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Edited by

H. P. V. BROWN, ZL3CG

N. W. LAUGESSEN, ZL3AS

VOL. V., No. 2.

CHRISTCHURCH, N.Z.

FEBRUARY 1, 1932

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- "Break-In," February (N.Z. Amateurs' publication). 4d.
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- "N.Z. Radio Handbook, 1931." 2/6.
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- "Wireless Weekly," 32-page call-sign booklet for broadcasters, amateurs and short-wavers. 4d. (Useful.)
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- "Morse Made Easy." 7d.
- "Radio Operating Questions and Answers," by Nilson and Hornung. 14/-.
- "Radio Log and Lore" (World's Best Log of the World). 1/10.
- "Radio Amateur Call Book," Sept., 1931. 5/3.
- Special Short-Wave issue ("Popular Hobbies"). (Complete list S.W. stations. New time conversion chart. Three special S.W. sets.) 7d.—Rush it!
- "Perry Auto-Time Morse System." 10d.
- "Practical Radio Telegraphy," by Nilson and Hornung. 18/6.
- "Radio Amateur Handbook" (Handy's), 8th edition. 5/3.
- "Theory of Radio Communication," by Filgate. 12/-.
- "Principles of Radio Communication," by Morecroft. 41/6.
- "Elements of Radio Communication," by Morecroft. 19/-.
- "Direction Finding," by Keen. 27/-.

OUR LOCAL AGENTS:

Auckland: F. R. Jeffreys, 466 Queen St.
Palmerston North: Radio Supplies & Service Co. (E. B. Borham), 245 Main St.
Blenheim: Tomlinson & Gifford.
Nelson: Keith Walker, Baird's Buildings.
Timaru: J. H. Healey, Bookseller.
Christchurch: A. T. Williams, Bookseller, 85 Cashel St. W.
Dunedin: H. H. Driver, Bookseller.

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Official Organ of the New Zealand Association of Radio Transmitters.

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VOL. V., No. 2.

CHRISTCHURCH, N.Z.

FEBRUARY 1, 1932.

Editorial

"BREAK-IN" is now in the care of new foster parents. As such we fully realize our responsibilities and every effort will be made to suitably "clothe, feed and educate" the sturdy child. We wish to remind all the members of our Association that finance is the keystone around which we must build to maintain the standard set by our predecessors. In this direction all can assist and special reference to this aspect appears in another column. We are sure all readers, especially the former editors, and many correspondents who have assisted in building up the magazine are looking forward to a steady improvement in "BREAK-IN" as time goes on. We shall endeavour to preserve the confidence reposed in us and leave future issues of our Journal to decide this point. Suggestions for the conduct of "BREAK-IN" will be welcomed and given every consideration. We take this opportunity to thank the late editors for publishing the January issue, thus giving us time to gather up the threads to continue the work without any set-back. A matter of interest to members is the newly instituted movement now known as the **Radio Emergency Corps**. The new headquarters is of the opinion that such an organisation is vitally necessary, and in instituting it feels that another link in the chain of N.Z.A.R.T. interest has been forged. All that remains is for every member to get behind the movement and render his support. In doing this we will ultimately build up something fine indeed—something that will be looked upon as one of this country's indispensable utilities in times of stress.

NOTICES TO MEMBERS.

Headquarters Address Box 617, Christchurch.

Members are advised that the subscription due for 1932 is 5/- as heretofore and everyone is asked to become financial at Headquarters as soon as possible. A blank square in this column will be filled with a cross if you are unfinancial.

CORRESPONDENCE.

All members are specially requested to avoid addressing correspondence in the personal form. This causes confusion, so in future address letters to H.Q. as follows—"Treasurer," "Secretary," Editors," etc.

"BREAK-IN."

All matters dealing with this Journal must be addressed to the "Editors." Articles intended for publication must be in the Editors' hands by the 20th of the month preceding publication. Articles must be written legibly in ink or typewritten and must be double spaced.

OFFICIAL LOG BOOKS.

The matter of producing an Official N.Z.A.R.T. Log Book is now receiving attention. Will all members interested please write to the Secretary in the meantime?

MESSAGE FORMS.

Headquarters has decided that in future message forms will be supplied to the Guard Stations free. Applications for message forms must be made in writing and accompanied by stamps for return postage. Official N.Z.A.R.T. message forms will be supplied to ordinary members at 1/6 per 100.

BADGES AND STICKERS.

Stocks of N.Z.A.R.T. Badges and Stickers are kept at Headquarters. Identify yourself and your organisation by wearing a badge or using stickers. Badges 3/6. Stickers 1/6 per 100.

ADVERTISING RATES.

Space is provided in "Break-In" for the featuring of advertisements at the following rates:—

3d. per line of about 6 words.

7/6 per quarter page.

Special rates for larger space on application.

CORRESPONDENCE.

TOSTI'S GOOD-BYE.

Editor, "Break-In."

Dear Sir,—I would like to express a courteous protest against the terrible long time some stations take to sign off.

Personally, I think the fellow at the other end is a good operator when, having finished all he has to say merely says, "Goodnight 73."

Too many stations sign off as follows:—"Well, Om, must QRT—Well, Om, goodnight and 73. Sure glad to see you at anytime and hope to see you soon. Well, Om, QRU? Good luck, Om, and cheerio, good-night, and 73."

Such a farewell is more in keeping when one is parting forever with a tasty bit of goods. When, however, this farewell means a cold supper, lynch law seems justified.—Yours, etc., —ZL3DK.

* * * *

LETTERS TO THE EDITOR.

Of the many radio clubs and organizations at present in vogue, is none connected directly with the QRP man. There is the WAC Club, RCC Club, BPL es a hoste of others, banding together fellows whose interests lie in their own particular direction. Where ever one goes one cannot but notice the certain fellow feeling between the QRP men. There are hundreds scattered all over the globe, and these hams welcome nothing better than a good QSO with a brother ham situated as they are, with QRP.

Now I do not want you to think that QRP men despise the luckier chaps who can afford QRO outfits; far be the thought.

It occurred to me some months ago that a "QRP" Club would be an excellent idea, some means of bringing each other's views, ideas, etc., together; also create a better feeling, and bring the small powered lads into closer touch with each other. With this idea I wrote to VK3NQ on the subject, and yesterday received a reply. He got into touch with all the low powered lads in his location, put it to them, and they all agree that it is what they have been wanting. He is writing to VK2JJ. "QTC" also proposes writing to ARRL as he is a member, and I am not.

My idea is to run it like the R.C.C. in conjunction with the N.Z.A.R.T., and issue a certificate. Of course, the limit of power would have to be 10 watts input to the last stage, and the difficulty would be to know what a chap was using. YK3NQ suggested that a board of directors of all those who are WAC wid QRP, be formed (each to have a salary like a politician. Hi! Hi! Hi!).

I am putting it to all the fellows I QSO, anyway. Would you kindly put something in "Break-In" about it? Do you think the idea any good?

At all events it was my idea and I would like to see N.Z.A.R.T. get going before the A.R.R.L. take it up. Besides I am sure if N.Z.A.R.T. make a start a lot of the YK lads would join forces.

