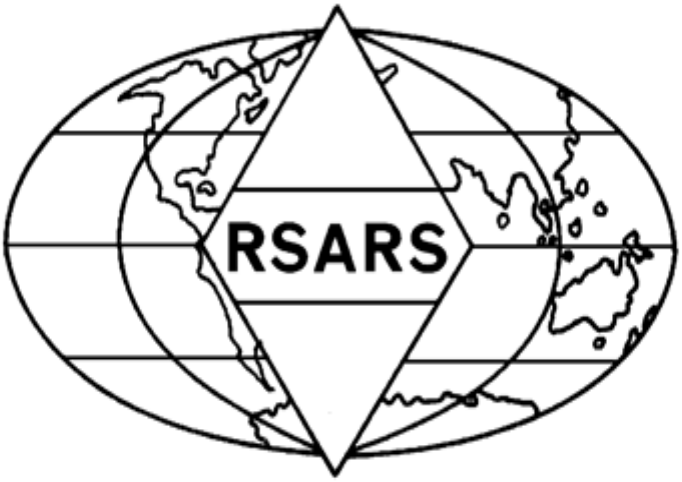
MERCURY



NUMBER 62 MARCH 1979

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MARCH 1979

EDITORIAL G3DPS.

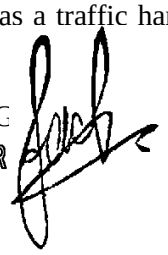
MERCURY

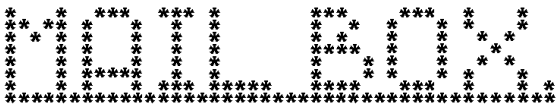
In this edition I would like to talk about "Mercury". Over the years we have received from members many first-class articles, which have gone to make up what I would like to think has been a journal which has always been well received by the membership. I hope that this edition is no exception. Many letters have been received from members passing along their appreciation and good wishes. In the past 7 years only one serious letter of complaint has been received (and dealt with). This edition is one of our "bumper" issues due to the fact that a lot of interesting material has come to hand. Although we always like to give as much variety as possible, including technical articles, tips, news, letters, items of interest, etc. we have to place a limit on the size of "Mercury" due almost entirely to postage costs. I would like to take this opportunity of thanking the Commandant, Training Brigade (and previously the Commandant, School of Signals) for making the production of "Mercury" possible. We cannot, however, go on producing the larger-sized "Mercury" as long as postage costs what it does. The whole point of this message is that we have had at least two Jumbo Mercury's, and the next one may well have to be a "Slim Jim" version and, to use an old saying, "Forewarned is forearmed". Although we would very much like to carry on the larger version we must watch the pennies very carefully so if your next "Mercury" is a bit smaller than this one you will know the reason why. It is certainly NOT because we want to cut down, or that we won't have the necessary material - just a question of postage coats. Needless to say, articles are still required on any subject applicable to the journal and I await your letters. Suggestions and constructive criticism is equally welcome. Snippets of information are also appreciated - I cannot go on relying on the OWL - it's getting near Spring-time and he tends to take a lot of time off, for some reason!.

(Someone recently asked "Why "The OWL"". Well, the Owl is a wise old bird who knows a lot, so it is said. Also an OWL was an Operator Wireless and Line and, as a traffic handler was often in a position to know a lot of information).

73, CU at the AG

JACK COOPER
G3DPS





(Being a selection of extracts from letters received by RSARS officials which, it is hoped, will be of interest to other members. - Ed.).

From John, G4DBR, 29 Armitage Lane, Brereton, Rugeley, Staffs.

".....I wish I had as many pounds in the Bank as I have "CQ RSARS" in the Log Book. I should be able to retire in comfort and keep a 24-hour watch!. Perhaps my preference for CW on the DX Bands has something to do with it. If so, I have a problem as I do not intend to run a Linear - I am much too close to neighbours property to do that!. However, if you could pass the word that G4DBR can be heard most evenings on 14·085 or 14·050 MHz, perhaps I may be able to creep a little nearer the Special Award!.

In reading news of members I seldom come across mention of my period of time as an OWL B III u/t from 1943/44 or, for that matter, as a Cadet at 150 OCTU from 1944/45. I recall that my Course at 150 OCTU was very representative of the Commonwealth and I can remember at least three Kiwi members with whom I lost touch when we were posted to out various Units. The Course was No.133 and if any of the members of that worthy band are active as radio amateurs, I should be delighted to hear from them and if they are RSARS members that I have or have not worked, so much the better.

Unfortunately, all my personal papers were lost in a fire in Palestine in 1947 and my (illegal) diary went up in smoke with all the addresses which we swopped before going our separate ways, So, with the exception of Stan, G2DPY, who I never met but followed closely behind in Paiforce (63 Medium W/T), I have never met up with any of my contemporaries in the 30 years or so since I said 'Farewell' to the Jimmies. As far as my Operator Training is concerned, my memories are even dimmer after all the years, but one thing that might strike a chord with someone is that Morse instruction on the B III Course was given by a certain L/Cpl Anderson. Not a name to forget as he became Michael Anderson, the well known film Director and, if I remember correctly, he was given special leave to assist in the production of "In which we serve", the Noel Coward epic on the Royal Navy....."

Kindest Regards and 73, John.

An interesting letter to the Gen. Sec. comes from RSARS 0884/G4AKN. The General subject was antennas and "Mercury". Gerry writes : I don't often make an effort to write, main reason perhaps is the elderly outlook with technical barnacles and rusty aspect inhibit expression among such youthful erudition, i.e. avoidance of comments such as "Where HAS he been?" and has he just come up?". Even so, I would very much like to see articles on antennae. Not sophisticated rotary beams, which so many couldn't build or present to public gaze. For some of us it would be like keeping an alligator in the bath. A ZL recommended his phase looped folded dipole, i.e. one wavelength folded and a trombone balun. I have one now for 20 Metres and GDOed both dipole and balun to match. I get 1 to 2 S-points better signals in, than on a trapped dipole (W3DZZ). I am sure that many have antenna views - can they not be aired???. Including such things as height and orientation, etc. I get 5 and 6 from ZL with 60 Watts and the antenna 20 feet up". In a second letter to Ray, Gerry writes "Contact with the ZL is difficult and occasional, in spite of daily trials. He has 600 Watts and the folded dipole that I now have. I can only give him 1 S-point better than I get so either his RX has "Dumbo" ears or his S-meter doesn't need the 53 mV for S9 that mine does!. Anyway, I have only a single 6146 in the PA therefore gain is a MUST for me. G3YNB, Harry, recommends 2 X Inverted Vees, 35 feet each leg, angles 90°, situated 10 feet apart and BOTH driven by a 2-inch spaced feeder back to the shack. Unfortunately, I haven't the room for this antenna. Harry claims over 4 dbs gain on 40 and about 6 dbs on 20. What sort of radiation pattern has it, I wonder? By the way, can anyone explain the "wobbulating bubbling in crescendo" on 20 Metres, please. I don't think I have a gremlin in the RX although it always "bubbles" on the frequency I chose".

MAIL BOX - Contd.

From Ted Ross, GM3LWS/0089, 24 Ettrick Way, Glenrothes West, Fife, KY6 1JL.

".....In reply to Ray, G3EKL, I don't/didn't want to make an issue of the QTR's. I just thought that as Logs supplied both by the RSGB and the RSARS are headed "Time in GMT", and as license regulations require that times are indeed entered in GMT, it would make things simpler if all references were to GMT - after all is said and done we all have to convert local time into GMT before entering it in the Log .....why not have it done beforehand?!!!…. 'nuff said!.

A quote from a recent letter from Ken, ZL1AXM/RSARS 0530 might be of interest' "We are on Summer Time and thus we are thirteen hours ahead of GMT which might help calculations (re skeds/QRV times). Incidentally, Kwajalein Atoll, which does boast a population, is on the other side of the Date Line and is 25 hours behind New Zealand time. (Thus it is possible for it to be already Thursday here whilst it is still only Tuesday there.....".

Ken is active around 0600-0900 Greenwich Mean Time, on or around the FOC frequency (.025 up) and probably also the RSARS CW frequency most mornings.

Lastly, for TS520S owners who haven't yet realised it, one can actually zero-beat an incoming CW signal, by tuning with the Mode Switch in the TUNE position and leaving the Send/Receive Switch at Receive (utilising the Carrier Crystal) reverting to carrier plus 700 Hz when switching back to Receive....."

73 Ted.

From Mike, G3VYF, 11 Sturrocks, Vange, Basildon, Essex, SS16 4PQ.

".....From the veiled hint on Page 24 of "Mercury" last - I infer that a brief resume of past activities wont go amiss!!. My Serial Number 23504622 dates from January '57 when I enlisted with REME, trained as a Radar Mechanic, was posted to Cyprus 1958/59 and left after three years as Radar Technician, L/Cpl. Did TAVR service with The Essex Yeomanry which was reformed into 71 Signal Regiment (V) Royal Signals where I trained as a TG Op.. Remustered into REME sponsored reserve and retrained as a Telecommunication Technician Class II.

Left to go to University in 1973 and spent three years at The London School of Economics reading History, obtained a B.A. (Hons.) in 1977. Then went to Careers Service Training College and obtained a Diploma in Careers Guidance in June 1978. Am now a Careers Officer with Essex County Council, Education Department.

Amateur Radio-wise, I am now only QRV on 2 Metres SSB/CW running QRO. Have a Linear with about 250 Watts out into a 16 element F9FT Yagi. I have worked 27 countries but only 2 RSARS members (G3EKL and G2YS - where are all the B.A.O.R. boys on 2 Metres when I'm working all of North Germany and into West Berlin???)....."

Best Wishes/73 Mike.

A letter ending "Best Wishes from Down Under" comes from Evan E. Reece, ZL1AGJ/1256, 54 Fir Street, Waterview, Auckland 7, New Zealand. Evan operates only on 80 Metres, so reliable communication with the U.K. is not possible, he says, although he does rise early and listen around. He is now 62 years old and maintains a great interest in W.W.I with an almost fanatical interest in the Flanders, Picardy and Artois areas. He goes on to say that having been in W.W. II, all areas of that war are of interest to him. He asks that members might correspond with him on subjects of mutual interest, i.e. local History, Local Geography, Customs, The Countryside, Old Ruins, Local Government, Motoring, Railways, etc., etc. He apologises that his typewriter made in Portugal for an English Company owned in the USA and used in NZ has no '£' sign on it!!!.

From 6 Drossie Road, Falkirk, Stirlingshire, Eric Simpson writes "I have been keeping a twice-weekly sked with ZL4IJ (RSARS 1018 - Ed.) and enjoyed every QSO. Tom is always interested in RSARS and tries to work into the DX Nets. It is 33 years since I left Catterick and would like to revisit sometime so must make the effort to leave the A1. (Why not try and arrange it for the next A.G.M., Eric? - Ed.). I am with the BBC as Senior Engineer at Westerglen transmitting station so Ham Radio is just an extension of the job!.". Eric is GM3GRX/RSARS 1214.

MAIL BOX - Contd.

From : G. Hare, RSARS 0668, Dunkirk, 15-19 Main Road, Leadenham, Lincoln, LN5 0QB. ".....Reading through "Mercury" 11/78, I was most interested in the article headed "48th Division" on page 33. I landed at Cherbourg on the 16th September 1939 with No. 6 Provost Company C.M.P. with elements of 1 Corps under Sir John Gree Dill. We moved first to Laval (this having been changed from Le Mans) then through Evereux to Bapaume (doing point Duty in Albert). From Bapaume we were called into Company HQ at Quincy on the outskirts of Douai. The Section I was then serving with (No. 5 Section) was sent, in April 1940, to Cantin, which was at that time I Corps Railhead.

In November 1939 No. 6 Company was re-numbered as 102 (I Corps) Provost Company, C.M.P. on the night of 9th May 1940, I boarded the Leave Train at Cantin for leave in the U.K.. We got as far as Boulogne dockside where all leave men were ordered back on the train. We reached Cantin late on the afternoon of the 10th May and noticed a strange C.M.P. Company on duty. We were shipped straight to Belgium and this was followed by a return to the U.K. via "the beaches". I was interested to read in Guido Rosigoli's book "Badges and Insignia of W.W.II" that "...the 48th (Division), like the 47th, did not serve overseas...". I wrote to the publishers, Blandford Press and some months later received a reply saying that neither publisher or author realised that an error had been made and that it would appear that no-one had ever questioned what has been printed before.

The 48th Division was the Support Division of I Corps, the first 1st-Line T.A. Division to go to France....."

73. etc. G. Hare.

(0668 enclosed a couple of photo-copies with his letter, one from the publishers and one from the author, thanking him for his help, and stating that he (the author) was now engaged in writing a book concerning the Wessex Division (43rd and 45th). If any member has anything to contribute regarding the history of the 43rd and 45th, drop a line to G. Rosignoli Esq., 19 High Park Road, Farnham, Surrey, GU9 7JL. - Ed.).

We hope the following information contained in a letter from the RNARS will reach members in time. Don Walmsley, G3HZL, Chairman RNARS tells us that the dark blue types will be holding their annual Easter Activity Exercise aboard H.M.S. Belfast with kick-off at 0800 hours GMT 13 April 1979 and "stumps" at 1700 hours GMT 22 April 1979 and they will be using the call-sign GB2RN. Operation on all bands less 70 MHz. Primary SSB QRGs will be 3660 and for CW contacts look around ·052 or ·020 each band. QSLs will he on a "One-in-one-out" basis, as 100% QSLing has been found to be both wasteful and expensive. The ship's address is RNARS, HMS Belfast, Symons Wharf, Vine Lane, London, SE1 2JH, Tel. : 01-407-6434, Ext. 39. If more information is required please ring 01-892-3239. RSARS members will be particularly welcome aboard on these days but if you are licensed you may well find yourself doing an operating 'stint' and if you are an SWL you may be appointed an Honorary Writer for the day and end up doing a bit of logging. All RSARS members are asked to support this exercise and if you can't get to Symons Wharf give them a call and request permission to come aboard.

Gordon Gibson, 22 Thwaiteville, Arrowthwaite, Whitehaven, Cumbria, CA28 9EL, writes a long letter on many subjects (including a suggested change to the VHF Contest - see Contest News),"Other points which may be of interest are that we are hoping to have the local FM Repeater GB3 Anglo-Scotland on the air in the near future. GB3AS will be situated on the IBA mast at Caldbeck, Cumbria, and we have been allocated R1, i.e.145·025 TX, 145·625 RX. Recent tests from a Mobile on the ground gave us contacts as far North as Ardrossan on the West Coast of Scotland, the Isle of Man and Belfast but, unfortunately no signals heard East of the M6. Secondly, G2AT/RSARS 0132 can be heard putting good signals on 144·050 CW into this area (from Mapperley, Notts. - Ed.). I just can't wait to read the next instalment of "Measles, Morse and Mobilisation", but also very interested in your High Power Visit, as my first job on leaving school was at Great Broughton!".

MAIL BOX - Contd.

From Dennis, G3ADZ, 6 St. Marks Avenue, Bilton. Rugby, Warwickshire, CV22 7NP.

".....Just a quick line in case anyone thinks I am neglecting RSARS!!. I am having to ask 'KLX and 5BM to mainly cope with the CW Nets, because of the Raynet situation. I expect you are in the picture but if not, here is a short summary. Warwickshire Raynet was "called out" last Friday week to provide communications for the St. John's Ambulance Brigade - the only available service because the County ambulance men are on strike in Birmingham and Coventry even regarding emergency calls. Our local Raynet with some help from Leicester and Staffs are having to man a Control Room in each city, plus as many mobiles as we can muster. It's a bit difficult during the week, because of the need to also be at work. I do one night in 6 - 2300 to 0800 and some shift work at weekends and hope to get hack to normal before too long. We are on 145·35 and 145·8 MHz plus /M contacts via GB5BM - much to the disgust of a number of non-Raynet members!. We have to use the Repeater in order to cover the whole Birmingham area with "safe" communications. We also have a link on 70 cms between the two Control Rooms via GB3ME on RB6.

Talking of Repeaters, I am now QRV (when I'm around) on GB3BM, GB3MH, GB3HH and can sometimes access GB3PI, when there is a bit of a lift on the Band. Would be very pleased to QSO members and will fix skeds on request....."

73 Dennis G3ADZ.

(Since that letter was written (Nov. '78) Raynet services have been called on several times for a variety of reasons such as industrial reasons and weather conditions. Most Raynet units require more members and if you feel that you could be of assistance why not contact your local Raynet Controller? - Ed.).

A letter comes from G4GHS via G3XSN and tells of the forthcoming DXpedition to be known as THE ISLE OF MAN MILLENIUM DXPEDITION. This DXpedition is being organised by the Liverpool and District Amateur Radio Society and will be using the special "GT" prefix issued to celebrate 1,000 years of the Island Parliament, the Tynwald. The Club Call-sign will be used, suitably modified to GT3AHD/P and the DXpedition will be operational on all bands 160 - 10 Metres plus 2 and 70 cms from 2300 hours GMT 29th June 1979 to 2300 hours 8th July 1979. Suggested Frequencies (+ or – QRM) are as follows:-

CW - 1·820-35, 3·505, 7·005, 14·080, 21·080 and 28·080 MHz.

SSB - 1·820-35, 3·695/780, 7·092, 14·195/275, 21·246/275, 28·495/550, 144·290, 432·290 MHz. Club members operating will include (RSARS members underlined) : G3XSN, G3YBH, G4AHS, G4AMX, G4CVZ, G4EST, G4FPB, G4GEB, G4GHS, G4GHT, G4GKF, G4HGT, G4HSF, G8AVJ, G8CFM, G8FHD, G6NNX, G8NRD.

Participation in both the Radio Sport Contest and the RSGB VHF National Field Day is anticipated. QSLing will be 100% either via the Bureau to G3AHD, or direct (if the appropriate IRC or SAE is enclosed) to G.H. Cohen, G4GHS, 41 South Station Road, Gateacre, LIVERPOOL, Merseyside, L25 3QE, England. (OTHER JOURNALS PLEASE COPY).

In a letter, Ted John, G3SEJ, Secretary of the St. Dunstan's Amateur Radio Society (AFF 14) tells that the Society is moving from strength to strength, now has 33 members, and that they now have a permanent shack at Ian Fraser House at Ovingdean near Brighton. Once they get the rotator repaired they will have a Moseley HF Beam up in the air and a co-linear for 2 Metres. A 40/80 Metre dipole is in the process of erection. They held their A.G.M. on Saturday 24th February when another RSARS member spoke to the assembled members on his experiences in South Africa. This was, of course, none other than Louis Varney, G5RV/0795.

Elsewhere appears a note regarding the National Wireless Museum. From W. "Nick" Carter, G2NJ/RSARS 0492, comes a letter. "…..An old Post Office Morse Key, an old Valve Tester suitable for testing vintage valves and an H.M.V. "Dog" (in Papier Mache) as used by wireless traders for display purposes many years back are urgently wanted for the Museum.....".

MAIL BOX - Contd.

The mention in the last Editorial regarding Insurance prompted Pat, G4DR, to write regarding cover for Amateur Radio equipment. He enclosed a Memo from a well-known Insurance Company (which we cannot reproduce here) which shows that cover for Fire and Theft does not appear to be difficult, particularly if the applicant already has Home Cover Policy. If you are interested, please drop Pat a line as he feels he may well be able to help fellow members who may be interested and arrange cover for them. Pat's address is : P. Urquart, G4DR/RSARS 0490, 7 Padwell Lane, Bushby, Leicester, LE7 9PQ. PLEASE DON'T FORGET THE S.A.E.!!!.

From A.E. Dines, 38 The Fairway, Blaby, Lincs., a member of the R.A.I.B.C. and, by now we hope a member of RSARS, comes an interesting letter. "I am very keen on Amateur Radio. I was first on the air in 1931 whilst stationed with 'B' Corps Signals at Rawalpindi. My call was VU2BZ. At that time my trade was Operator Signals Class 1 and I was employed on fixed CW stations in Lahore, Kohat and Rawalpindi but despite this I became interested in making receivers to get the BBC. From there I got the Ham 'bug' and built a TX - TGTP, Buffer, PA with a 66 feet dipole up at 40 feet and I operated on the 20 Metre Band with about 25 Watts DC input - and I was at last working G-land. I used to enjoy myself and so did Colonel Yule who used to visit the shack quite frequently (I was licensed!!). When I completed my period of Service and came home I became G3AOH (? - Ed.). Then came the War and I served with 2 Division, or Crossed Keys as we became known. Came out at Dunkirk and spent the rest of my time with the 14th Army in Burma, operating radio all the time. After the War I was back on the air at Surbiton, Surrey as G3AOH. Work was scarce so I took up Nursing and studied for my Certificate which I finally obtained. Because of my Nursing studies I inadvertently let my license lapse. Representation produced only that I would have to take the exams again so I let it go. I am now awaiting a hip operation so am practically housebound, but still listen to the bands.....".

