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VOL 17 · No. 2 SUMMER 1964

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THE COMMUNICATOR

The Magazine of the Communications Branch, Royal Navy and the Royal Naval Amateur Radio Society

SUMMER 1964 VOL. 17. No. 2

CONTENTS

Editor: Lieutenant-Commander M. A. STOCKTON, R.N.
Art Editor: Lieutenant S. E. HUGHES, R.N.
Treasurer: Sub-Lieutenant D. J. FORSEY, R.N.
Editorial Staff: Instructor Lieutenant M. HAYWARD, B.SC., R.N.
Sub-Lieutenant N. G. LODDER, R.N.
Secretary: Petty Officer Wren O. RILEY
Business, Production and Advertisement Manager: Mr. EDGAR SERCOMBE, 44 Abbots Rise, Farnham, Surrey.

CONTRIBUTIONS

All MSS, photographs and cartoons should be sent to the Editor at H.M.S. *Mercury* as below. These will be returned to the sender only if asked for, and responsibility for them cannot be accepted by the Editor. **Contributions for the Christmas 1964 edition must be in the Editor's hands by 21st October. Bulk orders by 16th November.**

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Reuter again?

EDITORIAL

This is my final edition after eighteen months as Editor. It has been a most enjoyable term of office because the interest shown and support given by the branch has made my job worth while.

Most of the departmental magazines which started their careers unofficially and self-supporting have either gone into liquidation or have been subsidised from official sources, whereas THE COMMUNICATOR has survived all the hazards of rising costs, printer's strikes, etc., and has remained solvent since its birth in 1947—nearly twenty years without official recognition or financial support. It would be a tragedy if your magazine fizzled out and the one personal contact we have with each other no longer existed. This should never happen provided we *all play our part.*

During my time in the chair I have tried various experiments to improve the contents some of which have been successful; others have either failed or proved to be too expensive. My main objective has been to discourage the 'run ashore article' and boost material—particularly from ships—which is of general interest to a wider public. In the main this gospel has been accepted and we now receive most interesting articles from ships and shore stations.

As the Editor I have been assisted by Inst. Lieut.-Cdr. E. Humphreys who has sorted out the commas and capitals; by Treasurer Sub. Lieut. S. Jackson who has struggled to keep us out of the RED and by Sub. Lieut. N. Lodder who writes all those horrid reminder letters. Without their help my job would have been impossible.

My parting request for the benefit of my un-named relief, is directed at those anonymous members who write in their drips; do supply names and addresses so that our reasons for rejection can be offered.

M. A. STOCKTON. Lieutenant-Commander.

THE ADVANCED COMMUNICATIONS COURSE

by Lieut. M. G. M. W. Ellis

In the Granada Bar, Gzira, at the end of 1962 there was a party to mourn the passing of the Signalman's Badge. I was asked by one of the many sad TO's present, what my next job was going to be. I told him that I was to do the Advanced Communications Course at the Royal Naval College, Greenwich and he asked me what this meant. I explained that basically it was an Electronics Course and began to expound at length, until suddenly he interrupted: "Why, you traitor, you're going through for sparker."

Well, I did manage to calm him down with the aid of a Hopleaf or two and to persuade him that my allegiance to the buntings' side of my job would be as loyal as ever; and the party continued on its successful way.

However I have discovered that many have not heard of the Advanced Communications Course (sometimes known as the C + or Dagger C course) and so it is probably worthwhile writing an article about it, especially as there are now several officers who have completed it.

With the reorganisation of Specialisations and Sub-Specialisations that has taken place in the last few years, it has been found that the Communication Officer who has done a Long Course and, is, to oversimplify, an Operator, has drifted some way from the Weapons and Radio Officer who maintains his equipment. This often leads to misunderstandings, especially where operational and material requirements diverge. Although officers qualifying 'C' do spend many hours studying 'Radio Theory' at Leydene, this is only very basic—it can't be anything else, because for many officers on the course, it is also their first contact with Electronics. Similarly with 'Technical'—this is probably the first time many officers have ever looked inside a radio set. The 'Technical' syllabus must also cover as many as possible of those sets which are in or about to be in use, which doesn't give much time for any deep tuition. When one considers the many other sides of a Communicators' responsibility—Fleetwork, Crypto, Organisation etc.; to say nothing of the enormous importance of E.W.—and remember that a new 'C' can go straight from *Mercury* to any one of a number of very different jobs, it is amazing how much 'Radio Theory' and 'Technical' the Leydene staff do put over.

However it has been found that in certain appointments to which 'C' officers may go later on, a greater technical knowledge would be advantageous. For example, T.I should really be able to be a little more than one equipment ahead of his pupils. Not that I'm criticising any recent holder of this post, but I know that it has happened through the fault

of no one in particular, but because of a lack of sufficient theoretical and technical background.

It is also felt that General List Officers in certain other posts would have a better chance of doing their jobs well if they had done some recent theoretical study. This becomes vitally important when one considers the officers concerned with the development of equipment which all of us will be using in the future. Officers in X-Section and at A.S.W.E., for instance, must be able to influence the requirements and design of this equipment, and to do so, they must have a greater knowledge of Electronics than it is possible to obtain during a long course at *Mercury*.

If nothing else, these officers must be able to understand the languages that the Scientist and the Technical Officer use, and they must have an understanding of the problems behind the Research and Development of any new equipment or they will find they are of little assistance in such Development with a consequent harmful effect on the users when that equipment comes into service.

It was for these reasons that the C + course was restarted at Greenwich in 1961. Every year two suitable 'C' officers who have done one job since qualifying go to Greenwich for 6 months where they get a concentrated course in modern telecommunication techniques with the supporting tuition in Physics and Mathematics necessary for a true understanding. Suitable officers are here defined as those who have the ability to gain something of value from the course. So only volunteers, who have a science background from school and who have shown that the *Mercury* 'Theory' and 'Technical' syllabi are well within their capabilities, are selected.

The course I did was extremely interesting and was, in outline, made up as follows:

A. TELECOMMUNICATIONS: Modulation; Fading and Noise. Telegraph Systems; Frequency Synthesis; Error Detection and Correction; Aerials and Transmission Lines; Propagation including new Prediction methods.

B. PHYSICS: Electrostatics; A.C. Theory; Amplifiers. Valves and Transistors in detail; Solid State Physics; Low Noise Amplification; Masses.

C. MATHEMATICS: Determinant; Matrices; Series; Transformations; Vectors; Complex Numbers; Differential Equations; Co-ordinate Geometry; Boolean Algebra; Numerical Analysis; Fourier Analysis; Statistics; Queueing Theory; Probability; Information Theory, Error Correcting Codes.

D. COMPUTORS: An average of ½ hour theoretical and 2 hours practical training each week.

E. PRACTICAL: An average of 4 hours a week on the end of a soldering iron, building a 5-Unit Stop/Start to 7-Unit Synchronous Code Converter.

F. VISITS: To firms making new equipment of interest to the RN, e.g. Marconi, Racal; and to various Research Establishments, e.g. Slough, Dollis Hill.

Quite a brainful as you can see, but very rewarding. The very fact of being at Greenwich where one is in academic and not too military surroundings is of value in itself, for besides absorbing as much knowledge and method as one can, it is almost impossible to avoid picking up technical and theortical jargon and 'know-how'.

My course consisted of 2 RN officers, an Italian and a Pakistani, i.e. a very small group, which worked greatly to our advantage for every lecture was almost a tutorial. There is a syllabus, but it is not rigid. The breakdown of subjects given above is simply what we managed to do. The course is entirely flexible, and can if necessary be varied to suit the needs of the students. Here again we benefitted from the course being small, and as we were all of a similar standard no one felt the course was too fast—or slow-moving.

Subsequent careers of officers who have done the course should not be markedly different from what they might have been anyway. The whole idea would break down if they were employed exclusively in shore jobs, because it is essential that they serve at sea to bring back personal experience of probems and requirements to their R & D jobs.

Nor need any benefits accrue solely to the Radio or (G) side of the house. As my course's practical computer task, we worked out a basic form of Encryption and the Physics Professor tried to get us to help him design a suitable Maser for either a rebirth of V/S or, an E.W. Death Ray. Personally, I feel that a greater understanding and application of Information Theory could revolutionise our concepts of Voice Circuits for instance.

I hope that you now have a better idea of what the symbol (C+) means. Someone so qualified is the familiar (C) officer, but with a much deeper background in 'Theory' and 'Technical'; someone who can at least communicate with a scientist.

Let us hope that the scheme works out and that the extra training such officers will have received is of benefit to all communicators; if only by making sure that the systems we get in the future are the best possible from the Operators', as well as the Maintainers' and Designers' point of view.

PRIZEWINNERS

Features

Cartoons

THE 1964 N.A.T.O. COMPETITION

by Lieut. P. Wigram

Of course it rained; it had to, otherwise the contestants might have seen *Mercury* at its best.

They stood there, huddled in hastily borrowed oilskins peering through *Mercury* weather at the flashing light. I swore as, duty bound, I watched an exercise and although the Training Commander said, "This is realistic as it's not always fine at sea", we all wished it would clear up.

Each country could send three contestants who between them would read flashing light and morse reception, and would transmit morse and teletype. Also we introduced five 'voluntary' exercises namely procedure, both V/S and W/T; tape preparation; a quotation exercise and a general quiz.

CRS Trappitt, was the "trainer"; accuracy was the main theme of training since the marking was heavily slanted against mistakes in all the competitions.

With four main events and only three competitors it was necessary to have an "all rounder" covering two competitions. We had a short list of LRO Rayner, RO1 Bilby and RO1 Jackson on the W/T side; RO2 Pillinger, RO2 Britten and JRO Jackson on the V/S strength while RO3 Williams was a candidate for the teletyping.

The team really chose itself. LRO Rayner was clearly the best at morse reception and in fact went on to become the champion of the NATO navies. In addition he won the W/T procedure to really rub the lesson home. RO1 Bilby was clearly the best transmitter and was the runner-up in the NATO competition. Two of the invigilators remarked that it was the best morse they had ever heard and the judges gave him 495 out of 500 marks for style on one occasion. However, he was not quite fast enough to beat the Norwegian competitor. RO2 Pillinger was the "all rounder" covering flashing light and teletyping. We were sorry to leave out RO3 Williams who would have been our choice for typing. However that would have meant no one for flashing light. RO2 Pillinger was third in the typing, the first two places going to the Netherlands who have teletype specialists. Williams would have probably got the same position. Unfortunately in the flashing, Pillinger did not produce quite the same form as in practice.