One does not know quite how to go about it, hence this note.

Trusting to hear from you soon, I sure hope the New Year brings all that is best and brightest. plenty of DX, Fb QSO's es a 100 per cent QSL return. Hi! Hi!. 73.

JACK VAUTIER,
ZL2FE.

QRP Club. Hi! Hi!

OUR ADVERTISERS.

The success of any journal published under conditions similar to those affecting "Break-In" is to a great degree dependent on that journal's capacity as an advertising medium, and the ultimate benefit advertisers derive from their investments therein. However good the journal may be as a medium, it naturally follows that readers must be responsive before advertisers will gain.

"Break-In" is YOUR journal, and you are all vitally interested in its success. You are also interested in the goods advertised in the journal; therefore it is your duty to wholeheartedly support our advertisers, and by so doing you strengthen the vital pillar of our organisation.

No. 1.

ZL3SA

No. 2.

ZL3SA

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In heavy weight Solid Silver mounted
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No. 1, 6/6. No. 2, 8/6.

Other designs and prices submitted.

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HIGH STREET CHRISTCHURCH

THE ALPINE TRAGEDY.**TRANSMITTERS PREPARED.**

The facts concerning the recent tragedy in the Southern Alps near Bealey are no doubt well known to all. Harold Smith and Bernard Robbins lost their lives while on a tramping expedition in the locality. Until late on Thursday 14th January, searchers who were scouring the district had failed to obtain the slightest trace of the missing men, but a faint hope was held that they would be found alive.

Realising the absolute necessity for adequate communication between the searchers in the mountains, and the Telegraph head at Bealey (some fifteen miles distant), N.Z.A.R.T. got into action.

Wally Ashbridge ZL2GP, Communications Supervisor, wired Christchurch. The District Telegraph Engineer was approached for co-operation. He telephoned Wellington for instructions, and finally passed on the information that his Dept. would provide transport facilities.

Two portable transmitters and receivers together with all necessary accessories were made ready, while others attended to provisions and personal details. The following boys were ready within an hour with complete equipment and rations suitable for one week:—E. Shipley 3CK, W. Moyle 3DZ, R. Tabley 3CT, and W. Hughes 3CY.

Although the missing trampers were found before our team was able to reach the spot, another N.Z.A.R.T. exploit worthy of record was made. Those boys demonstrated what N.Z.A.R.T. is made of, and how they are prepared at a moment's notice to render service in times of disaster.

BRITISH NOTES.

By G6CL.

Preparations have been made for the coming series of RSGB and BERU tests. The dates given in our previous notes were inadvertently given wrongly, and are now corrected as follows:—

BERU CONTEST.

The four week-ends in February, 1932. 1500 GMT Sat. to 2400 GMT Sun.

28 MC. TESTS.

Jan. 23 and 24—1500 GMT Sat., to 2400 GMT Sun. Jan. 30 and 31—1500 GMT Sat. to 2400 GMT Sun. March 19 and 20—1500 GMT Sat. to 2400 GMT Sun. March 26 and 27—1500 GMT Sat. to 2400 GMT Sun.

3.5 MC. TESTS.

March 5 and 6—1500 GMT Sat. to 2400 GMT Sun. March 12 and 13—1500 GMT Sat. to 2400 GMT Sun.

The British Post Office have recently reduced the tolerances on our bands, so that Gs may now transmit within the limits.

KC.

7025—7275

14030—14370

28050—29950

We have much pleasure in recording that the Hong Kong A.T.S., and the Ceylon and South India Radio Club have been granted honorary affiliation to BERU. The first BERU Bulletin, outlining the RSGB policy to be followed at Madrid, has been issued to our affiliated Empire Societies in order to obtain their views prior to submission to the British Post Office and the IARU.

The BERU individual membership is still rapidly growing; all Empire amateurs are cordially invited to apply for membership, for which the fee is 12/6 per annum.

HEADQUARTERS DECIDES ON RADIO EMERGENCY CORPS.

Following on the suggestions outlined in the article published elsewhere in this issue dealing with the institution of a Radio Emergency Corps; the matter was discussed at the Headquarters meeting held just prior to this journal going to press.

It was decided that a national movement known as the **N.Z.A.R.T. Radio Emergency Corps** be formed immediately, and that each district should be asked to form sections of the movement as soon as possible.

Nationally, the movement will be controlled by Headquarters Executive but each section will be controlled by the district or branch in which it is set up. In the meantime the following points will be dealt with by Branches and Districts:—

1. Formation of Branch or District Section of N.Z.A.R.T. Radio Emergency Corps consisting of not more than twelve members.
2. The name of the section shall include the name of the District or Branch wherein it is formed.
3. When constituted, the Section shall set up a fund under its own control.
4. The formation and working of the particular section of the R.E.C. shall in no way interfere with the operation of the present Guard System.
5. Immediately the members of the Section are elected their names together with full particulars concerning them must be forwarded to Headquarters.
6. The Section as a whole shall con-

stitute a committee in itself and as such shall appoint necessary officers.

7. The appointments may be those of Secretary-Treasurer, General Organiser, Equipment Managers, and Operators.
8. It shall be the aim of the Section to construct two complete portable transmitting and receiving stations and to acquire other equipment set out in the schedule. All such apparatus to be vested in the Section and not privately owned.

Headquarters advises that the foregoing rules should be adhered to as near as possible in the meantime so that a uniform system will operate. Before a rigid schedule is drawn up for adoption, all districts are urgently requested to invite suggestions from their members and forward same to Headquarters. Suggestions on the question of the following subjects should be invited:—Types of equipment, best foodstuffs to be carried on different classes of expeditions, personal equipment necessary, methods of transportation, best frequencies, and general organisational matters.

Immediately the Section is formed the matter should be given as much publicity as possible and the various Clubs, Ambulances, Motor Unions, Shipping Concerns, Tramping Clubs, Scout Movements, Newspapers, etc., informed that the Corps is at their service on special occasions.

Special space will be provided in "Break-In" for R.E.C. news and notes, so go to it Oms, and make this new scheme something to be proud of. **REMEMBER, "R.E.C." may be asked to function tomorrow, so don't let it be said that we fell down on the job!**

SPECIAL TESTS WITH U.S.A. ON EIGHTY METER BAND DURING MARCH.

The N.Z.A.R.T. are arranging to conduct tests with American hams on the eighty meter band during the coming March. It will be remembered that during March of last year quite a number of ZL-W QSO's were carried out on this band. Dig up all those dusty fifty watters and 852's, put that thousand volts on the good old 210, polish the plate of the push-pull 201A outfit and get set for the contest.

In the past, so it appears to the present executive, the tests have been more in the nature of endurance tests, the person who through good fortune or otherwise is able to sit up all the night comes out best. For this contest we are desirous of trying some

new ideas which, we hope, will make the competition more interesting to all those concerned.

There will be three prizes to be allotted as follows:—

(a) To the station who, regardless of power used (provided of course that it is no more than the 100 watts allowed by the P. & T. Dept.) obtains the greatest number of QSO's with W stations.