Congratulations to Dick, G3NVK, of Melton Mowbray, on being appointed the new Superintendent Registrar for Melton. The local paper ran a full-length article on this appointment with a large amount of interesting info., including such 'snippets' as the fact that Dick has conducted more than 1,250 wedding ceremonies since he has been connected with the Registrars department. The paper, as well as getting its mention of amateur radio correct in all details, also produced a very fair photo of G3NVK.

THE VK2ABQ ANTENNA.

G3NXM.

I noticed in one of the issues of "Mercury" that you wished to know the details of the VK2ABQ antenna. These details are given in "Amateur Radio Techniques" by J.P.Hawker, 5th Edition, pages 271 and 272. I think it was originally published under "Technical Topics" in RadCom for January 1974. I know a local amateur who has used one with success. The following is a brief description.

It is like a full-size single element Quad but laid flat. For 20 Metres the sides are approximately 17 feet. The aerial is "dipped" to the frequency required and the sides are cut in the middle, and "coat buttons" are used as insulators, hence its other name. This, in effect, turns the aerial into a half-wave dipole and reflector with the ends bent back. In the three-band version, the elements are connected together with open wire feeder then to co-ax.

The article suggests that the 12 feet (roughly) arms can be constructed of about 6 feet of 3/4-inch (outside diameter) electric conduit and about 4 Feet of 5/8-inch doweling stuck in the end to carry the 10, 15 and 20 metre elements. I think care has to be taken over this as conduit has a seam and that pipe would be stronger. The doweling would also have to be chosen with care to ensure that the wood is straight grained. And there is another snag - sizes are Metric these days.

"Technical Topics" in RadCom for December 1976 gives details of shortened versions, without coils, which brings the 20 Metre version down to about 12 feet. There are also other diagrams using 300 Ohms ribbon for the elements.

73 Walter G3NXM

THE OWL REPORT

David, GI3JEX, has moved QTH and can now be found at 8 Inverwood Court, Sydenham, which is an upper flat and appears to offer possibilities for an antenna system. David hopes to be back on the air by the time this is read.

George, G2DHV/RSARS 0643 would like to know what the Army receiver is that tunes the HF Bands and is complimentary to the R 216 and wonders if a similar type/shape RX for HF was ever made. The OWL also mentions that George has spent the last 9 years studying with the Open University. His subject has been "Science and Technology" and, at present, he is at the "½ Degree" stage. Not content with that, the OWL learns that G2DHV has now embarked on a 3-year Geology Course with L.U./E.M.S. Well done, George, and Good Luck.

Paul Beaumont, RSARS 1132, has moved and is now located at 30 Clifton Court, Selhurst Road, London, SE5 6LP.

Congratulations to Robin, G3ZYE, who has been elected a member of the RSGB Council for 1979. Robin passes thanks to all those members who supported him in his election.

G3FNK/RSARS 0484 has contacted HQ and handed his resignation papers in. Since retiring, he has found little time for the hobby due mainly to his wanderings on the Continent. G3FNK has now been honourably discharged - please amend you membership lists.

Congratulations to Sgt John Wilkes who was GW8MTC but isn't any longer as he is now G4GEA. John hopes to take out a DL call on his return to Germany in the not too distant future.

Good news also for one of our "White Stick" members, RSARS 0859. After a period as G8MGR he is sporting a brand-new call-sign G4HPJ. Congratulations, OM.

More congratulations - this time to Cyril, G3YSZ, who, on 4th December 1978, was elected President of The Southdown Amateur Radio Society.

The Owl wishes it to be known that he had absolutely nothing to do with the confusion that existed over the membership status of an old friend, G3EQF. Actually, 'EQF is a fully paid up member of RSARS until the end of 1981. Sincere apologies, OM, and if the Owl ever finds himself in the area of 78 Little Barn Lane, Mansfield, he'll probably drop in and tender apologies in person.

Colin, G3YBT/RSARS 0123, is now 'Mr.' Harvey and living at "Greg-ny-Baa", 13 Watts Lane, Hullavington, Chippenham, Wiltshire. Busy getting settled into civilian life, Colin is only active on the VHF Bands as a /M. He is interested in 4 Metre contacts in his general area. Any takers?.

Bill, G3EAX, had a "Silent Visitor" in the form of the OWL just before Xmas and it was discovered that he found "Iran getting a wee bit dicey, especially in the so called Security Areas at the top of the Gulf - where he was refused a license!!." He has now finished his 3-year 'stint' and has no immediate plans to return. CU on 80, Bill?.

On returning from the races at Towcester, the OWL was sorry to hear that Robin Addie, G8LT/ RSARS 0290 has been under the weather recently and is now recovering from a stroke following a heart attack and has been temporarily QRT. Take it easy, OM, theres a lot of RTTY keys to be "bashed".

If you hear DJ0TM on the Bands at any time, give him a shout - and you'll notch up another RSARS contact. The operator will be Peter Reader, G3TSR, whom older members will remember as PA0XKI (1968 - 70). Peter has been with Exercise Branch, Operations Division, S.H.A.P.E. and has been on the air as ON8GS, although most activity has been on VHF due to aerial restrictions, etc. With his tour almost over he hopes to pick up another PA call soon, but will be using his indefinite German visitors callsign (DJ0TM) when he gets back to his house in Lemgo. Peter sent his best wishes to all RSARS members, which are reciprocated together with our congratulations on the recent award of the OBE.

THE OWL REPORT - Contd.

During a Trans-Atlantic sortie recently, the Owl learnt that Geoff Barrett, of 12 San Greco Drive, Hamilton, Ontario, Canada, L9C 2B4 has had his call-sign changed from VE3DJF to VE3WP. What sort of times/frequencies do you operate, Geoff?. There's a lot of members would like a QSO.

During the same sortie, the Owl learnt of the Society of Wireless Pioneers. If you have ever operated a CW 'circuit', either afloat or ashore, (and this includes commercial and military operators) you could be eligible for membership. Membership comes in various categories: SPARK GAP PIONEER (Members whose service started prior to 1926), PIONEER (Members whose service dates between 1926 and 1939 inclusive), VETERAN (Members whose service dates between 1940 and 1949 inclusive) and MEMBER , (1950 onwards). Full details from THE SOCIETY OF WIRELESS PIONEERS, P.O. SANTA ROSA, CALIFORNIA, 95402, UNITED STATES OF AMERICA. (Pse mention RSARS).

Whilst on the return journey from California, the Owl was crossing the Arizona desert, and in a hurry to get home for Xmas. At approx. 7500 feet he chanced to meet an old friend, driving a sleigh, dressed in red and sporting an even better white beard than last year. Seeing a tower and Tri-bander on the back of the sleigh he just had to have a look at the label. Ray Chambers, W7KOS/RSARS 0807, Apache Junction, Arizona". Hitching a lift, he visited Ray and his XYL, sorted out Ray's membership problem (he confirmed that he is a Life Member and has been since January 1971) and collected a whole load of good wishes from Ray and his good lady to RSARS members. Ray hopes to be notching up RSARS contacts in the near future when the tower and beam are installed and working. (Times and frequencies, Ray??).

Picking up Route 89, the Owl proceeded to Prescott and dropped in at 727 East Carleton Street to say "Howdy" to WA6CEB, John Neville. This is a temporary QTH for John until his own house is built, which should be completed around March '79. John commented on the fact that he worked VS5MM a couple of times and neither seemed to realise that the other was RSARS! (It pays to advertise!! - Ed.). John has no rig or antennas at the moment, but uses the facilities of a good buddy, Lyle W7LGB and he checks into the ex-G Net on Sundays, 14·346 MHz at 1900z. Thanks for the subs and the kind donation, John.

Talking recently to RSARS 0920, John Grant, up near Inverness, the OWL reluctantly conveyed his resignation to HQ. As John stated "I have now reached the age of 70 and feel that it is about time I resigned". Good Luck, John and thank you for your previous "service".

From Falmouth the OWL has heard that Mike Hollebon, RSARS 0609, who was G8BLI has now ordered a new call-sign badge - this time with the call-sign G4HOL on it. Congrats., Mike, and we'll look for you on the 80 Metre Nets before long.

Snooping around the Catterick area, the OWL learnt that due to information getting lost in the Post/System the QSY that GM4CKP underwent a while ago was not recorded but, we are happy to say, he is now back on parade. See you on the Band?

The OWL dose not forget our Cadet Force friends and he was recently in contact with RSARS 1259, Major (Rtd) Norman S. Lilley, otherwise G3INN. Norman is the O.C. of The Combined Cadet Force at Lord Williams's School at Thame. This Unit spent Summer Camp '78 with The Junior Signalman Wing at 11th Signal Regiment at Albermarle Barracks. Norman adds"….. we really had an excellent Camp and my thanks to the O.C. and all the Staff there. What a pity they have really no radio and I couldn't get over to the HQ station. Please pass my thanks to them via "Mercury" if you can..." (Happy to do so, take a bow, 11th Signal Regiment. Another job well done. - Ed.).

Peering over the shoulder of a Home Office official, the OWL noted that RSARS 1184 is now G4HLC, and RSARS 1381 is G4HVA. Congratulations both. Add them to your lists and give them a call when you hear them.

THE OWL REPORT - Contd.

A recent visit to 10 Manurere street, Christchurch, 4, New Zealand allowed the OWL to bring back the subs of ZL3VJ, Alex MacGeorge, together with the following message for all RSARS members (I only hope I have spelt it correctly! - Ed.) "Haere Mai, Haere Mai, Haere Mai, Greetings and Salutations to all members from Aote avoa, the land of the long white cloud in the South Pacific".

On the way back from NZ, the OwL took the chance and stopped over in Switzerland for a chat with Len Jarrett, HB9AMS/RSARS 0698. Len commented that he enjoyed '8PG's article on "Measles, Morse and Mobilisation" and suspects that they were both around about the same time in the early days. Len's first RX was constructed about the same time using second-hand parts bought from a Store near the Crystal Palace. It, didn't work either! Probably due to the fact that all the bits were "bought for "pennies" and he used acid flux for soldering!! (on the advice of a neighbour). Actually, his first real attempt was at a Crystal Set some years earlier, but having lost the cats whisker for the crystal he (literally!) tried one from the family dog. That didn't work either!!. nevertheless, perseverance meant that, in the end, both sets were made to work after a fashion. (More "M, M & M" in this issue, Len, and more to follow. - Ed.)

Sitting quietly (and unnoticed) at the back of a recent lecture by G4CDU on "Microprocessors" given to the Cornish Radio Amateur Club, the Owl was interested, at the end of the evening, to see members play against "the machine" at Pontoon. When the Owl left, the machine was winning £100,000!!!.

Whilst in the CRAC area the Owl learnt that Alasdair Cook, G8PLQ, Hillside Villa, Crowgey, Near Lanner, Redruth, Cornwall, (Tel. : Stithians 860559) was trying to convert a Pye Cambridge AM10D and is looking for help from anyone who may have already made this conversion, If you can help, please contact direct.

Also, George Simpson, G8RFA, 10 St. Golder Road, Newlyn, Penzance, (Tel.: Penzance 4402) is looking for an IC22A or similar in order to get started in the hobby.

The Owl hears that G5KW has the logs for his HZ1KE operation and also some QSLs. Any member who worked Ken during his stay in HZ1 and requires a card should send full details and a suitable SAE to him at Major (Rtd) K.E. S. Ellis, G5KW, "Rosewood", Meadow Lane, Culverstone, Meopham, Kent. Don't forget the SAE. Being/having been a DX station can come mighty expensive where postage is concerned.

From a Cumbrian friend the Owl learns that John, G3YSD, has recently been retired, on medical grounds, from the U.K.A.E.A. after 26 years service. Also that Mrs YSD has recently left hospital after a 3 weeks stay (we wish her well} and John hopes to get active as soon as the settling down process is complete.

Glancing through RADIAL, the journal of the Radio Amateur Invalid and Bedfast Club, the Owl noticed a couple of points where he thought RSARS members might be of help. J. Rooke, 16 Rydal Avenue, Redcar, Cleveland, requires the following valves: Qty 1 VR99 (X66), Qty 2 VR100 (KTW62), Qty 2 VR101 (MHLD6) and Qty 2 VR102 (BL63). Have a check of those junk boxes, chaps. Also Ivor Cole, 31 Cowper Gardens, Wallington, Surrey, SM6 9RN is looking for a cheap Marine or Aircraft Band Receiver if anyone is disposing of one. The following page of Radial makes mention of two new members to RAIBC, both invalids, and both ex-Royal Signals - A.E. (John) Dines, of 38 The Fairway, Blaby, Leicester and Ray Taylor of 8 Sunfield Way, Lees, Oldham, Lancs. John is ex-G3AOH and ex-VU2BZ and was with the Corps in 1929. Ray is more or less housebound and would appreciate a call on the land-line for a chat on 061-620-8093. Neither appear to be present members of RSARS. Perhaps local RSARS members might like to make themselves known. (but see "Mail Box" - Ed.).

Looking over the Treasurers shoulder the other day the Owl was happy to note that generous donations had been received from G4DBR, GM4EHU, G3DOX, G3ZFZ, WA6CEB and the ever-present "Anon". Our sincere thanks to you all.

THE OWL REPORT - Contd.

David Lewis, RSARS 1318, writes from Muswell Hill to say that he has recently obtained a Heathkit Electronic Design Experimenters Kit, the use of which is intended to help him through a forthcoming RAE. Good Luck, David, and how about letting us know how you find the Kit. It might help others in the same way.

By mail comes news that Mike, G3UCT, has now called a halt to his collection of Canadian "Gov. Surplus" equipment and is concentrating on the Spy Set series (see below). Mike has a collection of Canadian WS19, WS29 and WS52, all virtually complete, working and in good "nick" but the garage at 27 Glen Road is beginning to look something like a QM Tech's store, hence the change to the smaller varieties. Mike is off to Berlin for a couple of years in August and hopes to get DA2XT active again. (Let us know the details, Mike).

RSARS 0901, otherwise A.J. Collett has moved and is now to be found at 47 Severn Cres., Langley, Slough, Bucks, SL3 8UU. 0901 is, of course, G8GXE, and Tony hopes that this QTH will now be permanent. He is active on 2 Metres and 70 Cms multi-mode and is at present engaged in getting up some better antennas, He has also acquired an FT-200 and, if the CW Exam is successful later this year, it will be heard on the HF Bands, Good Luck, Tony, keep us informed of the progress.

Congratulations to Members 1184 and 1381. '84 is now G4HLC and '81 is G4HVA. Well done.

Jim Nicolls, whom some will remember from his Cyprus days and many from his recent "stint" in G-land, is now at Hannover Tels. Office, 4 Signal Group, B.F.P.O. 33 where he has become DA1SK. Not too active at the moment but he had a few QSOs using a 21 MHz dipole in the roof of the Mess but having now moved out in to "native" quarter he misses the aerial "farm" he had at Aldershot. He promises to persist with his Joystick "on the veranda of his "Wonung" and hopes to fall in on parade on one of the RSARS Nets before too long.

Lots of letters coming in about the VK2ABQ antenna which must be held over to next time.

The OWL would like to mention to all members that material is always required for "Mercury" and anything of interest should be sent along to the Editor or enclosed with your next note to the Gen. Sec.

CQ, CQ, CQ ALL MEMBERS DE THE EDITOR.

The time has again come around to see who will be the recipient of the "Best Mercury Article" Award. As most members will know this is NOT decided by your Editor, or by your Council or, indeed, by an appointed committee - BUT BY THE MEMBERS THEMSELVES. You are all asked to peruse the last three editions of "Mercury" and decide on what you consider to be the best THREE articles that have appeared in those editions. Each member has SIX points to award, and can choose a maximum of THREE articles. If you think one article is outstanding award it all of your 6 points, if three articles are of equal merit then make it 2, 2 and 2. If you consider that only one article warrants the effort and is pretty poor anyway, award it 1 point and throw the other 5 away. If you don't think "Mercury" is worth the effort of reading then don't bother to send in your vote!!!!!. Editions eligible are 7/78. 11/78 and this one, 3/79. PLEASE SEND YOUR VOTE, AS SOON AS POSSIBLE AND CERTAINLY NOT LATER THAN 1st JUNE 1979, TO THE EDTOR AT "BEIRNFELS". OLD ODIHAM ROAD, ALTON, HANTS, GU34 4BP or, to save a stamp if you are writing to the Gen. Sec or Treasurer, enclose your vote with correspondence to them. Remember, we depend upon YOU.

AWARDS AND CONTEST REPORT.

No Contest results to report this time but it has been most gratifying to hear so much activity on the 5-59 sessions, Thank you for the various check logs - very helpful - and I am hoping for a change in the "NVK/UAA" sequence!!.

Most overall progress Award for 1978 went to GM3VVM with a total of 300 rungs progress during the year, followed by G3PJB with 250 and G4DBR with 200. This is a most creditable effort by GM3VVM as he operates with indoor antennas and suffers with an extremely high noise level - well done, Harry. When can I expect a CW claim???.

There will be some alterations made to the Society Contests commencing Winter 79/80. First, to prevent the 5-59 November sessions clashing with Remembrance Day parades and to stop an overlap with the RSGB Affiliated Societies Contest in January, the sessions will be re-arranged as follows :-

November	80 Metres CW	1400 - 1630
December	40 Metres Fone	1000 - 1230
January	40 Metres CW	1000 - 1230
February	80 Metres Fone	1400 - 1630

Second, the response to my enquiries about the "Le Touquet" and VHF Contests has been abysmal - two comments for each Contest - so I'll reshuffle things a bit and hope for the best. The "Le Touquet" is to die and the plaque to be connected with the Top Band contest in October - rules the same as for the Top Band Contest. The VHF Contest is to be split into two sessions, June and August, to try and catch better weather and the operating spell reduced to one spell each month between 1300 and 1700Z, with scores additive.

Should any interested members violently disagree please don't hesitate to contact me. I'll offer a revised Society Contests sheet listing the alterations in the next copy of "Mercury".

Much against my better judgement the Royal Signals "Worked All Continents" Award was based on the ARRL six Continents system instead of the RSGB five Continents. Already I am embarrassed by not being able to find members in all the Continents; however, I shall leave the award as it is and, if necessary, offer a Five Continent variation at a later date!.

To get away from RTTY QRM please note changes in the spot frequencies for CW of 14065, 21065 and 28065 MHz.

I regret to report that VP8QH is QRT and back in G-land - no call.

The Ladder Lists for this edition are the VHF and QRP Ladders :-

	VHF		QRP
100 -	G3YSK	100 -	G3DBU, G3FMW
30 -	G3EKL, G3VSA	60 -	G3BWX
20 -	G3VIR	50 -	G3YSK
12 -	G8FVC, G3NT, G3KJW, G3GEJ, G8KLO, G3MKR, G2AIH, G3ZFZ	20 -	G3DNF
		12-	G3KHU

73, Ray, G3EKL

HEARD ON 80.

"My DFM shows MSF on 2·498, but I think it’s a bit sluggish in this cold weather".

"I look forward to the Summer when I can go /M with the wheelbarrow in the garden".

"The only Repeaters I like are radishes".

THE EARLY DAYS.

By "HOG"

Most amateurs and SWLs could give you a pretty good idea of developments in the field of electricity, electronics, etc., over the last 10, 15 or 20 years. Some of our senior members could well talk about such things from the days before World War I. But what about the very early days - say, up to 100 years ago?.

Around 1600 Gilbert recorded that bodies other than amber could generate electricity when rubbed and that all substances may be attracted. In 1647 Otto Von Guericke constructed the first electric machine based largely on a globe of sulphur and in 1676 Boyle published his electrical experiments. It was between the years 1720 and 1756 that Stephen Grey, aided by Wheeler, discovered that the human body conducted electricity, that electricity acts at a distance (motion in light bodies being produced by frictional electricity at a distance of 666 feet), the fact of electrical induction and other phenomena. Dufay expounded his theory of two types of electricity (one vitreous and one resinous) in 1735 and 13 years later the Leyden Jar was discovered by Kleist (it was also known as the Leyden Vial or Leyden Bottle). It was apparently simultaneously discovered by Cunaus and Muschenbrock of Leyden and from these discoveries Winckler produced the Leyden Battery in the same year.

