



MERCURY

**THE JOURNAL
OF THE
ROYAL SIGNALS
AMATEUR RADIO SOCIETY**

NUMBER 32

SUMMER 1970

ROYAL SIGNALS AMATEUR RADIO SOCIETY

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MERCURY WILL NORMALLY BE PUBLISHED QUARTERLY, ON THE FOLLOWING DATES.

SPRING EDITION1ST APRIL

SUMMER EDITION.....1ST JULY

AUTUMN EDITION.....1ST OCTOBER

WINTER EDITION.....1ST JANUARY

Items for inclusion in "MERCURY" should reach the editor, not later than 21 days before the publication date. Items arriving after this time may NOT be included in the current issue.

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EDITORIAL

THE SILENT SIGNALS

Whenever I ask my XYL where the bugs come from that give my children and me colds and sneezing bouts, she usually replies "There's lots of it going about". I sometimes wish that the same could be said for the RF generated by certain members of the RSARS. The same old faithfuls turn up each net night, look for something new, find no rare call-signs on the net freq., and check out after a very short time with the net. Even when the check-ins exceed the 30 mark, the same calls are found in the log book at the end of the weekly net summary.... the same reliable ocheck-ins. With a membership of 700 plus, of which at least 600 are licensed, that figure of 30 looks pretty small even leaving out the DX membership.

Our DX net on 21380 fares little better, with the majority of our membership appearing not to know that such a net exists. I have been on the DX net many times and have never heard more than 15 check-ins being mentioned by callsign at any one time. An average activity day may produce as few as 40 members spread all over the world, on every band, using every mode and making a single operator very lucky to have more than 20 QSOs with other RSARS members on the last Sunday of each month.

So, what can be done about the present state of the silent signals? Much I hope. We depend a great deal on the interest shown by members within our society. If this interest is not forthcoming, the society as a whole loses its spark, interest flags, membership falls off, and the whole service grinds to a halt.

The magic panacea I believe, is PARTICIPATION. Active, lively and frequent participation in our nets, activity days, this journal, and in all aspects of the Society's activities. Just a few of these participants are those who * Buy and use RSARS notepaper, * order RSARS QSL cards, * send in items of interest for this magazine, * act as net controllers in the absence of G4RS, * ocheck into the 80 and/or DX nets whenever they possibly can, assist in the running of society affairs. Last but by no means least, those who send in large or small donations to the General Secretary for the benefit of all our membership.

These members are those who will get most satisfaction from being involved in Royal Signals Amateur Radio Society. Are you a satisfied Member!!!!?

Included in this issue of Mercury are the last of the membership lists, part II deals with NON-LICENSED members, and was correct up to 1st June 70.

Part III handles the real meaty DX side of our membership, and gives a fair idea of how widely the Royal Signals have been dispersed over the face of the globe, during our short 50 years of existence. It is very unlikely that as many calls again will be used by our members throughout the next 50 years but it is hoped that every effort will be made by our growing ranks to put a signal out from wherever they happen to be stationed.

May I take this opportunity of wishing all our members a very happy 1970 JUBILEE YEAR and may you have a further 50 years of harmonious association both with the Corps and this society.

Very best 73 to you all

Ray
G3VIY

COMPLAINTS DEPARTMENT

MP4TDA RSARS 046
"Sunny Sharjah",
British Forces Post Office 64.

To whom it may concern

28th May 1970.

Dear Sir.

Much as I wish to support the Society and its various activities, the "Contest" side of it all is beginning to leave me cold (possibly a good thing out here in Sharjah), but let me explain. Great score was made of the probability of some form of contest to try and get Society members together during Jubilee Year - an excellent idea.

The first information I received about the "Jubilee Award" was kindly passed to me by G3XSN during a QSO on January 3rd. (Later during the month I was asked by VS6AA, ZC4HS and 5N2AAF for any info I could offer as they were equally in the dark). There was obviously something in the wind because I was being inundated with RSARS numbers, Zone numbers, handles of blokes I had frequently yakked with and requests to change my mode of transmission "ek dum".

Having gleaned what was afoot I happily entered into the spirit of it all, rattling away on a key as and when asked, QSYing to bands where propagation hardly existed and even creating a breach of the peace with my immediate neighbour by operating whilst all normal people are asleep (one poor devil lay awake half of one night wondering what the devil tap, tap was occasionally added to by a louder thud when I went tx to rx - he wasn't signals hi!). I bashed steadily on wondering when I would be likely to receive the mysterious score sheet frequently referred to and the other dope to go with it.

January went by and I made some 120 contacts and I had had the pleasure of meeting a small handful of members whom I had not heard during the previous months - FB.

But where are the rules, where is the info on how to present all these QSOs to our Society Contest Manager? I enquired of G4RS - no dope; of G3XSN - not sure; of G8VG no idea Ray etc. etc. What the Hell! "It's all in the Winter "Merc" "Ray" is the cry. February passes and so does March and by then I was on leave in G and called at G4RS - and praise to the Highest, collected my copy of the Winter "Merc". I was now the proud possessor of the rules for a contest which started three months before!

I didn't fully digest the requirements until I returned to Sharjah; then it hit me that I needed to extract all the QSOs from my log - fine. But why so much of it? Two of the columns asked for can be obtained from the RSARS members list (numbers and QTH) and a third from the scoring chart; and then there is the "Name" bit - do contests usually include an exchange of handles?

It's enough trouble extracting data, time, call, report in and out, without fiddling about with handle, QTH and Zone as well. It wouldn't be so bad for a "one-day" stand, the extract could then take the form of carbon copy, one for you and one for my log. But over a month this is not feasible unless one is expected to restrict operating to Society members only (I cordially invite anyone to come and try that out here, I have excellent "cloth ears" when necessary but there are limits!).

Which brings me to another contest - the CW one over the Easter weekend. Again, all power to the Contest Managers' elbow, but how the devil does one get to know about these "revival of the contests which include the noble art of communicating on a Morse key" in time to participate? The "Mercury" was badly delayed due to no fault of the poor Editor yet the regulars on the Eighty metre net whom I had the pleasure of seeing during April were unaware of the contest and G4RS didn't make much noise about it on Fifteen either. Why the secrecy? Is an RSARS CW contest secret? Is an RSARS CW contest so rare an event that it falls into a "classified" category?

I've blown off enough steam for a while - there seems to be a link missing in the communication chain between the Contest Manager and the members. The blame can hardly be placed in the Editor's lap. I've had his job and you can hardly find time to wipe your backside, much less to get on G4RS and broadcast contest news because the "Mercury" is unavoidably delayed. But surely somebody could have done just that - '4RS is on the air almost every day, what is the snag? Or am I getting all bitter and twisted out here in the heat?
73 de Ray Webb.

(REF YOUR LAST QUESTION, RAY, THE CONTEST MANAGER SAYS "YES")

Tel. Milford-on-Sea 3256	<u>Willowbridge,</u> <u>Lymore Lane,</u> <u>Milford-on-Sea,</u> <u>Lymington,</u> <u>Hants.</u> <u>SO4 0TX</u> <u>27th April 1970.</u>
The Gen. Secretary, Royal Signals Amateur Radio Society, BLANDFORD FORUM, Dorset.	
Dear Mr. Secretary,	
It is with very great regret that I have to inform you of the death of Mr. <u>S.E. Blomfield</u> , G3PCI, who was a member of your Society. Essex <u>Blomfield</u> died on the 16 th April, at St. George's Nursing Home, Milford-on-Sea, after a short illness. He was cremated on 20 th April, and the Service at Bournemouth was attended by many of his friends in the radio world. Our Chairman is preparing an appreciation of Essex, which we hope will appear shortly in "Radio Communication".	
Shortly before his death, Essex had suggested to me that as a retired regular officer of the Royal Army Service Corps, I might care to apply for membership of the R. <u>Sigs</u> Amateur Radio Society. I believe that as a retired <u>officer</u> of another Corps, I am qualified for Associate Membership, and shall be grateful if you will let me have particulars.	
Yours faithfully,	
(Signed D.S. Kent)	
(Major D.S. Kent G3XPN) Hon. Secretary, Lymington & District Amateur Radio Society	

RECOLLECTIONS OF A R.E. SAPPER-SIGNALLER. 1914 - 1918.

G3EYD

(With a bearing on Army Communications)

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It is difficult for those of us who have reached advanced years to realise that what are merely interesting recollections are, in fact, History to the younger generation and, for the most part, their parents also. With that in mind and also a promise I made to the previous editor of "Mercury" the writer will endeavour to string together a sort of "history", for the most part first-hand but with generalities to fill in.

An accredited historian has to be factual, precise and accurate in description. The writer is definitely not a historian so pleads poetic (and writers) licence for all inaccuracies and mis-statements and does not hold himself responsible, in detail, for what is written or, for that matter, the typescript! (G3DPS pleads guilty but insane for the typing!!). Reference to diaries kept during 1915 to 1918 have helped to keep things reasonably within credibility. (He should have been shot at dawn for keeping them, though!). My apologies, right away, if this degenerates into a personal "saga" but it is very hard to avoid falling into that trap.

Starting with how the writer came to find himself in the Army: he was a qualified W/T telegraphist in 1914 having trained at the British School of Telegraphy, London, up to the standard required to take the Government P.M.G. examination. Instead of waiting to take the Examination, he, with the excitement and impatience of the time, trekked off around London (while his parents were away on holiday) trying to enlist in a Unit that catered for telegraphists. The R.E. Signals seemed only to recruit Post Office men, or ex-Post Office men, so he finished up on his own doorstep at the Headquarters of the 23rd Battalion County of London T.A. (4th East Surreys) where they were wanting only two to bring the Battalion strength up to wartime establishment. He was turned round twice and grew, in that moment, from 17 to 19 years of age! (Only APPARENT age was required then).

Finding that the new recruit was a very rare bird in that he was a telegraphist, he was put in the Battalion Signal Section and straight away set to teach bone-headed Infantrymen the Morse Code. This was done with a "Dummy Key", a small "pumphandle" brasspounding key that produced clicks on the front and rear contacts (about strength 1!). All main land-line Civvy and Service telegraph circuits worked the "Sounder" as receiver. The Post Office Sounder consisted of a solenoid actuated Electromagnet which produced loud "clicks" between contacts. One read the "spaces", as it were. The Sounder was encased in an open-fronted sort of soundbox mounted on a swivel base. (This, of course, was the case in Base or Permanent Telegraph Offices. At other offices the "Sounder" was bare.)

Having learnt to read Morse at 8 - 10 wpm, the Signaller started to train in the use of Flags (Large and Small), Lamp Signalling and Heliograph working plus the use of a High Power Tripod Telescope, (no mean feat, by the way, on a very small distant object). Flag signalling embodied two different systems. One was Semaphore signalling using two small flags and the other was Morse Signalling. For the latter, one Small or one Large Flag was used. Visual Signalling, as the word implies, was only usable where two stations, Terminal or Linking, were sightable either with the naked eye or through the H.P. Telescope. Signal Flags were either white with a fairly broad horizontal dark blue stripe or completely dark blue. They were made of fairly heavy linen, but the "purists" used to have silk flags made up - they were so much lighter and capable of "wagging" much faster! Officially, silk flags were OUT. Conditions of light, background, distance etc., determined the choice of flags. The Large Flag was several feet square with a correspondingly long and heavy pole. This took a lot of manipulation and handling, especially in a strong wind.

The writer was once strapped with binocular straps to a flagpole at the top of Fowley Towers, Lord Fowley's residence, which had been lent for an exercise. The flag was in tatters by the end of the day. Lamp Signalling in 1914 was primitive in the extreme. The only lamp in use was the "BEGBI", a heavy metal box mounted on tripod legs consisting of an oil lamp and a mechanical shutter, operated by a heavy spring-loaded metal piston rod having a curved thumbrest for use in sending dots and dashes. One could read the "clanks" a quarter of a mile away!. The lamp wasn't necessary at that range.

Bearing in mind that telegraphists with audio reading ability were rarities, a young Sub-Lieut was very puzzled when in charge of a practice in a long barn. as usual, one man called out the letters as he read them, while the other (in this case, the writer), with his back to the sending station took down on a message pad. He walked away out of earshot of the reader but continued to still take down the message. It was hard to convince the young officer that it was the sound that was being read. The "clanks" would have raised the dead!. The BEGBI was soon superseded by the Lucas Lamp employing electric bulb and reflector, a very much more sophisticated piece of apparatus. The Heliograph. although taught in training, was never seriously used in this country or in France. Only out East where the sun could be relied upon was it generally and effectively used. It consisted of two carefully ground mirrors, one for focussing the sun's rays and the other for reflecting them in the direction of the receiving station. A wormscrew controlled rotation of the mirror on its vertical axis so as to keep the sunspot on a small elongated gauge dial index to follow the sun's movement due to the earth's rotation and so keep the focus mirror in position. In strong sunlight from an elevated position distances of 90 miles and over have been obtained in India and elsewhere out East. The extreme brilliance of the flash often necessitated the reading to be done through a blue signal flag. In this country it was a necessary precaution to have a small signalling flag tucked under one arm ready to "flag-wag" when the sun went in!.

In the Autumn of 1914 Army communications came under drastic re-organisation. Divisional, Corps, etc., Cable Companies became Signal Companies. Each Division had its Brigade Signal Sections, one to each Brigade. Selected men from the Battalion Signal Sections were transferred, willy-nilly, over to the R.E.'s and formed into a Brigade Section. (The writer was one such). Each Section mustered about 26 personnel comprising Sappers, Drivers, etc., together with a Sergeant, Corporal and a Lance/Corporal. Transport was a horse-drawn limber wagon. Two Light-draught horses were employed in pulling it. Each Signaller had a heavy "Humber" bicycle fitted with rifle clips etc. On these, the English Countryside was covered on Schemes. There were no motorised vehicles for such lowly ones! Every man humped his equipment, rifle, 50 rounds of ammo. haversack, waterbottle plus every portable possession when he went on "trek". Only blankets were allowed on the limber (and spurs.... more of which later!). Incidentally, on the change-over from Infantry to Mounted Dress and equipment, the normal uniform of the R.E. Signals meant Jacket, Cord or Velvet Riding Breeches with either puttees or Leather Gaiters, or Leather Knee Boots. Equipment was Bandolier, Rifle, Belt with Pliers in Frog, Haversack and Waterbottle. These were all slung across the shoulders. This was excellent for mounted troops but the Devil's invention for Foot-sloggers whose only quadrupeds were two limber horses. Spurs were a giggle but had to be worn off duty and on Ceremonial Parades - and even on Active Service in France!. When "up the line" they became red with rust, and then had to be dug out, cleaned with emery paper and burnished. How the large Infantry packs were missed, so cosy on the back!.

In addition to Visual Signalling the Brigade Section now took on land-line communications from Brigade to the Battalions. This cable was known as D-5 (three strands of steel and two strands of copper, all insulated). This was hand-laid from drums carried by two men on a rod or tube through the centre, clumsy, awkward and very tiring, especially in France amongst wire and shell-holes, broken duck-boards, etc. This brought into being the breed called "Linemen" for fault tracing and repair. This was a lousy job if ever there was one, particularly "up the Line"!. Of course, there were the usual Signal Office personnel, operators, signal clerks (usually an NCO), runners and attached

oddments such as Despatch Riders, Interpreters, etc. The Cook, in the true old Army tradition, was always the most inept, clumsy, and useless gink in the Section. Qualifications as to cooking were non est and a subject never considered.

Divisional Headquarters Signal Company, in addition to the usual Signal Office personnel and attachments, had the Cable Laying Mounted Section. This comprised one or two Cable Laying Carts and horse teams with the full complement of Mounted Linemen, etc. The Cable Cart was a very heavy vehicle drawn by a four horse team, postillion driven. It housed large drums of cable, D-9 (5 steel, 4 copper (?)). One was driven from the axle and revolved enabling the "payer-out" using heavy leather gloves to guide the cable out to the "layers" and the "crookstick" men who hoisted the wire up on to houses, trees, walls etc. They were mounted. The payer out was a somewhat risky job on account of "looping back" of a coil of cable. It has been known for a man to have his arm completely severed by a "cheesecutter" kind of loop. Other horsemen carried the "hammer and jumper" equipment. The hammer was a sledgehammer and the jumper was a long thick cold chisel. These were for making holes for pole crossings across roads and streams etc. The poles were carried on the wagon. Mounted Linemen also made up the team. Line was laid at the Walk, Canter, Trot and, when things were very warm, at the Gallop!

At this time, when the writer went overseas on Active Service in Franca in March 1915 there appeared to be no sign of any W/T whatsoever in use in the field. Of course, the Blighty schemes and exercises promptly gave way to the real thing where such things were done under enemy shelling, machine gun strafing, sniping and suchlike. A very different kettle of fish indeed!

C Copyright)

(To be continued)

DID YOU KNOW.....?

Dennis Mather (G3KAM RSARS 465) is now VQ8CZ at 43 Hillcrest, Curepipe, Mauritius?

Tom Gates recently donated a 38AFV Set to the Royal Signals Museum?

Member No. 443 is G3JPU. For some unknown reason Douglas's call was absent from previous callsign lists, Sorry, OM, your Editor is sending "Best bent wire bent" on an un-oiled key 100 times as a penalty!

G3NQV has moved to 10 Bensham Road but is still within the bounds of Darlington.

GI3JEX and his XYL do the log-keeping and QSL chores for GI6TK, a blind op.

DID YOU KNOW ... ? FROM THE PAST

(1) Did you know that the callsign "2MT" was used by Marconi, whilst testing his broadcast transmitter, at Writtle, Essex, on 14th Feb. 1922.

