2	RAS310AF diodes, 1A 2000 PIV including shunt C's	\$2.00
6 diode panel	18	as above	\$3.00
Meter panel TX	2	1mA 100 ohm meter	\$1.00
Meter panel RX	2	2-1mA meters and switches	\$2.00

Boxes of miscellaneous components etc.

NORTHERN BRANCH EQUIPMENT STORE.

The following items are in stock or on order and should be to hand in the near future.
Contact Kevin Henricks at 8 Clarendon st. or phone 469772, the number at work is 312579.

Resistors

$\frac{1}{2}$ and $\frac{1}{4}$ Watt 4¢
per 100 \$3.50
Mixed bag of 1 Watt \$1.00

Capacitors

Ceramics 5¢ to 15¢
Electrolytics 22/25V 12¢
47/25V 12¢
100/25V 15¢
1-12pf trimmers 30¢

Semiconductors

1N914 diode 15¢
EM404 diode 25¢
Em410 diode 45¢
9.1V zener diode 48¢
HP2800 hot carrier 90¢
BC108 40¢
BC178 35¢
2N3563 35¢
2N3564 35¢
2N3055 \$1.25
2N3819 70¢
TIS88 60¢

B/Lee coax plugs 20¢
B/Lee sockets 35¢
B/Lee PCB sockets 30¢
Neosid formers 7¢
F29 slugs 7¢
F16 slugs 7¢
Single cans 9¢
Double cans 10¢
PCB D type xtal sockets 20¢
L.E.D. and mounting clip ?
Bag of mixed tag strips \$1.00
Blank QSL cards per 100 \$2.10
Various linear and digital integrated circuits are in stock.

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and 432Mhz.
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Magazine subscriptions and
other publications

Order your B.W.D. C.R.O. and test equipment through the Northern Branch Equipment store, you'll save the freight.

The Editor

"Q.R.M."

Dear Sir,

The clubroom proposal of the last meeting, has one basic fault, the lack of a large enough meeting room for the requirements of the Branchs meetings and social functions. This would mean the retention of the High St. Adult Education Rooms until suitable additions are completed.

What is going to be the purpose of clubrooms? A hamshack away from home where members could use equipment supplied by the Branch? If so this will mean an increased workload by a few dedicated members to run the rosters, keys etc., or do we want the clubrooms for meetings and social functions (film evenings, lectures, cabarets etc.), if so the largest room is only a quarter of the size required.

It appears to me that a few have the desire to spend the hard earned clubroom fund as fast as possible regardless of consequences or future needs.

If this proposal is pursued I suggest that a vote should be taken of all the members of the Branch and 75% to be in favour of the final proposal.

Col VK7KW

USING A WALL MAP TO FIND DIRECTIONS

Having no map suitable for finding bearings so that the H.F. beam may be aimed in the right direction I decided to attempt to find a convenient method of doing this. The commonest map available cheaply is the Mercator projection type and having a large one of these I decided to plot the great circle paths for different bearings from the home QTH on it. Since this involves tedious calculations by normal means I resolved to use the computer at work. In addition when the programme was written I could simply re-run it with the origin for any place in the world.

The result is the set of figures based on Launceston (although it is generally accurate enough for all of Tasmania). The bearings are at 15° intervals and each pair of data is a point on the relevant great circle. By plotting all of the points for one bearing, that particular great circle may be drawn. Each one is a sine curve, symmetrical about the equator. Note negative latitudes refer to the Southern Hemisphere. The zero bearing is a north south line through Launceston and the other focus of the lines.

A (very) rough map has been included to show how the finished product should look. It is not intended to be used and is not particularly accurate although unless your beam is extremely sharp it would serve for this. If anyone wants a set of figures based on some other location they may contact me directly.

VK 700

Bearing 15 degrees.

<u>Lat.</u>	<u>Long.</u>
-63.1	Ø E
-73.8	20 E
-77.5	40 E
-78.7	60 E
-78.5	80 E
-76.7	100 E
-71.8	120 E
-55.9	140 E
14.7	160 E
63.1	180 E
73.8	160 W
77.5	140 W
78.7	120 W
78.5	100 W
76.7	80 W
71.8	60 W
55.9	40 W
-14.7	20 W
-63.1	Ø W

Bearing 30 degrees.