In the first seven years of the 1740's important research into electricity was carried out by Watson, Canton, Beccaria and Nollet. A few years later in June 1752, Franklin announced his theory of a single 'fluid', terming the vitreous electricity "positive", and the resinous electricity "negative". In 1752 he demonstrated the identity of the electric spark and lightning by drawing down electricity from a cloud by flying a kite. Also, at a picnic, he "killed a turkey by the electric spark, roasted it by an electric jack before a fire kindled by the Electric Bottle". In 1753, Prof. Richman was killed in St. Petersburg attempting to repeat Franklin's experiment. In 1777 Lichtenberg produced his "Electrical Figures" (although exactly what these were is not recorded). Thirty years before this, Watson and others demonstrated that electricity could be transmitted by means of an insulated wire.

Better known names started to come to the fore around this period and we read that Coulomb applied the torsion balance to the measurement of electric force in 1785, Cavendish decomposed water by electrolysis between 1787 and 1790, Galvani and Volta made known their discoveries between 1791 and 1793 and Orsted of Copenhagen discovered electro-magnetic action in 1819. In 1800 Humphry Davy produced electric light with carbon points.

Prior to this Sulzer noticed a peculiar sensation in the tongue when silver and lead were brought into contact with it and each other in 1762 and in 1791 Madame Galvani observed the convulsions in the muscles of frogs when brought into contact with two metals. M. Galvani studied this phenomena and from it laid the foundation for the Galvanic Battery in 1791, and it was in 1800 that Volta announced his "Voltaic Pile" composed of discs of Silver and Zinc and moistened card. In 1807, by means of a large Voltaic Battery at the Royal Institution in London, Davy decomposed the alkali Potash and evolved the metal Potassium and in 1813 he demonstrated the electric arc. Thermo-electricity was discovered by Seebeck in 1821 when he heated pieces of copper and bismuth soldered together. The Thermo-Elctrometer was invented by William Snow Harris in 1827, and the Thermo-Multiplier was constructed by Melloni and Nobili in 1831.

Using electricity, various forms of the telegraphic machine were invented by Lesarge in 1744, Betancourt in 1787, Cavallo in 1795, Salva in 1796, Semmering in 1809 and Ronalds in 1816. It was in 1820 that Ampere invented his telegraphic arrangement using a magnetic needle and coil and the galvanic battery. In 1815 Wollaston's "Thimble" battery ignited platinum wire and in January 1822 Faraday described his discovery of electro-magnetic rotation. The now-famous Ohms Law followed in 1827. In the following years various improvements to the Voltaie Battery were made by various people including Wollaston (1815). Becquerel (1829), Sturgeon (1830) J.F. Daniell (1836), Grove (using Nitric Acid in 1839). Jacobi (1840), Smee (1840), Bunsen (using Carbon in 1842) and Grove, (the Gas Battery also in 1842). It was on 21 November 1831 that Faraday read the first series of his "Experimental Reseaches on Electricity" at The Royal Society.

THE EARLY DAYS - Contd.

In June 1836, Professor Wheatstone constructed an electro-magnetic apparatus by which thirty signals are conveyed through nearly four miles of wire. 1857 is probably best remembered when connected with the name 'Morse' who invented a telegraph system, but similar systems were also invented in the same year by Steinheil and Masson, Weber Gauss and Schilling having invented similar instruments in 1833. On 12 June 1857 the magetic needle telegraph was patented by (Afterwards Sir) William F. Cooke and (Afterwards Sir) Charles Wheatstone. The Society of Arts Albert Gold Medal was awarded to them 30 years later. Cooke set up the telegraph line on the Great Western Railway in 1838/39 between Paddington and West Drayton, on the Blackwall Line in 1840 and in Glasgow in 1841. In the same year Wheatstones Alphabetical Printing Telegraph was patented. A few years earlier, Wheatstone had calculated the velocity of electricity "on the double fluid theory" to be 288,000 Miles per Second, and on "the single fluid theory" as 576,000 Miles per Second. Exactly how this was done, and the fact that his calculations were wrong, is not recorded. "Electric Machines" had been popular since early days and around this time Dr. H.M. Noad set up a very powerful electric machine and Leyden Battery at The Paopticon, Leicester Square in London. Not to be outdone, Armstrong constructed his "Hydro-Electric" Machine in 1840. In this same year Professor Charles Wheatstone drew up plans for a Submarine Telegraph between Dover and Calais and in 1844 the first telegraph line was set up in the U.S.A. between Washington and Baltimore. In the following year, the Electric Telegraph made news when the murderer Tawell was apprehended due to its use. Electro-plating became known when, by the use of "Magneto-Electricity" it was first produced at Woolwich in 1842.

The first Electric Telegraph Company was established in 1846 after having purchased Cookes and Wheatstones inventions. The following year, the French were also thinking along the lines of a Channel Telegraph and Mr. John Watkins Brett (on behalf of his brother Jacob Brett, the inventor and patentee) submitted a plan to Louise Phillippe but this was rejected. He then approached Louis Napoleon from whom he obtained permission to make a trial and this was started on 28 August 1850. 27 miles of wire were placed on the Government Pier at Dover Harbour for the inland connections and about 30 miles of wire were coiled on the steamer "Goliath". This wire was enclosed in gutta-percha 1/2" in diameter. The "Goliath" started from Dover Harbour and moved out to sea, uncoiling the wire as it went and allowing it to drop to the sea bed. The ship arrived off the French Coast by evening and the wire was taken up the cliff at Cap Gris Nez to the terminal station and various messages were passed. But the wire in settling on the sea bed had crossed a rocky ridge and snapped in two. Thus the project failed. New arrangements were soon made, the Channel Telegraph was again opened and closing prices of the Funds in Paris were made known on the London Stock Exchange within business hours. To prove the circuit guns located at Dover were fired by communications from France. Duplex Telegraphy - the passing of two messages along a single wire in opposite directions - was first achieved by an Austrian Dr. Gintl, in 1855, then by Messrs Siemens in 1857 and, with messages in the same direction, by Stark of Vienna in 1855, and the apparatus perfected by Stearns, an American, was adopted for British Telegraphs.

Electric telegraphs between other points quickly followed with "wires" between Dover and Ostend (May 1853), Portpatrick and Donaghadee (May 1853), Holyhead and Howth (June 1854), Paris and Bastia (November 1854), London and Constantinople (May 1858), Cromer and Emden (also May 1858), Aden and Suez (May 1859), Malta and Alexandria (28 September 1861), England and Bombay (Opened 1 March 1865) and Marsala, Sicily and La Calle, Algeria (21 June 1865).

On 29 March 1869, Mr. App's Inductorium, or induction coil, produced the largest sparks ever seen at The Royal Polytechnic Institution. "Over House" Electric Telegraphs, which had been first used in Paris, were set up between the City and the West End premises of Messrs. Waterlows. This system was later extended throughout London. In 1856, Jules Duboacqs "Electric Lamp" (quoted as the most perfect of its kind) which had appeared at the Paris Exhibition in 1855, was used by Professor Tyndall at the Royal Institution in London for illustrating lectures on Light and Colours

and in 1858 the works of the new Westminster Bridge were illuminated by Watson's Electric Light. Also in 1858 and extending into 1859 the "Magneto-Electric Light" (listed as the most brilliant artificial light ever produced devised by Professor Holmes, was successfully tried at the South Foreland Lighthouse at Dover, and in April 1861 the French government ordered eight lighthouses to be illuminated by electric light. July 1862 saw the progress of the electric telegraph when it was announced that there were 15,000 miles of "wire" working in Great Britain, 80,000 miles on the Continent of Europe, and 48,000 miles in America, with a World total somewhere in the region of 150,000 miles. In 1865 an "Electric Telegraph Conference" was held in Paris but Great Britain was not represented. In the U.K. The Telegraph Act was passed on 31 July 1868 and this enabled H.M. Post-Master-General to acquire, work and maintain Electric Telegraphs. In 1871 the result of the Derby was known in Calcutta five minutes after the end of the race, thanks to the electric telegraph. On June 10th in the same year a statue of Morse was unveiled in New York. 23 February 1876 saw the completion of a direct telegraph line between London and New Zealand over which messages between the Lord Mayor and the Mayors of Wellington and Dunedin were exchanged.

The Atlantic always represented a challenge to the Telegraph Engineers, and in June 1845 a plan to unite Europe and America by telegraph was entered at the Government Registration Office by Mr. J. Watkins Brett and Mr. Jacob Brett who made proposals to the Government which were not accepted. 2,500 miles of wire ware manufactured and tested in March 1867 and the cable was started to be laid from Valentia, Ireland in 1857. The vessels used were the "Niagara" and the "Susquehanna" (American) and the "Leopard" and the "Agamemnon" (British). After sailing a few miles the cable snapped. This was, however, repaired. After sailing on and paying out 300 miles of wire, the cable snapped again. The vessels returned to Plymouth. A second attempt to lay the cable on 20-21 June 1852 again failed due to a violent storm. The third voyage was, however, successful and 2,050 miles of wire between Ireland and Newfoundland connected the continents. The first two messages were passed on 5 August 1858 were from Queen Victoria to the President of the U.S.A. and his reply. Insulation was not what it is today and the cable gradually failed becoming completely useless on 4 September 1858. The next attempt was after a new Company was formed and they utilised the "Great Eastern" commanded by Capt. Anderson. The "G.E." sailed, again from Valentia, on 23 July 1865 maintaining contact with the land by means of the cable. Two insulation faults were repaired at sea but again communication finally ceased before the lay was completed and the vessel returned to the Medway. Again a new Company was formed and was known as The Anglo-American Telegraph Company Limited. They again used the "Great Eastern" and this time were successful the cable being put ashore at Heart's Content, Newfoundland. This was in 1866. The 1865 cable was not forgotten and was recovered from the sea-bed on 2 September 1866 and its laying completed to Newfoundland by 8 September. For the 1866 cable laying achievement Samual Canning, Daniel Gooch and Capt. Anderson were knighted. It was stated, in September 1866, that the cable engineers passed a current through 3,700 miles of wire by means of a battery formed in a lady's thimble.

Electric clocks were well known at this time. Professor Wheatstone invented an electric telegraph clock 1840. Other clocks worked by electricity were exhibited at the Great Exhibition in 1851. These included those made by Mr. Alexander Bain, Mr. Shepherd and others. An electric clock, with four dials, and illuminated at night was, for some time, set up in front of the offices of The Electric Telegraph Company in The Strand in London.

The Electric Light was successfully employed in photographic work by Mr. H. Van der Weyde in 1876. In September 1878, Mr. Stayton reported that electric light was much dearer than gas and would not be suitable for lighting the streets of London. Around October and November 1878 The Times machine room was lit by six lights "from one current". At the end of 1879 Dr. Lyon Playfair reported "The energy of one horse-power may be converted into gaslight and yields a luminosity equal to 12 candle-power. But the same amount of energy transformed into electric light produces 1,600 candlepower. Scientific witnesses considered that in the future the electric current might be

THE EARLY DAYS - Contd.

extensively used to transmit power as well as light to considerable distances..... .....Your committee, however, does not consider that the time has yet arrived to give general powers to private electric companies to break up the streets, unless by consent of the local authorities....."

The above information was taken from HAYDN'S DICTIONARY OF DATES AND UNIVERSAL INFORMATION RELATING TO ALL AGES AND NATIONS, 18th Edition, Containing the history of the World to the Summer of 1885 - By Benjamin Vincent, to whom all acknowledgements are hereby made. Although only part of the information contained therein is reproduced here it may give an insight into "the first 100 years", the next 100 years (to 1979) is fairly well documented and known. But what about the next 100 years??? Readers are invited to drop a line to the Editor saying what they would expect to read in "Mercury" dated March 2079 based on the above. In other words what do YOU think will happen in the electrical, electronic and telecommunication world in the next 100 years?.

TECH-TIP.

G3EJF.

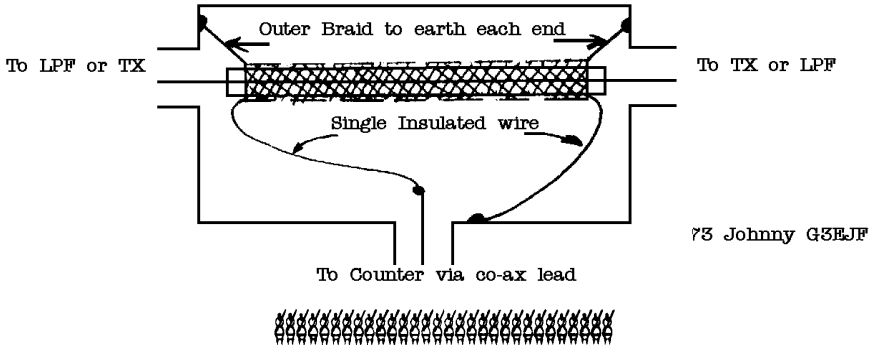
Digital Frequency Meters or Frequency Counters are available to the radio amateur at reasonable prices and form a useful method of checking the transmitter frequency. Most Counters require several millivolts of signal and it may not be easy to obtain a suitable level particularly if the antenna is fed with co-ax. A technique which is already common in Standing Wave Ratio Meters forms a neat and simple way of connecting the Frequency Meter permanently in circuit.

All that is required is a metal box, such as a 2-ounce tobacco tin, three co-ax sockets, a few inches of co-ax and a similar length of thin insulated wire. The actual length of co-ax required will depend upon the transmitter power output and the sensitivity of the Frequency Counter, but three or four inches should be sufficient for high-power stations.

Strip the outer insulation from the co-ax, loosen the outer braid by bunching it together and push a length of thin insulated wire under the braid. Stretch the braid back into shape and connect up as shown below.

Connect the ends of the co-ax inner to the two in-line sockets and connect one end of the insulated wire to the third socket. Both ends of the outer braid and the other end of the insulated wire are connected to the metal box close to the co-ax sockets.

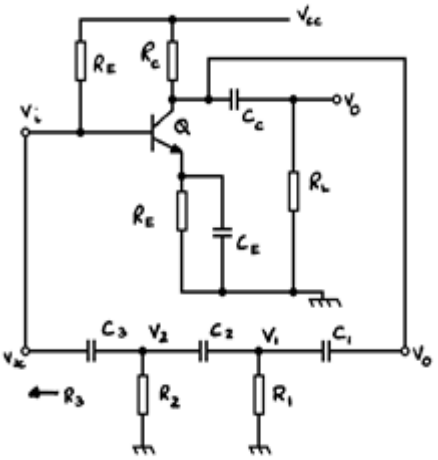
Connect the box in between the TX and the Low-pass Filter, tune up on various bands and check if the Counter works. Assuming a good SWR on your antenna system the box will only work when connected one way round. If reversing the connections does not do the trick or if it only works on some bands try a longer length of co-ax, but only use the minimum length necessary for correct operation of the Counter. Too long a length of co-ax could result in excess signal being fed to the Frequency Counter.



OSCILLATORS. H.L. WILLIAMS G3WZS/0781.

(Continued from "Mercury" 11/78. In this part G3WZS moves into theory of various oscillators. - Ed).

RC PHASE-SHIFT OSCILLATOR.



At low frequencies (less than 100 KHz) resistors and capacitors are usually used to determine the frequency of oscillations. If the amplifier phase-shift is 180° then oscillations may occur at the frequency where the RC network produces an additional 180° phase-shift.

In the diagram, R3 represents the resistance seen by the RC network when connected to the base.

The RC sections can all be equal (R1 = R2 = R3 and C1 = C2 = C3) or graded (R3 = 10R2 = 100R1; C3 = 0·1C2 = 0·01C1). With graded sections R3C3 = R2C2 = R1C1 which for simplicity, we will call RC.

$$\frac{V_i}{V_o}=\frac{R}{R+\frac{1}{jwc}}=\frac{jwRC}{jwRC+1}$$

and $\frac{V_x}{V_2}=\frac{V_2}{V_1}=\frac{V_1}{V_o}$

$$\therefore \frac{V_x}{V_o}=\frac{V_x}{V_2}.\frac{V_2}{V_1}.\frac{V_1}{V_o}$$

$$\therefore \frac{V_x}{V_o}=\left(\frac{jwRC}{jwRC+1}\right)^3.$$

The circuit oscillates when the phase-shift from V_o to V_x 180°, i.e. when the shift of each section is 60°. Expression for phase-shift through each section can be obtained by:

$$\theta\left(\frac{V_x}{V_2}\right)=\theta\left(\frac{V_2}{V_1}\right)=\theta\left(\frac{V_1}{V_o}\right)=\theta\left(\frac{jwRC}{jwRC+1}\right)$$

$$\theta=\text{phase of numerator}-\text{phase of deno min ator},=90°-\text{Tan}^{-1}\frac{wRC}{1}.$$

When $\theta = 60°$, we have $60° = 90° - \text{Tan}^{-1}(w_oRC)$. $\quad \therefore f_o=\frac{0\cdot557}{2\pi RC}.$

The losses through the feedback network can be determined by the above equation into

$\frac{V_x}{V_o}=\left(\frac{jwRC}{jwRC+1}\right)^3$ and solving for magnitude :

$$\left|\frac{V_x}{V_o}\right|=\left(\frac{0\cdot557}{\sqrt{1=0\cdot557^2}}\right)^3=\frac{1}{8}.$$

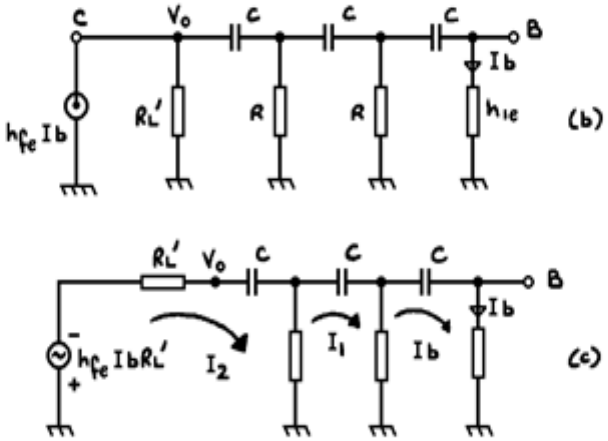
Therefore, the active device must have an open-loop voltage gain greater than 8 to ensure oscillation.

Graded sections are not always practical because the loading of previous sections cannot always be neglected, If equal RC sections are used, then the voltage loss at f_o increases to 29, but there are advantages, too. With all sections equal, it is possible to gang the capacitors.

When loading is not negligible, the complete circuit is analysed by writing loop or node equations. Oscillations occur when the closed-loop gain approaches infinity. Consider the circuits shown below. Diagram (b) is an equivalent circuit of (a).

R_b is assumed to be much larger than the transistor input resistance. RL' = RL//RC.

Circuit (b) can be further simplified by converting the current generator into a voltage generator as shown in (c).



Loop equations can now be written.

$$I_s\left(R+\frac{1}{jwC}+R\right)-I_1R=0 \qquad (1)$$

$$I_1\left(R+\frac{1}{jwC}+R\right)-I_sR-I_2R=0 \qquad (2)$$

$$I_2\left(R_{L'}+\frac{1}{jwC}+R\right)+I_s\left(h_{fe}R_{L'}\right)-I_1R=0 \qquad (3)$$

Rearranging these equations :

$$I_s\left(2R+\frac{1}{jwC}\right)+I_1(-R)+I_2((0))=0$$

$$I_s(-R)+I_1\left(2R+\frac{1}{jwC}\right)+I_2(-R)=0$$

$$I_s\left(h_{fe}R_{L'}\right)+I_1(-R)=I_2\left(R+R_{L'}+\frac{1}{jwC}\right)=0$$

The denominator determinant for all the unknowns is :

$$\Delta=\begin{vmatrix} 2R+\frac{1}{jwC} & -R & 0 \\ -R & 2R+\frac{1}{jwC} & -R \\ h_{fe}R_{L'} & -R & R+R_{L'}+\frac{1}{jwC} \end{vmatrix}$$

OSCILLATORS - Contd.