(2) That the largest transformer in the world is one built by the Japanese. It can deliver up to 720,000 KVA. (Any one thinking of building a linear around that little lot has my admiration).

SCU

G6QM passes along a cutting from the Gloucestershire Echo dated 26/1/70 which records the death of Walter Stanworth MC (Capt. Retd) on January 24th this year after a long illness. It is felt that this may be of interest to many members.

FHC/CHC NOTES.

A very interesting letter from G8TK (RSARS No. 344 and Perm. Ex Sec/Treas International CHC Chapter No. 16 and Editor of the chapter 16 News Letter) gives the following information which will be of interest to a lot of RSARS members.

First of all, Bert tells us that the Headquarter Station has been elected to Honorary Membership of CHC with the allotted number : 3255. We are very conscious of this honour and, I am sure, G4RS will at all times endeavour to maintain the standards previously set by CHC and it members.

The same honour has been afforded to G3BZU (RNARS) and G8FC (RAFARS) (Nos. 3257 and 3256 respectively).

News is also given about RSARS 613, our Rita of Bridlington. Rita is the first YL in G-land to become a member jointly of the FHC/CHC and the first G YL to join Chapter 16. Meet her on the bands as CHC No. 3288 and FHC 1488.(Congratulations, Rita- Ed.)

Bert also mentions that he has at last received his HTH 500 Trophy. (Congrats. to you too, Bert - Ed.). No mean feat this as one has to extract QSLs from the 500 members, and we all know how difficult that can be!!!.

A few changes in membership rules for FHC are as follows. The pilot class now admits Glider Pilots to Full Membership and there is now a section known as ASSOCIATE Class. This includes all Electronics personnel, Non-flyers, who have worked as aircraft ground maintenance personnel or ground communicators with aircraft, also airport Control Tower Operators which includes Radar Operators. (RSARS Army Air Corps Members please note - Ed.). If you require further details drop a line (WITH SAE, PLEASE) to Bert, at A.L. Browning G8TK, 105 Langley Grove, Sandridge, St. Albans, Herts.

There is a CHC party to be held at (or should I say, was held at) Fimmere in Bucks on Saturday 13th June.

Many RSARS members are already members of CHC etc., if you are interested drop a line to Bert at the address above.

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ROYAL SIGNALS JUBILEE YEAR NOTE

Two very FB QSL cards came into G4RS the other day. Both came from the ACF call-sign 50 RCS (specially issued for the 50th Anniversary) reporting having heard G4RS. One is coloured and is a post-card type showing Grib Goch from Snowden Summit and mentions that 50 RCS was operating in a heavy snowstorm near the lakes shown. Unfortunately being coloured it cannot be reproduced well enough to do justice to it. The other card is reproduced below.

To Commemorate the 50th Anniversary of the Founding of the Royal Corps of Signals

CALLSIGN

50 RCS

Operated by 22B and 35C

Royal Signals A.C.F. Stations on UK Radio Network

To Callsign... *G4RS* ... confirming RT *contact*
at *1900* Z Hrs on *7th April* 1970
on *3.3780* MHz. Your signals R... *5* ... S... *9* ...
50 RCS used a *19 LP* with *5.33* MHz dipole,
from *Wimford* *Cheshire*

DE *P. Richardson* 22B



Royal Corps of Signals
1920 - 1970

Well done, RSARS AFF4, 605 and A.C.F. Call-signs 22B and 35C

DX-PEDITION TO ROCKALL.

For some time now the R.S.A.R.S. has been considering a DX-pedition to Rockall. Due to its geographical location Rockall would it appears be accepted as a new country by the ARRL, RSGB, etc., providing that it could be allocated a new prefix. A lot of preliminary admin work has been done by Ray, G3VIY and just as transport seemed likely, the following letter was received from the Ministry of Posts and Telecommunications.

FA/2889 and
RB/AD/8684

13th April 1970

Dear Sir

Thank you for your letter of 5 April, 1970, about the proposal that the Royal Signals Amateur Radio Society is considering setting up an Amateur Radio Station on Rockall Island.

Perhaps I can simplify the position a little.

The Island of Rockall is for this Purpose under the jurisdiction of the Scottish Home Department, therefore as its geographical location can be taken to be included in Scotland, any licensed Amateur who operated from the Island with his own call-sign should use the prefix GM. It is not therefore possible to allocate the prefix GR for Rockall as suggested.

However for an expedition of this kind we should be prepared to issue a call-sign from our "special event" series having the prefix GB2 or GB3 followed by one or two single digits. For example, we could authorise the use of GB2RI or GB3RI (GB2RS and GB3RS happen to be already reserved), if this meets your purpose. The fee for this special non-renewable license is £3 0s 0d and would normally be valid for a month.

Before any landing can be made on Rockall however, permission must, we understand, be obtained from the Crown Estate Commissioners in Scotland. The address to write to is :-

The Secretary,
Crown Estate Commissioners
2 St. Andrews Square
EDINBURGH 2

If you obtain permission to make a landing on Rockall it will be necessary for you to forward a copy of the authority to this office.

If you therefore wish to go ahead with your plans, please be good enough to advise us and let us know if you would like us to reserve a special call-sign as mentioned in para. three.

Yours faithfully
(Signed) Mrs A.I. CAMPBELL.

From the above, it would appear that the cost of a DX-pedition to Rockall could hardly be justified in order to put another Scottish station (or, at best, a Special Event Call-sign) on the air. - Ed.

(Overseas Members - please copy into local journals)

+++++

HEARD ON THE AIR?

"..... Did you know that R.S.A.R.S. Member No. 530 can use 2 Kilowatts on the air.....?"
(True but not strictly true - Ed!)

Member No. 605 has a couple of "Jimmy" printing blocks in addition to the one (from G3VBE) held at HQ. Drop a line, with postage, if you would like to borrow one.

DON'T BELIEVE ALL YOU HEAR!

To use a statement sometimes heard from the Police - "Acting on information received" the following story is reproduced as received in a letter from a member.

".....Somewhere round about 1927 an Operator Wireless built his own set. "It would fetch a fortune today!). It was one huge panel with valves and coils sticking out from all over. He was tuning in one night when 4 of us tapped a Don 3 Telephone on to his set and buried ourselves in the Gurkha Married Quarters. One chap, named Bennett played the violin, I played a Tenor Banjo, another O.R. spoke French and the other chappy had been stationed on the Rhine so he had a smattering of German. We kept this up for nearly one hour each night for nearly two weeks and the poor chap was nearly going crackers thinking he was getting all these stations. We had fun, and the chap took it all in good part when he found out. I think his name was Baird (no joke!)"

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QUESTION.

"Who used to "get" a motor-cycle from 4 Div Sigs every Saturday night and go to London to be back by 6 a.m. Monday?" (Don't know - but suspect it was our S.W.L. Section Manager - Ed.)

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GENERAL QUIZ.

Have a go at the following :-

- 1) You hear a VR1 on Ellice Island calling CQ, to what heading would you turn your beam? (Great Circle Bearing).
 - 2) The prefix for Clipperton Island is a) FG7, b) FP8, c) FU8, d) FK8 e) FO8.
 - 3) What does "QSX" mean in the International "Q" Code?
 - 4) What is wrong with this statement, made by an imaginary G3 + 3?
"In January 1969 I worked a German station on RTTY on 80. Copy was 100% so we QSY'd to Top Band and, reducing my power to just under 10 Watts, I called him again and was pleased to get 100% copy from him again".
 - 5) What types of emission are allowed to U.S. Amateurs on the band 420 - 450 Mhz?
 - 6) Can you give 4 of the 2 Metre Guard Channels on which operation by amateurs should be avoided? (The answer "No" is not acceptable!).
 - 7) What prefixes are shown in the ARRL Countries List for Blenheim Reef and Geyser Reef?
- Answers over the page, somewhere.

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DID YOU KNOW.....?

- 1. Member No. 537, Jim Kirk, is ON5ZO at work during the week and G6ZO at home during the week-ends?
- 2. That on-the-air rumour has it that Jimmy, 9M2DQ left for Malaya around the 20th April?
- 3. That Member 9H1BB can often be found on 20 CW around 2300z or 0530-0630z?
- 4. That Gordon Gibson successfully overcame the rigours of RAE and Morse Test and made a few contacts from 9V1PY before joining the English Summer as G3ZFZ?. Gordon expects to be a DL5 in the near future.
- 5) That J. Ryan (RSARS 575) also "made the grade" in Singapore as 9V1PZ. Also left Singapore shortly afterwards (spending a while in the Emerald Isle) and also hopes to be a DL5 shortly?.
- 6) Pete Conway (RSARS 691) who was 9J2BC, is now 7Q7BC at Police HQ, P.O. Box 41, Zomba, Malawi?.

NEWS FROM ZL

A recent letter from Bob Banks, PO Box 3, Paihia, Bay of Islands, New Zealand gives news of his change of call-sign from ZL2AUI to ZL1AUI and covers the enclosure of a large number of ZL stamps for RAIBC (Tnx OM - Ed). Bob is a Public Relations Officer and includes the following information on the Bay of Islands.

The Bay of Islands is located on the east coast of the North Island of New Zealand and consists of an area of over 100 islands with a sub-tropical climate. The temperature seldom drops below 48°F even in mid-Winter. It was here that Capt. James Cook made the first landfall in 1769 and claimed New Zealand for the Crown. Here also was the signing place of "The Treaty of Waitangi" when the Maori Chiefs accepted the protection of the Crown and thus brought New Zealand into the Empire.

Essentially a tourist resort with wonderful sailing, swimming, water sports and safe sandy beaches the area is host to over half a million visitors each year. The Bay of Islands is also internationally recognised as one of the world's leading Big Game Fishing Centres. This activity was founded in 1926 by the celebrated author Zane Grey. Each year there are several Big Game Fishing Contests attracting teams from all over the world.

One such Contest is under way at the moment with several good catches being made, several Marlin and Mako Shark weighed in at over 1,000 lbs.

Should any of the Members wish to call into the Bay of Islands on their travels I would welcome the opportunity to meet them.

Tnx, Bob for a nice write-up. All members who are now filling in emigration forms don't forget to let your Sec. have the new ZL address. Any other overseas members who would like to drop a line about THEIR particular part of the world, please do so - Ed.

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AND FROM GERMANY

The following is an extract from Daily News Bulletin issued by public relations HQ BAOR dated 4th May 1970. The item was submitted by P S LEYBOURNE (RSARS 516).

NEINBURG.

British, Netherlands, and Polish radio amateurs, with the active support of the Neinburg Police, got a rescue operation of the International Red Cross on the way last Tuesday night. The person rescued was a woman in Warsaw who, after giving birth to a baby, was in danger of bleeding to death. A Polish radio ham sent out the urgent message calling for a special styptic made by a West German pharmaceutical Firm. This call was picked up by a Dutch amateur, who passed it on. In Lehmwandlungsweg, in Neinburg, a Sergeant of the British NATO unit in Mudra Barracks picked up the Dutch message and immediately informed the Neinburg Police. The styptic was eventually flown to Warsaw, but no news about whether the action was successful.

We understand that the Sergeant referred to is our own S/Sgt (SPIKE) Bernard (No 366) who is DL5XW. Very well done SPIKE, and congrats from the staff of G4RS on your prompt action.

The Group Signal Platoon is composed of Cadets from three locations, viz: 133 Coy Queens at John Ruskin School, 145 Coy Parachute Regiment at Fairchildes School, New Addington and 141 Coy Queens at Selhurst School, all within the Croydon area. The Regimental Signal Officer is Captain M.J. Buckley (Royal Signals ACF) and Lieut P. G. Adlington 2 i/c. Calls on the National ACF/CCF, Network are 12 (145 Coy); 45A (143 Coy) and 47A (RSO). 45A is active most weekdays and the other stations at week-ends. We would welcome a visit from any RSARS member who may be in the area..

M. J. Buckley (RSARS 391)

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THIS ISSUE'S CATALOGUE

This time we look at a catalogue from Arthur Sallis Radio Control Ltd, 28 Gardner Street, Brighton. Don't be misled by the "Radio Control" in the title - Arthur Sallis deals in Government Surplus as well as new British and foreign goods. The catalogue is well produced on gloss paper and is of a convenient size (approx. 5" x 8") to slip into the pocket. Perhaps the fact that the latest issue (No. 18) costs 4/6 post free can be offset by the fact that a vast majority of the items listed are accompanied by a photograph (can you remember what the Radio Altimeter APN1 looks like?), also there is a well laid out index (saves you looking all through the catalogue to find that particular item) and included on page 99 are two vouchers worth 5/- each usable with each completed order of £5-0-0. Inside the front cover are details of Postal charges and a Street map showing how to get to the shop together with Car Parking details. If you travel by train the route from Brighton Station is shown. Looking through the catalogue we see the following "goodies".

Amplifiers, Aerials, Aerial Tuning Units, Actuators, Altimeters Radio, Bevel Gears, Buzzers, Bells, "Bargain Parcels", Books, Boxes Aluminium, Boxes Diecast STC, Capacitors, Cases Dinki, Cases Instrument, Cases Speaker, Chassis No. 19 Set, Chassis No. 31 Set, Chassis SCR 522, Chassis Units, Chassis Aluminium, Coils Crystal Set, Counters Magnetic, Connectors Plugs and Sockets, Converters Rotary, Control Units, Clips Crocodile, Camera Control, Contactors Remote, Contactors Master, Cut-outs, Circuit Breakers, Circuit Diagrams, Crystals, Desyn Indicators, Dials, Dials Telephone, Dynamotors, Demodulators, Fuses, Fuse Boxes, Flasher Units, Filter Units, Ferrite Rods, Generators Hand, Generator Sets, Gear Wheels, Gauges, Grommets, Group Boards, headphones, I.F. Strips, Indicators Mechanical, Insulators, Intercom. Sets, Knobs, Mixer Units, Microphones, Meters, Meters Multi., Magnets, Mountings, Morse Keys, Motors, Motors Geared, Motors Blower, Noise Limiters, NIFE Cells, Nuts & Bolts, Oscillator Units, Paxolin strips, Peto Heads, Pumps, Power Units, Printed Circuit Boards, Pot Cores, Relays, Relays Ringing, Relays Keying. Relays P.C. 3000 Type, Relay Boxes, Resistors, Resistors Carbon Film, Resistors Variable, Rectifiers, Receivers, R.F. Units, Remote Controls, Switches, Switch Time, Switch Boxes, Switches Micro, Switches Rotary, Switches Jettison, Switches Limit, Switches Ledex, Switches Frequency Operated, Switch Cleaner, Solenoids, Sleeving, Spindle Locks, Screws, Soldering Irons, Solder, Solder Tags, Storage Draws, Semi-Conductor Devices, Thermistors, Tape Insulation, Tape Recording, Tool Boxes, Terminals, Terminal Blocks, Terminal Strips, Telephone Sets Transformers, Transceivers, Transmitters Radio Control, Transistors, Transistor Testers, Transistor Accessories, Turret Tags, Uniselectors, Voltage Regulators, Valves, Valve Holders, Vcroboard, and Wire and Cable.

Why not drop a line together with Cheque or Postal Order for 4/6d to :

ARTHUR SALLIS (RADIO CONTROL) LTD, 28, GARDNER STREET, BRIGHTON, SUSSEX.
or give them a ring on Brighton 65806. Please mention ROYAL SIGNALS AMATEUR RADIO SOCIETY.

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NEW EQUIPMENT

From Frank, W5VA (RSARS 650) comes a pamphlet on the New CX7 Transceiver from Signal/One. A really first-class piece of gear - no price stated, but it is felt that this is a piece of equipment that lots of British "hams" would like to have, but few will get!. A brief run-down of the Specifications shows the following :

Frequency coverage : All amateur bands 1.8 - 30.0 MHz in full 1MHz ranges.

An additional 1MHz band may be added in each of the three ranges 2.0 - 3.0, 4.0 - 7.0 and 8.0 - 14.0 Mhz by supplying appropriate crystals.

VFO's : Two identical, permeability-tuned precision oscillators; 1 Mhz tuning ranges with nominal 25 KHz per knob revolution.

Readout : Accuracy, linearity and resettability to 100 Hz at any point in any band after calibration at any 100 Hz checkpoint in that band. Integrated circuit digital frequency counter with miniature, high intensity long-life Nixie display instantly shows actual frequency being received or transmitted.

Spotting : Push button provides audio beat note for spotting when using separate VFOs or Transmit Offset/Transceive Mode.

T/R switching : Push-to-talk or fast-attack VOX; instantaneous break-in CW, fast key-up receiver recovery independent of AGC decay. Isolated terminals for control of external amplifier.

CW Keyer : Built-in electronic keyer, 5 - 50 w.p.m. Separate jacks for keyer paddle and manual key.

Frequency Control Modes : Transceive with either VFO, "split" using both VFOs. transceive on either VFO plus independent receive-only on the other, or "transmit offset" transceive (transmit frequency tracks receiver and may be instantly offset up to plus or minus 2 KHz from receive frequency).

Emission Modes : SSB, CW, FSK, compatible AM.

Power supply : Built-in heavy-duty supply for 115/230 volts 60 Hz. Selectron (registered name) transformer for exceptional regulation and power with a very small size and weight. Requires approximately 100 Watts receive, 400 Watts peak at full input.

Construction : All critical circuitry (except P.A. and large power supply components) is modular on glass epoxy etched circuit boards.

Size and weight : 16¼" wide x 7¼" high and 14" deep overall less feet. 35 lbs.

Receiving system.