(b) Handicap competition. In deciding the winner of this competition, the Executive will take into consideration the power used by the ZL station. Full details of this and other matters will be published in March issue.

(c) To the N.Z.A.R.T. listener who reports the greatest number of W's heard over here.

If deemed of sufficient interest a "Total Mileage" prize will be given to

FIVE YEARS IN SERVICE

One of New Zealand's pioneer transmitters has used a Standard Valve for five years, and it is still ready for more service

It was hard service too—two hours a day, seven days a week, always with at least 50% overload on the plate.

Standard (formerly Western Electric) vacuum tubes are the world's standard, and the prices are right. Write for 12-page informative booklet.

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Head Office: G.P.O. Box 638, Wellington.

Auckland: G.P.O. Box 1897.

South Island: L. B. Scott Ltd., Christchurch.



the station whose combined distances between QSO's is the greatest. In this also it will be the duty of the Executive to consider if some form of satisfactory handicap can be arranged.

The contest is open to all financial members of the N.Z.A.R.T., but members of the Executive will not be allowed to enter for any handicap event.

In all cases verification from W's is essential before credit can be allowed for reports sent in.

Further information will be published in the March issue of "Break-In."



ZL YL OPS.
ZL4DT—ZL3DW
(Front) ZL4CL—ZL3AG.

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PLUG-IN
COILS



A reasonably priced short wave plug-in coil set for circuits requiring high amplification with low loss. Forms are of bakelite. Four coils in set 15-210 metres when used with .0001 mfd. midset condenser. Coils plug into standard UX socket.

Special Price 22/6 per set.

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CHRISTCHURCH.

NORWEGIAN NOTES.

By G. H. Petersen (LA1D).

During the summer and early autumn a very marked decrease in the conditions on 14 m.c. has centred interest around 7 and 3.5 m.c. and comparatively "local" work. However quite a lot of DX stations are heard on 7 and even on 3.5, but difficulties are encountered to contact them, probably chiefly on account of the small power used by most Norwegian stations.

The Norwegian Scientific Greenland Expedition's amateur station, ZL2AK, which worked on 14 mc. succeeded in contacting some British stations only.

ZL2AK

THE N.Z.A.R.T. GUARD SYSTEM.

The Guard system is the outcome of the desire of the 1930 Headquarters to establish a chain of relay stations throughout New Zealand working similarly to those of the A.R.R.L. The comparatively small size of New Zealand, however, would not permit the operation of relay stations as such; because point-to-point communication is so easily obtained. Nothing was done until last year, when ZL2GP expressed a desire to see a scheme of "Army Amateur Stations" established. This was turned down by the Defence Department, so the present Guard system was born.

The scheme, at present, employs a number of stations operating in different portions of New Zealand, who are down for "duty" on selected evenings during the week. These stations come on duty at certain hours, and stay on watch until released by the Headquarters Station. In the event of any emergency, the N.Z.A.R.T. will be in a position to offer, to the authorities, a well organised system of communication.

As instructed last year, "Guards" if called on duty for emergency purposes, or if working in an affected area, will place their station at the services of the authorities, be it the P. & T. Department, Defence, Navy or Police.

Guard stations should get in touch with the local branch of St. John's Ambulance, or other first aid organisations. Persons operating battery re-

ceivers should be noted so that their batteries may be collected and used for power supply.

In the smaller settlements where communication is likely to be cut off during week-ends, it would be advantageous to announce in the local newspaper the address of amateur stations. Who knows, the station may be required to send urgent messages for medical aid in cases of serious illness, accidents, etc.

For the information of members generally a list of guard stations and their signalling schedules is given. There is room for more country stations, and applications for appointment should be addressed to the



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Royds-Howard Co.

553 COLOMBO ST., CHRISTCHURCH
QSO ZL3BJ

Supervisor, ZL2GP.

The Emergency Call used by the Guard system is QST, NZART.

N.Z. A.R.T. GUARD SYSTEM FOR 1932.

Duties to commence Wednesday, 20th January on 3.5 M.C. Band.

	H.Q. Station	H.Q. Relay Station	Dist.	Guard Stations	
Mon. ..	3DZ	3CX	1FV	1CR	2DW
			2CI	2BY	3BQ 4AP
Tues. ..	3BF	3DN	1BP	2CA	2GQ
			2GZ	3AX	4BT
Wed. ..	3BZ	3CU	1BL	2DG	2BW
			2DM	3FH	4CA
Thur. ..	3CA	3CU	1FG	1BF	2GE
			2BY	2GQ	2GK
			3AA	4AD	
Fri. ..	3CM	3AB	1BL	1CR	2GQ
			2GV	2CX	2GZ
			3AX	3CX	4CL

Guards will observe the following procedure:

7 p.m. At 7 p.m. each evening the Headquarters Station will call the Relay Station and pass the outward traffic for the North Island.

7.20 p.m. At 7.20 p.m. the Relay Stations will work the NORTH ISLAND Stations in order in which they appear in the table.

7.20 p.m. At this time also, the Headquarters Station will work all the South Island Stations in their placed order (omitting the Relays).

9 p.m. At 9 p.m. the Relay Station will work Headquarter Station.

9.30 p.m. At 9.30 p.m. Headquarters Station will make general call in case some station wishes to communicate.

Control Stations	Ast. Control Stns.
1st Dist.....ZL1BP	ZL1BF
2nd Dist.....ZL2GP	ZI2BY
3rd Dist.....ZL3CM	ZL3CU
4th Dist.....ZL4CA	

Communications Supervisor—
W. G. ASHBURIDGE, ZL2GP.

Assistant Communications Supervisor—
W. T. TOON, ZL3CM.

RADIO EMERGENCY CORPS.

By ZL3AS.

The part radio has played in national calamities such as the recent earthquake; or could have played in other occurrences where lives were at stake, has given rise to the thought, in my mind at least, that the time is ripe for the institution of a Radio Emergency Corps.

It is unnecessary to eulogize further on that point, except to say that at the present time N.Z.A.R.T. is fast becoming recognised as something more than a band of radio cranks, and such being the case, it is imperative that we must not rest on our laurels. Fresh ideals must be striven for, and every effort made to place our organisation on the pinnacle of public esteem. If we can continually demonstrate our willingness and ability to facilitate local or national communication in times of calamity, then we have done something towards achieving our ideal.

To be highly successful in our purpose we must not wait for the calamity and then organise; far from it—we should adopt the Scout motto and "Be Prepared."

A R.E.C. should be set up in every N.Z.A.R.T. district, and each section should be a division of one big national movement under the direct control of our own Headquarters.

Each district could select from its membership a number of men possessing the necessary qualifications of good physique, technical and practical ability, and most important of all, the ability to serve at a moment's notice. A special R.E.C. fund could be set up both locally and centrally so that when an expedition moved off it would not be hindered through lack of finance.

A definite schedule of provisions and personal necessities should be drawn up and classified to meet the different classes of emergency to be dealt with. That is to say, different provisions and equipment would be necessary during earthquakes or floods than during alpine tragedies.

And finally when the whole organisation has been effected and thoroughly tested, then the system should be placed at the call of every public utility in the country. The Post & Telegraph and other Government Departments, Motor Unions, shipping concerns, clubs, etc., should be approached and the service together with an outline of its constitution placed in their hands.