In all the messes, *Mercury* went out of their way to make the social life interesting. One visiting competitor complained that he had some sort of hangover every day and never was given the chance to repay the hospitality. Inhabitants of Wickham may have heard a committee for the consumption of alcohol and improvement of NATO relations in full cry on the Glorious First of June. The cries on the morning of the Second were more like the wounded after the battle. A special mention must be made of the men who achieved the new rate of

LRO Rayner receiving a certificate from the Captain HMS "Mercury" for winning the Morse Transmission Section of the NATO Communications Competition.

"Leading Guide" and were the principal hosts. LRO's Sleight, Eade and Band made a full-time job of looking after our guests and contributed a lot to the success of the week.

Then of course there were the back room boys. The team who made the tapes and exercises, the boffins who sorted out the foreign writing and punctuation with lasting good humour in the judge's room and "Bill" Trappitt who was always ready to answer a problem.

Our guests were a tremendous help. They nearly all had a go at the voluntary exercises, often without practice, and the judges, who were their Officers and Chief Petty Officers, cheerfully helped with the chores. To me, trying to keep the whole thing ticking over, it was delightful to find them all, judges and competitors, out to help us. Never once was there a mention by anyone of, "It's not my part of ship", and both *Mercury* and our visitors made a success of the competition by working together and proving that national frontiers are no barrier to a friendly alliance. From the results, the Dutch was the most successful navy, with the Royal Navy and German next. However, the interesting and heartening thing was that every nation won something or had someone well placed in several events.

The prize giving was sunny and each contestant had a handsome and gay certificate beautifully hand-painted by a combined effort from the New Entries, WRNS and members of the Ship's Company. So ended a week in which nine competitions were held, and in addition, the contestants had a run to a pub, a tombola evening, a dance and run to London. Also a few were privately entertained by LRO and Mrs. Pearson.

Yes, the 1964 competition was great fun, for all concerned, and lessons were learned as well.

THE OLD SEMAPHORE LINES

by the late Cdr. Hilary P. Mead

'Country Life' has allowed me to reprint this article which, although written in 1938, *is of particular interest as most of the stations mentioned still exist. Editor.*

Mr. Hilaire Belloc has given us realistic visions of the Roman roads and "Pilgrims' Way", mostly reconstructed from personal explorations of the routes. I have often felt that something of the same sort describing the old telegraph lines in England would be of interest; but in the case of the earlier systems hardly a vestige of any survival is likely to be found to furnish a connected story. With regard to the buildings belonging to the original shutter-telegraph of Lord George Murray of 1796-1814, this lack of evidence is not hard to understand when we learn that they are nothing more substantial than the merest cottage or shack, long since abandoned and dilapidated or demolished.

Examination of the telegraph sites in some instances, such as Cabbage Hill, Ashtead, would reveal a rectangular plot of land demarcated by a plantation of hawthorn or other trees, put in originally as a low hedge round the station but now grown into a high screen. Beyond that, probably nothing could be found. It would need a truly devoted explorer to visit and examine the fifty-odd telegraph sites in England, not only in the southern home districts, but also in the counties of Hertford, Bedford, Cambridge, Suffolk, Norfolk, Hampshire, Dorset and Devon, including an excursion into the wilds of Dartmoor, on the off-chance of finding something more practical. The Admiralty telegraph lines on Murray's principle ran, indeed, to Portsmouth, Chatham, Sheerness, Deal, Yarmouth and Plymouth. It is agreed that they were entirely a temporary wartime measure, and at the Peace of 1814 all were abandoned and the land on which they stood was returned to its owners.

Not long afterwards, however the Admiralty decided to build telegraph lines of permanent utility, so that communication could be kept up with a naval dockyard port even in times of peace. The scheme was slow in maturing, but the line from London to Portsmouth was finished by 1823 and was in daily working order, except when interrupted by fog, from 1824 until the last day of 1847, when the system was given up in favour of the electric telegraph. The later optical telegraph took the form of a semaphore, the invention of Sir Home Popham, its principal features being a tall upright post with two movable arms. This was a notable advance on the primitive shutter-telegraph; the machinery was scientifically worked and the stations well planned and solidly built.

An examination of the semaphore as opposed to the older shutter-telegraph system affords at once an easier and more profitable exercise. To begin with, there were only two semaphore lines, comprising twenty-four stations of a permanent nature; the one from London to Portsmouth via Chatley Heath was a going concern, as already stated; while the other, planned to run to Plymouth, also via Chatley Heath, was begun, but did not get beyond Hampshire, and so was never in operation. The exploration of the semaphore sites can therefore be limited to the counties of Surrey, Sussex and Hampshire.

The stations were as follows: (1) The Admiralty, Whitehall; on the roof above main entrance. (2) Duke of York's School, sometimes referred to as the Royal Military Asylum, Chelsea, on the roof near centre of building. (3) Putney Heath; nothing remaining, but Telegraph Inn near the site. (4) Coombe Warren, Kingston Hill; site occupied by a modern building, Telegraph Cottage. (5) Cooper's Hill, Esher; surviving, the property of the Urban District Council. (6) Chatley Heath, Cobham; surviving and occupied. This outstanding building is additionally remarkable on account of the original machinery still remaining there as it was ninety years ago. (7) Pewley Hill, Guildford;

Diagram of the Semaphore Lines from London to Portsmouth and London to Woodfield Green on the way to Plymouth

River Hill, Binsted, near Alton.

surviving as Semaphore House, Semaphore Road; most conspicuous (8) Bannicle Hill, Witley; now known as Banacle Hill; no trace. (9) Haste Hill; nothing to be seen, though its site and history are well known in Haslemere. (10) Holder Hill, Midhurst; surviving. (11) "Beacon Hill", Harting, known locally as The Beacon; the semaphore station survives, rebuilt, as Telegraph House. (12) Compton; surviving as a ruined farm, (13) Camp Down, Bedhampton. (14) Lumps Fort, Southsea. (15) High Street, Portsmouth, afterwards removed to the dockyard.

Then, branching from Chatley Heath westwards: (16) Worplesdon "Glebe", demolished, but known to have been next to the church. (17) Poyle Hill; no trace, but site now occupied by Hog's Back Hotel. (18) River Hill, Binstead; surviving and used as a farmhouse. (19) Farringdon "Common", near Four Marks; surviving, and in use as a farm. (20) Merifield, West Tisted; no trace. (21) Cheesfoot, Chilcomb Down, Winchester; tree-surrounded site, but no other trace. (22) Farley Chamberlayne; surviving. (23) Sherfield English; no trace. (24) Woodfield Green, no trace at Woodgreen.

The popular one-inch Ordnance maps show certain telegraph sites clearly marked, and these set me off on the right track in the first place. The six-inch Surveys provided better information and, once the approximate position was located, it was usually found that a semaphore building or site was indicated on the larger map. In nearly every case they were surrounded by high trees or thick scrub. From their outline it was obvious that they had been originally planted as a hedge round the premises, or that the fruit trees formed part of the garden. At Holder Hill the crew had evidently put in some Spanish chestnut seedlings as a little avenue from the wicker-gate to the front of the station, and these have now grown to immense trees, which add to others in surrounding and hiding the house completely.

People are sometimes dubious as to the identity

Chatley Heath, Cobham.

of the sites because of such dense foliage around them, but it has to be realised that in ninety years a tree can easily spring from a sapling to full growth and habit.

My exploration established that the semaphore buildings were of three types, a fact which can easily be seen from the illustrations. The most remarkable is the lofty tower structure at Chatley Heath: but, with the possible exceptions of Bannicle Hill and Worplesdon, there were apparently no others of this multiple-storey, tower type. A second design was the two-storey building, seen still existing at Cooper's Hill, Pewley Hill and Binstead. The third type was a one-storey bungalow, survivals of

Pewley Hill, Guildford.

which are now standing at Holder Hill, Compton, Farringdon, and Farley Chamberlayne. The reason for the different heights of the buildings was the necessity of having the lower arm of the semaphore well clear of horizontal obstructions. On such high eminences as Holder Hill and Farringdon Common there was no need to raise the semaphore post much above ground level.

In the bungalow type of station, the semaphore mast sprang from the centre of an operating room rather to one side of the living quarters, from which it was separated by a short passage. In the other types of building the mast was erected on the main roof. Every one of the stations is built of brick covered with the same unmistakable brownish stucco; the bungalow roofs are all of slate.

The average distance between points was a little under five miles on the Portsmouth line, and slightly over seven miles on the Plymouth extension. The greatest distance between any two stations was the 8.4 miles from Merifield to Cheesfoot, made possible, no doubt, by the conspicuous situation of Chilcomb Down. The shortest distance, apart from the town stations in London and Portsmouth, was the 2.4 miles between The Beacon and Compton.

The semaphore crew consisted of one Lieutenant, Royal Navy, and one hand, generally an old seaman of the officer's choice, preferably "a good glass man"—that is, a reliable man with a telescope. At "Beacon Hill" we learn that the officer had a family of eight children so that the man (who had lost a leg in battle) was obliged to lodge out.

Upon the stations being given up, the Naval and Military Gazette of January 1st, 1848, remarked:

The semaphore has been the home of many a veteran lieutenant, the last berth to be given, the very last to be asked or accepted as long as a spark of hope remained of obtaining anything better, but now even this resource is no longer available.

Nevertheless, whatever their discomforts, the crews of these stations led a leisured, if not sedentary, life, and were able to find plenty of spare time to attend to their gardens.

LETTERS TO THE EDITOR

Dear Sir,

After reading the latest edition of THE COMMUNICATOR, I felt compelled to contact you in the hope that you can put me in touch with a few old shipmates.

I paid off from the RN in 1956 and came out to Australia in 1959, and about the only two things that bring forth a bit of 'nostalgia' are my local rag—the EAST ANGLIAN MAGAZINE and the good old COMMUNICATOR.

Since joining the RAN I have served in HMAS *Penguin* (which looks after the Fourth Submarine Squadron), HMAS *Quickmatch*, HMAS *Albatross* (where they practice night flying deliberately, to torture poor sparkers who are trying to catch up on their sleep), and am now serving in HMAS *Tarangau*, which has to be seen to be believed.

I arrived here (complete with wife, two sons, spearfishing gear and a king-sized headache), after flying from Lae in a cargo-carrying DC3, riding 'side saddle' as the pilot took seemingly death-defying dives and swoops around numerous mountains.

The staff consists of myself and three RO's and although we are well away from WXP's, MKX's, etc., the work is pretty steady and constant. We run 500 kcs during working hours, two daily sked's with Canberra Naval Radio Station, local island circuits, radiotelephone sked's and make a fortune for the Overseas Telecommunications Commission on telegrams.

Social life abounds, and the same can be said for sport, fishing, picnics, swimming, and just plain 'loafing in the sun'.

