

QRM

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OF AUSTRALIA TAS. DIVISION

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LETTER TO THE EDITOR

DO YOU KNOW OSCAR.

In case you don't - and judging by the scarcity of publicity you probably don't - Oscar 6 is an amateur satellite circling the earth every 115 minutes and capable of responding to signals transmitted to it on a band of frequencies between 145.9 Mhz and 146.00 Mhz. It retransmits the received signals between 29.45 and 29.55 Mhz. In fact it is amateur communication via satellite - the first really successful satellite to be used by amateurs. This is really something new, exciting and different - so what the hell is wrong.

Firstly, there hasn't been enough back up publicity given to times of passes and consequently far too many amateurs don't know when to listen. Secondly one cannot rely on Oscar being on due to insufficient control, low battery power etc. Thus many amateurs who were interested have dropped out and Oscar is orbiting away awaiting customers.

Now, WHAT CAN WE DO. Plenty! - Give Oscar more publicity as does QST and Radio Communications. Publicise details of QSO's and call signs of stations active. Give times of passes in table form such as 7PF is doing in QRM. Try to assume that Oscar will be operating regularly on certain days and adhere to this. Tell everyone that it is easy to operate through Oscar any decent receiver tuning through 29.5 Mhz and any old aerial such as a dipole will receive signals. A medium powered transmitter is OK just retune to 145.9. You don't need SSB or ability to QSY. It will respond to CW, SSB or AM.

Give the gang some incentive to go looking for Oscar. In any sport or hobby you must promote competition. Why not a WAS certificate via satellite. Now is the time. H.F. bands are getting worse daily with declining sunspots. VHF types are mainly working repeaters which does not present any challenge. Activity could easily lag yet here we are with an entirely new concept in communication - one with which we will eventually be able to communicate world wide.

Remember it's not the scientists amongst us that will keep ham radio going it's the operators - so let's get operating - Satellite communication is here to stay - get started NOW!

COL VK7LZ

M E E T I N G S

JUNE 5th NORTH WESTERN BRANCH AT LAKIN'S HALL ULVERSTONE
JUNE 8th NORTHERN BRANCH A.E.B. ROOMS HIGH STREET, LAUNCESTON
JUNE 9th and 10th SOUTH EAST RADIO GROUP OF S.A. ANNUAL CONVENTION IN MT. GAMBIER
YRCS CLASSES NOW 2nd and 4th SATURDAY MORNINGS AT KINGS MEADOWS HIGH SCHOOL

NORTHERN BRANCH NOTES

Q.R.M. can be likened as to a paper disposal unit - just as one edition goes to print your Editor is looking for more copy and when news is scarce this can be embarrassing to all concerned. The last branch meeting saw an attendance 31, ably chaired as usual by Peter 7PF, attendance was about average and must surely reflect continuing interest in the Branch. Do keep up this fine effort - it is most appreciated by your committee. Two items of major interest were brought up. Firstly Peter 7PF gave us the latest rundown on the repeater frequency change.

Peter Dowd 7PD proposed that a letter be sent to Council requesting that someone be opted as State W.I.C.E.N. co-ordinator and that said person investigate the future and or maintenance of State W.I.C.E.N. group and also ascertain the availability of equipment and personnel for W.I.C.E.N. purposes and information on W.I.C.E.N. activities in other States. Phew! What a mouthful. Anyway the proposal has been forwarded to Division and no doubt when that hard workin' group get the time to deal with it we will get the answers.

Next Branch meeting will be on June 8th. '73 at the A.E.B. rooms at High Street - following general business the evening will be given over to a "JUNK SALE". But this is a sale with a difference. All items to be sold will be donations from you (Gentlemen) to the Club Room Account Fund.

Last time this happened John 7JV reported that \$70.00 was raised - he reckons he is looking for about \$240.00 this time! So bring your gifts along or if you have no transport contact any member of the committee for help. No one will be embarrassed if, more than can be sold, is donated, as we can always arrange another night to dispose of the rest - or dispose of the brass, copper etc. content for cash to a scrap dealer.