Active devices : 16 digital integrated circuits, 14 linear integrated circuits, 100 silicon transistors, one ceramic/metal P.A. tube.

Sensitivity : Better than 10 dB signal-plus-noise-to-noise ratio for ½µV input at 10 metres (2 KHz bandwidth).

Selectivity : Standard (SSB) - 2 KHz @ -6 dB, 1.5 : 1 (6 : 60 dB) shape factor (two cascaded 8-crystal lattice filters) Optional : Standard CW - 400 Hz with 4 : 1 shape factor. Deluxe CW - 300 Hz with 2 : 1 shape factor. Standard FSK - 1200 Hz with 2 : 1 shape factor. (Internal sockets provided for two optional filters).

Ultimate Attenuation : More than 60 dB.

Image and IF Rejection : More than 60 dB.

Internal Spurs : Less than 1 µV equivalent.

AGC : Fast attack with selectable 10 mS decay or 300 mS hang time; less than 6dB audio output change for signal level from 1 µV to 100 mV.

Front end Dynamic Range : A 10 μ V desired signal will be modulated less than 10% by an unwanted 10,000 μ V signal 5% removed in frequency.

Audio output : 1 Watt.

IF Shift : Second IF adjustable up to plus or minus 2 KHz with respect IF filter passband for interference rejection and receiver audio passband selection. Tracking error, zero.

Dual Receive : Two channels usable separately or simultaneously; continuously variable relative RF gain control. Either channel may be used for transceiving and the other for receive only.

Noise Blanker : Pre-IF with adjustable threshold.

Transmitting System.

Tuning : Pre-tuned band-pass output filter requires no adjustment when feeding nominal 50 ohms resistive load in amateur bands. Manual tuning and loading for out-of-band or high SWR operation. Driver broadband 1.8 - 30.0 MHz.

Power Amplifier : Solid state, completely broad-band driver; rugged ceramic-metal 8072 tetrode final amplifier conduction coupled to massive extruded heat-sink. 150 Watts continuous dissipation rating at 25°C ambient.

Power level : Nominal 300 watts PEP input, 150 Watts PEP output all bands and modes. Output continuously adjustable down to less than 1 Watt.

Duty Cycle : Continuous at rated PEP input all modes.

Carrier and Unwanted Sideband Suppression 60 dB.

Distortion : Third order intermodulation products more than 30dB below each of two equal tones at full rated output.

Speech Processing : RF envelope clipper plus cascaded 8-crystal filters in SSB and compatible AM (USB with Carrier) modes. Clipping adjustable 0.20 dB nominal.

Metering : Clipping, Drive Level, Plate and Screen Currents, Forward and Reflected RF Power.

If ever the Football Pools "come up" this is doubtless the rig to get!! The CX7 is manufactured by Signal/One, 2200 Anvil Street N., St. Petersburg, Florida, 33710, U.S.A.

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GENERAL QUIZ - ANSWERS

1) 2° short path or 182° long path. 2) e. 3) "Will you listen to..... on Mc/s (Kc/s)." or "I will listen to on..... Mc/s (Kc/s). 4) RTTY WAS NOT ALLOWED to G stations on Top Band. 5) A0 A1 A2 A3 A4 A5 F0 F1 F2 F3 F4 F5. 6) 144.00 144.09 144.18 144.27 144.36 144.45 144.54 144.63 144.72 144.81 & 14.490. 7) None.

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WANTED.

By Tom Gates (RSARS 310) Flat 2 "Brinklea" 10 Wimborne Road, Bournemouth Hants. The circuit diagram for the WS 68, also any information on the RAF type 10S/831 Oscilloscope, Serial No. HE 3438 by Hartley Electromotives. (Sounds like the Army Type 13A - Ed.).

By B. Cuff (A Non-member) of Woodville School, Longridge, Near Preston, Lancs. Handbook, circuit diagram and/or details of the R 209 MkII receiver ZA 41981.

By Gary Thomas, ZL2AZT (RSARS 407) the Handbook and circuit diagram of the AR 88 D. Gary has obtained one which is not in working order at the moment. The AR 88 D was not, apparently, widely used in ZL and details are a little hard to come by.

PAST HISTORY DEPT.

Cpl D. HEBDEN, 222 Signal Squadron BFFO 64.

Member No 706 D. HEBDEN (MP4TDJ) sends us an account of his past services, both at home and overseas, from sunny Sharjah.

Dave enlisted in 1960 at 227 ALFACE SIGNAL SQN A (SHAPE) in France, where his Father was SSM of the squadron. (Anybody remember Bill Hebden). Training as a telegraph operator followed at AAS Harrogate, from 60 to 63. The three year training stint was followed by a grand tour of the Far East whilst serving with 249 Signal Sqn doing various tours of BORNEO? BRUNEI, KUCHING, LEBUAN, and a 4 month detachment providing the communications for an airstrip construction job in Thailand.

A four year stop in DL land followed from 1965 to 69, serving with 16 Sig Regt. Currently enjoying a tour in "Sunny Sharjah", Dave is looking forward to further contacts with RSARS members, with MP4TDJ as a callsign. Dave I don't see any problem and hope its not too long before you qualify for one of the overseas awards.

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Keen SWL member

Member number 640, A Cartwright of Rugeley in Staffs, writes to tell us that he is now the proud possessor of a Heathkit GR64 RX. and if the homebrew ATU is now working properly, we should all be booming into Allan's QTH when he tunes into the 80 metre net each week.

Currently employed by Thorn Automation, Allan is very keen on the listening side of our hobby and is a friend of another well known member, No 213, Gordon Beaumont, who is our own SWL Section Manager. Best of luck with the hobby Allan, and remember that all awards are open to RSARS short wave listeners also.

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Top Band Anyone?

Have a look around 1820 - 1830 kHz any Monday and Tuesday evening twixt 2230 and midnight local time. You may, if conditions are good, or even fair, have the chance of a QSO with RSARS No 169, Derek Pocock who is not only GM3TBP, but is located in the rare county or BERWICKSHIRE. DEREK is also active on 80 and will be delighted to give WAB fans a chance to catch a real rare one.

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WAB ENTHEUSIASTS PSE NOTE

News from JOHN HODGEKINS RSARS 004 is that John has the WORKED ALL BRITIAN basic award (No 32), and will very soon be doing quite a lot of /P work from rare areas in the PENNINES. All operation will be on 3.5 MHz CW and he will be doing his best to be on the WAB CW NET on 3560 kHz on Saturdays from 1700 hrs GMT. THANK YOU FOR THE STAMPS JOHN AND CONGRATULATIONS ON GETTING THE WAB SHEEPSKIN, HAVE YOU WORKED MY KENT AREA YET? (TR 05). (Ed.)

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RETURNED COPIES OF MERCURY

Copies of Mercury have been returned to the HQ station, which had been sent to the following members.. 036, 377, 483, 678, AFF36.

If any member happens to know the whereabouts of any of the members indicated, would they please let the General Secretary in on the secret; so that our records may brought up to date.

NOTES on the HISTORY OF SIGNALS

(G3DPS)

(The following is a copy of the Second Edition of "NOTES on the History OF SIGNALS" By BRIGADIER-GENERAL E.G. GODFREY-FAUSSETT CB, CMG. Published by THE SIGNALS ASSOCIATION, Stamford Brook Lodge, Ravenscourt Park, W6 in 1922, price 6d. The booklet, in good condition for its age, was "rescued" by Bill, G2CVY and passed along to the Gen. Sec.. We are indebted to THE ROYAL SIGNALS INSTITUTION, Cheltenham Terrace, London S.W.3 and to Colonel R.M. ADAMS, the Historical Officer, for permission to reprint in "Mercury". The subject is covered in much greater detail, with some first-class illustrations, in the recent publication "THROUGH TO 1970". Details from RSARS HQ. The original booklet has now been passed on to The Royal Signals Museum. (The original booklet is rubber-stamped "4th DIVL SIGNALS" - if it is still on YOUR signature get a 1033 to the Museum Curator soonest!!!).

One of the glories of the Corps of Royal Engineers is that it has initiated, nurtured, and finally started as separate units, several branches of the Service - the most notable, perhaps, being the Royal Air Force, which began life as the Balloon Section R.E.. And though the Royal Corps of Signals is one of the youngest branches to have a separate existence, it can claim a by no means unimportant or inglorious history during the time it was living with its mother, the Corps of Royal Engineers. It is this history that I propose to trace out.

It is, I think, rather extraordinary that we should have so little record of the use of any method of signalling in land warfare until comparatively recent times. Navies have long used hoists of flags, but armies seem to have depended almost entirely on mounted messengers, generally officers. The typical battle scene shows the dashing and gallant A.D.C. galloping into the firing line with an important message; and it is on record that the Duke of Wellington in the Peninsular War gained great advantage from his well-mounted orderly officers, whose experience in the hunting field made them very quick across country.

The invention of the electric telegraph and of the Morse Code naturally turned men's minds towards its use in war; and in the last year of the Crimean War (1855), attempts were made to plough in a heavy cable from the base at Balaclava to the headquarters - a distance of about nine miles - but I cannot learn that it met with much success. Apparently a large drum of cable was placed horizontally on a limber, to the hook of which was attached a plough, this whole affair being manhandled.

A great stimulus to the use of telegraphs by armies occurred during the American Civil War of 1860 - 1863. The country was in parts covered with a network of permanent lines, which were worked on the "continuous current" system, the batteries to work all the instruments being concentrated at one or two offices. This enabled a mounted "telegrapher" to tap in anywhere with a small Morse instrument such as he could carry on the saddle; and each column commander had his "telegrapher", who was used in this way.

The Morse code, as applied both to flags and to telegraph, saw its first active service in the British Army in the Abyssinian war of 1867 -1868. Sixty telegraph operators and a detachment of mounted signallers, all from R.E., were sent out under Lieut. St. John, and did good work, besides obtaining valuable experience. With this detachment was Morrison, long known to many Signal officers who served with G.P.O. Telegraphs.

But it was not until 1870 that units were detailed for signal work as their sole employment. In this year the 22nd Coy. R.E. was formed for permanent work, and the C Telegraph Troop was raised for field work. The 34th C.R.E. was added a few years later.

With the formation of C Troop begins the history of Field Signals proper; and it is an interesting coincidence that exactly fifty years elapsed from its formation in 1870 to the institution of the Royal Corps of Signals in 1920. A boundless faith in the possibilities of the work has always been a characteristic of Signal personnel; but I wonder whether Capt. Lambert, Lieut. Tisdall, and their

245 N.C.O.s and men, had any inkling of the developments which would arise from their small beginnings.

C Troop flourished until 1884 - 14 years of steady work and progress - and, in combination with the 22nd and 34th Companies, has four campaigns to its credit: so perhaps some account of its organisation will be of interest. The establishment was 1 Captain, 4 subalterns, 2 Staff-Sergeants, 10 Sergeants, 1 Farrier- Sergeant, 1 Artificer-Sergeant, 3 trumpeters, 2 Artificer-Corporals, 6 Shoeing-Smiths, 2 Collar-makers, 2 Wheelers, 2 Carpenters, 11 Corporals, 9 2nd-Corporals, 96 Sappers and 98 Drivers. In those days all the trades enumerated were known as "Artificers" - the Sappers were dismounted men, and 20 of the Drivers acted as mounted signallers. The war establishment of horses was 150.

There were 12 wire wagons, 4 office wagons, 1 pontoon (?) wagon, 1 forge wagon, and 6 store wagons.

The wire wagons were four-wheeled, and carried six -mile drums of a rather weak copper three-strand cable. The office wagons were somewhat like a small gipsy caravan, and were fitted to take instruments. What could have been the use of the Pontoon wagon, it is difficult to say: it soon dropped out.

The wire wagons were fitted with a self-winding apparatus, invented by Corporal-Wheeler Knight, which remained in the Service with little alteration until 1904; it may be seen on the cable cart preserved at the S.T.C. Museum.

A small digression on nomenclature may perhaps be of interest. The word "telegraph" is derived from two Greek words "tele" (far) and "graphein" (to write), so that strictly it should be confined to a printing apparatus, though perhaps the original Morse inker comes within the exact meaning. "Telephone" is more accurate - from "télé" and "phone" (a voice or sound). "Heliograph" - from "helios" (the sun) and "graphien" is again something of a misnomer. "Telegraph" was first used of the large semaphore stations which connected London with Portsmouth and Dover ("Semaphore", by the way, means the same as "signals" - "séma" being Greek and "signum" Latin for a sign); and probably, if the original maker of the name had realised the variety of instruments which would be invented, he would have been more accurate. Strictly speaking, the pronunciations should be "teelegraph", "teelephone" and "seemaphore", but the English language is seldom logical, as witness "aviator" which should mean "a person who doesn't travel".

From 1870 to 1879 was a period of steady development. Several well known officers served with C Troop as subalterns - Bindon Blood, afterwards VC and a well-known general in India; Kitchener, afterwards Lord Kitchener of Khartoum; Beresford, Bagnold and Hippisley, who afterwards commanded. The troop was stationed alternately at Chatham and Aldershot, and that its efficiency is shown by the record that in 1878 and 1881 its signallers were the best in the annual army competitions. An equipment and drill for airline were worked out, very much the same as single airline is at this day, except that most of the poles were made of bamboo. In 1871 and 1873 the troop took part in the first large manoeuvres held in England - under the stimulus of the Franco-German War - at Aldershot, Salisbury Plain, Cannock Chase and Dartmoor: the first of a long series of manoeuvres.

The first campaign of the Signal units was in Ashanti, 1873-4, when a detachment under Lieut. Jekyll laid a permanent line - chiefly, I fancy, on trees - along the line of advance. In 1879 the right half troop was sent out to South Africa for the Zulu War. Embarking at Portsmouth it had a rough passage, losing twenty-seven horses on the voyage. It ran a large mileage of airline and cable, and met with the usual South African difficulties of storms, flooded rivers, malaria, and veldt fires.

In 1881 a Section under Lieut. Bagnold was sent to restore communications during the Transvaal War, and obtained congratulations from Headquarters on their work.

In 1882 the troop went to Egypt for the war against Arabi Pasha, and during this campaign a

cable wagon came under shell fire for the first time. Major Sir Arthur Mackworth was in command, and Lieut. Hippisley, who was Director of Home Signals at the beginning of the Great War, was one of his subalterns.

In 1884 the Signal units were reorganised into a Battalion of two Divisions - the 1st Division formed from C Troop, and the 2nd Division from the 22nd and 34th Companies. And immediately after its formation, the resources of the Battalion were strained to the utmost to compete with a number of expeditions which took place. In September, 1884, No.4 Section mobilised for the Nile Expedition; in November, No.1 Section went to the Bechuanaland War; in February 1885, No.1 Section left for Suakin, and was followed by No.3 in April. Nos.5 and 6 were raised during their absence, but were disbanded on their return in 1885.

In the Nile Expedition a line was worked from Cairo to Merawi, a distance of about 1200 miles, and considerable experience was obtained in the complicated financial transactions (rendered necessary by accepting paid work) which was to be of the greatest value in the South African War - the total value of messages dealt with amounted to £64,362. A large number of messages were written in Arabic, which did not make things easier. In Bechuanaland, a line 350 miles long was erected and maintained under the usual South African difficulties. At Suakin a cable accompanied McNeill's advance, and was in action during the famous attack on his zariba, the Signal personnel joining in the defence during rushes of the enemy.

It was, therefore, a much be-medalled 1st Division which settled down for peace training in 1885. Service was for a comparatively long period, and consequently drills were probably better than they have been before or since. The greatest attention was paid to airline drill, and on several occasions during the spring training in camp three miles of airline - practically in the straight, of course - were run in considerably less than an hour, which all who have tried it will agree is no mean feat.

The peace lasted for fourteen years, only broken by the Second Ashanti War of 1895, in which a Section under Capt. Curtis - now Major-Gen. Sir R. S. Curtis KCMG, CB DSO - distinguished itself by the unprecedented feat of getting the cable into a captured capital before the advance guard. King Prempeh's brass-studded chair was given to Capt. Curtis as a recognition of this work and he has now very generously presented it to the Headquarters Mess of the Royal Corps of Signals. (It can now be seen in the Royal Signals Museum at Blandford - G3DPS). The expedition found numerous insulators belonging to the line run in 1873 still in the tress.

In 1890 Major Beresford took over the command, and considerably enlarged the scope of training, taking full advantage of the system of Spring camps. For instance, in 1891, eight Airline Detachments (horsed), marching from Aldershot at 9-30 on a Monday, had completed forty-eight miles of air-line over a not very easy route, and all arrived in camp at Chevening, near Sevenoaks, by 15.30 on Tuesday - that is, in 30 hours.

A group photo of subalterns of that date shows three well known Signal officers, now Major-Gen. Sir J. S. Fowler, KCMG CB DSO, Col. R. H. H. Boys CB DSO, and Brig.-Gen. E. G. Godfrey-Faussett, CB CMG.

The next year the Division marched to the Black Mountains in Wales, to experiment with pack work; and it was a fine sight to see a stout draught horse with its load of poles rolling down a steep hillside, or the air filled with small stores as an indignant animal kicked at the unaccustomed panniers.

The year 1893 saw the testing out of the cable cart, which was a great advance on the old four-wheeled wagon. It was a handy vehicle though rather liable to upset, and - like all two-wheeled vehicles difficult to adjust as regards weight on the shafts; but the office could always be kept in circuit on the box, and it did excellent service in the South African War. All four Sections were then Airline Sections, but a cable cart was attached to each in addition to the airline wagons.