Here we have as no other body has, the means and power to create something that would ultimately be looked upon as an indispensable factor in the community. What finer thing could N.Z.A.R.T. ever hope to possess than one of the country's indispensable means of saving lives and alleviating suffering?

RAG CHEWERS' CLUB.

Well, fellows, have you all recovered from the Xmas festivities? Let's hope so, because we start 1932 with the club slogan. Here it is:—"CLICK AND QUALIFY."

How does that sound? Snappy! Now go to it and live up to the slogan. The club is steadily growing, and although we did not reach the coveted fifty before Xmas, we numbered forty, which I consider good going as the club is barely four months old. Just because you become a member it does not mean that you should cease the half hour "overs"—

so let's hear more of the long rag chews in the future. Two of our members have qualified twice over and to these gentlemen—ZL1CI and ZL2HR I extend my heartiest congratulations. I am endeavouring to procure some suitable emblem to endorse the certificates of those who qualify more than once so look for some news in next month's "Break-In."

Additional members since the last published list are:—1GF, 1BL, 2DZ, 2FP, 2DI, 2MB, 2BE, 3CZ, 3DA, 3BD, 3CW, 4CJ.

Perhaps one member from each district would agree to look after the interests of the club in his district, and encourage membership? Just drop me a line—in the meantime, cheerio, and CLICK AND QUALIFY.

—ZL2AR.

QRO?

or

QRP?

Whatever you want
we can make it

Get our Quotations for Chokes, Transformers, Inductances, etc. All classes of Repairs and Testing done with reliable apparatus.

Special prices to N.Z.A.R.T. members.

Direct Supply Co.

83 CASHEL ST., Christchurch
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QRA SECTION.

By ZL3BZ.

This section is provided for the purpose of listing new or amended QRA's. If you have been allotted a new call or have changed your address please advise Headquarters immediately

NEW AND AMENDED QRA'S.

ZL1AV	.....	F. C. Reardon, 187 Hobson St., Auckland.
IAO	.....	R. S. White, 1388 Dominion Road, Auckland.
1CS	.....	J. H. Williams, 54 Church Street, Devonport.
1FT	.....	N. N. Walding, 10 Beresford Street, Auckland.
ZL2FB	.....	W. C. Bullivant, 18 Parau Street, Gisborne.
2JV	.....	H. J. Alexander, Church Street, Taradale.
2JZ	.....	S. W. Pierce, Lighthouse, Portland Island.
2GZ	.....	A. J. McKenzie, Molesworth, Nelson.
2KA	.....	A. Littlejohn, Richardson Street, Nelson.
2KE	.....	W. A. D. Smith, Garage, Urenui.
2KF	.....	A. J. Gould, Tasman Street, Nelson.
2KG	.....	K. O. Sharland, Wellington Street, Nelson.
2KH	.....	V. H. Bennett, Kawa Kawa Road, Feilding.
2KI	.....	R. H. King, 42 Shakespeare Road, Napier.
2KJ	.....	M. F. Pettifer, 99 Shakespeare Road, Napier.
2KK	.....	L. T. Young, 1032 McGrath Street, Napier.
2KL	.....	N. A. Steele, 9 Lipman Street, Wellington.
2KM	.....	G. A. Robertson, Pakawhai Road, Hastings.
2KN	.....	H. P. Millivard, Tullock Street, Wanganui.
2KO	.....	A. Roberts, Pendarves Street, New Plymouth.
2KT	.....	J. G. O'Neill, 702 York Street, Hastings.
2CZ	.....	A. E. Ireland, "Shortacre," Ormondville.
2JT	.....	H. J. Hutana, Porangahau, Hawkes Bay.
2KQ	.....	C. D. Velvin, "Westella," Feilding.
ZL3BG	.....	L. W. Hurrell, 163 Edgeware Road, Christchurch.
3FF	.....	P. T. Hainsworth, 279 Bealey Avenue, Christchurch.
3FH	ex 2GU	E. Blumhardt, 143 Romilly Street, Westport.
3FI	.....	J. H. Roscoe, 4 Saltaire Street, New Brighton.
3FJ	.....	V. E. Robinson, 7 Holmwood Road, Fendalton, Christchurch.
3FL	.....	A. George, 16 Stafford Street, Riccarton, Christchurch.
3AV	.....	S. Wills, Mt. Pleasant Road, Mt. Pleasant, Christchurch.
3FT	.....	C. D. Cunnold, 80 Church Street, Timaru.
3FQ	.....	M. Walker, 50 Jerrold Street, Christchurch.
3FR	.....	C. Lilly, 173 Bealey Avenue, Christchurch.
3DN	.....	E. Reynolds, Princess Street, Ashburton.
ZL4AI	.....	G. G. Samson, 36 Sandringham Street, St. Clair, Dunedin.
4CM	.....	M. A. Mathie, 40 Alin Street, Oamaru.
4DL	.....	A. J. Leslie, Havelock Street, Riverton.
4DM	.....	W. H. Wylie, Arthur Street, Oamaru.
4DN	.....	A. W. I. McBride, 91 Elm Road, Dunedin.
4DS	.....	B. R. Renton, Inchclutha, Otago.
4DT	.....	Miss K. Kirby, Douglas Street., Balclutha.

REMEMBER N.Z.A.R.T. WATCHES YOUR INTERESTS.

BRITISH NOTES.

More than ordinary interest was shown in the Sixth Annual Convention of the R.S.G.B. held in London on September 25th and 26th. The keynote of the convention was Publicity. Arrangements were made to enlist the support of some of the best known British journalists at our Convention Dinner. Capt. P. P. Eckersley (late Chief Engineer of the B.B.C.), Mr Hugh Pocock (Editor of "Wireless World") and Mr Herbert Watkins (Wireless Correspondent of the "Daily Mail") were present with many other journalists, all of whom have given their assurance that full publicity will be given on every possible occasion to the amateur cause.

The Convention Lecture was delivered by Mr R. A. Watson Watt, Superintendent of the Radio Research Board, Slough, on the subject of "Atmospherics."

The delegates' meeting, held on September 26th, was attended by almost every D.R. in England, and many useful suggestions for future working were adopted.

Special attention was paid to the problem of assisting our huge B.R.S. membership. District morse practices will be arranged immediately in this connection.

All future District Conventionettes have been fixed ahead for 1931 and 1932 to prevent clashing of dates, and to enable interested parties to book the particular dates in which they are interested.

The Business Meeting was attended by nearly 200 members. During the meeting a handsome silver salver was presented to Mr Gerald Marcuse (Past President) in recognition of his work on behalf of amateur radio. The Society Trophies were also awarded,

whilst certificates of appointment were presented to the Empire Link Stations. A new form of coat badge bearing the letters "B.E.R.U.—E.L.S." has also been struck and is being presented to the E.L.S. at home and abroad. The background is red enamel.