Secondly whilst we are on the subject of equipment Bob 7ZRF bought a swag of Xtals and Air Dux coils back from Hobart with him for sale on behalf of the Divisional Equipment Store. No doubt he will fetch this to the meeting or at least a list frequency and coil sizes. Bob can be contacted by phone if you have an URGENT NEED for either items. But do turn up on June 8th. We like to see you and we do need your cash!

Did you note the stir on a recent broadcast with respect of a Hobart weather report - it certainly encouraged a few more stations to call in on the 80 metre call back. Reckon John 7JV worked 20 stations for his Jubilee Award that day! Also note the BEARDED ONE is causing some QRM on 160 metres after modification to his gear. What next will he get up to! (IKW SSB on 6M - the Bearded One).

7ZGG is still horsing around most nights on 2 & 6 metres - he found out the other day that he can get AM and FM from the same rig - wish he would tell me how as I'm looking for a cheap way to get on 6FM.

7RR has been sporting a thick lip lately - results of a bad cold I'm told not through blowing his trumpet as one character remarked.

Don't forget the proposed Golden Jubilee dinner in Hobart on July 7th. If anybody has got any ideas for this night out I'm sure the organisers would appreciate it. The greatest help we can all give is to support it and attend, so organise your baby sitters, save your biscuits and dust out the Tuxedo.

Must not forget to mention Wally's 7ZWX fine presentation and talk on Slow Scan T.V. (S.S.T.V.) at the last meeting. He certainly brought out some of the more technical facets of the art and almost convinced us it was no trouble at all to get active. Hi!

Robin 7RH still runs his CW classes on Sunday afternoon 2.30 pm. at his shack. These classes are not only for the New Breed, but also for others (like myself) who are not conversant with full CW procedure on the amateur bands.

Personally I still can't figure why CW operators can't send plain English instead of all these queer abbreviations. Perhaps the department might scrap the "English language" CW test and then we can learn Egyptian Hieroglyphics. All joking aside Robin I would like to attend if I could find the time.

Guess this is all for this month. See you ALL on June 8th together with your "Donation" at AEB Rooms at High Street.

STOP PRESS

INSERT to QRM May 1973

OBITUARY

L.J. Crooks VK7BQ

It is with regret that we have to report the death of Mr. Len Crooks, VK7BQ, on the 24 th May. He was Patron of the Tasmanian Division of the W.I.A..

One of the 'old timers' of Amateur Radio, Len will be remembered by many of the older citizens of Launceston for the excellent programmes he used to broadcast every Sunday on the 200 metre band. His signature tune "Sunday Afternoon" was eagerly awaited by practically everyone who possessed a radio in Northern Tasmania in the 1920's and early 30's.

He was keenly interested in every facet of Amateur Radio and operated on all bands 200 metres through to 432 MHz. His shack was always the focal point of local and visiting Amateurs and his help and advice to those interested in radio was instrumental in several of today's amateurs first obtaining their Amateur License. He played an active part in the foundation of the Wireless Institute of Australia and, until his death, he retained this interest and was a life member of the Tasmanian Division.

Len lived by the Amateur Code as written and published by that grand "Old Man" of amateur radio Hiram Percy Maxim, W1AW, in the very early days of radio, one of which stated;

"The amateur is gentlemanly. He never knowingly uses the air for his own amusement in such a way as to lessen the pleasure of others."

This was Len's policy which he practised right through his lifetime, not only in Ham radio, but in his whole way of living. A true gentleman- one that everyone who has met will always remember with respect.

He will be sadly missed by all and, to his family, we extend our deepest sympathy.

NORTH WESTERN BRANCH NOTES

Thirteen members were present at our May meeting. How unlucky! It was agreed that the usual ragchewing indulged in prior to meetings in future would be deferred until after the meeting. In other words we propose to start on time.

Again members were urged to attend the annual meeting in Launceston. And many did. We agreed that it was possibly the most interesting meeting ever held. We compliment both the Chairman Ted and the deputy Brian for the way in which they handled the meeting. We all learned a great deal.

We wish the new Council every success.