Oscillations occur when $\Delta = 0$

$$\Delta = \left(2R + \frac{1}{jwC}\right)^2 \left(R + R_{L'} + \frac{1}{jwC}\right) - (-R)(-R)\left(2R + \frac{1}{jwC}\right) - (-R)(-R)\left(R + R_{L'} + \frac{1}{jwC}\right) + (-R)(-R)(h_{fe}R_{L'}) = 0$$

$$\Delta = \left(R^3 + R^2R_{L'}(h_{fe} + 3) - \frac{5R + R_{L'}}{w^2C^2}\right) + j\left(\frac{1}{w^3C^3} - \frac{6R^2 + 4RR_{L'}}{wC}\right) = 0$$

For $\Delta = 0$, both real and imaginary parts must equal zero. Setting $I_m(\Delta) = 0$ yields

$$\frac{1}{w^3C^3} = \frac{6R^2 + 4RR_{L'}}{wC} \quad \text{or} \quad w = \frac{1}{C\sqrt{6R^2 + 4RR_{L'}}} \qquad (4)$$

Setting $R_e(\Delta) = 0$ yields: $R^3 + R^2R_{L'}(h_{fe} + 3) = \frac{5R + R_{L'}}{w^2C^2}$

Substituting w^2C^2 from equation (4) gives:

$R^3 + R^2R_{L'}(h_{fe} + 3) = (5R + R_{L'})(6R^2 + 4RR_{L'})$, or

$$h_{fe} = 29\frac{R}{R_{L'}} + 23 + 4\frac{R_{L'}}{R}$$

(To follow: details of the Colpitts and Hartley Oscillators - Ed.).

THE NATIONAL WIRELESS MUSEUM.

If you are still thinking about where to go for your holiday this year, why not consider the South Coast in general and the Isle of Wight in particular. One advantage of a trip to "the Island" is that you could visit the National Wireless Museum. Here you could find a unique collection of vintage wireless receivers dating back to the first World War, including crystal sets with cats-whiskers and headphones, antique receivers with "bright emitter" valves and curved horn loudspeakers as used when broadcasting from 2LO commenced in 1922. Dozens of period components are shown, as used by home constructors, and there are wireless periodicals popular over half a century ago. Later exhibits include so-called "portable" sets of truly gargantuan proportions and weight!. Also the luxury consoles and radiograms of the 'thirties. There is a Logie Baird Televisor of 1928 and some of the first 405-line TVs. Test meters, amplifiers and many other exhibits are also displayed from an era when radio was known "the wireless". The Museum is located at Arreton Manor, near Newport and located alongside is the Pomeroy Museum which displays many items of antique Childhood, including Prams, Baby Gowns, Dolls, not forgetting the Pomeroy Regency Dolls House (as featured in the ITV "Magpie" series).

The National Wireless Museum has been granted the Special Call-sign GB3WM and a special exhibition station will be installed at the Museum in due course, and operation will be on CW and SSB as well as FM on 2 Metres via the Hampshire Repeater GB3SN. Official operators will be the Museum Curator (Douglas Byrne, G3KPO), and Messrs. A.R. Williams, G3KSU (Deputy Curator), D.E. Denny, G3ZQE, A. Wakeley, G3MAD, R.W. Fisher, G2DZN, K.B. Pearse, G3MLC, F.D. Cawley, G2GM, S. Childs, G3IOW. L. Critchley, G3EEL, D. Hoult, G4OO and W. Carter G2NJ (RSARS 0492).

Arreton Manor is the home of the Count and Countess Slade de Pomeroy, and is open to the public daily from Easter to November, as well as by appointment during the winter months.

PROBUS.

G4BNI/0982.

(George, G4BNI, who often takes his turn as Right Hand Guide to our white Stick Platoon on RSARS parades, sent along the following which will doubtless be of interest to "any members who have become "professional Loafers" or, to use a more correct term, retired.).

What is Probus?. It is an organisation for retired business and professional men with, it is believed, around 800 Clubs in the U.K. There is no central body as each Club is a unit, consisting of a Chairman, secretary and Appointment Officer all elected each year by Club members. The annual subscriptions vary according to the Club but is usually 50p or £1 and it is a non-profit making organisation as well as being non-religious and non-political. In fact, it is just a meeting of friends.

Meetings are held locally in a convenient hall or hotel once or twice a month. Those who meet twice a month usually have a coffee charge (about 20p) with, possibly, a lecture either by a Club member or an 'outside' speaker. These lectures can vary from such things as 'Law' to 'Do it Yourself'. From time to time, the Club will visit a local factory or other place of interest - sometimes not so local, when a coach is arranged at a small cost. The Clubs often arrange a luncheon to which the ladies can be invited, or it could be an evening concert.

The Clubs that meet once a month have a luncheon with an after-dinner speaker. These, too, arrange visits to various places of interest and the cost of these visits vary according to the distance travelled. In some cases one travels in another member' car at a small cost.

If you are looking for a couple of hours in men's company, I can recommend Probus. You will make new contacts and meet old friends. I have been a Probus member for the last five years and can recommend that organisation to anyone. If you have half an hour to spare on a Wednesday afternoon, why not join the Probus Net - 1430 hours on 3·694 MHz. The Net Controller is either G8ON or G4BNI.

73 George G4BNI/0982

PLANNING PERMISSION.

G3NXM.

The article by G3ZYE in "Mercury" of 11/78 reminds me of my difficulties about aerials. When I moved to this QTH about 12 years ago, there was a covenant on the ground that no external aerials were allowed, not even TV ones, although they had to relax this for BBC-2. So, for about 10 years I used indoor aerials or "invisible" (24 SWG) external aerials. My neighbours suggested I put up a decent outdoor aerial and the ground superiors allowed this as the neighbours would not object. In order to keep the aerial unobtrusive, I decided to use an HQ-1 Minibeam on a pole clamped to the back of the house, with the centre of the aerial about two feet above the ridge.

I then telephoned the Planning Department, told them what I wished to do, and asked for the appropriate forms. The reply I got was that if the aerial was mounted on a mast or tower and erected in the garden, planning permission WAS required, but as the aerial was fixed to the house, NO permission was required.

This appeared to be a rather peculiar decision but I think the reason is that all external aerials should theoretically require planning permission, including TV ones fixed to houses, and as they could not possibly deal with all applications for TV aerials, the authorities decided to allow the erection of aerials fixed to houses without planning permission. Of course, it could have been that the HQ-1 is only 11 feet 6 inches long with a 4 feet 6 inches boom, and is not much bigger than a BBC-1 VHF (Band 1) horizontally polarised aerial.

73 Walter G3NXM.

(Tnx, Walter, it certainly goes to show that a few enquiries made in the right direction can make life a lot easier, although, of course, not all Local Authorities think along the same lines. - Ed.).

THE R.S.A.R.S. LIBRARY.

By Kit, G4EMX.

(A considerable amount of work has taken place since the move of the Library from Blandford to Catterick, and Kit has now just about managed to get things sorted out. He shows below a list of books, etc., available to members on loan. There in no charge, but members are asked to refund to HQ the cost of posting the books on an well as pay the postage when publications are returned. At the end of this list Kit mentions some items that are required by the Library to complete collections, but publications are always welcome by donation, at any time, e.g. Don't Dispose - Donate!!. - Ed.).

TR Bulletins in 19 Volumes. 1925-1951.

Experimental Wireless Volume I 1923-1924.

Modern Wireless - 1923.

Handbook of Wireless Telegraphy Volumes 1 and 2 - 1938.

Royal Signals Handbook of Line Communications Volume 1 - 1947.

National Certificate Mathematics Volume2 (Abbott and Marshall).

The Transistor Radio Handbook - 1963.

Antenna Handbook (ARRL).

Wireless Servicing Manual 1959.

101 Ways to use your Oscilloscope - 1964.

Electrical Measuring Instruments Practice.

Radio Data Reference Manual 3rd Edition (RSGB).

SSB for the Radio Amateur 1960 (ARRL).

Directory of Certificates and Awards 1973 (IARS).

A Course in Radio Fundamentals 1960 (ARRL).

Modern Transistor Circuits for Beginners by Clive Sinclair.

Radio Amateurs Examination Manual (RSGB).

HQ Middle East HF Aerial Systems.

Heathkit Basic Electronics Parts 1 and 2.

AVO Valve Tester Data 1965.

Transmitter D11.

Receiver AR-88-D.

Receiver Eddystone 740/4.

Receiver AR-88-LF.

Receiver Racal RA-17.

S-500 2 Metre Transverter (Heathkit).

Station Radio D11/R230/R234 Operating Instructions.

Wireless Weekly Volume I - 1923.

Amateur Wireless Volume I - 1923.

Royal Signals Journal in 7 Volumes 1933-1939.

The Elementary Principles of Wireless Telegraphy Volumes 1 and 2 - 1938.

The Services Textbook of Radio Volumes 1, 5 and 7.

A Guide to Amateur Radio (17th Edition) (RSGB).

The VHF/UHF Manual 1971 (RSGB).

Radio Operators Handbook.

Amateur Radio Circuits Book 1968 (RSGB).

Teach Yourself Radio Communication.

Transmitting Valves (Phillips).

Fundamentals of Radio Valve Techniques 1964.

101 Ways to use your Signal Generator.

Application of the Electrical Valve in Radio 1954.

Receivers and Amplifiers - Book 4.

Radio Amateurs Operating Manual 1969 (ARRL).

Shop and Shack Short Cuts 1964 (CQ).

Hints and Kinks 1968 (ARRL).

Radio Amateurs Handbook 1972 (ARRL).

Semi-conductor Manual 1964 Phillips).

New Sideband Handbook 1958.

World at their Fingertips by G6CL (RSGB).

Test Equipment for the Radio Amateur.

Learning the R/T Code (ARRL).

Radio Location Techniques (Wireless World).

The License Manual 1971/2 (ARRL).

The HRO 50-1 and HRO Series HRO M/MX/ MRR/MTM/SR/JR.

R.S.A.R.S. LIBRARY - Contd.

The Collins KWM-2.
The SSB Transmitter HW32A (Heathkit).
AC PSU HP-33 (Heathkit).
External LMO SB-640 (Heathkit).
Receiver Adaptor Frequency Shift No. C1.
Yeasu FT-101-E/EE/EX.
Wavemeter Type W- 1649.
Oscilloscope O-12-U (Heathkit).
Yeasu FV-101-B.
KW-107 Supermatch.
Telequipment Double Beam Oscilloscope Type D31/D31-R.
Transmitter RCA 4332-B.
The HRO-500.
The Eddystone 770-R Receiver.
The Yeasu FT2-FB.
The CR-70A.
The HC-10 Converter.
RTTY A - Z (CQ).
Radio Communication Handbook (RSGB) 1971.
RSGB Bulletin July 1942 - December 1948 (Incomplete).
Fundamentals of Electrical Measurements 1972.
Radio and Electronics Made Simple 1956.
NBFM Manual (RSGB).
Transistor Data Book 1974.
The Journal of the Royal Signals Institution Volumes 1 to 5.
QST June 1925 - December 1975 (Incomplete).
The Morse Keyboard Perforator.
Station Radio C 42.
SSB Adaptor SE-10-U (Heathkit).
KW-2000-A Transceiver plus PSU.
SB-610 Monitor Scope (Heathkit).
Pye Fixed station PTC 723/724.
Receiver UX-R1 (Heathkit).
Speaker SB-600 (Heathkit).
The Swan Cygnet 260.
Receiver R-208.
Frequency Meter SCR-211P. 211T (BC-221).
Transmitter WS 52.
The KW-202 Receiver.
The Eddystone EA-12 Receiver.
The FDK Multi 2000 2 Metres Transceiver.
The Receiver GR~64 (Heathkit).
Electricity and Magnetism 1935 (Signal Trg.).
The New RTTY (CQ).
Electronics for Shutterbugs 1974.
Radio Fundamentals Principles and Practices 1944.
DC Motor Speed Controls and Servo Systems (Electro Craft).
Radio Fundamentals 1944 (War Dept.).
Amateur Radio Antennas 1977 (Jay Beam).
Jungle Green by Arthur Campbell MC.
Twenty Years After, Parts 1 to 42.
Short Wave Magazine March 1955 - October 1971. (Incomplete).
Morse Code for Radio Amateurs 6th Edition (RSGB).

WANTED BY THE LIBRARY :-

RSGB Bulletins/RadComs. : January 1976, February 1976.

QST : May 1961, August 1965, October 1968, February- 1969, July 1969, January to December 1970, March 1971, August 1972, February- 1973, August 1973, February 1974, December 1974, Any after January 1975.

Short Wave Magazine : January- 1950, February 1950, May to November 1950, April to June 1952, August to November 1952, January 1953, January 1954, July 1959, August 1959, August 1966, December 1967, September 1968, June 1969, August 1969, September 1969, May 1970, February 1971, March 1971, May 1971, Any after November 1971.

A LIGHT BLUE STORY.

G3TTH/0353.

On board the "Empire Trooper" bound for Ceylon in April 1949, L.A.C. (Leading Aircraftman) "Tex" Coltman was all set for an idyllic tour with the RAF in that beautiful island. Not so! - 24 hours out of Colombo, Sparks received a signal "L.A.C. Coltman to proceed to Singapore".

OK, Singapore it is then. So, on arrival L.A.C. Coltman struggles down the gangplank to the accompaniment of a Band and proceeds (Note - airmen always "proceed" to wherever they may be going!) to R.A.F Changi. Not a bad spot, so I am given to understand, and, arriving there, find no reason to change that opinion. However, the R.A.F. had other ideas. "Nights kip for you, Cpl. Coltman, and. then up country to R.A.F. Kuala Lumpur". Hmm, not so good. - there's bandits up there.

No escape though, so I duly climb aboard the night train and made my way up to K.L., having experienced the obligatory ambush of the Singapore-Kuala Lumpur train.

OK, so now I'm a veteran and at R.A.F. K.L. "Oh Yes, Coltman. No, don't unpack, get a nights kip and then you're on your way to the Army". By now, I'm beginning to lose confidence - no-one wants me, not even the R.A.F.!. So, another night in transit dreaming about what the Seaforth Highlanders do to Brylcreem Boys, and then over to Malaya District HQ to begin the best three years of my service with three other R.A.F. Telegraphists, a couple of Cipher Sergeants and two R.A.F. Intelligence Officers.

Yes, I was eventually attached for a short period to The Seaforth Highlanders, The Royal Marines and several other Regiments operating in Malaya during the Emergency, but I always came back to Royal Signals at Malaya District for my cocoa and biscuits.

During this time, I was also responsible for the Royal Naval Liaison Officers communications from K.L. and worked H.M.S. Amethyst on her way back from the Yangtze Incident. On the strength of that I got into the R.N.A.R.S., and so achieved a "Full House" - R.S.A.R.S., R.A.F.A.R.S., and. R.N.A.R.S.

I shall always remember with gratitude two of the Army Intelligence Officers who, towards the end of my tour, protected me from the rightful wrath of the Commanding Officer of R.A.F. K.L. Due to W/T communications difficulties during the night shift with Singapore and Butterworth, when I had finally managed to pass their traffic, I clean forgot to telephone R.A.F. K.L. on the landline and inform them of a change of strike time. The result - a squadron of Lincolns from Singapore bombing from a great height with a flight of Brigands from R.A.F. K.L . photographing the area from a low level at one and the same time!. I don't know how they did it but somehow they managed to prevent the Squadron Leader getting his hands on me.

So, there we are, three years of my life during which I owe a lot to the hospitality and friendship of the Royal Signals, plus other good times in the Sergeants Mess at Garats Hay near my home town of Loughborough after I had returned home. Should anyone remember the Brylcreem Boys at Malaya District 1949-52, I hope it will bring back a few memories.

R.N.A.R.S. "MERCURY" AWARD.

Issued for contacts with member stations of the R.N.A.R.S. on a points basis, one point per station per band with double points for contacts above 30 MHz. The following special stations count DOUBLE points G3BZU, GB2RN, GB3RN, GB3RM, GB3FAA, GB3HMS, GB3GUZ, and GB3RNR. The Award is issued in THREE classes : CLASS ONE : 20 Points. CLASS TWO : 10 Points (Not available to UK stations}, and CLASS THREE, : 5 Points (Not available to UK or European stations).

Endorsements available for AOB or AOM and extra 10 points. £0.30 or 6 IRC to:
Award Manager G3HZL, 153 Worple Road, ISLEWORTH, Middlesex, TW7 7HT, England.
Certified Log Data only, no QSLs required. Award available to SWLs.

HOW GOOD IS YOUR MEMORY?

A letter from Cyril, GW3ASW, seeks the help of members. He writes "I wonder if you can assist?. A friend of mine assisted by her OM is trying to compose and collect together as many old Army marching songs, Barrack Room Ballads and other ditties as possible hoping eventually to turn them into a booklet. No doubt members will agree, I do, that many of these songs, etc., are in danger of passing into the "pale". She is interested in those old songs of the East - India, etc., in particular.

What is wanted is any snippet of any song, ribald, clean, or otherwise of the Barrack Room or the March and, in particular, if it can be provided, the unexpurgated version of the old RE song sung with such gusto by all arms of the forces pre-War - "We're marching off to Laffans Plain where they don't know sugar from ****!". In the case of songs in BOR bhat- or "kitchen" Urdu they should be written as closely as the writer remembers in PHONETIC English. They will be "translated" into correct Urdu if necessary, but in order to ensure regularity ANY version will be appreciated. For instance, can anyone remember the following in full :

"Tin andhe chuhe, Tin andhe chuhe,
Dekko!, Kai sab daurte, etc.
Wuh, Memsahib ke pichche jate the... etc.

This, of course, is a version of "Three Blind Mice", and though correct translation would be easy, what is required is the BOR version. From these snippets it is hoped to recreate as closely as possible the originals before they are completely lost. Another ditty dating from the Italian campaign of WWII is thought to include the following :

"How about a visit to your casa, baby,
When the day is through,
There'll be plenty of chocolata for the little bambino... etc.

There were also many songs from the POW Camps, including a very special "Burma Road" epistle - can someone remember it?.

If required postal expenses will be refunded. Include postage request with your contribution to:-

C.R. Mountjoy, GW3ASW, "Pant Villa", 55 Aberdare Road, CWMBACH, Aberdare, Mid-Glamorgan, CG44 0PG.

(To use a modern term "Dig into those memory banks, fellahs!". It doesn't matter if you only know a couple of lines, someone else may know the others. Being a young (as well as good-looking) whippersnapper, your Editor cannot be of much help. However, at Meeanee Barracks, Colchester at the end of the War, during Basic and Corps Training, one was asked to perform a 10-mile route march every Saturday morning. On getting near Camp on the return leg, the Platoon was expected to enter the Camp gates either singing or at the Double (to show how efficient our training was!!). Invariably, we chose to sing. The song was always the same :

"Bluebells are bluebells,
Bluebells are blue,
Bluebells are bluebells,
When bluebells are blue".

All verses were the same - and there were at least 97 of them!. Not quite the thing Cyril is looking for, but perhaps someone remembers the "Zoo Song" which was always sung by one member of the Squad/Barrack Room/Drinking Party with responses provided by the remainder. Perhaps others will remember the songs sung by the 1st Dutch Expeditionary Force at Catterick in 1946 including the "Steamboat" song which was sung to the tune of the Panzer song which featured in the film "The Battle of the Bulge". Perhaps EI5BH will remember (Thinks! - that's got them thinking. Why would the operator of an Irish call-sign remember a Dutch song, sung in England to a German tune!!!?) - Ed.)

WARC '79.

G3ADZ.

I would not wish to make too much general comment on the excellent article by my old friend Johnny (G3EJF) in "Mercury" 11/78. I could take issue with him on several points as I believe he painted a rather sad and not altogether factual picture on the state of the art. I believe that unless you happen to be a Contest fiend, there are plenty of good QSOs to be found on all bands and in all modes, and the content of these vary across a very wide range of subjects from the highly technical, to the exchange of knowledge between countries and nations. The bits in the middle all add up to self-training, communication, investigation and experimentation, in spite of all the 'black boxes'. To say the least, the article gave much food for thought, and we an only hope that the outcome in 1979 will be a bit more cheerful than his predictions.

On the subject of self-training, perhaps the events of November/December RAYNET activity in the Midlands can at least offer some justification for our existence. Johnny says that any worthwhile training organisation can produce better operators in a matter of weeks. Unfortunately not many of us are free to attend such courses, and what is the use of being trained to communicate, without also having reliable equipment, sufficient knowledge to keep it working under difficult conditions, and the ability to step in with a completely reliable service in all its many aspects, when official sources, both service and civilian, have failed for any one of a hundred reasons.

I have been a member of RAYNET since its formation. Like, I believe, a good many others, I have tended to think of it as an interesting small fraction of the hobby that just might be wanted "live" once every few years. If it was wanted, it would probably be for a very short duration emergency, such as a major rail or air disaster. The fact that, all sections of the Warwickshire organisation, with some willing help from nearby Counties, was called upon to provide 24-hour communications for several weeks on end has, if nothing else. taught some hard lessons.