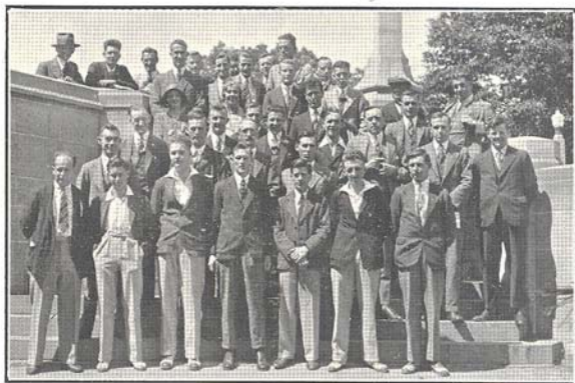
Convention decided that the 1932 B.E.R.U. contest should run during four consecutive week-ends starting 1200 GMT Saturdays and ending 2400 GMT Sundays.

The Convention dinner was again a great success. One of the surprises of the evening was the distribution of some £50 worth of radio material which had been donated by British radio manufacturers. Capt. Eckersley, in proposing the toast of the Society, at Home, offered to represent the amateurs of Great Britain at Madrid. This subject is one which is very much in our minds today and was discussed at length during Convention, and at many other meetings.

The R.S.G.B. will definitely send at least one delegate to the Conference, but we do not yet know whether he will be permitted to take part in the actual business meetings. We hope, however, to cultivate the acquaintance of our leading Government officials prior to Madrid.

Interest in 3.5mcs work is increasing rapidly in England and at the time of writing over 50 G stations are in active operation.

Membership is increasing very rapidly—the total new members since January 1st, 1931, being 320. During the recent Radio Exhibition over 3000 copies of the Convention issue of the Bulletin were sold. Amateurs of all countries are invited to apply for membership to the Honorary Secretary, 53 Victoria Street, S.W.1.



Visitors and Third-District Amateurs at the Convention, Christchurch, December 26th, 1931.

THE VARIABLE MU VALVE.

By ZL3CG.

The variable mu type of screen grid tube is a most useful development. The amplification factor, or "mu" of a valve depends upon the arrangement of the elements. In a simple triode the grid voltages vary the plate current and the mu is fixed by the position and spacing of the grid mesh. For a low mu the spacing will be wide and vice versa, and for a medium mu the spacing will be intermediate. In the tetrode the extra grid has two functions, the first is to give an added pull to the stream of electrons which finally reach the plate, and the second is to reduce the capacity between cathode and anode by a screening effect. In the penthode the third

grid, close to the plate, prevents electrons which "bounce" off the anode at certain medium voltages from being seized by the screen grid. In the variable mu tube the control grid spacing varies from a close mesh at one end to an open mesh at the other end. We all know that a valve with a high mu will handle only a small grid voltage swing whilst it takes a large input voltage in a low mu tube to swing the plate current to its maximum and minimum working values. The negative bias on screen grid tubes is determined by the voltage drop across the cathode resistor through which the anode current passes. A plate current change therefore varies the bias. It is this feature which enables the variable mu tube to function. Commencing with a small signal voltage on the control grid and gradually in-

3 DX 3AD 3CP 3AZ 2CI 3AE 2BS 3UG 3DL
3 ? 3BU 3AT 2IL 3CX 3AK 3DZ
4CC 3CF 3CC ? 3CA 3CT Mac 3PQ 3CA
3BS 3AS 3CG 4CA 4BV 4BO
3CN 4 4BW 4CA 4BC 4BV 4BO

creasing the voltage swing will cause a corresponding rise in the negative bias. Increasing the bias has the same effect as if a shield were slipped over the control grid at the end with a close mesh (and high μ) and steadily moved to cover more of the grid as the grid voltage rose until only that portion with an open mesh (and low amplification factor) was left to function. Picture this imaginary shield covering or uncovering the high and medium μ controlling parts of the grid in perfect sympathy with the strength of the signal and we can understand how this new valve functions. The reduction of cross modulation is a story which must be left for another occasion.—ZL3CG.

QSL BUREAU.

The QSL Bureau has been allocated to the Ashburton Branch and will be conducted by a committee consisting of:—

ZL3CD ZL3CU ZL3DN

Members are requested to support the Bureau to their last card.

Rates:—

N.Z. Cards ½d each.

All other countries 1d each.

The QRA is Box 25 Ashburton.

SUBSCRIPTIONS.

This is February, 1932.

Have you forwarded your sub. for this year? If not please facilitate the smooth running of H.Q. and your regular receipt of "Break-In" by forwarding your subscription at once. After this issue

"Break-In" will NOT be posted to unfinancial members—now get to it OMS and show the "ham" spirit!

—73. Treasurer.



SPECIAL NOTICE. TO NON-TRANSMITTING MEMBERS.

Special space will be provided in future for the printing of notes and articles of particular interest to non-transmitting members. Elect immediately a non-transmitting member in your district to supply regular notes of interest.

As a ready response is anticipated please limit notes to matters of good general interest, i.e., members' activities, notable feats of reception, special transmissions received, new stations recorded, etc. Keep notes pithy.—Eds.

Shepherd:—"Say, Jim, I wish the amateurs would stop that whistling."

Jim:—"Why, Tom?"

Shepherd:—"Well every time I tune one in, this shack gets full of dogs!"

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DISTRICT NOTES.

AUCKLAND.

The outstanding event of the month was a successful Field Day and picnic held at Sharps Bush. About 40 were present and included YIs and Ows. A most enjoyable time was spent by all and we expect to throw another soon.

IAB has maintained a regular sked with 1FY on Southern Cross during her Island trip. IAC certainly does not over work his xtal. IGW has some very good fone to his credit considering he is not an oletimer. 1BH was heard again after a long silence. 1AR has taken a portable outfit away on his vacation and expects lots of QSOs. 1FQ is handling the ZLE operations at Ninety Mile Beach in connection with the speed attempt. 1BF is heard considerably of late but never seen much; must like it up at the Aerodrome. 1GH is on the air again after a long spell—oletimers will remember him better by IAC. 1GB is rather a consistent bird for the 80 m.b. 1BA sticks to the high frequency bands and is trying out 10 meters.

1BJ is strongly silent these days. 1FR is missed a lot by his Sunday morning chats which we all used to join in. 1CR had a good lead on most of us all, for numbers of msgs handled and deserves credit for the quick deliveries. A very interesting fact is the number of new calls heard here—at least ten have been logged during the past month so it looks as if we can expect a good winter season.

The local gang are all in the mood for another Beano and no doubt more will be heard about it at the next meeting.

The last meeting for 1931 was a good one, about 35 members being

present, and after the usual business was completed many good suggestions were received. The first meeting for 1932 will see new officers elected and it is hoped that the younger members will avail themselves of the opportunity of having a say and showing a little more interest in committee affairs. Well Oms, that's all this month as it has been quiet on account of the holidays, but look out for next month when we hope to have a lot of news from everyone. 73. ZLIBE.

PAPAKURA.

ZLIBV gets very satisfactory reports on his new T.P.T.G. transmitter. ZLIBY owns a powerful station, but is seldom heard, get it going Om.