Now for the story of the month! I recently had reason to visit a certain supermarket in Devonport. To my amazement I was accosted by the new proprietors BRIAN and EDITH, no other than VK7ZBE. Before I had time to regain my composure my business was solicited, but I explained that it wouldn't work as I can never find any ready cash. You will have gathered that Brian has left the old job in radio.

This brings us to another important matter. The VK7 Beacon on 2 metres CK7VE has had to be removed from its location. The above paragraph will explain why, and it will be necessary to find a new home for it. In the meantime the opportunity will be taken to modify the keyer to the new call sign VK7RTZ. Several members are involved, 7ZGR providing the know-how with 7ZBE, 7ZIE and 7ZAR lending a helping hand. Quite a bit of work is involved as it is electronic. To moralise - you'll never miss the water till the well runs dry!
.. you'll never miss the beacon till its gone! QED

Some personal pars - I forecast some new hf rigs in the area shortly from remarks heard on the air.

7ZRS was heard on 2 metres recently. Come again Ray!

7MS has discovered that 2 m. is a great ragchew band!

Several local boys are showing interest in c.w. and could stage a comeback shortly. More QRM!

As my last notes were mutilated in the printing with drole results, I haven't a typing machine so these are printed. Hope it works out!

CUL.

F O R S A L E

(1) Collins ART-13 Autotune Transmitter, 150 watts AM/CW to 813 P.A., 811A Modulator, High Level Clipping, Modified Pre Amp Stage. Complete with handbook and professionally built power supply 1500 Volt @ 150MA - \$90.00 O.N.O.

(2) G2DAF Receiver Professionally built, Etched front panel 160, 80, 40, 20, 15 and 10 Metre Bands plus 4 additional Channels, 3 Halt Lattice Xtal Filters 2.4 Kc @ 6db, 3.7 Kc @ 60db Bandwidth, SSB/AM Detectors. Motor tuning, Eddystone Dial etc. etc. - \$150.00 O.N.O.

D. H. SLOWAN VK7MS

"GLEN BROOK"

BASS HIGHWAY

SPREYTON....7310

Times are for the closest N-S and S-N passes for each day. Other passes can be heard 1 hr. 55 min. earlier and later with 29 degrees less or greater. For those without a Calculator add 1 hr. 42 min. to give the centre of a pass for AM(Z time) and 1 hr. 12 min. for PM(Z time). The satellite should be heard for 20 minutes centred on these times.