Some names of officers who served with Telegraphs during this period are : Lieut.-Gen. Sir A. G. Hunter-Weston KCB DSO MP; Major-Gen. Sir R. B. Bruce-Williams KCB DSO; Major-Gen. Sir R.P. Lee KCB CM.G, Col. A. B. R. Hildebrand CB CMG DSO, Col. Sir M. G. Bowman-Manifold KBE CB CMG DSO ADC, and Col. E. V. Turner CMG DSO.

Among the rosters of N.C.O.s occur the names of L/Cpl - afterwards Major - W. H. Dale OBE MC; 2nd/Cpl Kilburn, afterwards commissioned in the Canadian Forces; Cpl - afterwards Captain - J. L. Low OBE DCM; L/Cpl - afterwards Captain - C. Shergold; L/Cpl - afterwards Lieut. - A. Barnicott; L/Cpl - afterwards Captain - W. A. Glue; L/Cpl - afterwards Captain - W. Solly OBE; and L/Cpl - afterwards Captain - J. Bray.

A list of the summer camps and manoeuvres of this period will bring back many memories of pleasant and strenuous times to those who served with Signals. Among the pleasant memories will be an appreciation of the beauties of the South of England, which they had unique opportunities of seeing.

- 1886 Salisbury Plain Wilts.
- 1887 Cobham Common, Surrey.
- 1888 Windsor Great Park.
- 1889 Windsor Great Park.
- 1890 New Forest, Hants (Manoeuvres, Aldershot and Berkshire Downs).
- 1891 Chevening, Kent (Manoeuvres, East Meon, Hants).
- 1892 Hay, Black Mountains, S. Wales (Manoeuvres, Aldershot).
- 1893 Arundel Park, Sussex (Manoeuvres, Berkshire Downs).
- 1894 Stoneaston, Somerset (Manoeuvres, Aldershot).
- 1895 Woolverstone, Suffolk (Manoeuvres, New Forest, Hants).
- 1896 Sevenoaks, Kent (Manoeuvres, Aldershot).
- 1897 Lyndhurst, New Forest (Manoeuvres, Sussex).
- 1898 Burghfield, Berkshire (Manoeuvres, Salisbury Plain).
- 1899 Salisbury Plain.

Meantime the 2nd Division, working under the General Post Office, had been steadily growing, and was building and maintaining all telegraph and telephone routes south of the Thames. The Headquarters were in London, and the three local centres at New Cross, Exeter, and Aldershot (later Basingstoke). Excellent training was obtained in permanent construction, but even by 1899 the telephone exchange arrangements in the larger towns were getting unduly complicated for suitable training for military linemen.

"It's a first class dress parade for Armageddon", says one of the characters in a Rudyard Kipling story, written in 1904, of the South African War - and never was a truer word spoken. The difference between the British Army in 1899 and 1914 when time had allowed of the war lessons germinating and bearing fruit, is patent to everyone who served at both these periods. Truly it has been said that Paul Kruger was one of the greatest benefactors to the British Empire!

And not less so as regards Signals. So that from a historical point of view the South African War is well worthy of study. I propose to run through the chief events as they affected Signals, and then to deduce some of the lessons which were taught.

Headquarters and No. 1 Section of the 1st Telegraph Division left England in 1899, and went to Natal. They were shut up in Ladysmith during the siege, and did admirable work in enabling the small garrison to hold the large circuit of the defence lines.

In October 1899, a fresh Headquarters and four Sections were mobilised, and joined the force in South Africa. The mobilisation was difficult, as the first expedition had taken many stores, and it was saddened by the suicide of an NCO at Aldershot, and by the loss of Commanding officer, Major Wrottealey, 2nd T.B., who fell overboard on the voyage out.

On arrival, Headquarters were established at De Aar, and No.3 Section (Lieut Moir) was immediately sent off to Lord Methuen's column for the relief of Kimberley. Backed by No.2 (Lieut. Henrici) it took part in the battles of Enslin and Graspan, and accompanied the column until it was stopped by the defeat at Magersfontein. Wheatstone was used for the first time in war, the casualty return after Magsfontein, of some 6000 words, being despatched to Cape Town within 1-3/4 hours of it being handed in.

No.4 Section (Lieut. Mackworth) joined General French's column at Naauwpoort at the end of November, and took part in the very interesting operations around Colesberg, where by clever manoeuvring one of the three Boer lines of advance was completely held up. This was one of the few occasions during the war when Signals were in sufficient local strength to undertake internal as opposed to external communications, and the work may be regarded as the germ of the Divisional Signal Company.

No.1 Section (Lieut. Jelf) was sent round to General Buller's column for the relief of Ladysmith, and competed successfully with the enormous amount of work. Unfortunately, the strenuous responsibility resulted in the death, through overwork, of its capable commander.

Reinforcements arrived at the end of the year, including Nos.5 (Lieut. Webber), 6 (Lieut. McFie) and 7 (Lieut. Sherrard) Sections.

Early in 1900, Lord Roberts, who had assumed chief command, made his secret arrangements for a direct advance on Bloemfontein. Nos. 2, 3 and 4 Sections were collected at Ramdam, and No.3 ran cable with General French's advance for the relief of Kimberley, while Nos. 2 and 4 accompanied the main advance to Paardeberg. When Kronja moved eastwards to Paardeberg the cable was cut, and the lack of wireless for communication with General French was severely felt.

After Paardeberg, No.4 pushed on cable with the advanced guard, while No.2 ran the airline, No.3 bringing up the rear; and early on the 13th March Bloemfontein was approached. The entry was somewhat dramatic. The O.C. was on a hill five miles outside the town, with the staff, awaiting its formal surrender, when he was much chaffed about a cable cart which could be seen trekking into the town in front of the troops. At the earliest possible moment he galloped after it, established an office at the railway station, and rode through the streets with one Sergeant to the civil telegraph office, which was in full swing but was quickly stopped by tearing all the leads off the test board. This looked like a brilliant piece of work for Signals, but on trying to get through, the airline laid with the column - 125 miles long - was found to be "dis" somewhere, and Lord Roberts had forbidden linemen being left on it owing to danger from the enemy. It was a crestfallen officer who watched Lord Roberts send off the despatch announcing the fall of Bloemfontein by mounted despatch rider, but a copy was obtained, to be sent if possible.

Meantime Lieut. Henrici was sent down the railway, on a light engine, to try and get the lines through to meet General Clements advance guard, which was accomplished by the evening of the 14th; and Lieut. Mackworth and Sergeant Cadwell volunteered to repair a Boer route to Kimberley via Boshoff, which investigation in the office showed had been working recently. This they succeeded in eventually doing after many adventures, stealing ponies to replace their own tired ones from a Boer laager which they encountered on the way.

But at 6 p.m. on the 14th the operator who was watching the useless instrument on the airline suddenly obtained signals and the despatch was sent off, beating the despatch rider by two to three hours. The break had been in front of Lieut. Moir and he had repaired it as he came through. After this the airline worked for 10 days without any maintenance.

The pause at Bloemfontein was utilised to reorganise the Sections. Four Cable Detachments were united into a Section under Lieut. Mackworth, and Lieut. Webber's Section joined the central column. A much needed refit was obtained, and a good deal of local work done; unfortunately one cable detachment under Sergeant Shergold was captured at Sanna's Post.

The advance on Pretoria is a good example of the strategic use of Signals, five columns concentrating on the objective and entirely dependent on Signals for co-ordination. They were :

- (1) The Natal army, under Sir Redvers Buller, consisting of the 2nd, 4th and 5th Divisions, advancing along the railway from Natal, with Lieut. Hildebrand's Section (freed by the relief of Ladysmith) and Lieut. Turner's Section (late Lieut. Jelf's).
- (2) General Ian Hamilton's column, M.I. and 9th Divisions, starting from Thabanchu, with Lieut. Moir's and Lieut. Henrici's Sections.
- (3) The central force, under Lord Roberts, of Cavalry Division, and 7th and 11th Divisions, starting from Bloemfontein, with Lieut. Mackworth's and Lieut. Webber's Sections.
- (4) Lord Methuen's force, 1st Division, starting from Kimberley with Lieut. Shaerrard's Section.
- (5) General Hunter's force, 10th Division, starting from Vryburg, and relieving Mafeking, with Lieut. MacFie's Section

The five columns, as they advanced, were kept in good touch, despite the smallness of the Signal detachments. Wheatstone was used with great success in the central force, the base office punching up messages during the day, and sending them off as soon as the line was through in the evening, leaving the line clear all night to send back work from the front. A moving headquarter office was organised - carried, of course, in horsed wagons - the germ of the present Army and Corps Signal Companies.

(To be continued)

ACKNOWLEDGMENTS

The Editor would like to acknowledge donations from members Nos. 200 and 443. Members donations may be sent to the Treasurer or to the General Secretary, at the addresses inside the front cover of this edition of Mercury.

The Editor would also like to thank the following members who sent in stamps to the General Secretary, for onward transmission to the RAIBC. G3EJF, G2DRT, G2WRY, G3YSK, G2IO, G2WQ.

Many thanks for your support of this very worthwhile cause.

STAMPS OF ANY SIZE, SHAPE, COLOUR, COUNTRY, QUANTITY ETC, MAY BE SENT TO THE RSARS GENERAL SECRETARY, QTHR.

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OTHER INTEREST SECTION

We mentioned in our last issue that apart from amateur radio, very few members appeared to have another hobby to fall back on when the bands went dead. This brought a very rapid reply from RSARS 040 EVAN, G5YN, who has played cricket for FOVANT for the past 18 years.

Another hobby enjoyed by EVAN, is that of SAILING. Our own Royal Signals yacht SKYWAVE is being taken out by Evan for 5 days in JULY. (ANY possibility of /MM operation during your trip in July - Ed.)

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ITEMS FOR SALE SALE SALE SALEFROM G3UNK, QTHR THIS EDITION. FROM G3UNK RSARS 423 comes the following items for sale as a job lot, or any reasonable offer considered. HALLICRAFTERS SX 110A WITH JOYSTICK ANTENNA, TRANSFORMER 240/110 VOLT, JAPANESE GRID DIP OSCILLATOR. ALL IN EXCELLENT CONDITION. JOB LOT PRICE £50, OR ANY REASONABLE, OFFER.

WELCOME * WELCOME * WELCOME *

GEN. SEC.

In this issue we again say "Welcome" to several new members. We hope their stay with us will be a long and happy one. Members are asked to amend any list they may have, with the following call-signs/Numbers.

- 021 G3OAZ JOHN RANDALL, 19 THE AVENUE, EASTBOURNE, SUSSEX. Here we say "Welcome" to a "reenlistment". John was previously a member but due to circumstances had to part ways with the hobby for a while. However, activity is now in full swing again, and G3OAZ is active, 'phone and CW from Top Band to Ten. Many members will know John from Service or previous "ham" connections, but, to refresh memories, we reprint here the (very full) back of his Application Form. "Joined as Boy Entrant in 1948 in Royal Signals. Transferred to Harrogate in 1949 as Apprentice OWL (The Grape Vine tells me that Johns Red Box, instead of containing the approved military articles neatly pressed and folded in the approved manner, actually contained an R 109 and 12V 85AH battery. Also that his partner-in-crime at this time was non-other than G3VIY, your Editor. - Gen. Sec.). Remember G3DHB as OC Trade Training. In 1951 qualified as OWL B III and was posted to Berlin and immediately licensed as DL2VM. With me in Berlin were DL2RX, Don White, the TOT, K. Patterson, DL2VD and another, Don Wilson, DL2VK.(Have not been able to trace any of them since). (Wonder if DL2RX was the same person as member No. 275, if so he can be reached via HQ. Can't help with the other two - Gen. Sec.) Two years later posted to Korea but SWL activity only. Here met G3FQN, another member, from Worthing, I believe. (Now at Brighton - Gen. Sec.) My final Sunday in Korea I signed DL2VM/HL1 on 20 CW. You have never heard so much noise as a result of my CQ in all your life!. In 1955 I was posted to Tripoli and re-activated 5A4TY as the Club Station and obtained 5A4TZ. 5A1TD, Jim Mead, was posted in as well. I also re-met (from Berlin days) Jim Briggs BEM, and Johnny Walker. Had six months as MP4T/5A4TZ from Sharjah and thence back to BAOR and re-licensed as DL2BC in Osnabrucke. Had by now obtained Class 1 OWL rate and three stripes and able to ensure maximum time on the air using a 52 Set in order to teach trainees its long range potential - very handy indeed!. I well remember the DL2 Net at lunch times on 40 'phone. In 1960 posted to The Ministry of Supply in South Wales as Tele Adviser on VHF comms. (Had a quick "crash" course by PYE) and was now signing GW3OAZ. A further posting in 1962 took me to Junior Leaders, Royal Signals as Theory and Sets Instructor. Set up and operated Club Station G3PYZ with the aid of Lieut. Col. Higgins, the most helpful C.O. I ever met regarding Amateur Radio. In 1965 I was all set for the Yeomans Course when, for family reasons, I purchased my discharge and went to the GPO as a Telegraph Operator subsequently transferring to the Postal Department where I still am. I thoroughly enjoyed my 17 years with the Corps and all the terrific opportunities it presented for amateur radio and I enjoy member QSOs at any time. Now, after an absence of some 18 months I hope to be very active. To all my old friends of days gone by, best 73. P.S. The Service number was 22265552."
- 099 G5KW KEN ELLIS, PORTWAY BUNGALOW, ARNOLDS LAANE, SUTTON-AT-HONE, DARTFORD, KENT. Ken, now a Life Member and introduced by G3HSE, needs little introduction. He is brief and to the point on the application form, i.e. "Royal Signals. P/223341. Served in Middle East 1936-1945. Egypt Command Signals, 3 GHQ Signal Regiment (Polygon Wireless Station). Middle East Forces Broadcasting Service. Force 133. Force 136. BAOR. British Military Mission to Saudi Arabia. Retired June 1954. Ex SU1KE, MD5KW, ZC6NX, ZC4NX, HZ1KE etc. etc. Welcome, Ken.

- 528 GORDON J. W. MACNAUGHT, G3WOV, 169 CLOTHERHOLME PARK, RIPON, YORKSHIRE. G3HWL introduced Gordon but it is known that several members have been interested in "recruiting" G3WOV. Gordon has been in The Royal Engineers since December 1958 as a Driver and became a Signaller in 1959 and continues to serve as such. He is a Class 1 Radio Operator and a Regimental Signals Instructor. Had a short stay in VP5 where several people worked him as VP5GM. Welcome, Gordon. And good luck with the Club there in Ripon.
- 537 G6ZO JAMES M. KIRK, 2 OLD LODGE WAY, STANMORE, MIDDLESEX. Members will recognise the name and/or call as a member of considerable standing. Unfortunately, due to business and other reasons Jim's membership lapsed just long enough for his number to be re-issued, so we welcome him back as 537. Jim is a bit of a commuter being G6ZO at weekends and ON5Z0 during the week. Travelling, of course, probably doesn't leave too much time for operating but then G6ZO is used to this by now, no doubt, having held the calls XAZO, G6ZO/I and CE3ZO. Welcome back, Jim. How about joining "our other man in Belgium", John, ON8GB, on the 80 Metre net one night?
- 589 G8KW ROWLEY G. SHEARS, 3 WINDMILL PARK, WROTHAM HEATH, KENT. Another new member who needs little introduction and again introduced by G3HSE. Rowley served in the Corps both in the ranks and as an officer so you might have met him as 2584225 or 309977. He enlisted in March 1939 and was commissioned in 1942 and served in the Middle East from 1940 to 1944 - during which time he was with 3 GHQ Signals and Polygon Wireless Station. From 1944 until 1950 Rowley served in Germany and was an officer of RARO until it was disbanded.
- 593 G3YSD JOHN MURDOCH,
PARTICULARS WITHELD AT MEMBER'S REQUEST
- 594 G3LZR, EDWIN T. WOMACK, 339 RUSH GREEN ROAD, ROMFORD, ESSEX, RM7 0NJ. Edwin served with The Royal Engineers (Inland Water Transport) from June 1940 until May 1946 most of this time being spent overseas with PAIFORCE from November 1941 until November 1945. Introduced by member No. 420, E. W. Speller.
- 597 G3WGM, JAMES D. HECK, "HOMEFIELD" 5 HARTSBOURNE AVENUE, BUSHEY HEATH, HERTFORDSHIRE. Jim has been a member of the Sheffield University O.T.C. from October 1966 until the present day. Prior to this he was a member of the Merchant Taylors School C.C.F. (Signals Section) from October 1963 until April 1965. Welcome, Jim.
- 702 ON8GB, JOHN D. MUNNS, M.E.B. SATCOM, CANDE DIVISION, SHAPE, BELGIUM, B.F.P.O. 26. Now a regular visitor to the 80 Metre Net John is working in Belgium but previously held the call-sign G3GIE. He served from March 1957 until March 1959 as a 2 Lieut. in R.E.M.E. (454876). John notes "My first four months of National Service was with Royal Signals as a Potential Officer, but, at the War Office Selection Board, I was transferred to R.E.M.E. and the remainder of the 2 years National Service was in R.E.M.E. Welcome, John, and keep up that nice signal on 80.
- 703 G3IMI, ALBERT E. HARROWELL, 26 WEALD LANE, HARROW WEALD, HARROW, MIDDX. From the application form it would appear that G3IMI is usually known as "Tim". Tim was introduced to the Society by G3GJH and is an ex-member of the Corps where he was 2343249 and served as an OWL from 23 May 40 until 30 June 46. From 1941 until 1945 service was with 4th Indian Divisional Signals and from 1945 until 1946 with Kent District Signals (Harrietsham) and 1st AA Divisional Signals at Brompton Road.