The basic set-up was to provide two Control Rooms, one in Birmingham and one in Coventry, together with sufficient mobiles to go out with the St. Johns Ambulances on emergency call. Calls for help came in by telephone to the St. Johns Duty Officer, who would then dispatch an ambulance team, complete with an amateur /M, to the incident. The resulting RAYNET communications were therefore used for direction to the scene and thence to the hospital by the best available route, to report full details of the trouble, to obtain instructions, warn the hospital what to expect on arrival, and to divert the team to a call with higher priority, if necessary. Everything is set up on "Two" in this area (much to my personal dislike, as I happen to believe that "Four" is a much more practical band for the purpose, and I fail to understand why the Home Office will not permit the G8 plus 3's to use it), and we also had UHF links for engineering and administration purposes.

At this point comes lesson one. It is impossible to guarantee the required range of mobile working to cover a city as large as Birmingham, without the aid of a Repeater. GB3BM was used for this purpose, and I have very little respect for the tiny minority of other amateurs who complained about its "requisition". In fact, a very large vote of thanks is due to the Repeater Groups both on VHF and UHF.

The other lessons and thoughts in summary form:-

a) Of course, it is important to be able to read an ordinance survey map and give an accurate map reference, but:

i) Make sure that everyone has the same issue - either the old or the new but NOT a mixture.

ii) Even more important for town working is for Control and all the Mobiles to have indexed street maps. This is how locations will be given and explained by the locals.

b) Never assume that the chap you are working with, or the Control operator for the time being, or the ambulance (or other service) team, is going to be a local who knows his way around. The chances are that you will be with volunteers who, like yourself, have come from some distance away. If someone does know, without looking at a map that is a bonus - but make sure he really does know!.

WARC '79 - Contd.

NB. The non-mobile RAYNET member, or those members who are not free or able to work away from home, can often be a big help if they just stand-by on the QRG with a good map.

c) Yes, you do want a valid and up-to-date membership card - you will almost certainly be asked for it at some stage - so chase your Controller before the next event!

d) Groups have a fairly standard list of things to keep for ready use in the "black bag" - pencils, torch, local instructions and membership lists (a call-book in also useful), but don't forget something to eat and a flask of tea or coffee to see you through a long duty (Yes, I do know there is an all-night fish-and-chip shop in Coventry, and very good it was!). For winter calls, the car collects frost very quickly at night, so you need some kind of cover, even if only a few sheets of thick paper or an old blanket.

e) Never express opinions or take sides in a dispute. Confine yourself to the job on hand and its requirements.

f) You cannot just plonk a base station aerial on the top of the nearest building. You need permission, forward planning, and lots of spare co-ax, or you will end up a very second best.

g) Keep good and complete logs and message copies. They will be wanted, Control stations (fixed) must also have full admin and operational instructions.

h) A word about insurance. The /M vehicle is covered whilst on duty, but if you drive a Company car, did you remember to get permission from the boss? What about the grand lads who rushed to provide the base station equipment? Was it covered if pinched or damaged? Easy enough to do beforehand, at very little cost, but no comfort to wake up to find that the JA XYZ 80000 Super has gone missing or that the relief operator did not know it worked on 12 Volts and not the mains, only to find that voluntary outfits hardly ever have funds of any size - and who was to blame, anyway???.

i) Use your brain-box, but do not try and run the show. By all means make suggestions, but at the end of the day, carry out the exact instructions of your Controller, and do not rush off on some helpful venture of your own.

Lastly, if you think that perhaps it's a bit worthwhile after all, volunteer now and don't wait for the next 'live' show. We had lots of last-minute would-be helpers - most kind and much appreciated, but as they had not been to Johnny's training school, or ours, we could only accept a very few. Dare I hope that the 'gentleman' who tried to entertain the troops by playing music over GB3BM will, when he has recovered from paying his fine, take his RAE and be among the newcomers to RAYNET.

Me? - I'm getting a bit long in the tooth to lose all that beauty sleep - all that often anyway!.

P.S. It might also be remembered that some St. Johns units do have their own radio equipment, complete with Home Office licence and QRG. This is fairly vintage AM Lo-Band sometimes to be found lurking in cupboards at the HQ. If this is the case, the usual reason is lack of training in its use, or more probably because it is not working, being in need of maintenance, correct xtals, or installation know-how. This is worth a check and some help before the emergency, as if one or two ambulance teams provide their own communications, it is one less link for RAYNET to worry about if service is required for a long period.

73 de G3ADZ

(Such activities as RAYNET operation may well temper the publics' opinion, and that of WARC delegates, in favour of the radio amateur, as well as providing a public service as in the case of the recent ambulance service problems. If you feel that could assist in this service why not contact your local RAYNET Controller or get more information from the RSGB? - Ed.).

LET'S TALK ABOUT SIGNAL REPORTING.

BILL JAMES G6XM.

While listening around the amateur bands one often hears an operator giving an S9 - R5 report, and then asking the station being worked for a repeat of some of the previous transmission because part of it has been missed for a number of reasons. Obviously, that S9 - R5 report was WRONG!. Similarly reports of S1, even S0 - R5 and S9 plus 40 or 50 dbs are frequently heard, probably because the S-meter says so, and according to some operators this is correct and absolutely inviolate, The writer has often heard reports of this type!.

To remind us what signal reporting is all about, the international R-S-T Code is repeated below.

READABILITY ('R') : 1 - Unreadable.
2 - Barely readable, occasional words distinguishable.
3 - Readable with considerable difficulty.
4 - Readable with practically no difficulty.
5 - Perfectly readable.

SIGNAL STRENGTH ('S') : 1 -Faint signals, barely perceptible.
2 - Very weak signals.
3 - Weak signals.
4 - Fair signals.
5 - Fair to good signals.
6 - Good signals.
7 - Moderately strong signals.
8 - Strong signals.
9 - Extremely strong signals.

TONE ('T') : 1 - Very rough hissing note.
2 - Very rough AC note, no trace of musicality.
3 - Rough low pitched AC note, slightly musical.
4 - Rather rough AC note, moderately musical.
5 - Musically modulated note.
6 - Modulated note, slight trace of whistle.
7 - Near DC note, smooth ripple.
8 - Good DC note, just a trace of ripple.
9 - Purest DC note.

An 'X' is added after the appropriate 'T' number if the note sounds musical and appears to be crystal controlled; the letter 'C' can be added for a chirpy note and 'K' for key click" (Occasionally, one hears 'D' added to indicate "Drift" (a useful suffix - Ed.).

The R-S-T Code was brought into use long before S-meters became fashionable and could probably do with some updating, particularly in regard to Tone and Signal Strength reporting. After all, the days of Spark and Tonic Train transmissions are long past and the difference in 9 'S' Units are small and difficult to define at upper and lower signal levels. In addition there is a difference of opinion as to what is a very weak or very strong signal!. The S-meter, if one is available, does not help much, either!. On some receivers they can read as much as S2 - S3 on internal noise with no incoming signal, particularly if a converter of some sort has been fitted; or need an S5 signal to get them to move!. Furthermore, there appears to be no co-operation between manufacturers to arrive at a reasonable standard. It is a real jungle, and very tricky, if not impossible, to arrive at a satisfactory solution.

Well, what to do about it? Personally, the writer would like to see the Signal Strength scale reduced to 5 units; that is S1 - S5, similar to that used by commercial operators and shown below :

S1	S2	S3	S4	S5
Scarcely perceptible	Weak	Fairly good	Good	Very Good

LET'S TALK ABOUT SIGNAL REPORTING - Contd.

However, as we are "saddled" with the nine unit system we had better make the best of it, so here goes!.

Referring back to signal strength meters, these should be used for reference only, and not taken "for gospel"!. In the writer's experience there are very few S-meters that read the same, even on similar equipments. In any case, very few of then are of much use below about S3 - S4 when signals are weak and the delay in the AGC system does not allow them to work.

For the S-meter to operate in most receivers, signals have to be strong enough to operate the AGC system. Many will be strong enough to be easily copied before the AGC operates and drives the S-meter. Hence the meter reads S0 or maybe S1 or S2 depending on the internal noise. Conversely on strong signals the meter could read 9 + 40 dbs but what does this really mean? - where do we start? - what is the lowest signal level the receiver will detect? - 0·1 microvolt?, 0·5 microvolt?, 1 microvolt?

Supposing we say 0·5 microvolt (signal-to-noise ratio has been neglected and is another story!!). How many decibels per S-point? What are these decibels or dbs that people talk about? (and that's yet another story!!). Anyway, let's say 6 dbs per S-point and get on with it. It should be noted here that 3dbs change in power or audio levels or 6 dbs in the case of voltage at the receiver antenna terminals is the lowest that can be positively detected by the average person. By using 6 dbs voltage increments per S-point we are making sure that it is a noticeable increase or decrease. We could, of course, use 5 dbs and some manufacturers do. So, assuming a 6 dbs increase per S-point and the weakest signal that can be detected as being 0·5 microvolt, we start as follows :

Example 1.

		Antenna Input	S-meter reading	
		0·5 microvolt	S1	
+6 dbs	=	1·0 microvolt	S2	
+6 dbs	=	2·0 microvolts	S3	
+6 dbs	=	4·0 microvolts	S4	
+6 dbs	=	8·0 microvolts	S5	
+6 dbs	=	16·0 microvolts	S6	
+6 dbs	=	32·0 microvolts	S7	
+6 dbs	=	64·0 microvolts	S8	
+6 dbs	=	128·0 microvolts	S9	(All figures rounded up)

This is a change of 48 dbs from S1 to S9 with a corresponding increase in signal level at the receiver input from 0·5 to 128 microvolts.

Taking 0·1 microvolt as the lowest receivable signal gives the following results:

Example 2.

		Antenna Input	S-meter reading	
		0·1 microvolt	S1	
+6 dbs	=	0·2 microvolt	S2	
+6 dbs	=	0·4 microvolt	S3	
+6 dbs	=	0·8 microvolt	S4	
+6 dbs	=	1·6 microvolts	S5	
+6 dbs	=	3·2 microvolts	S6	
+6 dbs	=	6·8 microvolts	S7	
+6 dbs	=	13·6 microvolts	S8	
+6 dbs	=	27·2 microvolts	S9	(All figures rounded up)

The change from S1 to S9 is still 48 dbs for an antenna input level from 0·1 to 27·1 microvolts, just over half the previous example. By changing our starting level in sensitivity from 0·1 microvolt to 1 microvolt we can calibrate the S-meter to read what we like. Change the level per S-point from 6

to 5 dbs and you get another lot of figures. Some manufacturers use 50 microvolts to represent S9 and divide it equally into units - others use 100 microvolts and do likewise!. So, like the statisticians and Politicians you can twist the figures round and get whatever you like out of it!.

Having said this the writer does not condemn S-meters. They are extremely useful for reporting changes in signal level as long as their shortcomings are taken into account.

Because the station you are working gives you a report of S9 plus 40 dbs and your meter only reads S7, don't condemn your receiver and start tearing it apart or losing any sleep over it!. The difference in levels is so wide that it is safe to say that he has not got a super receiver neither have you got a dud one - or a super transmitter.

There are very few amateur signals that would make an S-meter read S9 plus 40 dbs, yet reports of this kind are often heard. Based on Example 1 quoted earlier this represents an increase at the receiver antenna terminal of just over 30,000; a voltage increase from 0·5 microvolts to about 16 millivolts - a signal one would expect from high power broadcast stations or from an amateur in the next street or garden.

For an S-meter to be of real value it must be calibrated with a Signal Generator fitted with an accurate attenuator. This is an equipment not found in many Radio Amateur shacks. Using 5, or 6 dbs increments per S-point, S9 will be about half-scale on the meter but it all depends where the starting point is for S1; 0·1 microVolt, 0·2 microVolt, etc. The calibration will, however, only be accurate on one frequency as the sensitivity of any receiver varies from one band to another, and from the HF to the LF, end of each band. Fluctuations in mains voltage will also effect accuracy.

If a good Signal Generator is not available, the next best thing to use is an attenuator in series with the antenna feeder. (With transceivers remove the attenuator before transmitting, otherwise it will "burn up"). When calibrating by this method the S-meter readings are compared directly with the attenuator settings under a steady external signal. Alternatively, the S-meter is used as a zero indicator; that is, the meter is at zero with no signal input. Set the attenuator also to zero and when a signal indicates on the meter, switch the attenuator to bring the meter back to zero (or the signal to inaudibility). The attenuation can then be determined from the attenuator and divided by the number of microvolts decided upon to make up 1 S-point. For example, 20 dbs on the attenuator would be S4 assuming we use 5 dbs per S-point. Alternatively, to avoid the above calculation you may wish to say that the received signal is 20 dbs above receiver noise level. This is very much more meaningful to the fellow at the other end, providing he knows all about those dbs:

Reverting back to signal reporting; remember that signal strength is not the only thing to take into consideration when reporting. An S9 signal could be only R2 in the presence of a very strong adjacent signal. It is of very little value giving a report of this sort if you only got half of what the other fellow said!. If you must give him a S9 R5 report then qualify at the time that this is the best signal and there is severe interference or that the signal is fading from S9 to S1. The writer prefers to state the obvious; S9 and R2 with severe interference or fading.

Have you noticed that so far there has been no mention of QRM, QSB, QRT, HI HI, etc.?. Again, the writer prefers when on "Voice" to state the obvious; why say "QRM" (some even say "Queen Roger Mary!!) when you mean "Interference", or "Quebec, Sugar, Baker" when it's much easier to say "Fading", or "Closing Down" instead of "QRT". There is no need to say "Hi Hi" when you've had a good laugh into the microphone about something funny you have said - the other fellow heard you!. The CW (Telegraph) operator is not in the same position and can only say it with his key - Hi, Hi!.

The "Q" Code was developed for the commercial telegraph service where, correctly used, it saves a lot of time and gets over most of the language barriers. The use of the "Q" Code on voice transmissions can only be justified when speaking with foreign Amateurs where it is helpful. However, it might impress visitors, neighbours, girl friends, etc., - who knows?. Use phonetics by all means with your call-sign and location, but keep them to a minimum; sometimes it confuses more than it helps.

LET'S TALK ABOUT SIGNAL REPORTING - Contd.

Talking of CW, the writer has listened to many CW QSO's where the Tone reports have been given as T9 both ways although one of the stations has sounded like a raspberry or buzz-saw!. A T9 note must be clear and musical without any ripple or variation in pitch. If the note changes very much in pitch or frequency then it deserves a T9C. A note with a trace of roughness or AC ripple on it deserves T8 or even less depending on the amount of roughness or ripple present. A T9X note, rarely heard on the VHF bands, has a bell-like ring to it which is unmistakable; one seldom hears this with overtone crystals. Most of the T9X notes are to be found on the lower HF bands where some amateurs still use fundamental crystal control.

As far as "Voice" is concerned we now have three systems to worry about: AM, FM or PM and SSB. One thing to be said for all of them is that if the quality is rough - say so!. Pay a compliment when quality is excellent. One often hears very strong signals which, because of their poor quality, are difficult to copy. With a medium strength signal the speech should flow from the speaker and be easily understood without effort, pain or strain!. Some speech processors might make the signal sound louder and perhaps even push the other man's S-meter further up the scale, but is it as intelligible?. More often not. Pity the poor amateur in the same town who has to put up with the splatter!!

Most poor quality signals are usually caused by trying to get a quart out of a pint pot!. In other words, on AM - overmodulation, on FM - overdeviation and on SSB - overdriving, not forgetting to mention poor quality and hum in speech amplifiers, non-linearity in linear amplifiers, etc.

Don't forget that a very strong local signal takes up much more band-space than one ten miles away. Your receiver might not like it and show it up as bad distortion, cross modulation and spurious signals all over the band. This is aggravated if a preamplifier is used on the receiver. Sure, the pre-amp brings up the weak signals a treat but the front end of your receiver doesn't know if it's coming or going in the presence of strong local ones. One way to check is to put the aforementioned attenuator in circuit and bring the strong or local station down to a level where your receiver can cope. If you have an S-meter, set the signal about half-scale - about S9, and then examine it. If you haven't an attenuator, set the antenna to a position until you get a suitable signal.

To conclude; like all things in life, don't take things too seriously including signal reporting!. However, having said that, if a signal is poor, don't tone it down because you are afraid of hurting the other fellows feelings. He will probably be very grateful because no one wants to put out a poor signal. Be prepared to assist him with any tests he may wish to make. Don't discuss technicalities you don't understand; if you do, you may get involved and have to "flannel" your way out and that usually gives the game away!.

The arguments raised over the years about S-meter accuracy are legion and as long as they are fitted, will be never-ending. In spite of that, providing they are not taken too seriously, when used with the R-S-T Code, we ought to be able to arrive at a reasonably accurate report.

Perhaps in the end, to save all the controversy relating to S-meters and the R-S-T Code, providing the station being worked is easily readable, it might be easier and better to say "Your signals are loud and clear" - but what are you going to put in your Log Book, and on his QSL card?!.

P.S. The writer has just been informed by a well-known local amateur that the power output of London's Battersea Power Station is about 120 dbs above 1 milliWatt. What, therefore, is the power output in MEGAWATTS??? No prizes will be awarded for the correct answer.

WANTED.

By Non-member, G8BIH, C/o The Editor. Details, Handbook, Circuit Diagrams, etc., for the W.S.21.

WORLD ADMINISTRATIVE RADIO CONFERENCE - 1979.

G4CGT.

To discuss this subject now in really akin to "bolting the stable door after the horse has gone". Nothing further can be done. All the facts, figures and suggestions are in the hands of the Home Office and I am informed that it will take all the time available to compile and prepare for presentation all the information so-far obtained. It is estimated that it will take two years to study all the documents put forward at the Conference and arrive at a decision.

However, let us face some of the facts and rejoice that we have stalwart amateurs who have given so much time and thought to the proposals, discussed the position at various conferences and persuaded the Home Office to take up the case for the Amateur bands to remain very much as they are at present with some additions and also, together with most of the other Societies, to accompany the Country's representative as Adviser. The National Society and the Home Office have agreed on the frequencies to be asked for.

There are 154 members of the International Telecommunications Union each with one vote. Whilst this gives Russia three votes (Ukraine, White Russia and Soviet Russia) it is really one vote per Country. Amateurs in Region 1 of the International Amateur Radio Union can only influence their own Governments, but in Region 1 we have Africa who has 49 votes there being 49 small countries. There are 26 countries in the Region who do not have a solitary Radio Amateur. Some of the countries do not even have radio sets. Region 1 has 100% representation in The International Amateur Radio Union, Region 2 almost 100% and Region 3 about 50%. What do these countries want in the radio spectrum? The countries either side of the Equator for about 20º or 30º require frequencies between about 2·2 MHz and 5·7 MHz due to interference problems on other bands, which is nothing like ALL the amateur bands.

The International Amateur Radio Union has done a great deal of work in all three regions in preparation for the World Administrative Radio Conference 1979. They have persuaded most countries to allow a representative to attend as Adviser on Amateur Radio. They have a permanent stand in the International Telecommunications Union building exhibiting Amateur Radio equipment and so on, which, of course, means that each and every representative will at least see and perhaps hear something of Amateur Radio. International Amateur Radio Union observers are allowed at all International Telecommunications Union meetings thus obtaining at first hand all the information regarding telecommunications world-wide. There are 1,000,000 members (Societies) of the International Amateur Radio Union. The position to date can be obtained from the various publications and Society representatives by attending meetings and lectures.

With reference to some of the points raised by G3EJF in his article, most likely written with tongue in check in order to stimulate discussion:

SELF TRAINING. One does not have to be a technician or whizz-kid to enjoy the hobby and train oneself to be a good operator. To this end he obtains the very best equipment he can afford, learns to use it and, yes, takes care of the equipment, but also may decide to learn to build various items of equipment and experiment in whatever time he has available. A photographer may be an excellent "operator", "seeing and composing" a picture, and yet know nothing of optics, chemistry, processing techniques, etc. Many Service trained operators, excellent in their vocation, would not know a valve from a pair of pliers, a condenser from a resistor - yet they are good reliable operators.

INTERCOMMUNICATION. Yes, rubber-stamp type contacts do occur caused, to a large extent in my opinion, by Contests (perhaps Amateur Radio at its worst) but there are very interesting, worthwhile communications and discussions on technical subjects. (I remember a few years ago whenever I tuned to 80 Metres someone was discussing commercial broadcast receivers and how to fit a B.F.O. to receive S.S.B. and C.W. Self Training?). Aerials are a constant topic. Again, Self Training? Communication is now in every home with Radio, Television, Telephones, Records, Tapes, etc. All the Services, Gas, Water, Electricity, etc., operate business radio telephones (Mobile

WORLD ADMINISTRATIVE RADIO CONFERENCE - 1979 - Contd.

occupying about 52% of the radio spectrum between 3 and 30 MHz (this appears to be a rather high figure - Ed.) and lots more on other frequencies. Are we to deny the enthusiasts the select method of communication to discuss their particular hobby thus releasing the commercial means of communication for the majority?