DATE	ORBIT	DATE	ORBIT	TIME Z	oW	DATE	ORBIT	DATE	ORBIT	TIME Z	oW
June 1	2864	Aug. 7	3703	0953	191	June 23	3140	Aug. 29	3979	1031	206
1	70	7	09	2103	004	23	46	29	85	2201	018
2	77	8	16	1028	205	24	52	30	91	0931	191
2	83	8	22	2158	018	24	58	30	97	2101	003
3	89	9	28	0928	190	25	65	31	4004	1026	205
3	95	9	34	2058	003	25	70	31	09	2156	017
4	2902	10	41	1023	204	26	77	Sep. 1	16	0926	190
4	08	10	47	2153	016	26	83	1	22	20 56	002
5	14	11	53	0923	189	27	90	2	29	1021	203
5	20	11	59	2053	001	27	96	2	35	2151	016
6	27	12	66	1017	203	28	3202	3	41	0921	188
6	33	12	72	2148	015	28	07	3	46	2051	001
7	39	13	78	0918	188	29	15	4	54	1016	202
7	45	13	84	2048	000	29	20	4	59	2146	015
8	52	14	91	1013	201	30	27	5	66	0916	187
8	58	14	97	2143	014	30	33	5	7 2	2046	000
9	64	15	3803	0913	186	Jul. 1	40	6	79	1011	201
9	70	15	09	2043	359	1	46	6	85	2141	013
10	76	16	15	1008	200	2	52	7	91	0911	186
10	82	16	21	2138	012	2	58	7	97	2041	358
11	90	17	29	1102	214	3	65	8	4104	1006	200
11	95	17	34	2037	357	3	71	8	10	2136	012
12	3002	18	41	1002	199	4	78	9	17	1101	213
12	07	18	46	2132	011	4	83	9	22	2036	357
13	15	19	54	1057	212	5	90	10	29	1000	198
13	20	19	59	2032	356	5	96	10	35	2130	011
14	27	20	66	0957	198	6	3303	11	42	1055	212
14	32	20	71	2127	010	6	08	11	47	2030	356
15	40	21	79	1052	210	7	15	12	54	0955	197
15	45	21	84	2027	354	7	21	12	60	2125	010
16	52	22	91	0952	196	8	28	13	67	1050	211
16	58	22	97	2122	008	8	33	13	72	2025	355
17	65	23	3904	1046	210	9	40	14	79	0950	196
17	70	23	09	2022	353	9	46	14	85	2120	008
18	77	24	16	0947	195	10	53	15	92	1045	210
18	83	24	22	2127	007	10	58	15	97	2020	353
19	90	25	29	1042	208	11	65	16	4204	0945	195
19	95	25	34	2017	352	11	71	16	10	2115	007
20	3105	26	41	0941	193	12	78	17	17	1040	208
20	07	26	46	2111	006	12	83	17	22	20 15	352
21	15	27	54	1036	207	13	90	18	29	0940	193
21	21	27	60	2206	020	13	96	18	35	2110	006
22	27	28	66	0936	192	14	3403	19	42	1035	207
22	33	28	72	2106	005	14	09	19	48	2205	020
						15	15	20	54	0935	192
						15	21	20	60	2105	005
						16	28	21	67	1030	206
						16	34	21	73	2200	018
						17	40	22	79	0930	191
						17	46	22	85	2100	003

DATE	ORBIT	DATE	ORBIT	TIME	Z o W	DATE	ORBIT	DATE	ORBIT	TIMEZ	o W
Jul. 18	53	Sep. 23	92	1025	205	Aug. 1	28	Oct. 7	67	0949	195
18	59	23	98	2155	017	1	34	7	73	2119	008
19	65	24	4304	0925	190	2	41	8	80	1043	209
19	71	24	10	2055	002	2	46	8	85	2018	353
20	3478	25	4317	1020	203	3	53	9	92	0943	194
20	84	25	23	2149	016	3	59	9	97	2113	006
21	90	26	29	0919	188	4	66	10	4505	1038	208
21	96	26	35	2049	001	4	71	10	10	2013	351
22	3503	27	42	1014	202	5	78	11	17	0938	193
22	10	27	49	2144	015	5	84	11	23	2108	005
23	15	28	54	0914	187	6	91	12	30	1033	206
23	21	28	60	2044	000	6	97	12	36	2203	019
24	28	29	67	1009	201						
24	36	29	75	2139	013						
25	40	30	79	0909	186						
25	46	30	85	2039	358						
26	53	Oct. 1	92	1004	200						
26	59	1	97	2134	012						
27	64	2	4403	0904	185						
27	70	2	09	2034	357						
28	78	3	17	0959	199						
28	84	3	23	2129	010						
29	91	4	30	1054	212						
29	96	4	35	2029	355						
30	3603	5	42	0954	197						
30	09	5	48	2124	009						
31	16	6	55	1049	210						
31	21	6	60	2024	354						

I. G. L.

We urgently require orders for I.G.L. equipment to make up to a minimum order. Anyone who thinks he has something on order please confirm with John VK7JV. A new item available is a channel scanner, this will scan 4 channels and lock on to the first to have a signal on it.

I have just been informed that the new Callbook will be out shortly. Also the ARRL 1973 Handbook will be available shortly, place your order now and be sure you'll have one. See John 7JV.

The Clybourn account needs boosting and one way of doing that is to have a bottle drive. Joe VK7ZGJ, Phone 443882 and Graham VK7ZGG, Phone 469455 have volunteered to do the job and will be looking for your bottles, they'll even take beer bottles although they much prefer cordial and milk bottles. If you have any give them a call.

NORM 7NR has obviously found the Bureau of Meteorology's secret of forecasting weather and likewise he is just as unreliable!