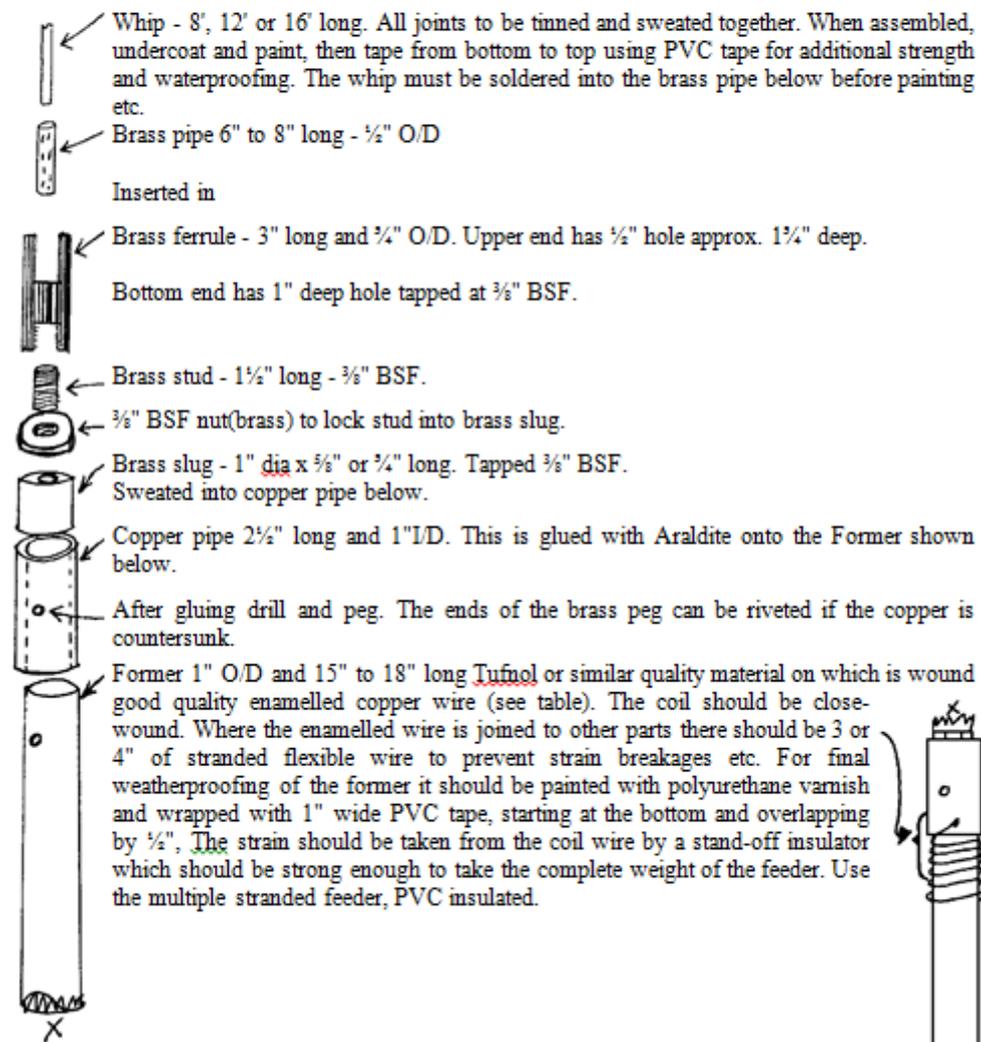
- 704 G3AVH, GEORGE J. LEWIS, CRAVEN HOUSE, 6 BARKER ROAD, SUTTON COLDFIELD, WARWICKSHIRE. Another member introduction, this time by G3BOE, George says "I joined a local newly formed T.A. Unit in 1938, No. 2 Company, 4th AA Divisional Signals as Signalmán, No. 2578200. I stayed with this Unit until 1941 having taken trade courses as OWL. Went out to North Africa, Italy, Austria and back to Italy in 1945, having been attached to many Units but mainly the 4th Indian Divisional Signals and 6th British Armoured Division. I finished up as an instructor at Padova, Italy, until demobbed at Aldershot in 1946 as a W/Cpl."
- 705 DOUGLAS McLAY, 28 CRAMOND AVENUE, EDINBURGH, EH4 6NA and DERBY HALL, NORTH MOSSLEY HILL ROAD, LIVERPOOL 18. Douglas is an Officer Cadet at Liverpool University O.T.C.. The University O.T.C. operates a station on the A.C.F./C.C.F. Intercommand Radio Network. He was also a former Cadet S/Sgt i/c Signals at Edinburgh Academy C.C.F. where he operated Call-sign 19.
- 706 MP4TDJ, CPL DAVID HEBDEN, 222 SIGNAL SQUADRON, B.F.P.O. 64. David briefly mentions on his application form that he has been a member of the Corps since April 1963 and is a Telegraph Operator A 1. He recently obtained his MP4T ticket from the Political Residency in Bahrain. David wrote again later giving further details and his letter is produced elsewhere. Hope you can get on the HF Net one of these days, David.
- 707 RONALD LAIGHT, 10 RENFREW WALK, CANLEY, COVENTRY, WARWICKSHIRE. Introduced by F. LEE, RSARS 444, Ron saw service as 23459520 with the 1st Battalion Royal Leicestershire Regiment, HQ Company, Signal Platoon between March 1958 and March 1960. Welcome to you, Ron.
- 708 VE3EMQ, HARRY M. BILLARD, GLOUCESTER P.O. BOX 166, OTTAWA, ONTARIO, CANADA. Harry is a Cpl (S) with the Canadian Armed Forces at the Canadian Forces Station Leitrim. We understand that all Canadian Forces have been "integrated" and Harry has been "communicating" for the last 12 years, and expects to be operating as VE8RCS in the near future. Already active on the RSARS HF Net we bid you welcome, Harry, and trust that the tour "up North" will be a pleasant one.
- 709 L/CPI. ANTHONY McNAMARA, 38 ENGINEER REGIMENT WORKSHOPS R.E.M.E., CLARO BARRACKS, RIPON, YORKSHIRE. Another introduction by RSARS 420. Tony has already seen 2 years service in R.E.M.E. where he is serving as a Telecommunications Technician and is, no doubt, helping out with the Club there at Ripon. When's the RAE, Tony?
- 710 GW2HIN, WILLIAM F. CHEW, BRYN COTTAGE, PENTREPIOD, PONTYPOOL, MON. NP4 6RD. Les, G3HWL, "doing his stuff" again with another intro. for which we extend our thanks. Bill, in common with many other members with similar service qualifications, merely says "SCU4" Royal Signals, May 1943 to February 1946. Barnet, Herts., and Gibraltar.
- 711 L/CPI. CHRISTOPHER L. MAYMAN, 3 AMF(L) SQUADRON, 30TH SIGNAL REGIMENT, BLANDFORD CAMP, BLANDFORD FORUM, DORSET. Another re-enlistment whose membership lapsed due to a variety of Service travels. He is 23944517 and currently serving very near to HQ. One or two members will remember working Chris not too long ago from the amateur station of the Norwegian Army Signal School. Welcome back, Chris.
- 712 BERNARD F. HUGHES, 65 FLAG MEADOW WALK, WORCESTER, WORCESTERSHIRE. We welcome Bernard, who is a very keen SWL (G11362) and was a member of the 3rd Royal Tank Regiment for 5 years. He was trained by Royal Signals in the use of radio and the maintenance of same serving six months with the Corps at Luneburg

and was then posted to The Royal Tank Regiment to serve as an instructor. Bernard later returned to the U.K. to the School of Infantry at Warminster where he formed a small Signal Unit with the help of two members of Royal Signals and this unit was used to train Infanteers in the use of radio. All this took place between January 1946 and January 1952. G11362 later became Signal Training Officer to a small Combined Cadet Force for 1 year but this was later disbanded due to lack of support.

- 713 G4KG, GEORGE SPRIGGS, "WILDERNESS", CAPS LANE, CHOLSY, BERKSHIRE. George, otherwise known as 2602200 was with Royal Signals from 1942 until 1946 and was with SCU3 at Hanslope and Barnet. G4KG then joined BOAC from 1946 until retirement in 1969. The AA license was obtained in 1938 and the full license in 1939. George was QRT from 1956 until 1968 which meant resitting the RAE and Morse Test. Welcome back to the bands and to the society.
- 714 K2QPS RAYMON T. TUERO, 174 AUDWIN DRIVE, ISLIP TERRACE, LONG ISLAND, NEW YORK, 11752, U.S.A. We welcome Ray as our first K2 member. Ray sent along \$6 with his application form for 5 years dues ("I shy away from "Life" Membership - it sounds too final !!") Ray served with the U.S. 826th Signal Service Company from August 1941 until July 1943 in Iceland and was attached to a unit of Royal Signals whose designation escapes the memory at the moment. The Royal Signals CO was a Captain Hurrocks and one of the Junior Officers (Lieut.?) was a Mister Maynard. (Any members help out on this one? - Gen. Sec.). The Camp was taken over by the U.S. 50th Signal Battalion when the Royal Signals Unit returned to Blighty. K2QPS was also attached to The Royal Electrical and Mechanical Engineers in Germany for a while in 1945. Ray also had a cousin in the Northumberland Fusiliers and several others in the Canadian Forces. Ray continues "... I, myself, was just about ready to join the Royal Canadian Air Force in 1939 but was talked out of it by members of the family. (I had originally come from Port Credit, Ontario, and Canada, in the War, offered adventure!). I held out until 1940, when at the age of 20, I joined the regular U.S. Army. I retired from the U.S. Air Force Reserve which gave me five years of regular establishment and fifteen years Reserve. So I'm somewhat of an old soldier myself having just passed the half century mark. I still have a full Battle Dress given to me by my buddies in Royal Signals in Iceland, complete with Cap Device to Corporals stripes, plus chalk!. I was not authorised to wear it, of course, but I had one photo taken of me wearing it, lost now, unfortunately. I suppose I could have been put under arrest by the Americans for being out of uniform, or by the British for impersonating a British soldier. Either way, I would have "had it"!!." Ray continues by saying that he intends to contact other RSARS members in the States also others who may be eligible. We wish you luck with this, Ray, and, providing they are qualified as per rule, we will be most happy to have them as members. Welcome, Ray, and hope you can meet the members around 21,380 some day.
- 715 C. H. COURT, 9 HURST ROAD, GRANGE PARK, MAGHULL, NEAR LIVERPOOL. Unfortunately we have no Christian names for member No.715 who was introduced to the Society by G8PG, member No.026. 725 was an R.A. Signaller during the War and did a lot of Lamp signalling passing coded messages between Naval vessels and a Naval Shore Base during periods of Wireless silence. Also did a lot of work with Lines and worked on a variety of sets such as the Nos. 11, 18, 19, 21 and 22. Took and passed tests for Driver/Operator.
- 716 ANDREW H. B. HOLMES, BARROWGARTH, APPLEBY, WESTMORLAND. Andrew has been a member of the Combined Cadet Force for the last five years, and is a Classified Signaller and an Assistant Instructor in Signalling (Cadet) and holds the rank of Cadet Sergeant. He also operates as No. 2 Operator of CCF Call-sign 39A and Andrew adds the interesting note that Call-sign 39A was placed 2nd in a recent National Voice Competition.

G3TKL VERTICAL WHIP

The results obtained from this whip can be overrated, but on average are usually good. These results are brought about by paying attention to numerous small details. The quality and strength of materials used, simplicity of design, good weatherproofing are important. Every joint from the top of the whip to the transmitter and receiver should be soldered. Resonate the whip assembly after it has been erected outside. The resonating should, of course be carried out from inside the shack so that the full length of feeder is included in the aerial assembly. It is most important that a good earth system is used. Also there should be a simple method of resonating up and down the band such as a Roller Coaster.



The G3TKL LOADED VERTICAL WHIP Contd.

Wire table	Gauge SWG	18	20	22	24
	Turns distance (inches)	13" or 14"	10" or 11"	9¼"	8½"

These lengths of winding are on the long side and will depend on feeder length (single wire). May also be adapted for 80 metres.

QUESTIONS TO G3TKL, QTHR, SAE PSE.

DEAR G3TKL.....RSARS 395

Many thanks indeed for this very interesting article, and I hope it affords our members many happy hours of experiment and consequent BIG SIGNAL activity. We are interested also in the other projects you mentioned in your letter, and hope that you will submit them for our Technical Corner. (Ed.).

TO THE EDITOR - MERCURY

May I submit the following as perhaps additional to the excellent article by G3VYF - "The Dipole".

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As G3VYF stated in his article "The Dipole" :- "Coax is most commonly used to transfer power from the TX to the dipole". He is dead right too. It is common and so very visible, its heavy and makes a dipole look like a "V" antenna. So why add to this situation by adding weight to the centre of a dipole by fitting a Balun. Better still try it my way. Feed the dipole with balanced twin feeder (not 300 ohm ribbon feeder). At the TX terminate it to the balun, then from the balun to the TX output - in most cases these days - PI output. This ensures a horizontal dipole fed correctly and terminated correctly. I built the G3HZP Balun (July 1966 - RSGB Bulletin), encased it in perspex 3" x 2" x1" and since using this system have reduced colour TVI problems and improved my SWR.

To prove its efficiency against low loss semi air spaced coax, I terminated each in turn to a dummy non reactive load and measured power available at the far end of my feeder - (dipole disconnected of course). By $EXI I^2R$ or E^2/R , the end product was the same - more power available using balanced twin than with coax. I have no doubt that if I fed with coax and used my Balun at the dipole the result would be the same, my only argument in favour of balanced twin are appearance, weight, cost, in that order.

Eric Lawrence 402
G3 Big Indian Chief QTHR
(Ex 13th Air Formation Signals BAOR 1942-1946)

ANOTHER "DID YOU KNOW" ITEM.....

Did you know, That the metal strip found sealing certain brands of cigarette packet, can be found to resonate at approximately 936 MHz in its natural configuration.

That Jim, GM3IAA (107), served with No 2 GHQ, Wireless Observation Group, GSI (E) Branch, in Palestine, Cyprus, Syria and Egypt, and would be interested to hear of other members who served in the same unit, in those places, during the last punch up.

ADDRESS AMENDMENTS/ADDITIONS/DELETIONS.

Would all members please correct their copies of membership lists as follows :-

- Member No. 076 Lieut-Col D Barry, G3ONU. Now at 26 Oak Avenue, Harrogate, Yorkshire.
- Member No. 079 Capt J Passmore Royal Signals. Now at C/O JOCP HQ Strategic Command, Wilton, Salisbury.
- Member No. 483 George Beasley, G3LNS. Now at "HIGHFIELDS", SCHOOL LANE, BEARLEY, Stratford-on-Avon, WARWICKSHIRE.
- Member No. 226 Capt G. Taylor Royal Signals. Now at G (SD) BRANCH, HQ I (BR) CORPS, BFPO 39.
- Member No. 217 WOII R Briggs, BEM. Now at 15 DERBY CLOSE, CATTERICK CAMP, YORKSHIRE. (UNDERSTAND THAT THE CALL IS STILL G3UDX).
- Member No. 575 Sgt Ryan 229 SIGNAL SQUADRON. BFPO 45 (QSL CARDS FOR CONTACTS WITH THE FOLLOWING CALLSIGNS SHOIJLD ALSO BE SENT TO SGT RYAN, 9V1PZ, G3ZDF, EIZVCJ that's right EIZVCJ- See elsewhere in this issue for explanation of unusual call).
- Member No. 522 Now at PO BOX 20688 KUWAIT, ARABIAN GULF.
- Membar No. 597 James Dennis Heck. G3WGM. "HOMEFIELD" 5 HARTSBOURNE AVENUE, BUSHLEY HEATH, HERTS.
- Member No. 099 AND 331. WOII Bill Graham. G3KPQ. 37 SIGNAL REGT. TAVR. TA CENTRE. HORFIELD COMMON BRISTOL 7. (the previous holder of no 331 has left our membership and cards for QSOs with Bill may show either number, only one of them to count of course).
- Member No. 258 Mr C D Didcot, MBE TD CORRECT CALLSIGN SHOIJLD READ G2FHF.
- Member No. 169 Mr D C Pocock. G3TBP. Now at 18 JOHNS ROAD. EYEMOUTH, BERWICKSIRE.
- Member No. 315 24069938, SIGMN M, S. Foster. Now at 'A' TROOP HQ 7 ARMOURED BRIGADE AND SIGNAL SQUADRON. BFFO 37.
- Member No. 040 Lieut. Col. (Retd) Sir Evan Y Napean Bt address should now read "GOLDENS", TEFFONT, SALISBURY, WILTSHIRE.
- Member No. 490 In QTH, please amend THORNBY to read THURNBY.
- GI3VYZ 173 L. W. Thompson, 69 (NIH) Signal Squadron (V), Duncreggan Camp, Londonderry, Northern Ireland.
- G3OUF 189 D A Evans, 90 Feltham Road, Ashford, Middlesex.
- G3UDX 217 R Briggs, BEM, 24 Signal Regiment, Catterick Camp, Yorkshire.
- G3FPC 309 D Stephenson, Bowlsh Villa, Bowlsh, Shepton Mallet, Somerset.
- G3VVH 567 G.W. Weare, 21 Church Road. Moseley, Birmingham 13
- G3YOB 590 P Dowdell. 7 Signal Regiment, BFPO 15
- G8CIA 657 38 Willow Crescent, Hatfield Peverell, Chelmsford, Essex.