We are about 130 miles from the equator, so we do not wear many clothes. In fact, the regulation rig for sailors is straw hats, shorts and sandals, and for the schoolchildren, shorts only. . . . Unfortunately the women will not agree that bikinis are much cooler than those hot dresses they wear.

Occasionally an RN ship arrives on the scene, *Cook* being by far the most regular and most popular. When I tell you that she has called twice in a year you will realise just how few and far between are visits by ships. Our stores and food arrive approximately every eight weeks on MV *Malaita*, and up here time is judged by 'the next Malaita'. She brings most of our sea mail, too.

I was in the class of 243 in *Ganges* in 1947 (Benbow Division) and our opposite numbers were 244 class V/S. Our instructor was a Chief Tel Wearemouth and the 'buntings' were looked after by Chief Yeoman Young Johns. Often an article appears in THE COMMUNICATOR written by a familiar name and I wonder if it is one of my old classmates. If you could put a notice in the magazine, *asking members of 243 or 244 classes to drop me a line*, I would appreciate it very much.

The RAN are in the throes of a new advancement system as used in the RCN at the moment. I have

a feeling that they deliberately waited until my name came to the top of the roster before introducing it. Briefly, we have to sit a Branch Technical Test, consisting of two three-hour papers, and pass in all subjects, to qualify for CRS.

Apart from that, we have to qualify in Seniority, ABCD, Power of Command, First Aid, etc.

The examinations are very fair, but the questions could come from any book in current use, and I am at present spending most of my time buried deep in ACP's and AFO 'S's, preparing for the May examinations. (I failed miserably in the first exams last November).

I used to have a 'one talk' in the RN called "Pusser Hill" . . . before you make the obvious remark, he was a CY and is now (I hope) a CCY, comes from Coddenham in Suffolk and has a heart as large as an Australian pumpkin. If he is still in pussers, would be grateful for news of him.

Keep up the good work with the mag, and spare an occasional thought for we exiled sparkers, surrounded as we are by savage Arawes, Sepiks and other 'Domesticated Headhunters'.

P.S.—Is the old Clanfield 'Sun' still serving up a tasty drop?

Radio Supervisor H. WATLING,
HMAS *Tarangau*, Lombrum,
New Guinea.

* * * * *

NO MAN'S LAND FORT,
SPITHEAD,
ENGLISH CHANNEL.

Sir,

Since Great Britain's rebuff by the European Common Market, and bearing in mind the constant need to keep our signals as short as possible, may I press your readers to support me in reducing the Continental influence on our naval language by forswearing the use of the foreign importation "Rendezvous" and instead using the honest English "Meet". I have yet to hear that "the Hambledon Hunt held its opening rendezvous at the Bookmakers Arms on Saturday".

However, if decadent Continental ways have got such a hold on us that they cannot be exorcised, let us at least be consistent and, instead of wasting electricity transmitting the word "Acknowledge," substitute the succinct "RSVP".

Yours, etc.,

ANGLO-SAXON.

COMMUNICATOR QUIP

Voice Instructor: If a Verification is asked for and the signal is correct as previously signalled, then the Prowords "I Verify" followed by identification data is used. Now, if the original signal had not been correct what would the Proword be—Smith?

RO3(T) Smith: I Rectify Yeo!

PRIZE WINNING FEATURE

FOR BETTER OR FOR WORSE

by CRS G. Lucas

With the introduction of the complicated equipments now being fitted in H.M. Ships, the need for a high standard of planned maintenance would appear to be essential in order to obtain maximum operational efficiency.

I stand open to correction on this point, but I understand that the whole basis of planned maintenance is to give a higher availability of equipment functioning correctly. Something is seriously wrong. It is not for me to criticise the electrical branch in its organisation, its work or its planning, but something is certainly badly amiss. Availability of equipment is dropping. I would like to point out that I am not in any respect 'getting at' the electrical branch of my last ship, they gave me a higher availability than other units of the fleet; I am generalising.

As the CRS or RS of a ship, the primary interest and concern is the availability of the equipment. In the past, on many occasions, I have made a nuisance of myself to the electrical branch, badgering and stressing the requirement for 100% availability prior to exercises, and no planned maintenance until completion of the exercise. Time and time again however, the story is 50% availability. I can quote one example; a new ship on radio acceptance trials 100% availability. The equipment was not used for about six months, but during this period, modifications and planned maintenance were carried out. When the equipment was required for use, 50% was unserviceable. I can quote instances of ships going into self-maintenance, or assisted maintenance, with 90% or even 100% availability, and on leaving the refit, availability is down. I have met cases of electrical ratings (particularly FMU) coming along to do a modification or a routine on a piece of equipment with not even the slightest idea of how to switch it on.

A slight variation on this theme. We are slowly coming to the stage where senior (G) ratings are not looked upon as having any technical knowledge at all by our maintainer friends. The younger members of the electrical branch seem to forget that they are performing a job which we used to do, and that senior (G) ratings do a more substantial course on W/T equipment than REM's, and as a result of constantly using it, can often pick out a fault long before an electrical rating. I have known equipment to be taken off an operational circuit resulting in a disruption of that circuit just because a stage is not giving its full output, irrespective of the fact that the equipment in use was in perfect communication. This is a case where the senior electrical rate and the senior (G) rate must work together respecting each other's knowledge, with the operational status being the governing factor.

Summing up the existing situation:

(A) Planned maintenance is putting on more snags than it is curing.

(B) Planned maintenance often takes precedence over defects.

(C) Planned maintenance is at times overriding operational requirements.

In my opinion, this state of affairs in a modern warship, is not satisfactory. Given a two-week warning of a forthcoming exercise partly solves the problem, and gives a chance to get equipment functioning correctly; but, in a modern warship, equipment should be immediately available and on top line to comply with the notice for steam.

I am making no attempt to solve the problem here, although I offer two suggestions which I think would help to improve the situation.

(a) Limited maintenance by senior (G) ratings, failing this, more senior electrical ratings to a ship's complement.

(b) EMR's to be fitted with an outfit of common equipment (e.g. B40 691/2/3). All modifications to be carried out on the EMR outfit. When completed and thoroughly tested, then interchanged with a unit from the TR or BWO. The more complicated planned maintenance routines which require equipment to be taken out of service, to be carried out in the same way. I feel sure that this would be appreciated by the electrical branch as well as the communications branch.

Editor's Note

Readers should note that the views expressed by the author are personal and are not necessarily supported.

SEE YOU AT STAND EASY

The following visual signalling took place between USS *English* and *Agincourt* during a busy period in a UK/US exercise:

USS ENGLISH: Are you in company with me this evening?

HMS AGINCOURT: Do not know. Will have to ask my Squadron Leader.

USS: Will you be in Malta this weekend?

HMS: Yes.

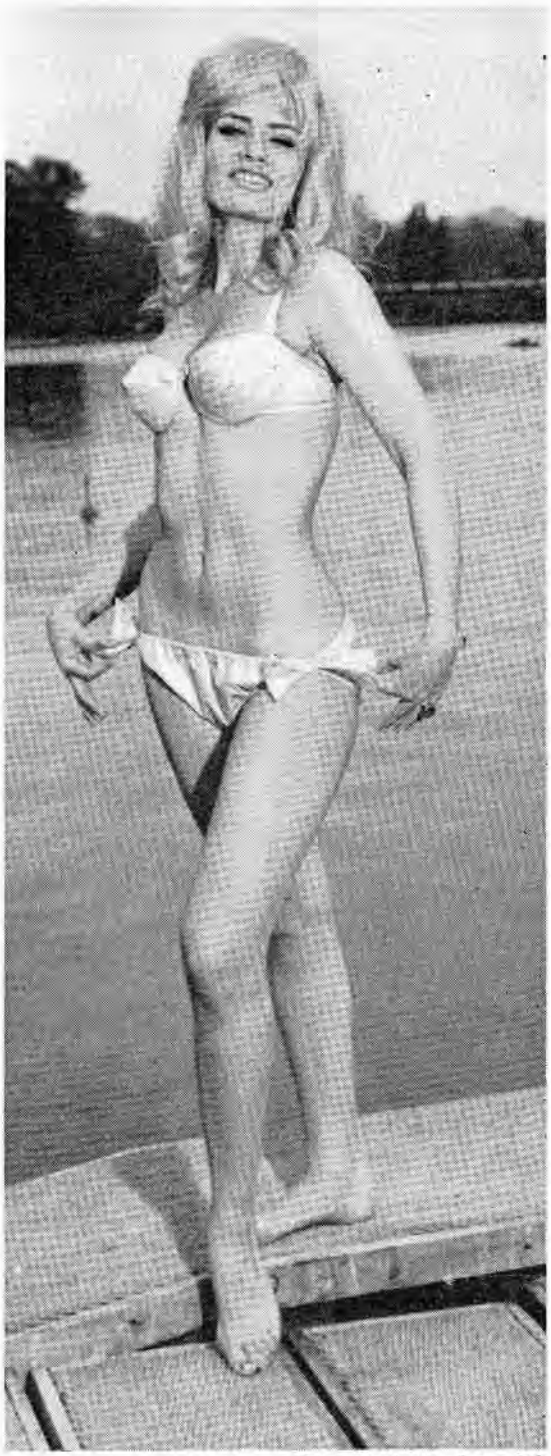
USS: Would you like to come over to see me for talk and coffee?

HMS: Yes please.

USS: When you are in harbour, and ready, ring and ask for Jim Roberts.

HMS (Not holding US Navy List): Is Jim Roberts the Captain?