As I write the Amateurs in Birmingham are showing how useful their training has been in maintaining contacts during the Ambulance dispute. Communication where it would have been otherwise impossible. Last year a similar thing happened during the floods in the Fylde coast. When other forms of communication ceased - up came the Ham.

The fires in the Cannock area a couple of years ago when we had a summer brought out the best in communication.

INVESTIGATION AND EXPERIMENTATION. Who can say what proportion of Radio Amateurs carry out investigation and experimentation? Observe at any Mobile Rally or Convention the component stands. They are always the most popular and I cannot see Amateurs spending their hard-earned money to keep these "goodies" in a drawer. Nor do I believe they are making projects from published designs, because in nearly every case it is cheaper to buy a guaranteed, ready-made article with a re-sale value. How often do you hear of the "Black Boxes" being modified? Perhaps the FT-101 is the most modified equipment and, in fact, some of the additions to the later models are due to experiments carried out by the Radio Amateur. It is really amazing to read some of the publications of the FT-101 Club. Experiments and modifications are of value to the persons concerned and, perhaps, to the many others in Clubs and Societies throughout the country who enjoy and appreciate the lectures and demonstrations by the experimenters. Slow Scan Television - surely Self Training? How many frustrated experimenters obtained an Amateur transmitting license in order that they could carry out their experiments to a successful conclusion?. There are only some 20,000 licensed amateurs in the Kingdom so it is hardly surprising that little is heard of them and their work, when one considers that this figure hardly represents a good attendance at a Saturday Football Match.

IS THERE A PLACE FOR AMATEUR RADIO IN THE REMAINDER OF THIS CENTURY?.
I am sure there is!. Of course, Amateur Radio has changed; there would have been little Self Training success if changes had not taken place. That is progress and proves the point of the usefulness of Amateur Radio and, in my opinion, it will go on and on being productive, useful and worthwhile. There are warnings to be taken note of - we have responsibilities and we must be careful to create the right image to the uninitiated. Let us have good quality speech (not S.S.B. or C.W.) at all demonstrations and forget the selfish aims of the few who want to use the special call-sign in order to work the so-called 'DX', which is hardly discernible let alone intelligible to the very people we should be trying to impress. (I would exclude Jamboree-on-the-Air because that is a special annual occasion designed solely to establish contact and world-wide communication between members of a specific organisation). Use modest equipment - not £1000 transceivers.

I enjoy the hobby too, Johnny, but whilst I still do a fair amount of construction and experimentation I use commercial equipment (as I believe you do) for communication and thereby always have a rig in working order which is not the case with the couple of "home-brew" rigs used for the experiments. There IS some amenity value, I agree, as I have been retired for the past six years I have had lots of enjoyment from the hobby. I did re-muster from a poor OWL II to, eventually IM I, because I was one of those who "wanted to know what went on inside". I still make enough time to study the modern equipment and components.

Actually, Johnny, less than one third of the nations voting at the World Administrative Radio Conference 1979 are in the category you state, certainly NOT the majority.

73 Norman G4CGT

IMPORTANT - IMPORTANT - INPORTANT - IMPORTANT - IMPORTANT - IMPORTANT

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The A.G.M. For this year is to be held at CATTERICK at 1445 hours on SATURDAY JUNE 30th 1979 on the same pattern as last year. We shall be saying "Farewell" to our current President at this meeting.

The A.G.M. is to be in NORTH HALL, within VIMY BARRACKS. Vimy Barracks is clearly signed on all roads leading to Catterick Garrison Camp Centre, and NORTH HALL is sign-posted within the Barracks - there should be no difficulty at all in finding the place - follow signs for NORTH HALL. If you come before lunch RV at VIMY SOCIAL CLUB - follow R.S.A.R.S. signs.

If you are a Royal Signals Association member and are planning to attend the "Old Comrades" week-end please book overnight accommodation in the usual way through your Association Branch Secretary. This booking covers you for lunch on Saturday through to Sunday afternoon, but please let ME know if you have done this so that I can be quite sure about Saturday lunch figures.

For non-Signals Association members, and Association members not intending to stay overnight on Saturday - if you wish to have lunch and tea, please BOOK THROUGH ME BY THE END OF MAY, enclosing £1 - 25p to cover the cost.

G4RS will be active on 80 Metres and G3CIO on Two using the FM Calling Channel between 1100 and 1300 hours. So, a timetable:-

1100 hours	:	G4RS and G3CIO on 80 Metres and Two.
1130 hours	:	Vimy Social Club - Bar and Reception opens.
1330 hours	:	Lunch.
1445 hours	:	Annual General Meeting in North Hall.
1630 hours	:	Tea.

Don't forget to book for meals if you are coming. Thank You. 73 G3EKL Gen. Sec.

(If you haven't been to an A.G.M. at Catterick before, you don't know what you have missed. Why not arrange the annual holiday to coincide this year. It is worth it - Ed.).

IMPORTANT - IMPORTANT - INPORTANT - IMPORTANT - IMPORTANT - IMPORTANT

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MEASLES, MORSE AND MOBILISATION (Contd. from "Mercury" 11/78).

A.D. TAYLOR G8PG.

By the time I got 2BDT my receiver was a pretty hot 0-V-1 built in a biscuit tin. No metal working tools, of course, so holes were literally bashed into the front of the tin with a blunt instrument, and the components not on the front panel were mounted on a baseboard screwed to the bottom of the tin. The plug-in coils were wound on old valve bases. Sounds rough, but on many occasions I received CW signals from VK at such strength that one could read them 30 feet away with the phones laid on the operating table. The first transmitter was a single valve Hartley oscillator for 7 and 14 MHz, using coils wound with 16 s.w.g. wire and screwed on to stand-off insulators. The valve was a Continental made 2V power triode, run with 4 Volts AC on the filaments and 300 Volts DC on the anode. Way, way outside its ratings, but it worked, and I happen to know that on odd occasions when I absent-mindedly connected the real aerial to it instead of the artificial aerial it was heard in America and Africa.

After a while a 7 MHz crystal was obtained from G6MY in Leeds, who used to grind them and sell them cheaply, and the first multi-stage TX was built. It consisted of a 2 Volts power triode (this time with 2 Volts on the filament!) used as a CO and a type 42 pentode as a PA.

MEASLES, MORSE AND MOBILISATION - (Contd).

At the beginning of 1937 negotiations were begun for a full license for the purpose of experiments with propagation and aerials. At the same time changes were made in the station. A new TX was built using the 42 tube on its own as a Tritet oscillator. The circuit was roughly the equivalent of an ECO, part of the pentode being used as an oscillator, with its output electron coupled. This meant that one could double in the output circuit and thus make a 2-Band 1-Tube transmitter. The only snag was that the form of circuit used in those days produced rather high crystal current when used 'straight-through', which could damage the crystal. More of this later. A chance also came to acquire an Eddystone Amateur Bands 2 from G6GL, who had just bought one of the first SX16's to reach the UK. The SX16 was a genuine Hallicrafter communication RX covering all the amateur bands with full band-spread, phasing type crystal gate, etc. The crush of locals lining up to see it can be imagined!. The Amateur Bands 2, on the other hand, was a really good 0-V-l using a screen grid valve (tetrode) as detector and a pentode AF stage. Reaction was controlled by varying the screen voltage on the tetrode and it worked beautifully. I later added a second AF stage which made it even better on weak signals.

At the beginning of March I was told by the P.O. that my application had been accepted subject to passing the Morse test. I was now attending Liverpool Wireless College for training as a Merchant Navy Radio Officer, so the Morse was no sweat and the test was duly passed. We were moving house at the time, the new one having a lot of garden space, so, with the help of Roy Barlow (now G3QX and ex-Royal Signals), I built a 40 ft 'A' frame mast and also put a shorter mast at the side of the house. (Nobody had ever heard of "Planning Permission" in those days - it was only after we had made the world safe for democracy that the bureaucrats took over!!). The help from Roy was very real - his Dad was the local blacksmith, so we went into the forge after hours and made the necessary metalwork. His uncle owned the local timber yard, so we probably got a bit knocked off the cost of that, too. The final result was supports for an aerial at a height of 40 feet. I wish I could do that now!!. The 'A' frame masts were a joy - two men could put one up easily, and once the guys were set up one man, could drop the mast and put it up again on his own. The design in still around in the ARRL Handbook. There was no plastic rope in those days, so the guys were made from stranded galvanised iron wire broken up with egg insulators every 10 feet to avoid resonance effects.

You may ask why, with only one crystal available, a VFO controlled TX was not built. There were three reasons for this. Firstly the GPO were dead nuts about accurate frequency control in those days. Even with crystal control you had to submit an official calibration certificate for the crystal when you applied for the license. You either got this from the manufacturer or sent the rock off to the RSGB calibration service, run in his spare time by an amateur, who would do you a calibration certificate for five shillings (25p). This was not all, however. When I received my ticket each amateur band had a GPO-imposed "Guard Band." of 5 KHz at each end in which G stations were not allowed to work. If you wanted to use VFO control you had to have an approved frequency meter, and there were no cheap Class D's or BC~221s around. Your Frequency Meter would need a 100 KHz standard crystal, complete with certificate, and again would have to be calibrated by the RSGB service at five bob per calibration point, so it would have probably cost as much as the rest of the station put together, and. most of us just did not have that sort of money. A final point was the very high signal standard of G stations at that time, which was respected throughout the world. You were always expected to be T9X on CW and if you were not, your fellow G's jolly soon told you about it. This meant that those stations that did use a VFO used a darned good one with plenty of buffering and a doubler after it, which could double the cost of the transmitter. Again, most people could not afford it.

Finally, on the 11th April 1937, a big GPO envelope arrived in the morning post. I ripped it open and found that I had become G8PG. By 0830, I was busy on 7 MHz which, sods Law operating to perfection, was weak, watery and long skip. I did manage to raise an F and an OZ however, and

was just starting to put out a 'TEST' call (Gs were not allowed to call 'CQ' in those days) when there was a very audible "ping" from the TX and it stopped hackling. My blood ran cold as I lifted the top off the crystal holder. There was my one and only 'rock' neatly split into two halves. The poor internal screening of the 42 had produced too much crystal current, resulting in mechanical fracture!. So there was G8PG on the air and off again within two hours.

It is interesting to remember that the G8PG license as first issued was for 10 Watts maximum on the 1·8, 7 and 14 MHz bands.

The next couple of days were spent in frantic negotiations for advances in pocket money, plus putting the armlock on the odd doting relative who might be good for a couple of bob!. Eventually I raised enough to send off for a Brookes crystal which, around my part of the country, was considered the best that you could get. In those days most of us had only one crystal, so calling and searching were very different from what it is now. Before ordering, one had to decide what frequency it should be. If you heard a station calling on 7015 KHz and your rock was 7150 KHz you had to give him a very long call and hope that as he tuned up to your frequency he did not hear someone else calling him lower down the band. Life was even more difficult on 14 MHz, as the U.S. 'phone allocation was in the centre of the band with CW segments above and below it!!. If you only had one rock you were thus pretty well excluded from the other CW segment. Outside the U.S.A. (where sub-bands were laid down by regulation) there were no sub-bands at all, so CW and 'Phone were indiscriminately mingled, leading to much QRM. As an example, when I got the Brookes crystal, which was 7010 KHz, I found that Sunday morning operation on 7 MHz was often impossible because I shared the frequency with a certain Old Timer who had a 250 Watts license and used it each Sunday to chat to a neighbour a few miles away on AM 'phone. As mentioned, I chose 7010 KHz for the new rock, as this was fairly near the band edge on both 7 and 14 MHz, so hopefully stations tuning from LF to HF, as many did, would hear me. No single frequency station can ever have it perfect, but proved to be not too bad a choice.

It took three weeks for the replacement crystal to arrive, during which I could only console myself with such lesser pleasures as tennis and girls. I had raised a little over the cost of the rock, however, and blued five bob on a type 89 pentode which was more efficient than the 42 and better screened internally. The Tritet rig was modified to take it and, when the new rock arrived, it never let me down. Back on the air again the easier European countries were soon being worked and DX began to appear in the Log in the shape of W's. A lot of experiments were carried out with aerials including 66 feet end-fed types, the Zepp and eventually the W3EDP. This was an 84 feet wire parallel-tuned against a counterpoise. The counterpoise was 6½ feet long on 14 MHz and 17 feet long on the other bands. The coil in the parallel tuned circuit was inductively coupled to the PA tank coil and the coupling varied for maximum RF "up the spout". This aerial still appears in some handbooks. I used a separate 66 feet wire for receiving which allowed brute-force break-in working - you just started keying and never mind the clicks in the 'phones!. Must have been the teenage equivalent of the Disco of the time as it was equally noisy. Co-axial fed dipoles were unknown at the time as there was literally no co-ax available. A few brave spirits used dipoles fed with ordinary twisted lighting flex - heaven knows what happened to the efficiency when it rained!. Beams were also almost unknown on the HF bands.

Conditions were quite good during the Summer of 1937 and it became obvious that there were some good all-night openings around on 14 MHz. The question was how to use them, as my parents, although very understanding, took a dim view of all radio and no sleep. Cunning solved the problem. A temporary RX aerial very inconspicuous was slung from my bedroom window and a keying lead was run round the wall of the house from the shack to the bedroom. Then the RX complete with HT eliminator, 2 Volts accumulator, 'phones and key were smuggled into the bedroom and hidden in an empty drawer, and as soon as the old folks were asleep I was in business, having switched on the TX before going to bed. Obviously no other lunatics in Europe

MEASLES, MORSE AND MOBILISATION - (Contd.).

were staying up all night and I had a real ball and worked W1, W2, W3, W4, W7, W8 and W9 during the first two nights. Also, testing the set-up late one afternoon I heard a ZS and worked him too!, so the one-tube, one crystal rig was earning its keep. I cannot remember now whether it was a change in conditions or sheer exhaustion that eventually ended that particular DX orgy. Shortly afterwards I slipped from grace and actually demeaned myself by having a 'phone QSO. It was with ON4GU, and the TX was modulated by connecting the secondary of the microphone transformer in series with the earthy end of the TX grid leak - a well-known technique at that time. The microphone was of course carbon. Anyway, ON4GU managed to resolve the signal and I was able to remind him about it when we QSO'd again a few months ago, just 40 years later. My next amateur 'phone QSO was in the 1950's and that deviation did not last long either!.

(To be continued, The RNAWR - PX4's - Shopping in Woolworths . £30 for a 0-50 mA meter - Call-sign SNT99 - The village Bobby of Horbury, Yorkshire - etc., etc. - Ed.)

S.P.A.S.M.

G4CGT.

The above, in case you did not know, is the name of a new organisation soon to be launched upon us. I wonder how far it will go? S.P.A.S.M.??? Perhaps I had better translate : Society for the Prevention of Abbreviated Speech Mannerisms.

We have reached the stage now where it is impossible to even understand the B.B.C. (British Broadcasting Corporation) News.

What is QUANGO?, What is A.M.? What is P.M.? Even hoarding display symbols "U have 1 2". On Birthday cards "U R 21".

We only hear or read now of W.A.R.C. or, still worse, Warc, I.A.R.U., I.T.U., C.E.P.T., C.C.I.R., etc., etc. The pity is that lots of amateurs really think that W.A.R.C. means World AMATEUR Radio Conference (is it any wonder that wrong impressions are gained?). The abbreviations for titles and honours and so on may be quite acceptable when printed following a name, but imagine introducing a speaker :- "Tonight we have as our speaker Doctor J. Smith D.L. T.D. M.B.E. F.I.E.E. F.I.M.E. C.M.B.H.I. who will address us on "The Spoken Word"". Could the following REALLY be understood "The P.M. addressed the P.M. this P.M. before attending the P.M. on the P.M." (The Prime Minister addressed the Provost Marshall this afternoon before attending the Post Mortem on the Post Master".

"Stupid" you may say, but is it any worse than some 'phone contacts with C.Q., Q.R.N., Q.R.M., Q.H.Q., Q.R.K. (meaning money or cost, sometimes), X.Y.L., Q.S.P., Q.R.U., Q.S.B., Q.R.T., 73, etc.

If one is referring to one's wife, why not say "wife" - it is so much easier than X.Y.L. When closing down why not "Best Wishes, G4XYZ now closing down".

Anyone join me in the S.P.A.S.M. Club???

P.S.QUANGO, = Quasi-Autonomous National Government Organisation.

73

Norman G4CGT.

48 DIV.

A letter from G2ZA/0446 confirms that 48 Div were part of 1 Corps after mobilising as a TA Unit in the Hungerford area and sailing from Southampton around the 7th January 1940. They returned via Dunkirk, after which G2ZA was posted away, spending the remainder of the War in the Middle East and Burma. (Many thanks, OT, it would certainly appear that some of the books are wrong. - Ed.).

ONCE AGAIN, WE TAKE THIS OPPORTUNITY OF WELCOMING TO THE RANKS OF RSARS THE FOLLOWING NEW MEMBERS. MAY THEIR STAY WITH US BE A LONG AND HAPPY ONE.

L/SGT DENNIS PHILIP ANDERSON, 24141060, HQ COMPANY, 1 GRENADIER GUARDS, ELIZABETH BARRACKS, PIRBRIGHT CAMP, BROOKWOOD, SURREY. - **RSARS 1377** - Dennis, who is also BRS 36591 and a member of the Farnborough and District Radio Society, joined us w.e.f. 01 May 1978. He has been a member of The Grenadier Guards since 1970 amd has a main interest in Amateur TV, particularly Slow Scan. He is a member also of the B.A.T.C. Other interests include Swimming and Athletics. Welcome on parade, Sarg!.

JOHN BLADEN, BRITISH HIGH COMMISSION, ACCRA, C/o F.C.O., KING CHARLES STREET, LONDON SW 1. John served at the Army Apprentices School from 1959 until 1962 (missed you by a year, John - Ed.). On joining Mans Service he visited 18 Signal Regiment, Singapore, 606 Signals Troop, Borneo (missed you by a year again - Ed.), 21st Signal Regiment, H.M.S. Intrepid Signal Troop and 24th and 8th Signal Regiments at Catterick. John also holds the call-sign 9G1KU as well as being G4FZA and **RSARS 1378**. He is a member of the RSGB as well as the Ghana Amateur Radio Society and his main "on-the-air" interest is CW on the HF bands. He hopes to get started on OSCAR contacts when he is settled in the U.K. Keen to contact RSARS members world-wide particularly from 9G, but hurry!!.

CPL. DAVID ANTHONY CHOAT, SIGNALS SECTION, BANCROFTS SCHOOL, WOODFORD GREEN, ESSEX, IG8 0RF - **RSARS 1379** - David has been a member of the C.C.F. since September 1974 and operates on the National Net as Call-sign 25. His main interests lie in the electronics field and his application form shows that he is interested in contacting "anyone". Welcome, David.

WILLIAM HENRY BONES, G4CFP/**RSARS 1380**, 51 WINSTANLEY PLACE, SPRINGFIELDS ESTATE, RUGELEY, STAFFORDSHIRE, WS15 2QB. William serves with the TAVR, 30th Engineers Signal Section where he is known as 24426465. He joined 6th Apri1 1978 and he is based at Stafford. He is active /M on 2 Metres with a TR7500 and on the HF bands, SSB and CW from a KW2000A. Other interests include Shooting, Photography, Swimming, TAVR Signals and Driving. He is particularly interested in meeting other members and amateurs within the TAVR. Drop a line to Bill at the above address.