GW3OKM 363 J R Mitchell, 2 Hillcrest, Brynawellon, Dering Lines, Brecon.
DL5XW 366 S.Sgt M Bernard, HQ Sqdn., 21 Engineer Regiment, BFPO 48
G3UNK 423 WOII A R Wakeman, Army Work Study Group, Stoughton Barracks, GUILDFORD,
SURREY.

"WHERE ARE WE ALL". AMENDMENTS TO SPRING "MECURY"

PLEASE ADD TO LISTS.

ABERDEEN 419. APPLEBY 716. ASHFORD 189. BIRMINGHAM 567. BLANDFORD 275. 711.
BRISTOL 331. BUDBROKE 147. BUNTINGFORD 393. BURHAM 110. BURNLEY 267. 278. 362.
BURTON-on-TRENT 191. 258. BUSHEY HEATH 372. 597. CAMBERLY 248. CATERICK
CAMP 217. CHELMSFORD 657. CHOLSEY 713. COVENTRY 707. DARTFORD 099. DERING
LINES 363. EASTBOURNE 021. EDINBURGH 705. FINMERE 247. GLENROTHES 031.
HADLEIGH 603. HARROW 703. LIECESTER 211. LIVERPOOL 715. LLANFAIRFECHAN
717. LONDON 197. LONDONDERRY 173. MOOR ROW 593. OLDHAM 445. PONTYPOOL 710.
RIPON 528. 709. ROMFORD 594. SALISBURY 079. SHEPTON MALLET 309. SUTTON
COLDFIELD 704. SOLIHULL 444. STANMORE 537. TORRINGTON 323. WARMINSTER 637.
WORCESTER 712. MALTA 413. U.S.A. 714. WROTHAM HEATH 589. BFPO 26, 702. BFPO 28,
022. BFPO 64, 452. 524. 706.

PLEASE DELETE THE FOLLOWING

ANDOVER 637. EXETER ...delete 637, insert 634. LONDON 097. POOLE ...delete 461, insert
475. ROSCREA 031.

The following are "SILENT KEYS" and should be deleted from all lists.
100,195, 216, 237, 280, 376, 389, 401, 514, 546, 627.

+++++

CAN YOU BEAT THIS?

Log extracts :

29 Sept 1949	2052/2054	G3EYD de MD7WE	459	569	Ray Nicosia
10 Dec 1969	1342/1348	G3EYD de VQ8CR	Q5	Q5	Ray Mauritius

At first nothing unusual apart from the 20 years lapse between dates!

Soon after joining RSARS I met up on the SEA Net with Harry ZC4HS. As a memento I sent him an old QSL card bearing the Old Cyprus MD7 callsign. He recognised the operators and the station way back at Famagusta/Nicosia. Later he told me he had located the same chap (or one of them) at VQ8CR and on 10 Dec 69 we had a good QSO on SSB. The first, way back in 1949, was on CW from a 25 watt Xtal-controlled 6L6/807.

Incidentally, I am hoping for a card for this QSO from Ray, having sent him one immediately after the contact via Dave.

From G3EYD

(HOPE YOU GOT THE MESSAGE RAY, AND THAT DAVE GOT THE CARD - Ed.)

ON THE AWARDS FRONT

by G3VIS (RON COX/RSARS AWARDS MANAGER)

As of today all certificates have been sent out and below is a detailed list of who have been granted the award. The main reason for the hold up of these awards and certificates, is the lack of cardboard tubes. Without these tubes it is useless trying to send them out. I am sure members would not like their certificates merely folded up and put in an envelope.

It is a very worrying problem and requires a lot of thought. If it had not been for GM3PIP and G3TKX, quite a few people would still be waiting for their awards. Can we have something printed asking all members to keep a look out for this type of container (My pleasure Ron - Ed.) and a special mention for 3PIP and 3TKX please. (BOTH GENTLEMEN, TAKE A BOW PLEASE - Ed.)

I know of a firm which can supply these but the price was 11d each. I have already purchased 50 but these have all gone now and no more tubes are forthcoming. So, Ray the ball is in the members court.

ROYAL SIGNALS AMATEUR RADIO SOCIETY AWARDS

<u>SPECIAL AWARD HOME ONLY</u>	1	G3XSN	BERT	No. 343
	1	VS6AA	MAURICE	No. 282

OVERSEAS

	2	MP4TAF	DEREK	No. 588
	3	MP4TDA	RAY	No. 046

And below is the breakdown of "HOW MP4TDA DID IT" and achieved the status of Special Award Holder. Very well done Ray, your plaque is sitting here on my office table, all ready to go off to you and I am sure that you will be delighted with it (Ed.).

"HOW MP4TDA DID IT"

CLASS	III	II	I	SPECIAL	
SSB EUROPE	13	11	22	27	
CW EUROPE	-	1	3	4	
SSB OVERSEAS	-	-	-	15	
CW OVERSEAS			15	4	
TOTALS OF ALL	13	12	25	50	= 100

There it is, just to show you that it can be done, with a little effort.

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Below is the up to date list of all other award winners in each class. Congratulations to each and every member and may you attain the next one up in the award ladder.

OVERSEAS CLASS I AWARD

AWARD No	-	2	ZC4HS	5	-	9H1BE
	-	3	VS6AL	6	-	MP4TAF
	-	4	9M2DQ	7	-	MP4TDA

OVERSEAS CLASS II AWARD

AWARD No	-	3	ZC4HS	6	-	9M2DQ
	-	4	9H1BE	7	-	MP4TAF
	-	5	28222/9V1	8	-	MP4TDA

OVERSEAS CLASS III AWARD

AWARD No	4	-	28222/9V1	7	-	MP4TAF
	5	-	ZC4HS	8	-	MP4TDA
	6	-	9M2DQ			

EUROPE CLASS I AWARD

AWARD No	4	-	G3JVD	9	-	G2CVY	14	-	G3HKU
	5	-	G3HSE	10	-	G3WMZ	15	-	GM3PIP
	6	-	G3HWL	11	-	G3HBE	16	-	G3EYD
	7	-	DL6AA	12	-	G13JEX	17	-	G3XHJ
	8	-	G3WZQ	13	-	G3WPM	18	-	G3UAA

EUROPE CLASS II AWARD

AWARD No	9	-	G3WZQ	17	-	G3EYD	25	-	GW3ASW
	10	-	G2CVY	18	-	DL6AA	26	-	G3HKU
	11	-	G3HBE	19	-	DL5YS	27	-	G3NOB
	12	-	G-8350	20	-	G3XBA	28	-	DL5ZZ
	13	-	G13JEX	21	-	G3WPW	29	-	DL5YQ
	14	-	GM3PIP	22	-	G3WNI	30	-	G3UAA
	15	-	G3UTX	23	-	G3RYF			
	16	-	G3XHJ	24	-	No. 624			

EUROPE CLASS III AWARD

AWARD No	16	-	G3WZQ	25	-	G3VZP	34	-	G3EJF
	17	-	G2CVY	26	-	G3RUS	35	-	G2BTO
	18	-	DL5YQ	27	-	G3WPW	36	-	G3NOB
	19	-	G13JEX	28	-	G3EYD	37	-	DL5XW
	20	-	G3UTX	29	-	DL6AA	38	-	No. 624
	21	-	G3XHJ	30	-	DL5ZZ	39	-	GW3ASW
	22	-	G3NCZ	31	-	G3XBA	40	-	G3HPJ
	23	-	DL5YS	32	-	G3WNI	41	-	G3XUR
	24	-	G2HNL	33	-	G3RYF	42	-	G3UAA

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ANOTHER EI CALLSIGN IN THE NEWS.....EI2VCL

G2DRT will be operating EI2VCL from FENIT, Co. KERRY from August 22nd to September 5th 1970 on 144 mHz with a HW17A. Also / on 70 mHz. Also possibly operating from TA Camp at Scarborough last two weeks in June.

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Not a "DID YOU KNOW".....?" but a "DID YOU SEE.....?" The photo in the May-June issue of the "Wire" of the President of the RSARS complete with aiguillette. (Concise Oxford Dictionary, 5th Edition, pages 26 and 27 refers!)

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Awards Section

ISLE OF WIGHT AWARD

G3UCW sends us details of the ISLE OF WIGHT AWARD, in 2 classes - Stations within 30 miles of Newport 15 or 300 QSOs, other Europeans 5/15, DX, 3/10 VHF 3 contacts with IOW stations, all CHC rules AOMB/M stations, all CHC rules AOMB/M available to SWLs, send full certified log data (no QSLs needed) send 5/ - or 8 IRCs to G3UCW 18 Station Avenue, SANDOWN, Isle of Wight, England.

No info available on numbers of operators residing on the Island, but presumably there are sufficient, active, to get your contacts.

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THE CAMEL DRIVERS RADIO CLUB

presents the

ARA (AFGHANISTAN RADIO AWARD)

ARA may be worked from all Hams and SWLs. Necessary contacts on at least two band: Afghanistan 6, Asia (except YA) 4, Africa, Europe 3, rest of the world 2 contacts, (e.g. 1 QSO on 14 Mc, the rest on 21 Mc).

Send application the QSLs or GCR-1ist! No differences for bands or modes.

The costs are 10 IRCs or 1 US Dollar. Free for blind and paralysed Hams. 2 IRCs more for registered mail; 10 IRCs more for air mail.

The ARA can be worked again and again with other stations, it can be worked every year.

The ARA will be mailed same day when application arrives. Contacts dated 1 January 1966 or later will count.

Apply to : YA5RG, Wolfgang Renner, PO Box 279, Kabul/Afghanistan. A special callsign YA0CDRC, YES, YA0CDRC is being used by the Camel Drivers Radio Club during 1970.

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WRC BEOGRAD (WORKED RADIO CLUB BEOGRAD)

The Radio Club Reograd issues the award for 2 + way contacts, CW, AM, SSB OR MIXED ALL BANDS, with members of the club and whose QSLs have been received by the members concerned.

The QSOs after 1 January 1951 are valid. The same rules apply to SWLs. Required numbers of contacts:

European stations	5 contacts
Other continents	3 contacts
Yugoslav stations	8 contacts

Members are YU1AAQ: AEG, AFO, AK, APO, ARO, AU, BKL, CB, CW, EO, FM, KL, LU, MV, NBR, NBQ, NBT, NBU, NCD, NEW, NHD, NHV, NIB, NID, NOC, NOP, NOR, NPQ, NPZ, NRK, NSF, NSH, NSN, NSW, NUK, NUL, NUM, NUN NRW NYE, OAW, PKW, QAA, SJ, SQ, YR.

Extracts of log and 10 IRCs should be sent to AWARD MANAGER, PO Box 235, BELGRADE, YUGOSLAVIA.

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FOUR METRES AND DOWN CERTIFICATES

These Certificates, intended to mark successful VHF and UHF achievements, are available in twelve categories.

Four Metre Senior Award	)	60 Counties	6 Countries
Four Metre Award	)	20 Counties	3 Countries
Four Metre Listener Award)	" "	" "
Two Metre Award	)	30 Counties	5 Countries
Two Metre Listener Award)	" "	" "
Two Metre Senior Award	)	60 Counties	15 Countries
Two Metre Senior Listener Award)	" "	" "
Seventy Centimetre Award	)	20 Counties	3 Countries
Seventy Centimetre Listener Award)	" "	" "
Seventy Centimetre Senior Award	)	40 Counties	9 Countries
Twenty-three Centimetre Award	)	Two certificates available for listening and transmitting respectively. Qualification is proof of contact (or confirmed listener reports) with stations in 3 Countries and also in 20 counties of the UK.	
Supreme Award	)	The holding of 3 Senior Awards or 2 Senior Awards and 23 centimetre ordinary award.	

Rules

1. All claims must be fully supported by QSL cards.
2. All contacts must have been made on or after January 1st 1961.
3. Eligible Countries are those of the United Kingdom of Great Britain and Northern Ireland, listed on the claim form
4. Stations are eligible for certificates in the following groups:
 - (a) Fixed stations.
 - (b) Alternative address stations (-/A any address)
 - (c) Portable stations (-/P any location)
 - (d) Mobile stations (-/M any location)Categories cannot be mixed.
5. All claims must be submitted to the VHF Committee at RSGB headquarters 28-30 Little Russell Street, London WC1, and must be accompanied by a check list.
6. All cards will be returned by recorded delivery and return envelopes are not required.

COUNTIES

	Callsign	Date		Callsign	Date
<u>England (G)</u>					
1. Bedford			22. London (Postal Districts)		
2. Berkshire			23. Middlesex		
3. Bucks			24. Middlesex		
4. Cambridge			25. Monmouth		
5. Cheshire			26. Northampton		
6. Cornwall			27. Northumberland		
7. Cumberland			28. Nottingham		
8. Derby			29. Oxford		
9. Devon			30. Rutland		
10. Dorset			31. Shropshire		
11. Durham			32. Somerset		
12. Essex			33. Stafford		
13. Gloucester			34. Suffolk		
14. Hampshire			35. Surrey		
15. Hereford			36. Sussex		
16. Hertford			37. Warwick		
17. Huntingdon			38. Westmorland		
18. Kent			39. Wiltshire		
19. Lancashire			40. Worcester		
20. Leicester			41. Yorkshire		
21. Lincoln					
<u>Scotland (GM)</u>					
42. Aberdeen			59. Lanark		
43. Angus			60. Mid-Lothian		
44. Argyll			61. Moray		
45. Ayr			62. Nairn		
46. Banff			63. Orkney		
47. Berwick			64. Peebles		
48. Bute			65. Perth		
49. Caithness			66. Renfrew		
50. Clackmannan			67. Ross & Cromarty		
51. Dumbarton			68. Roxburgh		
52. Dumfries			69. Selkirk		
53. East Lothian			70. Shetland		
54. Fife			71. Stirling		
55. Inverness			72. Sutherland		
56. Kincardine			73. West Lothian		
57. Kinross			74. Wigtown		
58. Kirkcudbright					

THIS SHEET MAY BE EXTRACTED. IT IS BLANK ON THE REVERSE SIDE

	Callsign	Date		Callsign	Date
<u>Wales (GW)</u>					
75. Anglesey			81. Flint		
76. Brecknock			82. Glamorgan		
77. Cardigan			83. Merioneth		
78. Carmarthen			84. Montgomery		
79. Caernarvon			85. Pembroke		
80. Denbigh			86. Radnor		
<u>Northern Ireland (GI)</u>					
87. Antrim			90. Fermanagh		
88. Armagh			91. Londonderry		
89. Down			92. Tyrone		
<u>Channel Islands (GC)</u>					
93. Alderney			95. Jersey		
94. Guernsey			96. Sark		
97. Isle of Man (GD)					

FOUR METRES AND DOWN CERTIFICATES

Station Callsign Class of Award

COUNTRIES

	Callsign	Date		Callsign	Date		Callsign	Date
G			CT			LA		
GC			F			OH		
GD			I			OK		
GI			PA			SP		
GM			ON			OE		
GW			DL*			HB		
EI			OZ			YU		
EA			SM			LX		

- Includes DL, DJ and DM

THIS SHEET MAY BE EXTRACTED. IT IS BLANK ON THE REVERSE SIDE

OTHER AWARDS SECTION

The following Awards have come to the notice of HQ by way of QSL cards to G4RS.

THE 5N2 AWARD

This Certificate is issued to amateurs and SWLs who have worked or heard 5 different 5N2 stations on any bands. There are three classes of this Award : Fone : CW : Mixed.

Applicants should send full details (NOT QSL CARDS) of the five contacts plus 5 IRCs to : NIGERIAN AMATEUR RADIO SOCIETY, P.O. BOX 2873, LAGOS, NIIGERIA.

CHRISTCHURCH AWARD.

This Award is available to all amateurs. The conditions of the Award are as follows : ZL3 stations must work 25 qualifying stations, ZL1, 2 & 4 must work 15, VK stations must work 10 stations and the rest of the world must work 5. Any QSL, with the word "Christchurch" in the address will qualify for the Award. Send a list of QSLs held, certified by two other amateurs, to CHRISTCHURCH AWARD, C/o P.O. BOX 1733, CHRISTCHURCH, NEW ZEALAND, complete with NZ50 cents or US \$1 : 00 or the equivalent.

ATLAS 28 AWARD

For the Award of the Atlas 28 Certificate it is necessary to have QSOs with 28 stations in Tokyo on 28 MHz and receive their QSL cards. Send QSL list GCR and 6 IRC to the Atlas Award Manager, JAIUOC. QSOs after January 1st 1967 apply.

ATLAS 280 and ATLAS $\frac{280}{2}$ AWARDS.

For these Awards it is necessary to have 280 or 140 stations worked on 28 MHz (and to receive their QSLs). Over half the contacts must be with JA/JH/JR stations. Send QSL list GCR and 6 IRCs to the Atlas Award Manager JAIUOC.

9H1 AWARD

This is available to any licensed Amateur Radio Operator, or SWL who can fulfil the specified conditions. All contacts after the 21st September 1964, (Malta Independence Day) will count. The same 9H1 station may be counted once per band only. 50 points are required for ONE band working, 40 points for TWO band working, 30 points for THREE band working and 20 points for FOUR band working. Contacts on any FIVE bands qualify. 9H1 SWL cards (provided the SWL has received a reply) may be substituted in lieu of contacts, on the band reported, up to a maximum of two. The Award is open to SWLs who can provide proof of having heard 9H1 stations. Same points to apply. QSLs or G.C.R. List with 6/-, 1 US Dollar, or 10 IRCs to AWARDS MANAGER, M.A.R.S., MALTA GC. The Award is free to Blind and Paralysed amateurs. Points are awarded for contacts with 9H1 stations as follows :

Band, Zone etc.	1-8	3-5	7-0	14-0	21-0	28-0	All other bands
Zone 14,15,16,33 & 34	5	3	2	1	3	5	25 Points
All other Zones except as under.	15	12	6	2	6	10	45 Points
Areas North of Arctic Circle and south of Antarctic Circle	30	25	15	5	12	20	50 Points
...	---	---	---	---	---	---	---

Mayflower Award.