ZLICO, a new ham on QRP lives in Awhitu, which is in the Manukau inlet opposite Onehunga. His fone is Fb locally, considering his power is only .9 of a watt. ZLIGJ knows all there is to know concerning Heising modulation, a pentode does the work of speech amplifier, and his fone is now among the ranks of ZL1's best. ZL1FV contents himself with 80 metres these days.—ZL1FV.

TAURANGA.

With the arrival of ZL1FC we now have four hams who are more or less active and there is the prospect of a couple more in the near future. ZL1FC showed some of his QSL's to Mr Geo. West who used to operate ZL1AQ and George has been talking of coming back ever since—so far it hasn't passed the talking stage! Our newest ham, ZL1FH, is on the air at last with about 3 watts to a UX200 tube. ZL1CP has not been on deck

much lately, he is busy teaching a YL the morse. Make a good job of it, Gordon! He is talking of putting an M.O.P.A. in soon. ZL1FC expects to be on the air soon after Christmas using a portable outfit. ZL1FG is rebuilding his outfit. ZL1GF is still going; he has bought a car so radio is only second best until the novelty of the car wears off. Hi! ZL1CU where Om? Haven't heard you for a long time. How about staging a come back? ZL1CL lands a good sig over here. He recently worked a W on 80 metres using about 40 watts input in a Hi.C. Hartley. At present he is trying out a self excited crystal control outfit. ZL1BL often heard with a good fone sig. ZL1CI has a good sig; he is using a 227 with about 3 watts input. ZL1GL has a good sig and understand he is going to QRO

shortly. 1CL blocks 1GL receiver when he starts so 1GL is going to get his own back! ZL1GG has a good signal and comes in with plenty of kick. Fone from ZL1GC comes in at good strength and generally very clear.—ZL1FG.

TARANAKI.

ZDD still keeps tubes warm es is heard wkg a few. 2CB heard on fone but only occasionally. 2JH still pushes out some good fone es is busy winding new tranny fer QRO. 2DN on holiday and off air fer a few weeks es first nite gg agn blew a filter condenser but is carrying on wid QRP. 2HQ still pounds away on QRP while waiting for new tranny to replace the burnt out one. 2HR has QRO nw. Using on all bands a fifty watter wid nice underload of 25 watts input. Is

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getting sum gud DX too on higher frequencies. . Nothing has been heard yet of the two latest hams. Must be still awaiting calls.—ZL2DN via ZL3BZ.

ROTORUA.
(ZL1BN.)

ZL1BG has not been on the air very much of late, though he has succeeded in working some DX on 14 m.c. He reports that this band is occasionally good between 8 and 9 p.m. He anticipates trying some more experiments with his receiver. ZL1CL is often heard on 3.5 mc. and worked W on that band with an input of 20 watts. Mrs 1CL is frequently at the key between 7 and 8 p.m. and is collecting cards for her wall. 1CL is occasionally heard on 7 m.c., though he seems to favour local QSO's and rag chews. Why not join the Guard network OM? ZL1GL is building a 50 watt job and in the meantime rends the ether with a 2 watt outfit. He disposed of his battery receiver and has built an A.C. all wave set. He says he can hear most ZL signals with the headphones on the table while he is collecting eggs in the hen house. Says he is unable to put the phones on as the diaphragms bulge in and out too far. ZL1GT is heard at night after the children have been put to bed. ZL1BN is active once again and reports good DX on 7 m.c. This is his favourite band and he has worked all continents but Africa many times on this frequency. He is still hoping. During this month—January—the Europeans have been coming in well and have been worked on several occasions by ZL1BG and ZL1BN. It was expected that we would have many visitors during the Xmas and New Year holidays but the

only ones that turned up were ZL2GE and ZL1GM. 2GE sat up with 1BG until after midnight and spent two or three hours with 1BN. Quite fb Rag-chews. The Rotorua gang wish to extend to the new headquarters their best wishes for 1932 and assuring them of their support during their term of office.

LEVIN.

ZL2GN is ready with an improved p.p. M.O.P.A. fitted up in a fine cabinet. It sure looks the goods anyway. Here's luck, Ernie.

"Syd" or otherwise 2GW is looking for DX on 20 metres. Worked ST2D. f.b. Is using 60 watts input to two 210's.

We hope to increase the local gang to three early in the new year, our budding ham having applied for his ticket. He is very keen for fone. Wish you luck, Steve Om.—ZL2GW.

GISBORNE.

A general meeting Gisborne Branch, N.Z.A.R.T., was held at the business premises of Mr C. T. C. Hands, at 8 p.m., 12th January, 1932. Present were J. Richards (chairman), Messrs Nolan, King, McFarlane, B. Terry, L. Patterson, ZL2FE, ZL2FB, ZL2DM, ZL2DX, ZL2FF, ZL2FA, and ZL2GG.

Minutes of the previous meeting were read and confirmed.

Busines—Financial statement was brought up and discussed. Mr W. Bullivant, ZL2FB, applied for 77 metres, according to allocation of wavelength by the club, which was granted. At the meeting there was much discussion, concluding with Mr Hands, ZL2FF, challenging Mr Bullivant, ZL2FB, and Mr Hunt, ZL2GQ, to a debate, the subject being "Should

a millimeter show any movement in perfect undistorted 100 per cent Heising modulation."

A schedule of meetings for the ensuing year was drawn up, and it was decided to hold a general meeting on the second Tuesday of each month, and an informal meeting the Tuesday fortnight preceding. Morse code class, lectures and debates being the items of interest at the informal meetings, and the general meetings, committee work and general business.

The allocation of wavelengths as observed by the club, was again discussed and amended, each member reserves the right to shift half a metre each way. Mr J. Vautier, ZL2FC, official standard frequency station.

The signal station in Gisborne Harbour was visited recently. It is operated by ZL2AE, who revealed just how things worked. The outfit consists of a push pull T.P.T.G. modulated by two UX two-fifties in parallel, and the oscillators are loafing with a mere 350 volts, while the modulators have something like 1000 volt supply. The result is something like 100 per cent modulation. The portables, ZM1MZ and ZM1MF, are working under much the same principle, only on dry batteries. Another interesting feature is the telephone exchange connection, by which the ship in the roadstead may talk with any city in New Zealand or further.

George of ZL2FA has been busy with W.E. work lately, but plans to be back on the air shortly with a super signal. Come on ob give the berries the juice—hi.

Our heartiest congratulations and best wishes go to Mr W. Bullivant, who has just landed his ticket and call sign ZL2FB. He is at present using an H.C. Hartley with about 4

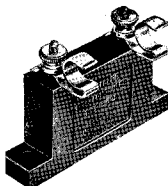
watts input and puts some great fone over too. Good work, Bill. Best luck.

Arnold of ZL2FC has been heard off and on lately. Your breakfast session from ZL2ZP is very much appreciated by the boys at Kaiti camp, ob. Fb work.

It is with deep regret that we announce that our Harold Shelton of ZL2FD is seriously ill in hospital. God speed and quick recovery and best wishes, Harold ob.

John at ZL2FC has been pounding brass consistently as ever and reports things on 40 ng. Well, John, that's the way it goes ob.