USS: I am Jim Roberts signaller second class!



by courtesy of Warner Pathe Distributors Ltd.
Miss MERISA MELL

JOINT COMMUNICATION

by CRS Sullivan

Date, Saturday, 14th March, 1964, time 2330 hours, the night shift only thirty minutes old—stretching endlessly forward to a grey dawn—week-end rush of signal traffic received, despatched, logged, filed and checked, nothing to fill the empty hours—unless the publications appertaining to signals are combed to find more ways to badger originators. Harsh shrill of telephone at Duty Signal Officers' position, phone lifted—Hello Comcen, Ops Room Muharraq here, have you had a call from Cable and Wireless, some Merchant ship in trouble somewhere—this is D.S.O. no call received here—oh. Well they will probably ring through shortly. Phone replaced and brains sink back to lethargic inaction in which condition the night hours pass slightly quicker. Ten minutes later the call arrives—this is Cable and Wireless Marine Station Bahrain, we have a call for help from ss *City of Khartoum*, she is somewhere near Masirah with a very sick man aboard, is requesting medical help, can you do anything? Her callsign is GBZC and she is in communication with us in the 8Mc/s Marine Band—Comcen here, will see what we can do, hold the ship on 8Mc/s, will call you back with some information in approximately 30 minutes. Duty Signal Officer originates an emergency signal to RAF Masirah giving pertinent details and asking what help she can provide, and for a suitable frequency on which the *City of Khartoum* can contact them direct. Signal despatched to Masirah, Joint Comcen now active with sense of urgency, eyes bright, ears listening on the 8Mc/s ship-to-shore communication band to intercept any transmissions from the ship in distress, to save possible minutes—twinge of doubt in Duty Signal Officers' mind surely this sort of thing should be done by the Rescue Co-ordination Centre Bahrain?—quickly dispelled upon realisation that Ops Muharraq had passed the buck to Comcen in first instance. Signal from RAF Masirah, wanting to know ship's position, course and speed and nature of illness, but fails to indicate frequency for direct communication between Masirah and *City of Khartoum*—this information phoned to Cable and Wireless for transmission to ship—ten minutes pass—reply received from ship via Cable and Wireless, giving ship's position and nature of illness, suspected appendicitis, also gives frequencies for direct communication Masirah to ship—this information put into Service signal format and passed to Masirah. Joint Comcen listens into new frequency *City of Khartoum* has indicated she will transmit on, and Duty Signal Officer orders transmitter to be tuned on frequency that the ship is listening out on, in case Masirah and *City of Khartoum* are unable to get into direct communication. This order brings feverish activity at the Naval Transmitter Station, the frequency required is non-Service, therefore men will have to dash out into the night and rig an aerial appropriate to the frequency required—Meanwhile in Joint Comcen the ship is heard calling Masirah, and on the other frequency Masirah is heard calling the ship—unfortunately Masirah is unable to hear the ship—Joint Comcen will have to act as a radio link, unless communications can be established direct with *City of Khartoum*—valuable minutes pass whilst the naval transmitter station changes aerials and tunes up the transmitter—phone shrills—transmitters here, go ahead on that frequency you want. Joint Comcen calls the ship and, Eureka!—the ship replies. At last direct communications with the ship is established and information can be passed direct to Masirah without having to be phoned via Cable and Wireless. RAF Masirah despatches further signal to ship—doctor standing by, no hospital facilities, patient will have to be flown to Aden or Bahrain for hospitalisation, is ship's Master agreeable to this? Communication still not established between Masirah and ship and latter is requested to indicate lower frequencies in an endeavour to get her and Masirah in touch—she does so and after further delay for retuning transmitters, Masirah is in touch with the ship and the Joint Comcen can fade from the picture—the sense of urgency dissipates and only the routine humdrum jobs are left. During the period of excitement a *soldier* was receiving the transmissions from *City of Khartoum*, an *airman* was transmitting to the *City of Khartoum*, a *sailor* relaying the information to RAF Masirah and on the deep dark ocean a radio officer of the Mercantile Marine sat hunched in his radio cabin to form the fourth corner of a square which truly is JOINT COMMUNICATIONS

M.I.T.

by RS Manning

Ever done an M.I.T? In a carrier (ICS fitted) that is? No? For a start an MIT is a Mutual Interference Trial.

It starts with all receivers on and remoted to all possible positions throughout the ship. All 60 receivers and 100 odd positions that is. All transmitters, radar and radio, switched off.

Then the Big White Chief puts numerous RO's and RP's of various rates to sit by each position and listen. Most of them have only a vague idea of what to expect, but they are given lovely logging forms on which to put down their impressions.

Slowly each piece of transmitting equipment is switched on and all the little bodies note on their papers what they hear on their frequency. Switch off No. 1 and do the same on No. 2, and so it goes on.

This builds up to minor climaxes when Fred on Ops Room line 34, keying the foot pressel switch because it is a handy place to put his booted foot, knocks off the transmitter of No. 14 bay, and we are in thick fog and cannot use radar.

PRIZE WINNING CARTOON

Nightmare in the TRC.

Meanwhile the 'man in charge' sits at his desk, appropriately raised one foot above the melee, surrounded by his banks of intercom controls, remote facilities, split phones, two telephones, and loudspeaker exchange, madly fiddling with them all.

The most important man in the organisation has not yet been mentioned. He is an appropriately insignificant JRO, who, armed with wax paper receptacles and a large metal vessel, circulates continuously through six offices spread over four decks distributing tea.

Owing to the odd slight snag or two the trial usually runs out to about eight hours for two consecutive days. Meanwhile the normal (well, our normal) message handling organisation and associated complex network continues sublimlely. Undeterred by the odd little factors designed to make life difficult, the RO does crypto on his knees in front of the machine because we have not enough bays and chairs to go round.

Once having done all the transmitters singly we then start permutating them, any two from those available; then three and so on up to the maximum on the same aerial. At this point everybody holds their breath and waits for the superstructure to melt. All are disappointed. Eventually we are finished, all the logging sheets collected, cups washed up, and we slow down to a panic. Then begins the task of computing results from the sheets, weeding out the "bumf" that RO3 Bloggs logged on Rx 40 at 0143z when transmitting on 13 UHF and 1 HF as 'important sounding interference'. (It was the typist rolling off 130 copies of the movements on the electric Banda behind him). Smiff on the FM 12, which has sort of slipped from 5 ton to 200 kc/s, has absent-mindedly logged 'Yeah Yeah Yeah', under the column INTERFERENCE (Type and Duration) and Brown in the same column significantly puts 'Everybody from the Bos'ns Mate to Daddyo'.

Our best one was the lad who stopped the trial by reporting he could hear a cuckoo. He was right, loud and clear on B40 number 7. What we were transmitting at the time and the circumstances are being reported to DNI for possible future use on the lines of skilfully disguising *Eagle* as a Cuckoo and infiltrating the dreaded enemy lines via the sparrow's nest in the (dare I say it?) KREMLIN.

Finally, again in the Interference (Type and Duration) column, we found logged, toward the end of the exercise, "Loud and Distraughted"!

GOING THE ROUNDS IN MERCURY

SPORT IN MERCURY

Athletics

The Inter-Squadron Athletics Points Competition was won this year by Somerville Squadron with 67 points while N/E "A" Team was second with 47 points. This enabled the Squadron's Athletics representatives to select their teams for Sports Day which was held on Wednesday, June 10th. Once again the weather held for us and with a temperature in the 70's we started Sports Day with the final of the Assault Course. This was won by PO's in the very good time of 3 minutes 37 seconds with NE "A" Team runners-up in 4 minutes 7 seconds. The Aggregate Points trophy went to Somerville Squadron who provided an excellent team of athletes. The Tug-O'-War final was won by PO's who just shaded out a good W/Room team. At the time of writing we are in the process of training the *Mercury* team to compete in the RN Youth and Junior Athletic Championships on 4th July.

Water Polo

The Water Polo team is doing very well, having played 4 games, winning 2, drawing 1 and losing the other. The latter was a friendly against *Puma* and so doesn't count in the league. At the moment the league is still open and *Mercury* could well win it, or finish runners-up.

Outstanding players this season are JRO's Cox and Campbell, who are representing the Navy and could well go far.

Tennis

Mercury are enjoying a good season, so far we have played 4 league matches, won 3 and lost 1. In the Command Knock-Out competition we have reached the quarter finals where we meet *Collingwood*. Captain Seymour-Hayden and Lt.-Cdr. Edwards are through to the next round in the Chilcott Cup Competition having won their first round very convincingly against *Dolphin*. The end of July could well see *Mercury* in the running for one if not all three of the tennis trophies.

Cricket

Although we haven't any well known players this season the side seem to be playing some very good cricket. We have reached the semi-final of the Command K.O. Competition with exciting wins over *Victory* and *Excellent* and now meet C-in-C Staff to decide the finalists. We have some good youngsters in the side this season who with time should make outstanding players.

Stop Press.—The Mercury Cricket XI have reached the final and play against *Ariel*.

Sports day at "Mercury". The Petty Officers beat the Wardroom in the final.

Inter-Part Cricket

Blake and PO's seem to be heading for league honours in the two Inter-Squadron Cricket Leagues. This will be followed shortly by an Inter-Squadron K.O. Competition which always produces some excellent cricket.

Brickwood Trophy

Once we were over our teething toubles the Brickwood event started off in full cry. Its hard to tell what they are like this year because we don't draw the Gun until the 29th June, but everyone concerned is hoping for great things.

Golf

After a disastrous first match which had to be abandoned during torrential rain, the *Mercury* golf team has had a fairly successful start to the season, winning two-and-a-half matches out of the first four, an improvement on previous form. We are somewhat handicapped by a shortage of competent practitioners of the Royal and Ancient game but there are signs that the drafting wheel is turning slightly in our favour.

The Leydene pitch-and-putt course has been extended this season and is in pretty good shape. It now requires a good whack on some holes and features the wardroom greenhouse as a natural (and so far unscathed) hazard.

A cordial invitation is extended to all to join the Portsmouth Command Golfing Society, the modest fee for which is amply recouped by very much reduced green fees at all the best local courses.

MEON MAID II—1964

by Lieut.-Cdr. J. P. G. Bryans

Meon Maid was launched at the beginning of April and has been pretty busy ever since. She started the season well by winning the Monarch Bowl practice race and two passage races—Lymington to Poole and return. The first Monarch Bowl was a disaster and less said about it the better. However, we now have four firsts under our belt with one more race to go and have every hope of retaining the Bowl.

Whitsun produced some very variable weather and an interesting race down to Dartmouth. *Electron* sadly squeezed into first place just saving her time on MM and thus retained the *Dryad* Cup. However she never got a look in during the races at Dartmouth. Here *Meon Maid* showed the Dartmouth yachts round their home ground.

In the combined RNSA and RAYC Regatta MM cleared the board by a good four minutes winning both the RNSA Trophy and the Guernsey Cup.

The Ocean Racing season has just begun at the time of writing and in the Lyme Bay Race she was eighth out of thirty-odd in Class III and thirteenth overall. There are still the Morgan Cup, Dinard, Channel and St. Malo races to come.

Few changes have been made to the boat but we now have a white mast to stop the corrosion which was setting in. The interior has been completely painted out and at last we have a seaworthy and stable glass fibre dinghy. When there are a few more pennies in the fund it is planned to buy a new and better stove and possibly a Brookes and Gatehouse speed indicator.

Meon Maid is fully booked for all the week-ends up to mid-October but there is plenty of opportunity for mid-week and dog-watch sailing. Anyone keen and interested should contact Lieut.-Cdr. Bryans at *Mercury*, extension 201.

Stop Press: Meon Maid won the Monarch Bowl.