TECHNICAL ARTICLE - VK7ZBY

A 250 MHZ FREQUENCY COUNTER

PART TWO

250 Mhz. Pre-Scaler

A frequency counter provides an excellent means for amateurs to set their crystal-controlled transmitters, etc. "on channel". Rather than trying to operate a counter directly at VHF, a device called a pre-scaler is employed to divide the incoming signal by a pre-set, usually 10 or 100. Thus, with a divide-by-10 pre-scaler, a 30 mhz counter can be used to 300 mhz (provided, of course, that the pre-scaler has a response of at least 300 mhz. Fairchild has recently introduced an IC which includes an input circuit with excellent sensitivity and emitter coupled logic circuits providing a division ratio of 10. This device which is designated 95H90DC, is rated for operation to 300 mhz. The pre-scaler circuit is shown in Fig. 3. A bias voltage is applied to the input circuit. This bias is set for reliable division by adjusting R1. Typical sensitivity at 146 mhz. is .1 mV. Because the pre-scaler must work over the 30- to 250 mhz range, an elaborate broadband de-coupling scheme using two RF chokes and two ferrite beads is needed to eliminate RF from the bias line. Two hot carrier diodes (HP-2800 connected back to back) are included at the input to prevent the IC from being damaged by high-level RF voltage. The output buffer and level translator uses a 2N3564 transistor to drive the rest of the counter. The price of this IC is \$16-00 + Sales Tax, while it is expensive, it would be difficult to build a unit costing less from either discrete components or IC flip-flops that would deliver the same level of performance.

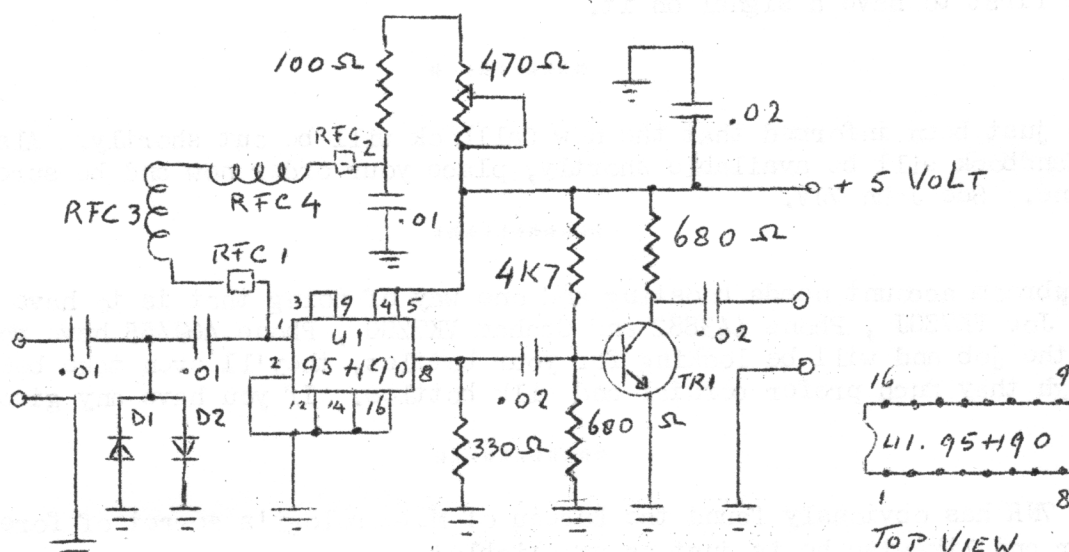
250 MHZ PRE-SCALER

FIG. 3

r/c 1,2 ferrite beads

r/c 3,4 ferrite bead wound with 15 turns 34 B+S

TR 1 2N3564
D1, D2 HP-2800



30 Mhz. Input Board

Sensitivity	-	DC to 30 mhz	30nV
Input Impedance	-	1 Meg.	shunted with 22 pF
Damage Overload	-	400V RMS	at 1 KHZ.
Power			
Requirements	-	+5 Volts	at 70 mA

FIG. 4