Last minute information has just been received from NOBBY CLARK, RSARS 719, concerning the MAYFLOWER AWARD. To qualify for this award members have to work any one station from Plymouth plus any other five stations in the county of DEVON.

Any band, any mode may be used, no separate endorsements for one band or one mode of transmission. Cost of the certificate is 8/6 (43 np, Ed.), and this amount should accompany your claim. Nobby is not only the award manager for this award but is also the secretary and treasurer of the CHESHIRE HOMES AMATEUR RADIO NETWORK fund, a group of dedicated amateur radio enthusiasts, whose aim is to supply CHESHIRE HOMES with a complete receiving station, and eventually to link all homes with Amateur Radio. All monies paid to Nobby go towards this very worthwhile cause.

May we at the headquarters wish you all the very best with this project Nobby, and hope that it will not be too long before you achieve your objectives.

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THAT SIX LETTER CALLSIGN

When member No 575, Sgt Sean Ryan applied for his EI licence, his callsign was issued as EIZVCJ, the typist having mistaken the figure 2 on the original draft (EI2VCJ), for the letter Z. When Sean went back to the Post Office with his enquiry, he was told to use the callsign as it was issued and to retain the call EIZVCJ. So he did. Pity I missed you Sean, that must be one of the rarest calls ever issued. (Ed.).

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FROM THE IN-TRAY.

A couple of interesting letters from members. The first from G3SJF (RSARS 200).

"..... On page 15 (last "Mercury" - Ed.) there is a statement that Amateur Radio was first authorised in Palestine after the War in March 1947, which is rather misleading as there was an amateur station at Savaford, No.2 Wireless Company before the War. The callsign was ZC6AA and I believe the equipment had been acquired from a Sergeant in the Palestine Police. The station was operated in the main by one Sigmn. W. Bockhouse. The transmitter was manufactured by Premier Radio (the output valve was a PX 25), and the receiver was a "home-built" straight set. I made my first "ham" contact from this station (an SP)....." .

(I think Bill, G2WH, meant to imply that AF'TER THE WAR amateur radio was first authorised in March 1947 ...etc. However, it is interesting to hear about ZC6 BEFORE the War. Anyone else remember ZC6AA, pre-War? - Ed.).

The second letter of this batch comes from Harold Gregory G3VIF (RSARS 392).

"..... I served in Royal Signals and did most of my training at Catterick, Le Cateau Lines in the Spring of 1942. I remember spending my 21st Birthday in quarantine! Two weeks confined to a Barrack Room!. Eventually I passed out as an OWL BII and joined an Ack Ack Regiment of Argyll and Sutherland Highlanders and in 1944 went across to France and Holland. In 1945 I was posted out to the Far East, and, amongst other things, worked a Fullerphone CW link from Launggi in Burma to Rangoon. I remember the line being out on numerous occasions. However, one message that did get through was the movement order for my particular group to go back home!. Yes, Demob! And I took the message, what a thrill - I never missed a dot!!!.

A letter from John, G3KYU R3ARS No. 094, tells us that he served in the 57 TM Section with 4th Indian Air Formation Signals, Eastern Army Signals, 14th Army Signals and Malaya Command Signals from March 43 to December 1945. John would like to hear from any member who remembers him or who served in these units whilst John was there.
Glad you like "Through to 70" John, it is certainly good reading. (Ed.)

An amusing photo and lines of verse to match, come from RSARS No. 646 G. Trecco of Derby, (G3JIY).

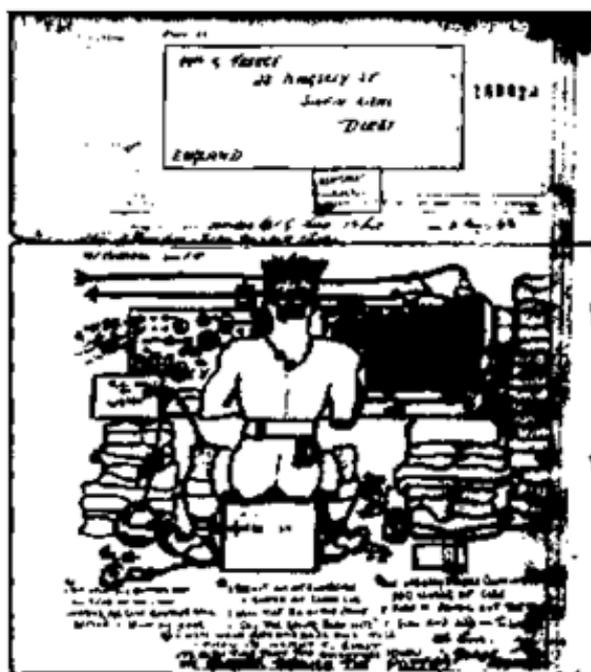
He sent the following ode to his XYL on an Airgraph form during the last war and completed the letter with a sketch of his working conditions.

1
I sit upon my battery seat
and send dahdahditdah.
Instead I'll give another call
before I drink my charr.

I bash it out at 3 words per
I glance at Comic cuts
I call the SO on the phone
I say the groups Bosh nuts

2
The orderly brings oinkink PP
100 words pf code
I fish a pencil out the jam
I sign and add -- to load

I now have pips and zeds and tocs
I know its nought to boast
Its high time that the blighters knew
ITS QUICKER THROUGH THE POST



I think that our SDS lads would have agreed with you, seeing that it was they who delivered the post. (Ed.)J

Have our members any more unusual tales of message sending to be related. Info to MERCURY EDITOR [pse](#).

ROYAL SIGNALS AMATEUR RADIO SOCIETY QSL BUREAU.

The following information has been received from G3HSE, DAVE (352), concerning QSL cards held out by manager for the stations listed below. An envelope to Dave please, from all those mentioned and would all members read up on the few basic requests shown below the last of the calls.

G2.....DRTIO.....QB.....UX.

G3.....AGO.AJP.AKF.BIC.CKQ.DOJ.DSS.DJM.DWS.EBH.FO.GLQ.HS.KPQ.KAM. LOV. LUN.
NQT.NKR.ONU.OFV.(DL5XX).POY.PGM.PYN .RKD.RKN.RGF.RYS.TTH.UJW.UZL.
VLL.VYT.XFQ.XAV.XWI.XIP .YBO.YBP.YNT.YOY.YSK.XHJ .

G4.....QD.

G5.....GH.HZ.KW.XB.YN.

G6....HP.VQ.

G8....NY.SC.

GI.....5DX....3KDV.

GW3.....MSY...SVY.

DL.....2AH.VR.... DL5XF.XW.YB.ZC.ZU.ZZ.

5N2AAF....VQ8CZ.....VP2EQ.....VQ8CR.....VE3RCS.....WA6CEB.....

The RSARS QSL Bureau operates for the benefit of all fully paid up members of the Society and is intended for the speedy exchange of QSLs and SWL reports between members. Members can assist G3HSE in the running of this FREE service by bearing the following points in mind :-

- a) Even if you operate only occasionally, why not drop a couple of S.A.E. to Dave NOW. If there are no cards for you in the Bureau, Dave will be quite happy to hang on to the envelopes until the cards come in.
- b) If you operate regularly, why not drop a dozen or so S.A.E. to Dave NOW. If there are cards waiting for you, Dave will be quite happy to send them on to you.
- c) If you operate occasionally or regularly and there are cards waiting for you at the Bureau, and no envelopes, Dave will not be very happy.
- d) Please mark your envelopes "1", "2", "3", "4", "LAST" etc. This will remind you when more envelopes are due.
- e) Please ensure that envelopes are of sufficient size (slightly larger than Post Card size) and remember that 4d stamps are usually sufficient.
- f) If you write to Dave with a query, please enclose a S.A.E. If you talk to him on the land-line and want him to ring you back, please accept the charge. The Bureau costs the Society little, thanks to Dave's generosity and hard work.
- g) If you do not want cards, please drop a line to Dave giving him authority to destroy any cards held for you. Storage space is limited.
- h) Please do not include non-member cards in batches you send to the Bureau. We have no facilities for forwarding overseas non-member cards or inland non-member cards.

ROYAL SIGNALS AMATEUR RADIO SOCIETY
ANNUAL GENERAL MEETING

The Annual general meeting of the Royal Signals Amateur Radio Society for 1970 will take place at the RSGB International Radio Engineering and Communications Exhibition, on Saturday 22nd August 1970, at the Royal Horticultural Society's New Hall, Greycoat Street, Westminster, London SW 1.

The Agenda for the meeting is as follows:

1. OPENING ADDRESS.
2. MINUTES OF THE LAST MEETING.
3. ELECTION OF OFFICERS/CONFIRMATION OF POSTS.
4. GENERAL SECRETARY'S REPORT.
5. TREASURERS REPORT.
6. HEADQUARTERS STATION MANAGER'S REPORT.
7. PAYMENT FOR MERCURY ARTICLES.
8. ANY OTHER BUSINESS.

Any member who has a proposal to lay before the AGM is requested to send details to the MOD or GENERAL SECRETARY, before 1st August 1970.

RECEIVED WITH THANKS

As at 7th April the Treasurer reports that the 1970 Annual Subscriptions and Life Membership Subscriptions have been received from the following members:

006 021 028 037 062 087 099 105 109 115 117 137 140 143 152 153 161 163 167 168 169
171 175 176 178 180 187 190 209 211 220 221 230 231 232 236 245 251 258 262 265 266
269 271 272 276 279 290 298 299 304 306 310 312 313 318 323 327 330 331 333 336
340 341 342 345 359 368 371 379 382 383 386 388 390 393 394 395 396 398 400 404 407
409 412 413 415 419 420 435 440 444 448 449 450 451 452 454 456 466 467 469 473 480 481 485
488 489 492 495 497 499 502 504 505 515 517 518 519 524 530 535 539 542 543 549
557 558 560 561 562 563 564 574 578 579 586 587 589 592 593 599 600 606 608 609
610 612 613 614 617 622 623 624 625 630 631 633 635 636 644 645 646 647 648 652 653 654 655
656 657 661 662 663 666 667 669 670 671 672 673 674 676 677 678 679 680 681 682 683 684 685
687 688 690 691 692 693 694 695 697 698 699 700 701

Standing Orders from the following have been received by the Treasurer

011 077 130 172 174 224 274 296 322 347 353 366 369 391 422 426 457 478 500 521 573 627

Affiliated Club Annual :

AFF 3 AFF 10 AFF 14

Life Membership :

093 114 157 168 170 248 255 295 343 348 523 545 568 571 575
603 605 611 619 620 628 634 638 639 659 660 668 675

In case of error please let the Treasurer know as soon as possible. Tnx.

ROYAL SIGNALS AMATEUR RADIO SOCIETY

MEMBERSHIP LIST - PART II

NON-LICENSED MEMBERS

(As at 1st June 1970)

Name	Init	No.	QTH	Name	Init	No.	QTH
ALLIS	G.	481	WestEwell	GIBSON	G.	053	BFPO 29
ASTON	A.	271	Lichfield	GILLER	B.	212	Blandford Camp
ATKINSON	F.W.	399	Northampton	GODDARD	C.J.	147	<u>Budbrooke</u>
BAGLEY	L.B.	644	Dover	HARDY	M.	296	Yeovil
BAINS	R.	041	NotKnown	HARE	G.	668	Lincoln
BARNES	P.J.	693	<u>Carnforth</u>	HARRISON	T.M.	504	Bradford
BEAUMONT	W.G.	213	Erdington	HARVEY	J.K.	095	Bromsgrove
BEDFORD	J.	238	Banstead	HAWKSHAW	J.	126	Carlisle
BEGG	W.M.	624	Inverness	HEAPS	A.	585	BFPO 53
BENNETT	D.	324	Leamington Spa	HICKS	T.	527	Colchester
BLAKE	A.C.	358	Barnet	HITCHIN	D.	286	Poole
BREED	G.A.	318	Banfleet	HITCHIN (Mrs.)	K.D.	261	Poole
BRINDLEY	J.S.	354	Sutton Coldfield	HOLMES	A.H.	716	Appleby
BROWN	V.	075	HongKong	HOWARD	R.E.	049	Singapore
BUCKLEY	M.J.	391	<u>Croyden</u>	HUDSON	J.M.	348	Ventnor
BUDD	R.	404	Maidstone	HUGHES	B.F.	712	Worcester
BUTLER	H.H.	044	Catterick Camp	IRWIN	J.	427	Blandford Camp
CADDICK	A.	586	Castleford	JESSOP	N.H.	129	Chelmsford
CAMPBELL	N.M.	390	Catterick Camp	JOLLY	I.B.	605	Winsford
CAPJON	W.D.	096	Hastings	JOSLIN	H.	299	Braintree
CARR	??	487	NotKnown	LAIGHT	R.	707	Coventry
CARTWRIGHT	A.	640	Brereton	LANGHAM	T.W.	145	Radcliffe-on-Trent
CLAPHAM	M.J.	508	BFPO 16	LARKIN	R.J.	441	Norwich
CLIFF	J.M.	548	BFPO 36	LAYBOURNE	P.S.	516	BFPO 36
COLLINS-HOOPER	C.	159	Southampton	LEES	R.H.	518	Market Drayton
COMPLIN	B.C.	219	Blandford Camp	LIVENS	W.C.	653	Tottenham
COOPER (Mrs.)	L.	651	Blandford Camp	LONDON	F.C.	675	BFPO 30
COURT	C.H.	715	Liverpool	LOWSON	N.	303	Forfar
COX	C.E.	630	Reading	MACHEATH	R.A.	078	BFPO 40
DEMPSTER	R.	450	<u>Kirknewton</u>	MALONEY	P.L.	170	<u>Camberley</u>
DIXON	R.W.	263	<u>Croyden</u>	MARTIN	H.S.	477	<u>Wickford</u>
DURHAM	C.J.	248	Camberley	MAYMAN	C.L.	711	Blandford Camp
ELLIS	M.A.	223	NotKnown	McLAY	D.	705	Edinburgh
EVISON-JOWETT	D.	065	Bedford	McMILLAN	W.	150	Glasgow
FIRMAN	P.	541	Beaconsfield	McNAMARA	A.	709	Ripon
FLETCHER	P.M.	701	Watford	MEADEN	B.G.	629	Sutton Coldfield
FORD	P.	246	NotKnown	MEDWAY	H.A.	114	France
FOSTER	M.S.	315	BFPO 37	MOGG	??	253	BFPO 16
FREEMAN	K.B.	050	London	MOIR	D.	460	Singapore
FROST	A.C.	111	Sunderland	MORGAN	K.W.	220	Hatfield
GALLAMORE	G.	301	Manchester	MORPHEY	M.	057	<u>Larkfield</u>
GATES	T.F.	310	Bournemouth	NEILSON	S.W.	677	Malaya

Name	Init	No.	QTH	Name	Init	No.	QTH
O'KEEFE	P.	202	Catterick Camp	SMITH	S.	349	Kenilworth
PALING	D.	305	London	SMYLIE	J.A.	351	Belfast
PARKER	B.W.	408	Shawbury	STEVENSON	I.C.	154	Not Known
PARKINSON	F.G.	449	Winchester	SUART	I.D.	689	Milnthorpe
PAYNE	C.	515	BFPO 40	SWINDELLS	B.F.	637	Bulford
PLANT	D.G.	443	Wembley	TERRILL	B.C.	032	Not Known
PLUDEK	M.	622	Kuwait	THRELFALL	K.E.	033	Not Known
PORTER	J.F.	298	Leicester	TITCHMARSH	G.	617	Blandford Camp
PROUDFOOT	J.C.	658	Nottingham	TOWNSON	B.H.	088	Gillingham
PARRY	R.M.	462	Gloucester	TRETHERWEY	P.E.	117	Crawley
RHYS	J.	581	BFPO 33	WALDEN	J.I.	587	London
RICHARDSON	P.	383	Winsford	WALKE	E.J.	013	Winchester
RICHARDSON	T.	036	Catterick Camp	WALL	H.J.	520	Shrewsbury
RIDLEY-MARTIN	R.B.	048	Sunningdale	WEBSTER	R.	028	Little Sutton
ROBERTS	A.D.	218	Liverpool	WESTWATER	S.	591	Singapore
ROBINSON	R.H.	314	Fernhurst	WHISTLER	A.M.	002	Argyll
ROE	A.F.	678	Malaya	WHITE	D.	275	Blandford Camp
RYAN	J.	575	BFPO 45	WILKINS	J.J.	056	Rhondda
SAMPSON	D.R.	676	London	WOLLACOTT	J.H.	697	Huntingdon
SANDY	E.W.	188	Huntingdon	WOOD	E.G.	645	London
SCOTT	G.	659	Blandford	WOODALL	D.W.	166	BFPO 32
SIMS	F.A.	342	Troon	WOODS	L.A.	181	Blandford Camp
SMART	E.J.	455	Singapore	WORTON	R.S.	249	Cannock

The General Secretary would appreciate details of any errors or omissions

NOTES

With effect from the 1st June 1970 all members are asked to address all Society correspondence as follows:-

Correspondence for THE GENERAL SECRETARY, HQ STATION MANAGER, EDITOR OF "MERCURY", TREASURER, CONTEST MANAGER, etc. to :-

The Officer or Section concerned, Royal Signals Amateur Radio Society, School of Signals, Blandford Camp, Blandford Forum, Dorset.