MERCURY CLUB

Changes, changes all the time. Farewell to LRO(T) Kemp, retiring Secretary, and welcome to LRO(G) Parsons, new Secretary. CRS (Nutty) Almond is still Chairman, but the rest of the committee is quite new.

The dances in the Club still continue to draw the fairer sex, and recently we had a return visit from Charlie Galbraith and his Jazzmen, and a very good time was had by all.

The Tuesday night Tombola is well attended and consequently the lines and houses are worth winning. The interval cabaret still manages to draw the customers in.

We are, for a trial period having small groups on Thursdays to replace the Juke Box dances. If sufficient support is given to this project, it will continue.

For anyone who is due in *Mercury* before summer leave, we are trying for another big end of term dance, so don't forget your dancing shoes.

Snooker, Darts, Crib and Uckers competitions are now being organised, so come prepared for some stiff opposition in these "Sports".

SIGNAL SCHOOL MESS

In the last issue we told you of the *Mercury* Ball and I am glad to say that my prediction of success was completely justified, it was enjoyed by all. It is also hoped that this End of Term Dance will be a bigger than usual affair.

It has been a very quiet term, the only real activity being the Sports in which the ship's company narrowly defeated the New Entries in a thrilling finish dependent on the relay event.

With the increased number of ships in commission the number of mess members has decreased but still we have enough to fill the dance floor and make Tombola worth winning. Anyone who is coming to *Mercury* need not now dip into his pocket because the Mess Levy has been disbanded much to the delight of all concerned.

So it's Au Revoir for now; the next issue will be contributed by a yet unnamed President.

PO's PATTER

Since the last issue, we have lost our Mess Secretary, RS Julian who has departed to join the penguins in the south, being replaced by CY Cogger.

May 7th heralded the birth of the Inter-Services Darts League. We already have a rather good team but are always looking for 'Good Dart Arms', so anyone who thinks he qualifies and is joining the Mess in the near future, please contact the Pres. Our best thrower to date is CY Gore who has won six of his seven games. We hold second place having Played 7; Won 5; Lost 2.

Sports Day honours came to us in the 'Tug-o'-War' and Assault Course Run, the time for the latter being 3 mins. 37 secs., not a record, but very well run nevertheless.

RS Ginns and RS Puttick turn out regularly for *Mercury* Cricket XI, RS Puttick is a United Services player. The *Mercury* Cricket League is in two sections, the PO's have now won the 'B' League and will play the winners of the 'A' League.

Now the swimming season has started we are hoping to field a Water Polo side of our usual strength.

As a closing word I would like it known amongst our ex-members, that CND has at last found a seagoing ship large enough to accommodate our well established President, and I hear tell that the Flag Deck of *Victorious* is to be reinforced even though the Pres's not-so-strict diet is having some effect.

CHIEFS' CHATTER

The terms seem to pass very quickly, but in spite of this our events in the mess still continue with

social evenings, end of term dances and the *Mercury* Ball. All very enjoyable. With summer here cricket usually takes one evening a week and Sunday cricket was attempted with the very English, summer weather joining in—a thunderstorm. Thank goodness for Hyden Wood pavilion.

Sports day was blessed with brilliant sunshine and although we didn't participate in the events, the CPO's did good work in the judging field. After the sports the mess, together with their families, was entertained to tea by the wardroom, this was thoroughly enjoyed by all.

Darts are still very popular and our mess team is steadily climbing the command SNCO's league table. It is considered that the mess stands a good chance of winning the league trophy. Table tennis and snooker are also well supported our motto "Put it on at the bar, take if off at the table".

There have been some alterations in the administration:—CRS Gray relieved CRS Petchey, the latter promptly relieved CRS Stray as Vice President, who has left for warmer climes. Of the mess committee all have done excellent work this term but I must mention the sales ability of CRS Sheriff and CPO Skiff in the raffle ticket world.

Hearty congratulations to CRS Lewington on being awarded the B.E.M.

Lastly we are still hoping for some ship's plaques to help in the mess decor, so please help if you can.

IN—CRS McKay, CCY Rust, Monckton, Jones CRE Back, CPO CK(S) Robinson, Richardson, SCPO(S) Kirkup, CH. SHPT Wellman, Bailey.

OUT—CCY's Knight, Buffery, Pearce, Kennedy, Milligan. CRS's Wilcox, Stray, McKay, Wharton. CRS(W) O'Clee, CPO CK(S) Willis, SCPO(S) Warren.

Congratulations to CRS(W) T. Beasley awarded £25 from the Herbert Lott Fund for his modification to the UA3. Well done.

GOING THE ROUNDS IN KRANJI

The winds of change are blowing through Kranji. Lieut.-Cdr. A. V. Salter is the new Officer in Charge, Lieut. Hagger has moved up from the S.T.C. into X.O's chair and Sub.-Lieut. Bunting is now running the S.T.C. The Fixed Service terminals are on the way down to the new Com-Centre in the dockyard, a large number of communication ratings are on draft to *Terror* for duty in the Comcen and the S.T.C. has gone from tropical routine to normal day working plus dog watch instruction. Our spare accommodation will probably be used as "*Terror* overflow" for ratings from ships refitting and we have lost the big house to the Secretary to the CINC Far East Station.

The C.R.R.

At last, after a year of postponement, the changeover of the circuits from Kranji to the Comcen began on the 22nd June. When this appears in print, the new set-up should be well established with all fixed services terminating in the Comcen and all morse circuits and the fixed service receivers remaining at Kranji. Your chances of a draft to the holiday camp atmosphere of Kranji are therefore much smaller than hitherto, as only sixteen out of the original complement of eighty-four ratings will remain in Kranji.

What life will be like in the new era is difficult to forsee, but we hope that it will run much smoother than it has in the past.

We sincerely hope that the small scope of our activities will enable us to concentrate our attention more effectively on the circuits that remain, enabling us to give a superlative service to all of our customers. If you are afloat on this station, please come and visit us in the C.R.R. It keeps us in touch with reality and you will be very welcome. Also if you should be dissatisfied with our service or can think of ways of improving it, please let us know.

The S.T.C.

Typical of a small S.T.C., our training programme is run on a tight schedule always depending on the availability of ships in Singapore to provide the individuals, this we are pleased to say they do enthusiastically. It is questionable whether this enthusiasm stems from a genuine desire of Signal Officers to advance their protégés, or more simply, from the pleasure of getting them out of the ship for a week or two. The fact remains however, they do turn up and we are delighted at having the opportunity to "bend their minds" to our way of thinking; brain-washing techniques have not been introduced yet, but they are worth considering.

Apart from the variety of courses held in the S.T.C., many other training activities also take place. The most popular at present is the weekly Bridge Tactical Exercise, perhaps better described as "The Yeoman's Work-up". The object of the exercise is not to bowl-out the Yeoman, but to assist him in standardising his relationship with the Command; a current problem facing many Yeomen in the Fleet today. Thanks for the success of these exercises may be given to CCY Ryrie who is our resident Fleetwork Instructor, and CCY Surridge of *Hampshire* who doesn't miss an opportunity when *Hampshire* is in.

More recently we introduced the F.E.F. Morse Transmitting Competition—the F.C.O's idea—in which ratings up to the Leading Rate compete each month for a gold pencil. The first competition was held in May and was won by RO3 Kay of *Hampshire* against a field of sixty-one competitors. The gold pencil incidently is purchased locally at "a very special price, sir".

RO3 Kay showing the Far East Morse Transmitting Competition Prize Gold Pencil to his messmates and CRS Hayward in HMS "Hampshire".

The C.P.O's and P.O's Mess

A nice, steady social programme is run for the benefit of members, wives and friends. Wednesday cinema, Saturday dancing or darts and, of course, special evenings for special occasions. CRS's Gardner (President), Forth, Duffin and CCY's McArthur, Ryrie, Milligan and Pollard are prominent members of the mess and will be remembered by many. ("So that's where he is?")

The Kranji Klub

It also has a steady social programme for its members, wives and friends, including television, a juke box, bar billiards, darts and social evenings. It's an excellent club altogether and all communication ratings visiting Singapore are welcome.

We believe that the future of Kranji as a W/T Station and training centre is assured and that it will have an attraction for communicators for many years to come.

Extract

"Regret visit F.C.O. postponed COLLAR certificate invalid during incubation period".

Sport

The swimming pool is as popular as ever, not only with the sailors, but also with the wives and children on make-and-mend days and during the weekends. The O.I.C's one-year-old son is a regular in the shallow end and should be swimming in the deep end before he goes home.

Soccer is as popular as ever during the dog watches and we have a fair number of cricket enthusiasts, who make good use of our nets and play on the Command's cricket pitches in the Naval Base. Tennis is always popular and two courts are in daily use, even if only for a knockabout match. Organised sport will obviously suffer with a reduced complement, but sport of some sort will always be encouraged and the real experts are eligible to play for *Terror* and/or the Command.

DESERT RATT

by Lieut.-Cdr. D. H. Cremer

"I'm off to the desert next week-end and you're coming with me", said the Admiral. This was my introduction to "jointness".

A big, intensive exercise was being planned, and we were to accompany a team of Army and RAF officers to select the most barren site that North Africa had to offer. We rushed around from place to place at top speed. At one point I found myself in a jeep chasing after the plane, which was already taxi-ing towards the runway, doors closed. However, we did our job well and selected a suitably sandy and isolated spot.

The exercise required a Joint Force Headquarters to be set up, the Naval Commander operating ashore with his Army and RAF counterparts. Communications were provided by equipment and aerials flown out from U.K. and set up in the desert; controlled by a Joint Comcen.

The Naval element of the Comcen was provided by the Staff of Flag Officer, Flotillas, Mediterranean, backed up from the Operational Pool at *Mercury*. The two parties had not worked together before, let alone with our colleagues in the other Services, and for most of us this was our first taste of life in a joint Joint.

The Army were first on the scene, putting up tents, aerials and equipment. When we arrived the main task was to fit the men into the jobs which we had agreed in advance, and make sure that each man understood what he had to do. The RAF element, who had been drawn from Stations far and wide ("Defaulters from here to the left pack your bags and go"), had a bigger problem, as the wrong numbers of the different trades turned up. Fortunately, we had a 48-hour shake-down period with the Comcen fully manned before the exercise began. It certainly brought home to us the need to exercise together more frequently.

The Navy provided the Duty Signal Officer of one watch, the Superintendent (Assistant DSO) of another watch, and filled jobs as required for message handling, message distribution and crypto. We also manned a fixed service to Malta and circuits to the Carrier and passed Army and RAF traffic as well, when required. Our special concern was the running of the Joint Message Distribution Centre as the Signal Branches of the other Services have not been responsible for distribution in the past; in fact, they produced clerks for their share of the manning.