<u>Lat.</u>	<u>Long.</u>
-28.5	Ø E
-53.1	20 E
-63	40 E
-67	60 E
-67.9	80 E
-66.3	100 E
-61.1	120 E
-48.5	140 E
-17.3	160 E
28.5	180 E
53.1	160 W
63	140 W
67	120 W
67.9	100 W
66.3	80 W
61.1	60 W
48.5	40 W
17.3	20 W
-28.5	Ø W

Bearing 45 degrees.

<u>Lat.</u>	<u>Long.</u>
-3	Ø E
-30.7	20 E
-46.8	40 E
-54.6	60 E
-57.6	80 E
-57.3	100 E
-53.5	120 E
-44.5	140 E
-26.4	160 E
3	180 E
30.7	160 W
46.8	140 W
54.6	120 W
57.6	100 W
57.3	80 W
53.5	60 W
44.5	40 W
26.4	20 W
-3	Ø W

Bearing 60 degrees

<u>Lat.</u>	<u>Long.</u>
11.3	Ø E
-11.6	20 E
-30.3	40 E
-41.8	60 E
-47.6	80 E
-49.4	100 E
-47.6	120 E
-41.7	140 E
-30.2	160 E
-11.3	180 E
11.6	160 W
30.3	140 W
41.8	120 W
47.6	100 W
49.4	80 W
47.6	60 W
41.7	40 W
30.2	20 W
11.3	Ø W

Bearing 75 degrees

<u>Lat.</u>	<u>Long.</u>
20.7	Ø E
3.4	20 E
-15	40 E
-29.4	60 E
-38.3	80 E
-42.6	100 E
-43.3	120 E
-40.3	140 E
-33.1	160 E
-20.7	180 E
-3.4	160 W
15	140 W
29.4	120 W
38.3	100 W
42.6	80 W
43.3	60 W
40.3	40 W
33.1	20 W
20.7	Ø W

Bearing 90 degrees

<u>Lat.</u>	<u>Long.</u>
36.4	Ø E
27.8	20 E
14.4	40 E
-2.6	60 E
-18.9	80 E
-30.9	100 E
-38	120 E
-41	140 E
-40.5	160 E
-36.4	180 E
-27.8	160 W
-14.4	140 W
2.6	120 W
18.9	100 W
30.9	80 W
38	60 W
41	40 W
40.5	20 W
36.4	Ø W

Bearing 105 degrees

<u>Lat.</u>	<u>Long.</u>
43.4	Ø E
41.8	20 E
36.2	40 E
25.7	60 E
9.9	80 E
-8.8	100 E
-24.9	120 E
-35.7	140 E
-41.6	160 E
-43.4	180 E
-41.8	160 W
-36.2	140 W
-25.9	120 W
-9.9	100 W
8.8	80 W
24.9	60 W
35.7	40 W
41.6	20 W
43.4	Ø W

Bearing 120 degrees

<u>Lat.</u>	<u>Long.</u>
48.5	Ø E
49.2	20 E
46.4	40 E
39.1	60 E
25.6	80 E
4.9	100 E
-17.6	120 E
-34.3	140 E
-43.9	160 E
-48.5	180 E
-49.2	160 W
-46.4	140 W
-39.1	120 W
-25.6	100 W
-4.9	80 W
17.6	60 W
34.3	40 W
43.9	20 W
48.5	Ø W

Bearing 135 degrees

<u>Lat.</u>	<u>Long.</u>
55.1	Ø E
57.8	20 E
57.1	40 E
52.9	60 E
43.1	80 E
23.7	100 E
-6.3	120 E
-32.9	140 E
-47.9	160 E
-55.1	180 E
-57.8	160 W
-57.1	140 W
-52.9	120 W
-43.1	100 W
-23.7	80 W
6.3	60 W
32.9	40 W
47.9	20 W
55.1	Ø W

Bearing 150 degrees

<u>Lat.</u>	<u>Long.</u>
63.1	Ø E
67	20 E
67.9	40 E
66.2	60 E
60.9	80 E
48.1	100 E
16.4	120 E
-29.3	140 E
-53.4	160 E
-63.1	180 E
-67	160 W
-67.9	140 W
-66.2	120 W
-60.9	100 W