Cliff of ZL2FF fame is back on the air this time QRP—P.P.T.P.T.G. two TC 04/10's, with two 201A's as modulators, and a UX 201A trans-



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former coupled, as speech amplifier, and a condenser mike capacity coupled to the grid of the speech amplifier toob and results are very fb

But wait—you ain't heard nothing yet. He's building a MOPA and it's exclusively for short wave work and with two TC04/10's in "C" class amplifier, whew? Hold everything hi! or better still, tie it down hi!

The boys of the Gisborne Branch take this opportunity of wishing each one of you a prosperous and successful New Year.—ZL2DX via ZL3DN.

CANTERBURY.

At the annual meeting of the N.Z.A.R.T., Canterbury Branch, held in the R.S.C. Rooms on January 11th, 1932, the new officers elected were:—Chairman, ZL3CC, Mr J. B. Elliott; Secretary-Treasurer, ZL3CL, Mr L. P. Gerity. A Management Committee was also set up.

3AA came over for the Convention, and then stayed with 3AJ. 3AD is using 866's to supply his MOPA, and is getting good reports on his phone. 3AG helped to entertain us at the Convention in more ways than one. Hi! 3AM is on the air again, mostly phone. 3AQ is pushing 60 watts into two 245's in p.p., using a 280 rectifier, and is getting great reports. 3AR is taking a portable to Pelorus Sound, and wants to QSO Third District. His portable uses a 245 with 180v. on it. 3AS is using a 50 watter. He is getting some of us keen on learning Spanish. Si, senior. 3AX could not attend the Convention. Would he be able to keep Myrt. quiet? 3AZ is parked on 3.5 mc., with a twice daily sked with a certain Fourth District station. He has been observed gazing in jewellers windows recently. An apparent interest in

crystals and "bands" that has nothing to do with radio. Hi! He is also working Europe every morning. 3BF is having trouble making his A.C. receiver work on 14mc. 3BG is busy with BCL sets at present. 3BJ is working DX with 60 watts input. 3BO is experimenting with Class B amplifiers à la QST. Let's have the dope, Ernie. 3BS is rebuilding the outfit. 3BT is talking of getting on the air again soon. 3BZ has been figuring as "Uncle Ron" at 3ZR. He is great on fairy stories. Hi! Good practice for the Liars Competition. He has a couple of 50 watters now. Congrats. on your Certificate, Ron. 3CA has an A.C. receiver which knocks 'em all bandy. His two TC 04/10's in push pull are doing good

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DX on 7 mc. 3CC is using two 210's in push pull. He has just got his WAC and WBE by working Egypt. Fb. Jack. 3CD showed us that though an old married man, he can still run. 3CE is now op. at 3YA. Get one of your numerous bottles perking, Bruce. 3CF has been busy testing a 50 watt phone outfit, and is now building one using a TC 04/10. 3CG has his old 203 perking again, and 2CI, staying with him, worked a Yank on 3.5 mc. 3CK is using phone, one 210 modulated by four 250's. Wow! He gets Fb. reports. He has just worked W2DLL on 80m. FB. 3CL blossomed out as a conjuror at the Convention. 3CM is mostly on 3.5 mc. at present. 3CN is building a phone xmitter for use in a plane. 3CP has changed his aerial from a zepp to single wire voltage feed, and is after DX on 14 mc. Plenty heard, but nothing worked so far. 3CT is working great DX with his two 852's including Egypt, but his plate supply makes him very popular (?) with the local gang. 3CX certainly enjoyed the Convention. He came back for more. Hi! 3CY has been off the air for months. How cum Bill? 3CZ allee same 3BS. 3DB is building a phone outfit with two 210's in push pull and two 250's as modulators. 3DC will have the broadcasting station going soon. 3DD is heard occasionally on 3.5 mc. 3DK is chasing DX on 7 mc. with occasional luck. 3DZ is now one of our active Guard stations. 3FH ex 2GU, is now in Westport, the only ham there. 3FI is putting out a good size sig with 2 watts input. 3FJ is using "B" batts. for plate supply, but is thinking of QRO.

ASHBURTON.

Our old friend, 3DN, said to me yesterday, "Mac, some are born great and others are so darned unfortunate they have to have greatness forced upon them." Then he told me to write some notes for "Break In." I did not understand what he meant, but the Ow said that it was probably because I am the best speller of the bunch. Hi. Our local hat shop wants me to thank you all for putting 3CD on the executive, as he sold Clarky an over size model hat that he had had in stock for fourteen years. If the perspiration rolling off the brows of 3CD, 3DN and my humble self while we were juggling with 400 cards in the Bureau, is any indication, then the local handkerchief shop will also be thanking you.

3DN has gone to a new QRA. 3AQ has twenty-nine countries, and with 3CX putting wallpaper on his ceiling shows what the gang are doing. 3CV is very quiet since he scoffed all my home brew at Xmas. 3AO—Hush-ssh, he's gone and done it—YI now Ow—congrats. Om. 3CU lost without Guard skeds, but is often heard on sked with 4BJ or 4CL, though often enough that's his Ow talking to Peg. Before I finish I would ask all the boys and girls to use the QSL Bureau at Box 25, Ashburton—3CD, 3CU, 3DN are all married chaps running it, so reliability is guaranteed. Our motto is "No card kept in Bureau more than one week" so save the expense of buying a Call Book and your sub. to N.Z.A.R.T. is saved.—ZL3CU.

WEST COAST.

ZL3AA has now settled down after his trip to the convention. He was seen coming back with a large parcel under his arm—any 852's in it, Stan? Hi.

ZL3DV is 3AA's brother and shares in the xmitter; "Chick" supplies the energy and Stan supplies the tubes, eh?

ZL3DH is at present rebuilding in the hopes of finding that elusive DC note which somehow has missed his shack. Hi. Can be heard on loop fone on occasions. Calls CQ "W" but so far without results; keep it up Om, as there are 20,000 hams in the U.S.A. and one of them might hear you. Hi.

ZL3DD has been putting out a nice sig lately, using a 245 fed with about 400 volts. Now thinking of putting in MOPA and higher power. Here is luck Om, you will need it. Hi.

ZL3BV is busy sorting out the X and Y cuts, as he proposes putting in xtal. Will be some outfit—xtal 50 watter and fone attached. ZL3BV has had a little experience grinding, so now all OK? Hi.

ZL3CW has not been heard on much lately—think he is QRL with relays and BC work.

ZP3BQ has a 50 watter perking out in fb style now and is making up for lost time. Has had a little trouble with his note but now has it quite tamed. OK Chas.

ZL3BU has not been heard much lately; believe he is waiting for a filter.

ZL3AG is back from the convention after having a fb time. Brought home quite a budget of fotos of the fest, etc., and has more to come. Now back on the air trying to make up the lost time.

ZL3AX has just finished a MOPA

complete with buffer, now waiting for xtal to come to hand.

ZL3AG and ZL3AA represented the Coast at the recent convention and from the reports received it appears that the Fest was a huge success. 3AG thinks that Diamond Harbour is a fb place, especially for swimming. Hi.

We had ZL2BX, ZL3BZ, ZL3BF and ZL3BB over on the Coast during the Xmas holidays and some of the shacks were visited by them. ZL2BX trying out the 80 band from 3BV's.