MAJOR (Rtd) BRIAN TINDILL, 17 KESTREL DRIVE, SCOTTON, CATTERICK GARRISON, NORTH YORKSHIRE, DL9 2LX. **RSARS 1381** - Brian, who is also BRS 39191, is also a member of the RSGB, RSPB, BIM and IWSOM. The back of his application form makes interesting reading and shows that Brian served from 1940-1944 with Worksop College OTC in the Signals Section. He volunteered with Royal Signals as first choice. The next 2 years were spent with Infantry and Royal Artillery Training Units. From 1946 to 1947 was spent in Northern Greece with 30th Field Regiment RA followed by service in Palestine and Egypt with 11th and 41st Field Regiments RA. January 1949 saw Brian's transfer from the Gunners to Royal Signals and until April of that year he served with Egypt Command Signal Regiment, during which time he represented Royal Signals at Rugby. He was re-transferred to the Royal Artillery (to use his own words "At the RAs request - NOT Royal Signals!). 1949 until 1951 was spent at Rhyl with the Boys Battery RA and then it was away to East Africa to serve with 156 (EA) H.A.A. Bty EAA in Kenya. 1955 saw him back in the UK at Larkhill with 18 Medium Regiment RA. Cyprus came next, from 1957 until 1959 when he was with 29th Field Regiment RA (No doubt at Karaleos Camp where your Editor used to service the C43 sets, etc., from 51 Bde HQ down the road!). 1960 meant a visit back to Larkhill on the Long Gunnery Staff Course and in 1961, it was away to the Far East with the IG Training Team. Then 18 Field Regiment RA in Germany until 1965 followed by 4 years in that outpost of Empire, the RA Ranges in the Hebrides. 1971 until 1974 saw a change of duty with the Army Work Study Group. Brian lists a wide range of lapsed interests varying from

WELCOME - Contd.

having held a Private Pilots Licence through 8mm Filming to Model Making and including Ostrich Cart Driving (Ostrich Cart Driving? - tell us more - Ed.). Since leaving the Service he has concentrated on his second career and is now taking up Amateur Radio as a hobby/interest. Brian joined the RSGB in 1963 and built the Heathkit RA-1 in 1966. This was used until 1971 when it was "stolen" by his son. His son became G8LNQ and encouraged the OM to take the RAE. He hopes to take it (or rather, have taken it) in December last. The latest RX is a FRG-7. In closing, Brian adds "Learnt Morse incorrectly as a Boy Scout and am now trying to learn it correctly". We wish you luck, OM, welcome you "on parade" and hope that your efforts have been successful with the RAE, etc. (Passed - now G4HVA)

G3AAV/**RSARS 1382** - GEORGE NEIL GLOVER, 30 ST. CHAD'S AVENUE, LEEDS, WEST YORKSHIRE, LS6 3QF. George joins us as a Full Member w.e.f. 01 June 1978 obtained his license whilst serving with the Corps at Catterick in 1946. Prior to that date he saw service with 1 Depot Battalion and 1 Operators Training Battalion from September 1941 until 1942. This was followed by a year spent with 61 Infantry Division Signals and then it was back to Catterick to Royal Signals OCTU from 1943 until 1944. 2 L. of C. Signals, was the next stop in 1944 after which 'AAV spent a year with the Special Air Service Troop Signal Squadron. Then came the Advanced Wireless Course, again at Catterick during 1944-46. George then stayed in Catterick as Training Officer Radio Mechanic Training Squadron, 1 T.T.R. until 1947. (You missed me, George, as I was "kicked out" (TRA'd) from 1 Squadron 1 T.T.R. in mid-1946!!! - Ed.). George is also a member of The Law Society and the Society of Public Teachers of Law. Welcome OM.

FRANCIS WALTER FORD, WOOD HOUSE, SWALLOW HOUSE LANE, HAYFIELD, VIA STOCKPORT, CHESHIRE, SK12 5HB is **RSARS 1383**. We thank Bill Jones, G3JXL for introducing Francis to the RSARS. Francis, RS 40442, is also a member of the RSGB, the SDC and, like Member 1381 above the RSPB. Service started, as 14439004, at 1 Operators Training Battalion at Catterick in 1943 where Francis underwent training as an OWL. The following year saw him in Mhow, India as an Officer Cadet at the OTS. Obviously successful, as the change of rank and number (341475) shows, the OTS despatched Lieut. Ford to perform the duties of OC 53 Medium Wireless Section with 14th Army Signals during 1944-5 with a change of Unit to 144 Medium Wireless Section in 1946. During 1946 came promotion and a move as CWO to Malaya Command Signal Regiment. This lasted until 1947 during which time Francis was VS2BG in Kuala Lumpur. Other interests include birds, conservation, and astronomy. 1383 is currently up-dating his knowledge of "steam" radio with a view to sitting the RAE. We wish you the best of luck, OM, and look forward to a QSO.

G3EZZ/**RSARS 1384** - JOHN EATON, 81 MORE SIDE, BOSTON SPA, WETHERBY, WEST YORKSHIRE, LS23 6FN. December 1944 saw John attached to Eastern Command Signals for the next 2 months before leaving to join 1 Operators Training Battalion at Catterick in Feb. 45. Next month meant another move "up the road" to 1 Trades Training Battalion, again for a couple of months when he was again moved to Huddersfield to join 3 Trades Training Battalion for training as a Radio Mechanic. Finishing here in November 1945 meant a trip to the Royal Signals Mobilisation Centre at Ossett during December 1945 when it was a move to warmer climes - to M.E.F. in Cairo to join 1st Independent Armoured Division. although this move never came off and it was 1st Infantry Division Signal Regiment ('H' Troop, RA) in the Canal Zone, Egypt and Palestine from April to November 1945, with a move to 'A' Troop (HQ) in Palestine in January 1948. This was followed by Demobilisation in the same month. John was licensed in February 1949 and holds DXCC and 7 other Certificates. Early operation was 160 Metres through to 10 Metres, mainly CW. A period of inactivity followed from 1960 until 1975 when things got moving again, 40 through 10 Metres and again mainly CW. G3EZZ's main amateur radio interest is achieving results from variations of simple antennas - mainly indoors. Non-amateur radio interests include philately - particularly postal history of Great Britain (Travelling Post Offices and early

experimental cancellations), history of the British Forces in Egypt and Aden up to 1967. Welcome, John.

As **RSARS 1385** we have a representative of The Combined Cadet Force in the form of FLYING OFFICER ANDREW KEIR, G8OAJ, 27 BLACKET PLACE, EDINBURGH, SCOTLAND, EH9 1RJ.Andrew was i/c the RAF Section of Barnard Castle School CCF. In September 1975 Andrew moved to the Royal Signals Section of the same CCF and this is where he is still serving. He was licensed as G8OAJ in September 1977 and he is (to quote his own words) "currently - and very slowly - working up CW speed to 12 wpm". Other interests include Sailing (he is a member of RYA and The Selsey Sailing Club), Digital Electronics, Computer Programming and Radio Controlled Models. He is interested in contacting "Home Brew Buffs".

S/SGT DAVID LAMONT, G3WPV/**RSARS 1386** who applied for membership from 262 SIGNAL SQDN (EAST), B.F.P.O. 58 but who will be in Germany by the time this is printed. Like many other members of the Corps and a large number of Society members, David started his service at Harrogate at the Apprentices School and was there from 1957 until 1959. His first 'outside' posting was to 4 Guards Brigade at Hubblerath until 1963 and then to 266 Signal Squadron and 249 Signal Squadron until 1966 when it was back to Harrogate. This posting lasted a year before moving to 3 Division Signal. Regiment at Bulford. 1970 saw a move back to Germany to 604 Signal Troop at Munster. 1973 saw a change to (V) service with 33 Regiment (V) and Manchester Squadron. The last posting was to Sunny Cyprus with 262 Signal Squadron from where the application was made. David was first licensed at AAC Harrogate in 1967 under the guiding hand of Captain (then F of S) Iain Morris where he operated the Club station G3HKR. He has been off the air until now but hopes to be active again soon and be making RSARS contacts. Other interests include astronomy (see RSARS 1383 above, David), Motor Rallying and Keeping Fit - with "For Military B.E. Tests" added in brackets!!.

RSARS 1387 also carries the ACF/CCF call-sign "47A" and is SGT. ROBERT CHRISTOPHER TWINEY, 176 ALEXANDRA ROAD, FARNBOROUGH, HANTS, GU14 6RZ. Robert joined his School CCF in 1975, went through APEX Training and classification in July 1977 and joined the Signals Section as an Instructor in September 1977. '47A' was off the air for a long period but restarted transmissions at the beginning of 1978. Robert is one of the two operators who maintain regular skeds on the National Net and he is very interested in getting contacts with ACF/CCF stations in the same area as call-sign 36B as they always copy this station well and he is interested in seeing if this is a fluke or a true representation of the 47A's C12 capabilities. Other interests include Radio Controlled Models, Model Power Boats, Military Scale models, Squash, Canoe Construction and Canoeing. Robert is a member of the Airfix Modellers Club.

PHILIP CHARLES BARRY, G8OPA, 52 RUTLAND AVENUE, SIDCUP, KENT, DA15 9DZ is **RSARS 1388**. Philip is a member of the RSGB and the Cray Valley Radio Society. He joined 1 Training Battalion REME at Blandford, Dorset on 5th February 1953 after 6 weeks Basic Training. He was then posted to 4th Armoured Training Battalion REME at Martinique Barracks, Bordon, Hampshire on a Staff Posting until February 1955. Then followed an AER posting to the Royal Engineers Bomb Disposal Cadre at Horsham, Sussex. Philip became an SWL in 1957 and joined the ISWL and the North Kent Radio Society. He later joined the RSGB. Primary interest was in the HF Bands with 2 Metre interest coming along later. He has constructed simple receivers, ATU's, etc., and 2 years ago decided to study for the RAE, which he passed in December 1977. September 1976 saw him as the G4E-- QSL Sub-Manager. By the time this is read, Philip should be well on the way to 12 wpm Morse. Other interests include Radio Control Model Boats and Photography.

From 01 July 1978 we welcome a "Light Blue" and "Khaki" member in the Form of: PETER BROWN, G4EYP/**RSARS 1389**, 1 RONALDSWAY DRIVE, RICHMOND, NORTH YORKSHIRE, DL10 5BN. Peter started his service life with the Royal Air Force between 1942

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and 1947 with 554 and 205 Squadrons, moving to The Royal Auxiliary Air Force between 1947 and 1961 having served with 609 Squadron and 3609 FCU. He then transferred to Royal Signals TA and joined 49 (Yorks) Regiment TA. No further news on radio interest at the moment. Welcome Peter.

24237155 CPL. CLIVE C. SOUTAR. VP8QH, C/o 3 KILMALCOLM ROAD, GREENOCK, RENFREWSHIRE, SCOTLAND. - **RSARS 1390** - Unfortunately, we have little news of Clive at the moment due to his being in "fields afar", e.g. VP8 where he has been for a while. Not idle, he has managed to give a few RSARS contacts from that "outpost of Empire" for those who have been lucky enough to work him. We hope to run fuller details about Clive when communications are a little better.(QRT I'm afraid - Gen. Sec.).

THOMAS POLLARD, G2AYY/**RSARS 1391**, 20 ST. ANNES DRIVE, FENCE, NEAR BURNLEY, LANCASHIRE, BB12 9DY. Tom tells us that he served with Royal Signals, as 2372777, having joined in 1940. His first posting was to Special 'Y' Group MI8D for a year followed by 4 years with W.O.Y.G. The period 1945 until 1947 was taken up with service at Harrogate and Graz, Austria. Tom was granted his A.A. Call in 1936 and held it until the outbreak of war in 1939. He collected a full ticket in 1945. Other interests include being a Rotarian and playing Golf. Welcome on parade, OT.

RSARS 1392 is another member whose interest in amateur radio dates back to pre-war days. JOSEPH GREENSLADE HAWKINS, 55 ST. ALBANS ROAD, RISHTON, NEAR BLACKBURN, LANCS. BB1 4HA. Joseph is a member of the RSGB (RS40059), the IPCS and the CSMA. He enlisted in Royal Signals on 14 March 1941 but already having radio qualifications he was transferred to RA Radar. This lasted until 17 March 1945 when he was transferred back to Royal Signals and remustered as Corporal Radio Mechanic. Until his demob in 1946 he worked on a variety of equipment including the S+D, Wireless Carrier and WS10. He served with the 8th Army in North Africa, Italy and Austria. After demob he worked on Fault Diagnosis for Sobell and in 1948 he moved to Masteradio (later GEC) as Chief of Test. 1952 saw him as an instructor, on Radio and Television at Cardiff Government Training Centre. This lasted until 1963 when Joseph became Chief Instructor at Letchworth and later Glasgow GTC's. Promotion to Assistant Manager in 1965 saw a move to the Liverpool GTC and in 1967 he became Manager of Blackburn Training Services Agency SkillCentre. From 1976 onwards he has been the Manager of the new Training Services Division SkillCentre at Trafford Park, Manchester. Pre-war interest in radio was as a receiver constructor and listener. After the end of the war amateur radio took a back seat to the commercial development of TV, FM Tape and Hi-Fi. With the "rat race" over and retirement on the horizon only 4 years away, the renewed interest is as vigorous as ever. It is hoped to take the RAE in the near future - he already has the City and Guilds Telecommunications Certificate. Other interests include Hi-Fi, Tape Recording, Records and Serious Music. Joseph has special interest in Archive Recordings. On the photography side he is keen on both Slides and Cine and he adds "a forced hobby - gardening. "I have a big garden" but, looking on the brighter side, adds "which will take a 132 ft long wire". He is keen to contact local hams on 2 Metres when he gets his G8 and to get in some DX on SSB and CW when the G4 comes along.

CPL. JOHN DOUGLAS HUTCHINSON, G4HHD/**RSARS 1393**, 5 DORSET COURT, ANZIO ROAD, CATTERICK GARISON, NORTH YORKSHIRE, DL9 3EU. 1964 saw John at 11th Signal Regiment followed by 24th Signal Regiment. The next two years were spent with 639 Signal Troop (94 Location Regiment) B.F.P.O. 23. In 1968 came a complete change - to the Army Dental Laboratory, Dusseldorf followed by a visit to the Headquarters and Training Centre Royal Army Dental Corps at Aldershot. 1969 until 1973 was spent with No. 5 Dental Group, RADC and then it was away to the Far East with No. 10 Dental Group in Hong Kong. From 1975 until application John could be found at the Duchess of Kents Military Hospital at Catterick. Prior to the G4 call, John was G8NIV. (Readers should see page 46 of Mercury 11/78 - Ed.). Other interests include Sailing, Wine Making, Driving and Camping.

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WILLIAM EDWARD PERRY, **RSARS 1394**, 5 BARNETT GREEN, THE PADDOCK, KINGSWINFORD, WEST MIDLANDS, DY6 9PG. 1394 started service in 1940 as NCO Signals Platoon, HQ Company, 41 Battalion, South Staffordshire Regiment (Mobile Field Attack Battalion) Home Guard. This lasted until 1945 when William became Captain, Signals Training Officer with 3 Regiment, Worcestershire Army Cadet Force. When the Home Guard was reformed during the Suez Crisis he was appointed a 2/Lieut as Signals Officer with the 1st Battalion, Worcestershire Regiment, Home Guard. He is also a member of the Midlands Electricity Dudley District Radio Club, G4FSO. Other interests are centred around Classical Music, Choral Societies, etc., and he is a regular listener to Classical and Orchestral Music from such stations as Radio 3, Cologne, Hamburg and other German stations.

RSARS 1395 is WILLIAM KENNETH SCOTT, G3FUJ, 28 HOLLOWOOD AVENUE, LITTLEOVER, DERBY. William joined the Royal Warwickshires for Basic Training and was afterwards posted 1 Operators Training Battalion at Catterick where he trained as an OWL B II. He later joined No.2 A.S.S.U. at Sarafand, Palestine where he stayed until May 1948. Then it was on to R.A.F. Shallufa, Egypt. He was demobbed in May 1948. It was whilst in Palestine that he was granted the call-sign ZC6NO by 'X' Branch HQ Palestine. Bill is an Undergraduate of the Open University and is studying second level Chemistry.

A serving member comes next as **RSARS 1396**. This is SIGNALMAN STEPHEN MYNOTT JAMES, P.T. 32, 'P' TROOP, 1 SQUADRON, 8th SIGNAL REGIMENT, CATTERICK GARRISON, NORTH YORKSHIRE, DL9 3PS. Stephen started his service with the Corps on 19 September 1977 when he attempted a Regular Commissioning Board. He enlisted for Trade Training in January 1978 and started training on 10th April in P.T. 33 and was subsequently upgraded to P.T. 32. Training should end around February this year when 1396 should be a fully fledged Radio Relay Technician. Other interests include Rugby and Flying.

ERNEST BUCK, **RSARS 1397**, 3 STONEBECK AVENUE, HARROGATE, NORTH YORKSHIRE. 1965 to 1967 was spent in Aden with 15th Signal Regiment followed by 3 years at Blandford with 30th Signal Regiment and this included two tours with UNFICYP. 1970/71 was spent attending courses at 8th and 24th Signal Regiments and the School of Signals and from 1972 until 74 it was a tour in N. Ireland with 39 Brigade Signal Squadron. An 8th Signal Regt. posting took up the time between 1974 and 1977 when Ernest left the Service. He is now CIO III (L & R) at A.A.C. Harrogate. Mick Groom introduced 1397 to Amateur Radio during the N.I. tour when he formed a Club station in Ireland. Ernest hopes to sit the RAE in May '79 - and we all wish him luck. If successful he should be heard from G3HKR, the College Club Station. Other interests include Fell Walking and Climbing.

C.B. - AGAIN.

Browsing through a well-known weekly newspaper-cum-magazine (solely because it had a military sounding title!) and overlooking the scantily-clad maidens, a member was interested to see an article entitled "JOHN IS FIGHTING TO GET ON THE AIR". It dealt with another plea for CB Radio within the U.K. The closing paragraphs were interesting too. It stated that a frequency should be allocated for CB and "there is one available - the old British Army waveband which hasn't been used since 1944". (Even the OWL doesn't know which "waveband" is meant - anyone like to hazard a guess? - Ed.).

KEYTRONICS G3IBB - 653

This edition of Keytronics is devoted to introducing a unique electronic keyer employing some original circuitry. A complete circuit diagram is included (Page 42), although this is not intended to be a construction article due to lack of space. However, if there is sufficient demand it is hoped a printed circuit board can be produced at reasonable cost as a facility to members.

The main feature of this keyer is the ability to change the 'dot-to-space' ratio digitally. Unlike all other keyers with variable ratio the selected ratio will be maintained over the entire speed range. Three switched ratios are available:-

Light	7	:	9
Normal	1	:	1 (8 : 8)
Heavy	9	:	7

The arguments for these particular ratios were discussed in Keytronics II (MERCURY 7/78). Other features of the keyer include :-

(a) Squeeze or single paddle keying. The squeeze method is the 'single-dot-insert'. (See Keytronics I for description of this method - MERCURY 3/78)

(b) Dot memory.

(c) Self Completing characters.

(d) Side-tone oscillator with variable pitch and volume.

(e) Solid-state output suitable for grid-block keying. A relay may be added if preferred.

Brief Technical Description

The keyer is designed around the SN7485 integrated circuit. Inputs A_0 - A_3 are addressed by the output of binary counter (SN7493) and go through 16 different conditions; 0000, 0001, 0011 etc., to 1111. Inputs B_0 - B_3 are fixed by the "Weighting Control" switch at a particular binary number. An output is taken from pin 5. Very simply, when the binary number A_0 - A_3 is smaller than that on B_0 - B_3 the output on pin 5 will be a dot, and when greater a space is generated. It follows that the keyer clock is running at 8 times the dot rate. A total of 16 pulses per element are produced by the lock to generate not only the dot, but also the space following it. By changing the programming on B_0 - B_3 different dot-to-space ratios can be selected.