Bearing 150 degrees

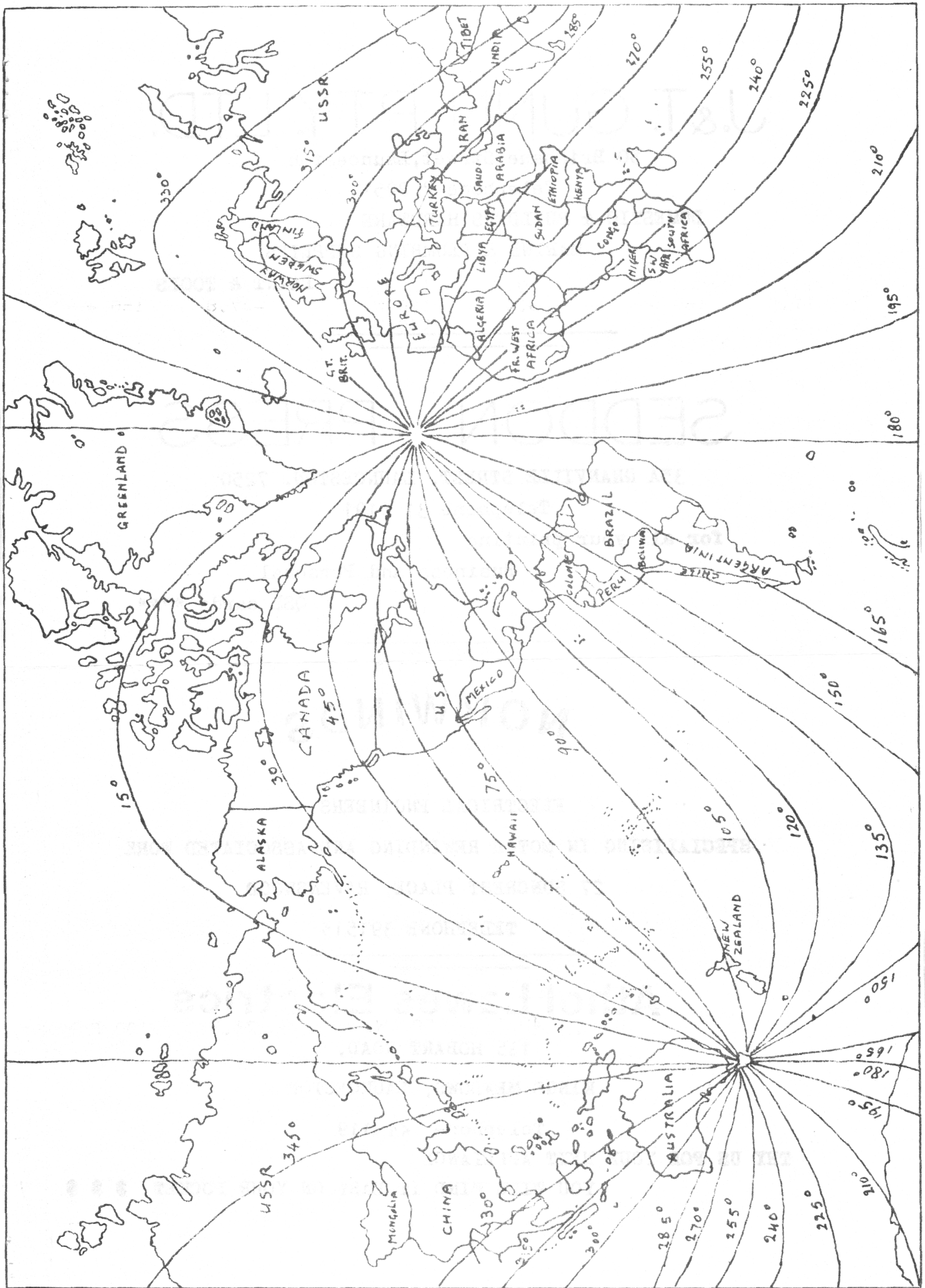
<u>Lat.</u>	<u>Long.</u>
-48.1	80 W
-16.4	60 W
29.3	40 W
53.5	20 W
63.1	Ø W

Bearing 165 degrees

<u>Lat.</u>	<u>Long.</u>
73.8	Ø E
77.4	20 E
78.7	40 E
78.5	60 E
76.7	80 E

Bearing 165 degrees

<u>Lat.</u>	<u>Long.</u>
71.8	100 E
56	120 E
-14.2	140 E
-63	160 E
-73.8	180 E
-77.4	160 W
-78.7	140 W
-78.5	120 W
-76.7	100 W
-71.8	80 W
-56	60 W
14.2	40 W
63	20 W
73.8	Ø W



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