Heard that ZL2BC was also over here, but he did not visit us. We were expecting him to give us an address on the N.Z.A.R.T., and clear up some of the misunderstanding that has arisen over here.

HAMS!

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SOUTH CANTERBURY.

3AH has been heard in the early hours working J's and being called by HAF's and things—good biz Om. 3BN—Heard the latest boys? Norm works a nightly sked with a YL.MB. something or other. He says he's coming on the air one day though. Hi! 3CI—Bob is again with us—keen as mustard too, getting quite good reports from ZL on 80. He is winding a tranny for qro too.

3CJ is not heard on very much these days—how cum Stan? 3CS—After 3BN's slanderous remarks about visitor's chair, all hams would be advised to bring cushions to avoid sitting on the floor—Hi. 3DA—Ben was recently heard working W's in fb style, good luck Om. That's the lot for now. 73. ZL3CS.

DUNEDIN.

Although television is not very well developed in the Dominion, its function is closely achieved by those who attended the Christchurch 1930 Convention. A somewhat vague statement but what it intends to convey is that the dozen "Fourthers" who were at Hamfest have it all over those who stayed at home. When we now have a QSO with any other "Hamfestist" we, through meeting and fraternising with him or perhaps "her," can visualise or see him just as he sits there pounding brass or mike magging. We certainly know what a decent chappie he is, what he looks like, and just how excellently he and his gang entertained us at Christmas in Christchurch. Our QSO's are not now the stereotyped "QSA 5 R 6 Dc cul" type; they have developed into real flesh and blood affairs, and as a matter of fact, we have it on

the best of authority that one QSO started or rather starts at 6.30 a.m. and is suspended only at bedtime. Now then, Bob, give us other OM's a chance at QSO "her"! When is your "late" night?

No doubt Hamfests do more than cement good fellowship. Even "Ghandi" has to be closely watched now, for he still bursts forth mirthfully when walking along the streets.

Our activities so far this year can be recounted as follows. New Year's Day 4BI, 4BJ and 4CA installed a two way QSO between the Flagship of the Broad Bay Regatta and the officials ashore, and in a most excellent and convincing manner demonstrated the possible benefits of S.-W. radio communication among smaller craft. Everything went like a clock and innumerable econiums were handed to us after the stunt.

4AV and 4AP and O.W.'s went for a little jaunt into the heart of the Wanaka Wilderness and took with them portable equipment including a hand generator rated to deliver high DC voltage at a low milliamperage. Turning out power per hand proved an exhausting and sweat-producing sport, so gravitation descent of weights from a height was tried, but a more successful method was to jack up the old "Lizzie" and utilise a belt drive from the back transmission. This was found to deliver both voltage and current in usable slices and a nightly sked was maintained with 4CA and quite a lot of other QSO's. The camp was located at Timaru Creek, Lake Hawea, where the sandflies are said to be as big as bumble bees. The fish Roy brought home were the envy of Hamdom, while Jack cleaned up all the game, hares and rabbits in the district. Eh what!

4BT and 4AO have now returned from Christchurch.

Get a line on this, lads. Peggy is going to establish an Easter Ham camp at Peel Forest, somewhere between Christchurch and Dunedin. All are invited, but you must bring your own eats and sleeps this time. Applications are now being received.

Another very nice YL Op successfully negotiated her ticket after her return from the Cathedral City and—gentlemen—you now have with you on the air ZL4DT—Miss Kathleen Kirby, Douglas Street, Balclutha. Parked near the bottom end of the band, she has a very hefty signal from a Hartley transmitter with UX210 tube which feeds on 450 volts thru a 280 rectifier, 30 henry choke and 4mf condensers. She is not going to QSY for anyone, so some of you chaps can hop off the high frequency end of the band. As a matter of fact it is somewhat noticeable that there are too many stations parked together on certain parts of the band, and though most hams build their antennas for operation on about 83 meters, they operate their xmitters on 75-77 meters and of course get poorer radiation and performance than what would be attained if both were built for one frequency. Has this not already occurred to you?

A couple of months ago we said 4BG had a prehistoric signal. We are charmed to note that he has installed xtal and is Fb. Congrats, Om! 4BI lost his skywire recently but will soon be active again. 4BJ has a little more power now and is as active as ever. 4BL was away on holiday when the gang went thru Oamaru, but we saw and sampled the

outfits of 4CO and 4CM and they are both strong and powerful. 4BO has had a big construction job recently and it is going to be the purest MOPA note on the air. Built for 4DH it consists of a 245 driving a TCO 4/10. Phillips tubes throughout. More about this later. 4BO has taken a list of all our outlying hams and plans to spend his leave en tour per B.S.A. among them and give us a technical write-up on out-country stations. 4BQ has a Fb. phone outfit now 100 per cent tactfully used. 4BS still going strong on MOPA. 4BU "the famous Ghandi" has a Fb. phone outfit. 4BV has changed his QRA so ND and QRL swat at present. 4BW "When I get going QRX." 4BY has had a few yanks recently. 4BZ gave no address. Have you any junk to dispose of, O.M.? Get it going. You chaps who go through the club owe us some life at least. 4CB "the secretary par excellence." Need I say more? We owe you a lot for your Fb. work. 4CC QRA now Owaka, has indulged in some good apparatus in his time, but no sig yet! 4CG and 4CH are the most active Southlanders, the latter aiding 4DL at 7 a.m. to get on the air! 4CI is down country at present; an early bedder though. 4CJ has his 40 permit but has also changed QRA to Anderson's Bay. 4CK is indulging in phone night and day. How about Dx., O.M.? 4CL is now a guard station and very active. 4CR is fairly active at present. Will be sending the club some boxes of apples shortly? 4CW has a good loud signal always on the air; also some clicks and a nasty little extra dot creeping into the "fours," even on

bug! 4CY is getting fair. Dx. now has a Fb. fist too. 4DF Cape Saunders now has H.F. permit. Is coming in to join up with the gang soon! We could benefit with some of your experiences O.M.! 4DJ is overripe with harmonics. Another Balclutha station is 4DS who has an island in the Clutha River all to himself. Stations not yet heard include 4CT, 4DI, 4DM, 4DO, 4DN and 4CZ. Casey Harris, ZL4CA.

SOUTHLAND.

Our veteran ZL4AD tried his hand at a push pull linear amp but it simply couldn't be coaxed into radiation, so has gone back to a straight out oscillator now, much to relief of local gang. 4AJ one of our finest hams here has departed for VK and will be a severe loss to the local gang.

A new ham hails from Riverton. Call sign ZL4DL, A. J. Leslie of Havelock Street, Riverton. We wish him every success. 4XA and 4AB are going strong at Radio Awarua, but like most government OPS they are so successful in cutting out key clicks that their note is inclined to require birdseed.

4CG still going strong and can copy faster now. A new ham here will be Mr Frank Rose, who is going steadily towards his ticket.

—Radioed ZL 4CH via 4BS.

THE CONVENTION.

A full report on the Annual Convention held at Christchurch will be featured next month.

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