Appropriate binary numbers are shown below:-

	B_3	B_2	B_1	B_0	Dot - Space ratio
Light	0	1	1	0	7 : 9
Normal	0	1	1	1	1 : 1
Heavy	1	0	0	0	9 : 7

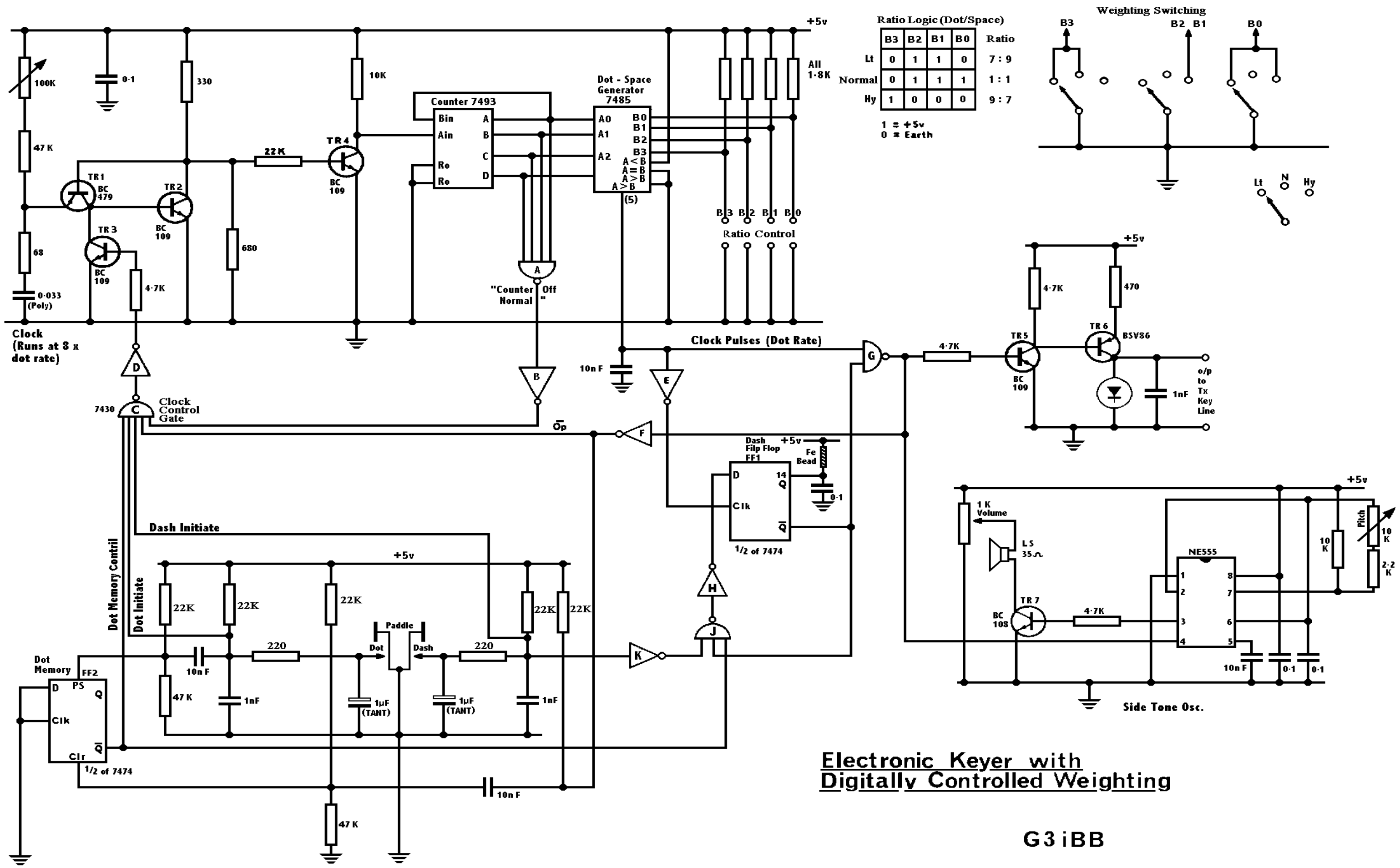
0 = Earth
1 = +5 Volts

Ratio Selection Table

Dashes are formed by 'filling in' the space between two dots (FF/performs this function). Thus the dash-to-space ratio will be:-

Light	23	:	9
Normal	3	:	1 (24 : 8)
Heavy	25	:	7

Anyone who is interested in obtaining a printed circuit board for the keyer please send a stamped addressed envelope to the Secretary; he will let you know one way or the other in due course if it is viable to produce one.



Electronic Keyer with Digitally Controlled Weighting

G3iBB

STATION MANAGERS REPORT.

Kit, G4EMX.

Well, here we are again, well into 1979, and the "Boss" tells me that my report should have been in yesterday. First of all, many thanks for all the nice Christmas cards that members sent along to HQ.

The "Big Thing" of recent weeks has been that G4RS is once again in the Slow Morse business and is radiating same on 3·565 and 144·11 MHz on Tuesdays and Thursdays starting at 1900 hours CLOCK TIME. This has been made possible by TIMOS a Murray Code to Morse Code converter with Memory which largely came about by the efforts of Urban Smith, G3UTI/RSARS 0163 and Gordon Parkin, G3UVY, who did the designing and building together with suggestions, advice, etc, from such likely lads as Ray, G3EKL, Johnny G3EJF, and Roy, G3IBB.

G4RS is visited regularly by both local Service and Civilian members on Tuesdays and Thursday evenings. Consequently, the HQ Station is often not heard as frequently as some would like, but if you are short of a contact on CW, SSB, RTTY on HF or on VHF, drop a line to HQ and we will probably be able to arrange a sked. And if you happen to find yourself in the area on a Tuesday or Thursday evening pop along and see us - there's even tea and coffee on tap. 73 Kit, G4EMX.

G3JNF.

GM3OPW.

In my introductory write-up in the last "Mercury" I mentioned G3JNF and you asked for further 'info'.

This was the Club station of 3 Training Regiment, Bourlon Lines, Catterick, formed in 1953/4, and was the successor to our Club formed at 3 T.R. (3 Sqdn.) Gallowgate Camp, Richmond when we were operating under the call-sign G3JVB/A, this call being held by Doug. (Smudge) Smith.

The call-sign G3JNF was listed in the RSGB Call-Book as a Royal Signals Club call-sign until the early '60's and was, I understand, operated from Lincoln when the Regiment moved there.

Our original equipment at Gallowgate was a CO/PA with a 6V6; which was later changed to an 807, the RX being an R107 on loan from the Regiment. We should have been on VHF in those days - what a location that was - I have nightmare visions even today of running up that hill from the old Richmond Railway Station!.

On promotion, I moved to 3 T.R. HQ at Bourlon Lines and it wasn't long before a meeting was called for interested parties to join the newly formed G3JNF Club, equipped with a WS19, R107 and a modified surplus 1432 RAF TX which I can remember (painfully) carrying from the old G3CIO shack up at 1 T.R. to the Sandhurst Block at Bourlon Lines having purchased same from a junk sale for 30/-. It was approximately the same size and weight as an AR88, but what a treasured prize!. We even had a Ferrograph Tape Recorder in the shack, a real luxury, as you will agree, in those days.

I often wonder what happened to Doug Smith - I see that his call is no longer listed in the call-book.

I may never have become a member of RSARS if it was not for G8FYJ (Catterick) who on one dark and stormy night last year was in a Mobile/Mobile QSO on 2 Metres FM and suggested that as Scotch Corner and the A1 was blocked by a traffic jam and I was travelling South, I could make a detour through Richmond/Catterick, and back on to the A1 at Catterick Bridge. He even met me in Camp Centre and invited me to tea, which I accepted, and we have been firm friends ever since. It is surprising what a nostalgic trip to old haunts can do.

73 GM3OPW.

Please don't forget the AGM - 30th June at Catterick, full details on Page 32. Should you be coming and want food, let me know by the end of May - thank you.

TAIL END CHARLIE

(being odds and bobs from Headquarters)

Most important from HQ is a warm "thank you" to all those members who sent good wishes for Christmas and the New Year by various means - very gratifying, and we'll try to keep things rolling as you would like.

Thank you very much indeed also to the members who kindly sent in some of the "MERCURY" copies missing from the HQ library. We are not complete and are still in need of

JANUARY 1967 AUTUMN 1965
DECEMBER 1967 WINTER 68/69
JUNE 1968 SPRING 1969

Can anybody assist please?

(a) Over the period June 29 - July 8 the Liverpool A.R.C. are operating a special event station GT2AHD which is operating from the Isle of Man in honour of the Millenium. At least three of our members are involved and should you work GT2AHD they will be sporting an F number for those interested. (See Page 5)

(b) Member 1375, ZL1BMG, is on 14130 - daily between 0730 - 0930Z on sked with G3CBE and then looking for RSARS members.

(c) Member 597, G3WGM, is one of the crew members of "Eye of the Wind" during Phase III and Phase IV of OPERATION DRAKE. There is a Drake TR7 on board and Jim will be operating on 15 and 10 metres dependent upon conditions, both sailing and propagation!! He is unable to give anything firm as we go to press but will be contacting me with details once he joins the boat late April. Call-sign whilst afloat is G3WGM/MM and arrangements are in hand for a P29 call. Any contacts - QSL via G4RS. For details, listen to GB2RS and our 80 metre nets from the beginning of May. Jim will be with OP DRAKE until early October 1979.

(d) VP8QH and TJ29 are both QRT and back in G-land. 9G1KU will be QRT by the end of March and DA1OZ returns to G-land in May.

(e) G3OAZ, 021, reports that he is active on CW on Top Band, 80 and 40.

(f) Congratulations to Member 1392, now sporting G8SCF, also 1381 who is G4HVA. And finally news that Member 620 G3BWX, one of our QRP addicts, has been busy building a "secret weapon". The beast is a pair of 6BW6's in a balance modulator configuration driven by his QRP 80 metre rig. Its a QRO job running DSD at an estimated four watts input!! Alex is threatening to join the 80 metre SSB net on a Sunday morning so keep your ears peeled for a weak audio signal. He has had antenna problems for quite a while now but thinks he has licked them at last. His HW 7 does extremely well on 40 metres, it has been modified to offer a IRT facility which has made a big improvement and he has no intention of running more than 5 watts DC input until he has got to the top of the QRP ladder - more power to your antenna Alex, good luck.

FLASH - no, not a streaker!!

UNICOM 21 - to celebrate the 21st anniversary of SMC a symposium and exposition on communications is to be held at Kempton Manor, Sunbury-on-Thames on 22/23 June '79.

There will be a series of lectures, displays and demonstrations of advances in the hobby with representatives of the manufacturers available to discuss any aspect of the hobby or particular pieces of equipment.

Any further information is available from:-

G4CZJ, c/o SMC Totton - tele. 042167333 and ask for Barry.

FROM THE GENERAL SECRETARY - Should your address label be incorrect in any way please let me know so that I can correct the Society records - thank you.

Should a receipt be required for your annual subscription, please send me your membership card.

Subscriptions have been flowing in steadily; some fifty odd members remitting £1 standing orders have been individually written to requesting an up date or resignation - this has resulted in three resignations but the remainder kindly up dated standing orders and made good the annual subscription. Four members wrote proving that they had instructed their banks to increase the standing order to two pounds, but that the particular branches hadn't done it - having had similar trouble with my own standing orders I can sympathise and thank those members for their tolerance.

As at 1 March the following appear to be "non-payers" for 1979 and I would be grateful if they could either remit £2 or let me know their intentions.

F2	NL	0597	G3WGM	0915	G3XHX	1146	G4EMN	1304	G3AMG
F16	35A	0608	G3YRQ	0920	NL	1153	GI4CUV	1305	G3LBN
F18	NL	0635	G3KOJ	0925	G4CRI	1162	F3WL	1309	NL
F56	NL	0640	G4EOV	0930	G3CDM	1164	NL	1315	G3GGI
0014	GI3HXV	0644	NL	0944	G3ZYE	1167	NL	1316	NL
0084	VE3GDO	0680	G3YMR	0953	GI3NQH	1169	G3SAJ	1322	BRS40073
0087	GM3KLA	0684	G3BWV	0965	G4BEK	1170	G3NUJ	1324	G4EHU
0105	G2CPM	0693	G3HW	0977	G3NAK	1175	G4DBV	1325	G3YBG
0116	G3XAV	0694	G3LPS	0985	NL	1179	G8JZC	1326	G3IDA
0135	G3RGF	0699	GW3RVG	0990	DA1QI	1186	GM4BUI	1333	G8IXP
0143	G3ADS	0701	G4CZJ	0997	G3JDJ	1187	G3TSZ	1337	G3RMC
0147	NL	0711	NL	0999	G8FYJ	1191	NL	1340	G4FZJ
0158	G3VDU	0713	G4KG	1012	G3WJO	1201	NL	1342	NL
0165	G8GDD	0716	G5HB	1037	G4BTR	1204	G3EGY	1345	G4GJX
0169	G8JAC	0723	WB6JXC	1041	G5KJ	1210	NL	1347	G4FYQ
0180	G3RBS	0749	G3JBA	1044	G2AQN	1211	NL	1350	G8ALM
0200	G3SJF	0772	G5YY	1051	G4DMS	1213	VE3AHU	1351	G4GLH
0269	G4CJ	0777	G3GUV	1055	G3ZRF	1219	G8OLG	1352	GI8OJG
0271	NL	0779	G3STM	1058	VE3WP	1226	G3XAH	1354	G8MDW
0286	G4CAO	0780	G8JU	1064	G3ETJ	1239	G3FSN	1356	G3TWX
0303	G4BKQ	0788	G4CQA	1069	G3NUR	1243	ZL2AQT	1357	GI4FZC
0344	G8TK	0789	G3KAE	1070	NL	1245	G4EZF	1358	NL
0359	G3LHJ	0798	W9IWI	1072	G3WWX	1246	VE1UN	1359	G3SDM
0365	G3SL	0809	G3NL	1073	G8BXQ	1248	G4DGM	1360	G8JMP
0388	G3TDW	0810	G3WEB	1078	G2CBH	1253	G8DFZ	1361	ZL4LP
0394	GM3WTA	0812	GM3TBP	1083	G3ZY	1254	G4FGX	1362	G3VFB
0415	VE4AI	0815	G3ZOJ	1084	DA4BI	1257	VE3BLA	1363	NL
0419	GM3HGA	0822	GM3PFQ	1094	G3FWG	1260	G3ZPO	1364	NL
0447	G2ZA	0860	G2FWZ	1097	G2CKM	1261	G4FVR	1365	GM3OPW
0448	ZL2BFB	0861	G6LC	1106	G3IFF	1266	G3GYU	1368	P29NRP
0479	G3SDD	0870	G3NUL	1110	G4EQB	1267	G8HUM	1371	G8NWU
0482	G3KBQ	0881	G3ZCV	1111	G4DIR	1268	G3CWW	1374	G8NGD
0519	G3VXO	0885	G3WER	1116	G3PCW	1270	G3SMW	1376	G3XON
0528	NL	0889	G3AER	1117	G3YD	1284	G15543	1378	9G1KU
0561	G3YOS	0892	G3ZKA	1132	NL	1288	G6CJ	1379	NL
0564	G8SC	0899	G3LCK	1133	G3YPN	1290	G3ONL	1380	G4CFP
0579	G3IZP	0904	G3AEF	1135	G3XDC	1291	ZL2AM	1385	G8OAJ
0591	G4BXV	0908	G4AXW	1139	G4DVD	1296	G4FYX	1390	NL
0592	ZS5CS	0911	G4AOE	1143	VE3HEY	1300	G4ESA		

I would like to add my thanks to those members who have kindly donated to Society funds - sums involved are listed elsewhere in this issue.

QUICK-QUIZ ANSWER. On page 22 of the last "Mercury" appeared a Quick-Quiz about the chappy who shared his custom between two shops by catching the first bus that came along outside his QTH. The north and south-bound buses each ran at 15 minute intervals but he was spending a lot more in the Northern shop than in the Southern. Why?' Well, the Northern bus ran at 13, 28, 43 and 58 minutes past the hour whilst the Southern bus ran at 15, 30, 45 and 00 minutes past the hour. Consequently, if he arrived at the bus stop at 01 - 13 (etc.) minutes past the hour he would catch the next (Northern) bus, whereas he would only catch the Southern bus if he arrived at the bus stop at 14 or 15 (etc.) minutes past the hour. Thus there is a far greater chance of travelling North. Perhaps it was because there were no prizes that we received no solutions!!.

CQ SUFFOLK ON 2 METRES.

Gordon Gibson, G3ZFZ/RSARS 0053, requires only SUFFOLK to complete his UK Counties Worked on 2 Metres. Anyone within the bounds of SUFFOLK who might be able to produce the required contact is asked to contact Gordon to arrange a sked. The address is:
22 Thwaiteville, Arrowthwaite, Whitehaven, Cumbria, CA28 9EL.
Gordon has worked 14 members on 2 and would like to work another 14 (then another 14…….).

OPEN MARKET.

(Being that part of "Mercury" where members and their friends can make their Sales, Wants, Give-aways, etc. known at no cost.)

WANTED - By Mike Taylor, G3UCT, Wychwood, 27 Glen Road, FLEET, Hants, GU13 9QS (Tel.: FLEET (02514) 6998) - SOE or Resistance type Suitcase Sets, post-1940. Anything similar considered including instruction manuals, incomplete or damaged sets, and any odd items for spares. Mike would also be very grateful for any help or advice in obtaining such sets.

WANTED - Those old (and new) books, magazines, circuit diagrams, handbooks, operating instructions, etc., that might be of interest to other members. Don't throw them away - send them along to the RSARS Librarian and don't forget - you can borrow any item at present held in the library (providing it is not already on loan) for the price of postage both ways.

LAST MINUTE NEWS - Dick, G3NVK, sends along details, taken from the archives of his Registrars Department, which shows that on March 25th 1886, Charles Boswell was fined one Shilling (5p) plus Five Shillings (25p) Costs for "Having a wild bird, to wit, an Owl, in his possession after the 15th March, at Asfordby". The Owl states that he remembers the case well, having acted as advisor to the prosecution, but remarks that he is not too keen on this "to wit" business.

LAST MINUTE FREE GIFT - From Les Hitchings, G3HWL/RSARS 0400, Pine Hollow, 5 Northview Road, Budleigh Salterton, Devon, EX9 6BY. "Would any member be interested in a 32ft galvanised lattice tower (Heathkit HT1G) - FREE - but applicant would either have to collect or pay carriage. It is in good order and is dismantled and on the ground. It will require four new rag-bolts and some of the other bolts may need renewing. It has extra laterals as a ladder from 15ft to a small platform at 28ft. It is ten years old - but it's SOLID!" (If contacting Les, don't forget the S.A.S.E., will you? - Ed.).

Please don't forget the AGM - 30th June at Catterick, full details on Page 32. Should you be coming and want food, let me know by the end of May - thank you.

"SIGNALS NETS" or Where you might find them!

ALL TIMES are UK CLOCK TIMES except the 20 metre Overseas Net which is in GMT.
ALL FREQUENCIES are PLUS or MINUS the QRG shown - search boldly.

L.F. NETS	PHONE.		
SUNDAY	1100	3720 kHz	Controlled Natter Net, with 3740 alternative
MONDAY	1300	7075 or 3740 kHz	Natter Group for approximately 15-30 minutes
TUESDAY	1900	3740 kHz	CONTROLLED NET
THURSDAY	1900	3740 kHz	CONTROLLED NET
SATURDAY	1100	7075 kHz	CONTROLLED NET. If conditions on 40m do not permit inter-G operation net will move to 3720 MHz at 1115 hrs.
L.F. NETS	CW		
WEDNESDAY	1930	Prim 3565 kHz Sec 3526 kHz	CONTROLLED NET: Net terminates at 2115 exactly and re-opens at 2200 on TOP BAND.
	2200	Prim 1837 kHz	This net is again CONTROLLED.
SUNDAY	1000	3565 or 3526 kHz	European natter net
HIGH FREQUENCY NETS		PHONE	
WEDNESDAY	1300 GMT	14130 kHz with an alternative 14275 kHz	Though primarily a CONTROLLED NET the UK controller usually requires an overseas station to assume co-control, if more than 2 overseas stations join in. 14275 kHz is for the benefit of those USA and other members who prefer this part of the spectrum. Please monitor both QRGs

When conditions permit, members are encouraged to use the following HIGH FREQUENCIES in addition to those above:

14065, 21065, 21375, 28065 and 28450 kHz.

OTHER FREQUENCIES AND MODES

RTTY	3590 & 14090 kHz.	Use 170 Hz shift and 45·5 Bauds.
SLOW SCAN	Please notify activity to Headquarters for publication.	

VHF FREQUENCIES

RSARS SPOT CHANNELS are 70·22 and 144·22 MHz Please notify locally arranged nets for Mercury publication.

ACTIVITY SUNDAY

"Activity Sunday", is the Sunday of the second full weekend in every month. Please make an extra effort to contact our Overseas members - use listed frequencies and call on the hour when propagation is suitable.

SLOW MORSE TRANSIMISSIONS - From G4RS each Tuesday and Thursday evening at 1900 Clock time on 3565 and 144·11 MHz (beaming NE or SE)

All modes : Call 'CQ RSARS' or 'CQ ROYAL SIGNALS AMATEUR RADIO SOCIETY". During a QSO sign 'G1ABC de G1DEF BT BOTH RSARS K' or 'ON0NO de G1GHI BT RSARS K'. DO NOT join 'RSARS' to your call-sign in any way (i.e. G1JKL/RSARS). In Great Britain this is illegal under Home Office Regulations.

Do not wait for the above nets to form - find the nearest clear frequency and call 'CQ RSARS'. Please do not call CQ on the CW LF controlled nets as there is always a control station around to bring you in. Always book IN and OUT of controlled nets. Pass all details for awards and contests unassisted.