We lived, worked, fed and slept in tents. The tents were spread out over a large area and at least two men claimed to have worn out a pair of new boots in three weeks. We washed in the open in cold water; although the weather was hot at mid-day it was far from warm in the mornings and evenings. A hot shower could be had once a day if we were prepared to walk to a tent which was set well apart from the rest of the camp, presumably in case it exploded. Here gallant soldiers stoked, and produced clouds of steam and a good shower, provided the water did not run out before you got to the front of the queue.

Sand was everywhere and when the wind blew it got in our eyes, hair, mouth, food, drink, camp beds and suitcases. We wore number 8's with boots and gaiters, which at first distinguished us from our khaki brethren until the sand reduced us all to the same colour. For the last phase of the exercise we moved to a new site which was less sandy. But it too had its drawbacks, as we found on the second day when it poured buckets of rain. The ground did not absorb the water and soon our tents had rivers sweeping through them. The senior officers, who had pitched their tents on the lowest ground, fared the worst, and some were forced to move house and sleep in the back of three-ton trucks. Operators stood ankle deep in water, gingerly pressing live keys on teleprinters. A strong belief in jointness and a well developed sense of humour were essential to keep going.

Much has been written about the professional achievements and difficulties of the exercise, and this is not the place to pursue them. As sailors we learned that soldiers and airmen are human, and that our differences in working are far less than we had thought. All Communicators have much in common. We also found, after three weeks of living it rough, Army style, that there are, after all, advantages in life at sea.

PRIZE WINNING CARTOON

"I wish to make a parson to parson call".....

EX-R.N. TELEGRAPHISTS 1918 ASSOCIATION

Membership of the Association is restricted to long-service ratings who served in the wireless branch prior to 11th November, 1918. All members, therefore, are now over 60 years of age.

The need for such an Association was felt by those who left the Service in 1922 and by those who felt the effect of the Geddes 'axe' when personnel was reduced in 1923. Of the latter, many were senior ratings who had nearly completed their first period of twelve years service. Some, indeed, had already signed to complete time for pension. Having set their minds on a Naval career, it came as a great shock to them to find these careers terminated at very short notice, particularly at a time when there was a recession in industry. Those were lean years for employment but, fortunately, there were some signs of the coming electronic age and a few of these men found posts in the wireless trade, industry and broadcasting. Chance meetings with other, less fortunate, ex-telegraphists, provided opportunities to help and it was from this small beginning that the Association was formed. The first meetings and efforts to help others were informal, but organised meetings were held in 1926 and it was in November of that year that the first annual general meeting and dinner was held in London.

Bearing in mind the fact that we had served in a small specialist branch, our potential membership was not large. It was not easy to obtain the addresses of those who were eligible and at no time did our membership exceed 250.

We are proud of the early efforts to find jobs for those in need of them and are pleased to be able to record that in the critical years after leaving the Service and, in fact, up to 1939 our Association was successful in maintaining full employment among its members.

Many of our members were recalled for Naval service in 1939 and the annual re-unions were suspended, but committee and other available members attended lunchtime meetings at intervals during the war. Annual re-unions were resumed after the war and the Association still thrives although, naturally, our numbers are slowly decreasing. These annual meetings were held in November until 1962, but since that year, as a concession to age, the date has been advanced to October, when there is less risk of cold and fog.

We are still in touch with more than 100 members and anticipate an annual gathering of not less than 75 in the present year.

We were very sad to learn of the death, in January last, of Lieut. Comdr. P. Carter, R.N., Retd., at the age of 84. He had helped in the formation of the Association and had regularly attended our re-unions. He was one of the first Petty Officer and Warrant Telegraphists. Many of our members received their initial training in wireless under his care and affectionately regarded him as the 'Father' of the wireless branch. In a speech during our last re-union he recalled keeping a wireless watch in 1902.

Mr. C. E. Bottle, who is the author of this short history, was a Founder Member of the Association and served as Hon. Secretary for 30 years. He became our Chairman in 1962, and it is mainly due to his work that the Association still flourishes.

Our next re-union will be held in London on 3rd October, 1964, and we shall be pleased to welcome any visitors who may wish to attend.

Any enquiries regarding this Association will also be welcomed.

GEORGE EAMES, Hon. Sec.
97, Culverley Road, Catford, London, S.E.6.

THE ONE THAT GOT AWAY

by RO1(T) Hignett

The sun was beating down on the bare deck of the boat as she rolled through the swell. Sullenly, Marco glared out over the stern at the tell-tale fins following in the wake. He cursed them viciously and wiped the cold sweat from his brow. It was a Sunday, and the fortune-teller had said it would happen on a Sunday. He could remember the very words she had spoken a few weeks ago at the festival. "You are an evil man, Marco Vetai, and the fish will take you on a Sunday." Marco had given her a beating for her trouble, and had hunted shark relentlessly ever since that day.

Suddenly, the line at the stern went taut. Marco gave a cry of joy as he realised he had caught another of the devils. For the next half hour he played the twisting grey shape, and fought hard to inch the shark closer. Then, almost as suddenly as it had started, it was all over and he hauled it on board and frenziedly clubbed the twitching body with an oar until it was quite still. He took a long knife from his belt and slit the shark's stomach open, and, as the thick blood ran into the scuppers, he noticed a bright object gleaming inside the fish. He groped around with his hand and extracted a locket on a broken chain which he recognised as the one he had lost some weeks before, whilst fishing. When he opened the locket and saw his picture inside, he threw back his head and roared with laughter. The fortune-teller had been right, curse her, as the fish had got him after all—but only as a photograph.

Tears of joy streamed down his cheeks and, bent double, he performed a little jig, slapping his thighs in the process, and cried out, "Thank God, I am free from that witch's curse".

The boat rolled to meet the sea and as Marco reached out for the stay, to steady himself, his foot slid on the warm blood of the shark. He tried desperately to regain his balance, but his back hit the rail and he went backwards into the sparkling sea. He surfaced astern of the boat and watched it moving away from him. Frantically, he turned and his eyes glazed over with fright as he saw the dark fins cutting through the water towards him. Threshing wildly, he started screaming. . . .

PRIZE WINNING FEATURE

MALTA—LOOK TWICE

by ROI G. Burke

Say "Malta" in Naval circles and reactions will generally vary from an account of someone's last good run in the "Gut" through disinterest to complete boredom. Pursue the subject and you may get a grudgingly favourable comment on the bathing or a grumble about the speed of the hard soccer pitches.

Why this general apathy? Possibly because of familiarity. In the same way that nine out of ten Londoners have never visited the Tower of London, the National Gallery and the British Museum so it seems that nine out of ten matelots have never really looked at Malta; yet there is so much to be seen here. The eroding sandstone is literally riddled with history and although history may not be to everyone's taste surely the most disinterested must find something to fire his imagination?

Near Paola is the world famous Hypogeum, a unique underground temple and necropolis cut by flint and stone implements in the living rock about 1,600 B.C. It was successively used as a temple and a burial place.

Also near Paola are the Tarxien Temples. Lizards bask in the sun on the huge stones which were erected about 2,000 B.C. Littered around the site are roughly hewn boulders which were used to roll the main pieces of masonry into place. The worship of the Goddess of Fertility was practiced here. In the first of three temples may be seen the remaining lower half of a large stone monument in the form of an obese woman—Neolithic Man's personification of fertility.

A fourpenny bus ride from Valetta brings you in sight of the walls and bastions of the ancient city of Mdina which date from the times of the Arab occupation. Within these walls later conquerers have left many legacies, such as the Norman House, which is in an excellent state of preservation. It was built in the eleventh century, after the successful Norman invasion led by a gentleman called Roger the Norman.

Rabat lies just beyond the walls of Mdina and before the Arabs built the Mdina fortifications, Rabat and Mdina were one town—the old capital "Melita" which is mentioned in the Acts of the Apostles. The extensive Roman remains in the area include a villa and the catacombs of St. Paul and Abbatija Tad-Dejr.

Mdina cathedral is built over the site occupied by the villa of Publius, the Roman governor at the time of St. Paul's shipwreck on the island in A.D.60.

Valetta was built after the great siege of 1565 and named after Jean Parisot de la Valette, the Grand Master who was responsible for the Christian victory over the Infidels.

PRIZE WINNING CARTOON

"Well, what's it to be, Sparks? Instruction or Destruction?"

Disraeli described the city as:

"The city of palaces built by gentlemen for gentlemen".

Obviously the Tourist Board of the time did not take him "down the 'Gut' "—or maybe the 'Gut' was not there in those days; I'll have to ask the Chief.

If you are more energetically inclined and like skin-diving you could go and find your own history for the sea-bed around Malta has yielded many historical treasures. Finds of coins and pottery are comparatively commonplace.

With the moving of the shore-based victualled members from *Phoenicia* to *St. Angelo* comes a golden opportunity for the less energetic who do not like skin-diving to study a little history first hand.

The present fort St. Angelo stands on the site where the Arabs are believed to have built a castle in the 7th or 8th century. Roger the Norman (that man again), when he captured Malta from the Saracens in 1090, rebuilt and added to the fortifications. He also built the small chapel which is very well preserved.

Between the watchkeepers' messes and the dining hall there is a small cemetery which covers the

remains of those who fell defending the fort during the Turkish siege in 1565 and also buried there are some of the victims of the Plague which struck the island in 1676.

Strategically placed between the dining hall and the M.A.A's office is the Oubliette. Entrance to this underground prison is gained through a trap-door. It is not known whether this hole in the ground was really a prison, a death hold or just a dungeon. There has so far been no trace of human remains and it is therefore presumed to have been just a temporary prison. Scratched on the walls are various messages in Latin, French, German and Italian, some of which date back as far as the 16th century.

In the 16th-18th centuries the fort was the head-quarters of the religious order of the Knights of Malta who further added to the existing fortifications.

The "Knights of Pusser" did not move in until the comparatively late date of 1904, and the ruins of the NAAFI bar which they built quite recently may still be seen on a clear day.

So next time you visit Malta, look twice. You may find something to interest you. You may even find the NAAFI bar.

HOW TO PASS A DRIVING TEST OR WHAT THE "L"

I arrived at the Ministry of Transport Office at 9 a.m., too late for breakfast and too early for morning coffee. I introduced myself and the examiner shook my hand. He left the office and walked into the street. Just before reaching the car, he stopped and asked me to read the number plate of a car parked at the corner of the road. I told him I couldn't even see the car and he said "Never mind", anyway—I was keen.

I signalled "Stand by for take off" and pulled out from the kerb narrowly missing a cyclist who promptly gave me a signal which to this day I can find nowhere in the Highway Code. The examiner said "Turn left" so I mounted the pavement, went through a front garden and out on to the main road.