Correspondence for the RSARS QSL BUREAU to :-

RSARS QSL Bureau, C/o G3HSE, 78 Brocklehurst Street, New Cross, London, S.E.14.

Correspondence for the AWARDS MANAGER to :-

RSARS Awards Manager, C/o G3VIS, "Heather Lea", 12 Linton Rise, Catterick Camp, Yorkshire.

Correspondence for the SWL Manager to :-

RSARS SWL Manager, C/o W.G. Beaumont Esq., 40 Hollydale Road, Erdington, Birmingham 24.

ROYALS SIGNALS AMATEUR RADIO SOCIETY

MEMBERSHIP LIST

PART III

The following call-signs have been (and in some cases, still are) held by RSARS members. If you have held a call-sign in the past which does not appear in this list, please let the General Secretary know. It is hoped to display these call-signs at the new RSARS HQ location.

Callsign	No.	Callsign	No.	Callsign	No.	Callsign	No.	Callsign	No.
AC4YN	040	DL5YT/PX	418	G3NWX	283	GM3VBL	059	ON5ZQ/M	643
		DL5YU	157	G3OFV	031	GM3VNN	210		
AP5B	321	DL5ZX	612	G3OSY	385			ON8ID	381
AP5B/YA	321			G3PNF	085	GM5GH	247	ON8IR	643
		EIZVCJ	575	G3RSV	619			ON8IT	156
CE3ZO	537			G3RWF	293	GM8MQ	187	ON8IY	381
		EI2VAQ	364	G3SRC	655				
D2DA	566	EI2VCL	322	G3SRH	439	GW3OAZ	021	PA9BID	381
D2GN	434			G3TBP	169	GW3OFV	031	PA9DHV	643
D2IZ	090	EI3AH	031	G3UDU	378	GW3OPL	682		
D2KW	589			G3UMI	054			PA0XKH	022
D2SC	564	EI6BB	156	G3UNC	459	GW5GH	247	PA0XKI	602
				G3UOL/LX	156				
DJ0AA	643	EI9BR	671	G3UXZ	698	GW8SC	564	PK1RW	046
DJ0LJ/M	643			G3VNN	210				
		F0JA	156	G3VPM	435	HZ1KE	099	ST2KO	139
DL2AB	602	F0KI	643	G3VTU	469				
DL2AD	022	F0RT	381	G3WHS	547	LA9YC	040	SU1AQ	530
DL2AH	225	F0RT/FC	381	G3WJL	558			SU1BA	046
DL2AM	682			G3WME	103	MD5AJ	097	SU1DA	566
DL2BB	225	G2XI	381	G3WNG	470	MD5DA	566	SU1HS	321
DL2BC	021			G3XBA	225	MD5EB	664	SU1KE	099
DL2BH	438	G2BPC	118	G3XMC	406	MD5KW	099		
DL2BK	046	G2DHV/DL	643					SU3GM	097
DL2DA	566	G2DHV/OZ	643	G6ACP/T	025	MD7DA	566		
DL2DO	619							SV0AL	620
DL2HO	076	GB2CHC	247	G6ZO/I	537	MP4BFR	438		
DL2KW	589	GB2FF	247			MP4BGK	418	VE2AWO	558
DL2PN	079			G7AE	589	MP4BHA	590		
DL2QT	068	G3HN	022					VE3EW	698
DL2X	405			G8AIH	665	MP4TAF	588		
DL2VM	021	G3BID/CN	381	G8BAI	593	MP4TBU	116	VE3AHQ	558
DL2YN	040	G3BID/DL	381	G8CWA	444	MP4TBW	438	VE3BUS	589
DL2ZA	454	G3BID/LX	381			MP4TCM	601	VE3FKV	602
		G3BID/6W8	381	GD5GH	247	MP4TCQ	329		
DL4KW	589	G3EKL	046			MP4TCR	437	VK2XL	321
		G3GIE	702	GI3VYZ	173	MP4TCV	447		
DL5XH	116	G3HEV	643	GI3WMZ	506	MP4TCW	601	VP1DW	275
DL5XN	217	G3HUM	690			MP4TCX	532	VP1HN	022
DL5XR	061	G3JKO	139	GM2HIK	097				
DL5XV	368	G3KAM	465			OE1ZWW	381	VP2EQ	425
DL5XX	031	G3KVD	671	GM3DPS	090				
DL5YB	438	G3LCT	660	GM3FGN	068	ON4IE/2	643	VP5GM	528
DL5YK	405	G3LDS	222	GM3JKO	139			VP5HN	022
DL5YT	418	G3LWS	089	GM3KVD	671	ON5ZE	381		
DL5YT/LX	418	G3NKO	227	GM3NKO	227	ON5ZO	537	VP8CZ	089

Callsign	No.	Callsign	No.	Callsign	No.	Callsign	No.	Callsign	No.
VQ2BC	691	VS6AX	247	XU8DI	566	ZD2JKO	139	5Z4IV	530
		VS6BA	085						
VQ4IQ	660			YI3GM	566	ZD3F	381	9H1AW	558
VQ4IV	530	VS7CX	037					9H1BN	381
VQ4SC	564			YU7LCT	156	ZD6SC	564		
VQ4WLH	400	VS9AHN	022					9J2BC	691
		VS9AIS	183	ZB1AR	641	ZD8TV	254		
VQ9JW	378	VS9ALD	432	ZB1BE	690			9L1JJ	257
		VS9ALV	506	ZB1CP	682	ZL2AUI	673		
VS1AF	664	VS9APR	602					9M2NF	085
VS1BA	046	VS9ARV	418	ZC4BA	046	ZS5NB	198	9M2PO	451
VS1BJ	638			ZC4BG	536			9M2RH	AFF45
VS1CX	037	VS9HRV	418	ZC4CZ	089	3A2CK	643	9M2SR	090
VS1FC	068			ZC4FB	089			9M2SR	103
VS1HD	619	VS9KRV	418	ZC4GY	536	5A2TX	405	9M2XX	090
VS1HG	118			ZC4LX	405				
VS1LL	022	VS9MAX	183	ZC4NX	099	5A4TZ	021	9M4LL	020
VS1LO	210			ZC4OS	385	5A4TZ	648	9M4ML	031
VS1ML	031	VS9PRV	418	ZC4RB	224				
VS1YN	040			ZC4SC	564	5B4BG	536	9M6AJ	031
		VUQ	040	ZC4TJ	225	5B4CZ	089		
VS2AL	627			ZC4XA	247	5B4GY	536	P/9M6JO	090
VS2DF	418	VU2HS	321	ZC4XX	090	5B4JW	225	9M8JC	090
		VU2YN	040			5B4OS	385		
VS5JC	090			ZC6AQ	530			9V1ML	031
VS5MC	282	XAHV	643	ZC6DA	566	5N2JKO	139	9V1MS	465
VS5RCS	085	XARM	222	ZC6JK	564	5N2RSB	217	9V1PF	116
		XAZO	537	ZC6NX	099			9V1PZ	575
VS6AL	440								

RS STATIONS HEARD OR WORKED TOTAL

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020
021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040
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ROYAL SIGNALS AMATEUR RADIO SOCIETY
SHAK-ADE No.3
ENGLISH-METRIC EQUIVALENTS

In.	In.	mm	In.	In.	mm	In.	In.	mm
$\frac{1}{64}$	0.0156	0.397	$\frac{23}{64}$	0.3594	9.13	$\frac{45}{64}$	0.7031	17.86
$\frac{1}{32}$	0.0313	0.794	$\frac{3}{8}$	0.3750	9.52	$\frac{23}{32}$	0.7188	18.26
$\frac{3}{64}$	0.0469	1.19	$\frac{25}{64}$	0.3906	9.92	$\frac{47}{64}$	0.7344	18.65
$\frac{1}{16}$	0.0625	1.59	$\frac{13}{32}$	0.4063	10.32	$\frac{3}{4}$	0.7500	19.05
$\frac{5}{64}$	0.0781	1.98	$\frac{27}{64}$	0.4219	10.72	$\frac{49}{64}$	0.7656	19.45
$\frac{3}{32}$	0.0938	2.38	$\frac{7}{16}$	0.4375	11.11	$\frac{25}{32}$	0.7813	19.84
$\frac{7}{64}$	0.1094	2.77	$\frac{29}{64}$	0.4531	11.51	$\frac{51}{64}$	0.7969	20.24
$\frac{1}{8}$	0.1250	3.17	$\frac{15}{32}$	0.4688	11.91	$\frac{13}{16}$	0.8125	20.64
$\frac{9}{64}$	0.1406	3.57	$\frac{31}{64}$	0.4844	12.30	$\frac{53}{64}$	0.8281	21.03
$\frac{5}{32}$	0.1563	3.97	$\frac{1}{2}$	0.5000	12.70	$\frac{27}{32}$	0.8438	21.43
$\frac{11}{64}$	0.1719	4.37	$\frac{33}{64}$	0.5156	13.10	$\frac{55}{64}$	0.8594	21.83
$\frac{3}{16}$	0.1875	4.76	$\frac{17}{32}$	0.5313	13.49	$\frac{7}{8}$	0.8750	22.22
$\frac{13}{64}$	0.2031	5.16	$\frac{35}{64}$	0.5469	13.89	$\frac{57}{64}$	0.8906	22.62
$\frac{7}{32}$	0.2188	5.56	$\frac{9}{16}$	0.5625	14.29	$\frac{29}{32}$	0.9063	23.02
$\frac{15}{64}$	0.2344	5.95	$\frac{37}{64}$	0.5781	14.68	$\frac{59}{64}$	0.9219	23.41
$\frac{1}{4}$	0.2500	6.35	$\frac{19}{32}$	0.5938	15.08	$\frac{15}{16}$	0.9375	23.81
$\frac{17}{64}$	0.2656	6.75	$\frac{39}{64}$	0.6094	15.48	$\frac{61}{64}$	0.9531	24.21
$\frac{9}{32}$	0.2813	7.14	$\frac{5}{8}$	0.6250	15.87	$\frac{31}{32}$	0.9688	24.61
$\frac{19}{64}$	0.2969	7.54	$\frac{41}{64}$	0.6405	16.27	$\frac{63}{64}$	0.9844	25.00
$\frac{5}{16}$	0.3125	7.94	$\frac{21}{32}$	0.6563	16.67	† Inch	1.000	25.40
$\frac{21}{64}$	0.3281	8.33	$\frac{43}{64}$	0.6719	17.06			
$\frac{11}{32}$	0.3438	8.73	$\frac{11}{16}$	0.6875	17.46			

ROYAL SIGNALS AMATEUR RADIO SOCIETY
SHAK-ADE No.4
B.A. SCREWS

B.A. Size	Threads Per Inch	Outside Dia. (Ins)	Core Dia. (Ins)	Effective Dia. (Ins)	Tapping Drill	Clearance Drill "C"
0	25.4	0.236	0.189	0.213	No.9 (0.196)	No.3 (0.242)
1	28.2	0.209	0.166	0.187	No.17 (0.173)	No.3 (0.213)
2	31.3	0.185	0.147	0.166	No.24 (0.152)	No.10 (0.193)
3	34.8	0.161	0.127	0.144	No.29 (0.136)	No.18 (0.169)
4	38.5	0.142	0.111	0.126	No.32 (0.116)	No.25 (0.149)
5	43.1	0.126	0.098	0.112	No.37 0.104	No.29 0.136
6	47.9	0.110	0.085	0.098	No.43 (0.089)	No.31 (0.120)
7	52.9	0.098	0.076	0.087	No.46 (0.081)	No.36 (0.106)
8	59.1	0.087	0.066	0.076	No.50 (0.070)	No.42 (0.093)
9	65.1	0.075	0.056	0.065	No.53 (0.059)	No.46 (0.081)
10	72.6	0.067	0.050	0.059	No.54 (0.055)	No.49 (0.073)

NUMBER DRILL SIZES

Drill No.	Size (Ins.)	Drill No.	Size (Ins.)	Drill No.	Size (Ins.)
1	0.2280	21	0.1590	41	0.0960
2	0.2210	22	0.1570	42	0.0935
3	0.2130	23	0.1540	43	0.0890
4	0.2090	24	0.1520	44	0.0860
5	0.2055	25	0.1495	45	0.0820
6	0.2040	26	0.1470	46	0.0810
7	0.2010	27	0.1440	47	0.0785
8	0.1990	28	0.1405	48	0.0760
9	0.1960	29	0.1360	49	0.0730
10	0.1935	30	0.1285	50	0.0700
11	0.1910	31	0.1200	51	0.0670
12	0.1890	32	0.1160	52	0.0635
13	0.1850	33	0.1130	53	0.0595
14	0.1820	34	0.1110	54	0.0550
15	0.1800	35	0.1100	55	0.0520
16	0.1770	36	0.1065	56	0.0465
17	0.1730	37	0.1040	57	0.0430
18	0.1695	38	0.1015	58	0.0420
19	0.1660	39	0.0995	59	0.0410
20	0.1610	40	0.0980	60	0.0400

RADIO SOCIETY OF GREAT BRITAIN
INTERNATIONAL RADIO ENGINEERING AND COMMUNICATIONS EXHIBITION

CAN YOU HELP THE SOCIETY IN JUBILEE YEAR? WE WOULD LIKE AS MANY
VOLUNTEERS TO HELP MAN THE RSARS STAND AT THE EXHIBITION, AS WE CAN GET

The RSGB Exhibition is to be held from 19th to 22nd August 1970. In this Jubilee Year of the ROYAL CORPS OF SIGNALS the Society intends to bring a stand to the exhibition showing some of the equipment from the museum, which is of historic interest.

We are hoping to produce a combined stand with the Royal Navy and the Royal Air Force Amateur Radio Societies participating and producing historic equipment of their own. Details of the Stand are now being worked out.

Last year's stand was manned exclusively by Society members. This proved popular and we want to make sure that we can make it members only again this year. Volunteers are therefore required who can spare the time to man the Society stand. If you live in or near London, or are visiting the Exhibition and can spare an hour or two on the stand, please fill in the form below and post it to the General Secretary.

Members who can come during the normal working hours are especially welcome as this is the most difficult time to cover.

TO: General Secretary
RSARS
15 Valley Road
Blandford Camp
Dorset

ROYAL SIGNALS AMATEUR RADIO SOCIETY EXHIBITION STAND

I can help to man the RSARS Exhibition Stand at the RSGB Exhibition on :

19 August 1970	from	hours to	hours.
20 August 1970	from	hours to	hours.
21 August 1970	from	hours to	hours.
22 August 1970	from	hours to	hours.

.....1970

Signed.....

Callsign.....

Please return this to the General Secretary by 18th July 1970 or soon after, so that we can confirm the dates and times.

ROYAL SIGNALS AMATEUR RADIO SOCIETY

*****MEMBERS SUPPLIES*****

- Members Notepaper - Approximately 6 1/2" x 8" good quality notepaper, headed "ROYAL SIGNALS AMATEUR RADIO SOCIETY, "Members Correspondence" and a figure of Mercury in Blue. Also space for Call-sign and Membership Number. New series but no increase in price.
- Members QSL cards - Again a new series, now containing an extra overprint on all cards, in gold "Royal Signals Jubilee Year - 1970". All cards have a "Jimmy" with "Royal Signals Amateur Radio Society" and "Member Station" on the front and printed details on the reverse permitting the card to be used as a) a QSL for a QSO, b) a SWL report and c) to acknowledge a SWL report. This is the basic card which can be overprinted with your membership number, call-sign, name and address etc., in RED, BLACK, GREEN or BLUE at a small extra charge. Minimum order quantities : Basic = 100, Overprinted = 500.
- Members Lapel Badges - In light blue, dark blue and green, with "RSARS" initials in black. All brooch fitting. Plain at 2/6 or with your call-sign or membership number on an attached scroll - 7/6.
- RSARS Ties - Only a few of the original order left. In good quality Crimplene and Terylene, dark blue, with alternate angular rows of "Jimmy" and RSARS badge. Manufactured by a leading London Colour House at 25/6d post free. It is possible that an increase in price may be necessary on the next batch.
- Log Books - By N.W. Electronics. Good quality white paper, with over 100 pages. "Q" Codes, Reporting systems etc. 7/6 post free.

ORDER FORM.

To : General Secretary
R.S.A.R.S.
School of Signals,
Blandford Camp,
Blandford Forum,
Dorset.

From : _____

Date : ___/___/19___

Call-sign : _____

RSARS No. : _____

Please supply the following goods :-

				£	s	d
_____ Sheets of Members headed Notepaper	@	8/4	per 100	_____	_____	_____
_____ Basic QSL cards	@	10/-	per 100	_____	_____	_____
_____ Basic QSL cards	@	37/6	per 500	_____	_____	_____
_____ Overprinted QSL cards in (colour) _____	@	52/6	per 500	_____	_____	_____
_____ Plain lapel badge(s)	@	2/6	each	_____	_____	_____
_____ Call-sign lapel badge(s) (_____)	@	7/6	each	_____	_____	_____
_____ Society Tie(s)	@	25/6	each	_____	_____	_____
_____ Log Book(s)	@	7/6	each	_____	_____	_____
1970 Annual Subscription	@	10/-		_____	_____	_____
			Total :	_____	_____	_____

All prices post free. Overprint colours RED, BLUE, BLACK, GREEN. I enclose Cheque/Money Order/Postal Order/Cash to cover total cost. Please cross Cheques and Postal Orders and Register cash.

Signature : _____