Along this road were trolly bus wires, and it was while I was gazing at these that I hit my first pedestrian. I glanced at the examiner out of the corner of my eye, hit a milk float and returned to the left-hand side of the road, discreetly using the wiper to remove the milk from the windscreen.

We turned left (this time keeping to the road) and started up a steep hill, halfway up I had to change down to first gear, and luckily found it at the fourth attempt. The traffic lights at the top of the hill were at amber, and as I did not know what amber meant, I drove straight on. . . .

Changing up into top gear, I messed up a perfect change by finishing with the gear lever up the trouser leg of the examiner. I did not notice this at first—but the next time nearly threw him out of the window.

My next turn, was a right, and in signalling my intention, I collected the trafficator of a passing car; this proved useful later as I had lost my own during the encounter with the milk float. We stopped and the examiner told me that I would be required to make an emergency stop during the test (I thought he must be joking). He said he would indicate this by saying stop and slapping the dashboard with a book.

He then told me to pass the next turning on the left, and reverse into it. I passed the road and stopped—after waggling the gear lever about several times, starting the windscreen wiper and turning on the radio, I managed to put it into reverse gear.

The corner was very tricky, so I closed my eyes and put my feet down en route (backwards) down the side road and hit three lamp posts, a pillar box and narrowly missed a cat.

When we got going again the examiner decided to try an emergency stop. The fool did not give me a warning—yelled "STOP" . . . and at the same time hit the dashboard with his book; he nearly frightened me to death.

After getting over the initial shock, I trod hard on the brake. The examiner shot through the windscreen and landed on the bonnet with a silly grin on his face. Luckily he was wearing a crash helmet—which he had exchanged for his cap on the run round.

On getting out of the car the examiner had no hesitation in handing me the pass form. I was mildly surprised for I felt that I had not quite reached my usual standard. He saw my questioning glance, frowned and said: "Normally I would not pass anyone driving like you, but I can't face the possibility of having to take you for a re-test".

SIGNALS CELIBATES

This is the second article of three written by a member of the Long Course twenty years ago, reprinted by kind permission of "PUNCH".

We are still at Basegram Hall, in fact we have been there for a period of twelve buzzer exercises and some of us know a "tiddly pudding" when we hear one. Our Course is even beginning to look like a conglomeration of Signals Officers.

The point about Signals Officers is that, in company with Gunnery Officers, Navigation Officers and Executive Officers, they consider themselves the cream of the Service. But whereas with the others you can identify them from handy booklets, price threepence, you need special knowledge to pick out a Signals Officer.

There are small points to be observed—the top left-hand button is left undone, the white handkerchief shows brazenly from the breast-pocket, and the hair is worn long. But the real, the infallible sign, is the Signal Officer's waistcoat. For hours, weeks, days this may lurk modestly beneath the monkey jacket, until suddenly the coat is thrust open and there, like a primrose, is the waistcoat—trim, brass-buttoned, the ultimate sign.

No one in our Course, not even Lieutenant Flake, has dared to buy a waistcoat yet, but we watch our instructors enviously and wait the day.

Tone, you see, is the watchword of the Signals Officer, and we are fortunate in having a fitting abode in Basegram Hall. There can be little wrong with a Course of Officers who receive instruction in a room marked "WALNUT SUITE" in black painted letters on the door, even if the naval authorities try to call it 8AB.

Unfortunately this relic of past splendour has created internal problems. Lieutenant Flake, whose cabin is called "The Tassel Room", is all right. But what of Lieutenant Copping? He inhabits the Third Footman's Bedroom, and it has produced a distinctly Socialistic outlook.

This outlook did not immediately show itself. It ate unobtrusively into Lieutenant Copping's soul until one day he came upon an advertisement for a College of Telegraphy in an official manual. Prior to this he had done nothing more radical than pin up a cutting entitled "Methods of Communication. No. 1. Message in Bottle" on the wardroom notice-board, but the College of Telegraphy really fired his imagination and he gave much thought to it during lectures. In the most thrilling moment of "World Cable Systems" he could be seen thinking how the principal of the Minerva College had first established Morse communication between the branch in Acton and the main college at Clerkenwell.

Most of the Course, let it be understood, think of happier days during lectures. Our front row knew all the answers before they ever came to Basegram Hall, and the back row do not care if they

do not know them when they leave. It has made things very difficult for Lieutenant Lumping, our instructor.

"Flake", he says, "explain how you would split a converging di-pole?"

Silence.

"Lanyard?"

Deeper silence.

"Crimp?"

Sub-Lieutenant Crimp has a cheerful approach.

"I've absolutely no idea whatever, sir", he says with admirable frankness.

Lieutenant Lumping then comes to Windy Corner, which he always takes at speed—"Playfair? Widgeon? Copping?"—and arrives with relief at the front row. None of the three members of Windy Corner has ever been known to answer a question, with the exception of Lieutenant Copping, who once remembered the number of henrys in a milli henry and was immediately kicked by Lieutenant Widgeon and nudged by Lieutenant Playfair so that he bore the bruises for a week.

Any danger of ever answering another question, however was at once removed upon Lieutenant Copping's discovery of the Minerva College of Telegraphy. He dreamed, instead, of how in a modest mansion in Streatham he would start in his own college. He even appointed a staff: Lieutenant Lanyard (Headmaster), Sub-Lieutenant Crimp (Games) and Lieutenant Playfair (Visiting Staff, Music).

But the main point about Copping College, the cornerstone on which it would be founded, was that everyone connected with it would be thoroughly common. The great thing, Lieutenant Copping said, was for the world to be able to point to a Copping College man and say, "There goes the sweepings of Whitechapel".

Thus it was with great delight that Lieutenant Copping discovered the teleprinter room. In times of peace the teleprinter was a respectable instrument, adorning bookmakers' offices and printing nothing more offensive than "Gay Girty walks it in the three-thirty". Now, however, a strange and barbaric language has crept on the paper and the operators hurl guttural syllables, reeking with false sentiments, at each other.

R Uther? they say.

G.M.O.G. Ere I am

Can u take for Plip, pse?

Tic. Sorry, O.G. Plop take for Plip.

Plop is O.O.O., O.G.

This seemed admirable to Lieutenant Copping, and he adopted it for his college. In fact, being a man who never did things by halves, he startled the Mess on Guest-night by saying. "Ave u the salt, pse? Tks." So much so, that Lieutenant Flake was thoroughly upset and told Lieutenant Copping he was letting the Course down. Asking for the salt like that, Lieutenant Flake said, was not the way to win the war.

Lieutenant Copping said nothing at the time, but everything comes to the patient man. Next morning at Morse practice it was Lieutenant Flake's fate to have to make him urgent cries for help. For some moments Lieutenant Copping considered and then laboriously hammered out his reply.

As a matter of fact few could read it, but an expert declared that it ran:

"Ave u no waterwings IMI ave u no waterwankles. Tiddly pudding. G.M.O.M. Calling-up sign".

At any rate, Petty Officer Postagram thought it was funny. And he has been in the Navy for fifteen years.

"I don't care what your mother lets you do, you're not having it in here!"

SHIP—SHORE NEWS

HMS AJAX

Ajax is at the moment Gan Guard Ship. As we are working tropical routine and the swimming and sunbathing facilities are magnificent, the sparkers are beginning to look like suntan lotion advertisements.

Fishing is also on the magnificent scale here, anything under a pound in weight is only good enough for bait. One night during our stay here it's on record that fish were being pulled in hand-over-fist using bare hooks. Barracuda incidentally makes very good eating.

Apart from Gan our overseas experience is limited, excepting of course for sea time which we have had in abundance. During one leg of our passage here we sighted no other ship or land for six days!

With the aid of the Naafi and the "never never", most of the staff have blossomed out with some very fine looking pieces of photographic equipment. There will most certainly be a twinkle in the eye of the Customs officer who sees this lot.

A fair amount of commercial work has come our way due to our picking up two salvage jobs very early in life. The first involved towing the Spanish ship *Lusannes* to Cherbourg only two days after we had commissioned.

Then during our Part III at Portsmouth we went to the aid of the Swedish ship *Solkint* which had been involved in a collision in the Channel in thick fog. We escorted her to Cherbourg also.

Those are the bare facts of the matter of course; below in the MCO it was very much a case of "It's all happening". The younger members of the staff learned a great deal during these two incidents. (Older ones as well, if the truth be known).

We were also involved in a SAR operation with *London* and others. Unfortunately no trace was found of the aircraft in question.

Having a helicopter onboard we have to live with the unusual pipes, for a frigate, of "Flying Stations" and "Fuel Danger", though as far as communications are concerned no real problem has arisen.

CY Baker made a very impressive King Neptune during our crossing the line ceremony, he looked just right in the part. He also made a lovely splash when he went in, that's what comes of being well built.

HMS BRIGHTON

by RO1(G) A. J. Smith

After commissioning on 9th January this year, we got off to a good start at Portland, doing our workup. This was rather hectic, but ended up with a good weekend in Pompey.

From there we steamed off to Beatle land for a short visit—a weekend enjoyed by all.

Exercises were to come next, working from Londonderry; but due to a simple word "Gun" we headed back to Chatham. Leave was given to each watch and we all returned after saying our goodbyes ready to sail for the Med. But this wasn't so, a couple of weeks later we were on leave again. Once more saying "Goodbye, see you next year." Yet we are still here in Chatham Dockyard. The other three ships of the 30th Escort Squadron sailed on 11th May. Today's date 17th June, so we are doing rather well up to now.

Hoping we will be able to furnish a more interesting article in the next edition, when we may have accomplished something during our commission.

H.M. YACHT BRITANNIA

by RO1(G) K. Lee

"Ugh, Yachties", I cannot remember the number of times I have heard matelots come out with that or other similar comments. How many of you have any real grounds for looking down upon us? In fact how many of you really know what it is like onboard *Britannia*?

Let us see what a Yachtsman's life is really like. A lot of matelots are frightened by the word "Bull", and many seem to think that we have more than a fair share of it. This, surprising though it may seem to you, is not the case. A lot of ceremony goes on around us, what with the local dignitaries preparing themselves and their subordinates to meet whichever member of the Royal Family we have onboard at the time. But this panic (as it often seems to be) seldom affects us. All but the gangway staff remain below until the welcome speeches are over, and then we may proceed ashore as normal. Even divisions are not considered necessary, but this is probably due to the fact that we have never any excuse for being untidily dressed as we are issued with the main items of uniform when we join the Yacht, including a Number One suit, and we have excellent laundry facilities. The only time we do fall in fully booted and spurred is when we "man ship". For entering and leaving harbour we usually wear the dress of the day, whatever it may be at the time.

Another interpretation of the word "Bull" is someone barking orders at you all the time. That is something else we have learned to forget about. We don't even have a tannoy system, and as far as senior rates go, they give each one of us a job and leave us to get on with it. In fact the whole system of the Yacht revolves around the word "Silence". Even when entering and leaving harbour all orders are passed either by telephone or by sign. (The infamous two-finger sign is not included!)

Having dispensed with "Bull"—the question of "weirdy" uniforms arises. So, we do have a bow on

our backsides, and the jumper is worn inside the trousers, but if the uniform doesn't meet your taste you can always go ashore in civvies, at least in the U.K. ports. When the Standard is flying we wear our uniforms wherever we are, but that is understandable.

Another point about dress is the fact we don't wear number eights. After a while one becomes used to working in blue suits, and for really dirty jobs, such as storing ship, one is permitted to wear overalls. Gym shoes are worn in lieu of shoes, and socks are usually optional. Our tropical clothing is the same as the General Service suit.

Also in the Yacht's favour are the good runs ashore. During the last trip we visited Tahiti and Fiji plus just about every island in the West Indies. The next trip to Scotland and Iceland isn't particularly exciting, but then in September we are away once again to Canada, Mexico, Panama, and the West Indies for the second time this year. In addition, for the married man, it is the perfect draft because you have plenty of time in Portsmouth.

There are many points to take into consideration when one is speaking of the Yacht, most of them good, but some that are not so good. I have pointed out a few of the good things about the draft, but I'd be unfair not to point out some of the bad. Firstly, when away from the U.K. we are constantly watchkeeping. We normally use Naval Communication channels but we do have quite a considerable amount of commercial working too. The sparkers are expected to be competent commercial operators as "five ton" is one of our principal circuits.

Another rather frustrating occasion which is often occurring is when Rad-Fone organisation comes into force. The radio telephone does take priority, and though you may be manning any other circuit, if the telephone transmissions cut you out (as they invariably do), you just have to grin and bear it and start preparing a signal asking for repetitions. When this happens the language becomes anything but fit for Royal ears.

So in future, before you say "Ugh, Yachties", why not stop and think, and do something about becoming a Yachtie yourself, it's worth it, and at times, when you are off watch, it's almost a holiday.

FLEET SCHOOL, COMMUNICATIONS DIVISION, H.M.C.S. CORNWALLIS

by P2RM3 R. D. Yerrell

The above imposing title notwithstanding we are still "The Comm. School" to all Communicators training on all Trade Group levels in the Radioman and Signalman branches.

We are a part of HMCS *Cornwallis* which is the New Entry training establishment for the RCN, so this is rather like having *Mercury* within the confines of *Ganges*.

Geographically we are in the western half of the Province of Nova Scotia about 135 miles from the east coast Port Division which is Halifax. Because of this we very rarely see Communicators of other nations here, although recently four "sparkers" from RN submarines, based in Halifax, were taking Fleet examinations.

The RCN has a slightly different rate and trade structure to the RN, there being two grades of Chief and Petty Officers. There are four Trade Group levels, an approximation being that, Ordinary Seamen are TG1, Able Seaman TG2, Leading Seamen and Petty Officers Second Class TG3 and Chief Petty Officers TG4. This leads to a lengthy "handle" like P1RM4 but everyone still calls him "Pots".

Reading THE COMMUNICATOR I see that the Royal Navy is just bringing in the "Housekeeping" concept which is an idea we have enjoyed for several years.

I also note that the RN has turned to a composite Communicator policy, and no doubt many RCN Communicators will watch with interest as this system was tried some years ago here. CR's (Communicator Radio) and CV (Communicator Visual) were merged to form a CM rate (Communicator) but after some years this was reverted but using new trade rates of RM and SG. So you see we still have SIGNALMEN but the "buzz" is out they may be distributed between the Radar

"Blimey, Fred! We're on a ship!"

Plot and Boatswain branches. Most Yeomen claim this is a dirty rumour started by the Radiomen.

A visit by *Adamant* to Halifax on the week-end of 9-10th May was a good excuse for yours truly to meet RS Keeler and RS Barber and quaff some pints of (long time no see) Whitbreads. Because of the distance involved I was unable to show them the Comm. School but did give them a tour of the Naval Radio Station at Albro Lake (CFH).

HMS CORUNNA

We commissioned at Rosyth on the 26th January, 1964 for service with the 21st Escort Squadron doing a General Service Commission at Home and in the Far East. Unfortunately, everything did not go according to plan, and the ship was detained at Rosyth for a considerable while.

However, we finally moved and after many trials (and tribulations), arrived at Portland to commence the work up at the beginning of April. The work up itself went surprisingly smoothly and, although it would not be truthful to say that everyone enjoyed themselves, at least it was not nearly so bad as we had feared. Our final conclusions regarding Portland are that although it is a dreadful sweat, there is no doubt that considerable benefit is gained by everyone in the department and we can continue the commission in the knowledge that we should be able to face any future fleet exercise with confidence.

On completion of the work up, the ship sailed for Devonport where we were to stay for a month before proceeding on the foreign leg of our G.S.C. Once again, however, luck was against us and we have learned that our sailing will be slightly delayed again. Still, by the appearance of the staff each morning, it would appear that the change of air and brewer seems to suit everyone.

S.T.C. DEVONPORT

Since the last issue we have had many RNR's through our hands. Some seem to like it more than others and leave us saying that they are going to join up. We haven't seen them since!

RN Junior rates arriving here for courses and refreshers seem to be overawed at first by the standard of knowledge required, but then settle down and most pass their examinations.

In the not too distant future we will be moving into *Drake*. The Regulating Chief will then not have to listen to any more highly original (and unoriginal) excuses as to "why I missed the bus".

You may remember the "Hydrographic Goat" (Easter edition 1963). Alas he is no more. He died, dejected and frustrated. It took a killick and three to relieve him of his grass cutting activities and they are not so efficient, but smell sweeter.

Finally, a choice morsel from one of our Intensive Training Classes. The Instructor was quizzing them on single and emergency meanings. One was asked the meaning of Romeo singly. He gave the correct answer. Another was asked the meaning of Emergency Romeo. His reply: "*I'm coming alongside at the rush.*"

HMS DEVONSHIRE

This will be the last contribution from the communicators of *Devonshire's* first commission, as the second third of the staff is due to change around in September. Although we have lost our S.C.O., Lt.-Cdr. Sergeant, and two CRS's, CRS Holmes and CRS(W) Strangeway, we still have CCY Chandler to handle our divisional problems. Another recent loss to the communicators was that of our Captain, Captain P. N. Howes, D.S.C., R.N., who is soon to be a Rear Admiral and who left us at St. Thomas in the U.S. Virgin Isles to take up his new appointment as the Flag Officer Middle East. Whilst we miss all those who have so recently left the ship, we extend a hearty welcome to those who have replaced them, especially our new S.C.O. Lt.-Cdr. Whitehead; also CRS Ireland and CRS(W) Sanders, who were ex-county class before joining us.

During the first commission of *Devonshire* which started in November 1962, her major function was to test to the utmost, and beyond, her new style machinery. This could only be achieved by steaming thousand of miles through rough seas and calm, warm and cold, and deliberately seeking those conditions which would enable a new generation of warships to proceed in all weathers with confidence. From time to time it was advantageous to show the flag in maritime centres throughout the North Atlantic and the Med.; not only for the relaxation of the Ship's Company but first and foremost to show our friends and allies what Britain was doing in the way of maintaining her Naval power.

In two years *Devonshire* has visited Gibraltar, Malta and Barcelona (with FOF MED. embarked). Then south into the Gulf of Sidra and along the North African coast. Then westward to Bermuda which is one of the loveliest islands in the world, and on to Philadelphia and Pennsylvania. In the latter city we assisted in the promotion of British Trade interest in the U.S.A. and in addition the officers and men were granted the great honour of the Freedom of the City, being the first British Military Force to march with bayonets fixed through the streets since the War of Independence. Our next call was to Washington, the immense capital of an immense country. South now to Norfolk, Virginia and on round the teeth of hurricane "Ginny" to the tropical islands of the Caribbean, Curacao, Dominica, Bequia, St. Vincent, Puerto Rico, Barbados, Trinidad, Carriacou and Tobago. It was good to return to England in time for Christmas and to prepare ourselves for Exercise PHOENIX, to be followed a few weeks later by MAGIC LANTERN, when we had the honour of wearing the flag of the Commander-in-Chief Home Fleet (CINCEASTLANT) and the privilege of leading the NATO force of ships from Britain, France, Canada and the Netherlands into Lisbon for the washup and dispersal.

This spring we once again visited our "islands

in the sun" and during our stay demonstrated to our American allies, with devastating accurate results our missile armament. This was followed by a period at the U.S. Naval Base, Chaguaramas, Trinidad, where the ship's company made full use of the facilities for good old American games. Quite a few found that doing Limbo was not as easy as the dusky maidens made it appear to be.

Whilst at Chaguaramas again the versatility of this type of ship was demonstrated—From being at 47 hours notice for sea with machinery in various states of being stripped down, we were underway, steaming at 25 knots, within 7 hours, when our assistance was required in British Guiana. Our helicopter was transferred ashore to our friends, The Devon and Dorset Regiment, to assist the Military Command in maintaining law and order.

"Negat on the foc'sle". HMS "Devonshire" with a foul anchor at St. Vincent, B.W.I.

HMS DIDO

by RO2's Harris/Pairman/Gill

At the time of our last contribution we had just left "Haggis" land and were going south to Liverpool to renew our association with the town of Bolton. Our stay there was very enjoyable and well worth saving a few pennies for. The highlight of the visit was a civic reception for the ship's company in Bolton. For us though, the highlight was a dance organised by "Mecca Dancing", given that same evening. A count of hands revealed that over 500 young ladies (and I do mean young ladies) were in attendance. The budding young romeos from *Dido* numbered only 50. As our boys were in such great demand an extension of leave was granted so that no young lady would feel left out.

Sporting wise the department is rather lax, but we can boast the only unbeaten football team in the inter-mess competition.

Since commissioning we have lost two of our original leading hands, LRO(W) Brownson to *Mercury* for the double anchors and LRO(G) Rudd.

At present we are residing in Singapore Dockyard. Our passage out was uneventful except that some excitement did occur in Port Said. When we were preparing to leave and join the southbound convoy we found that a merchantman's anchor cable had been fraternizing with ours and had got married. To avoid a nasty collision we had to break it loose and leave it for the local authorities to recover. Aden was the next port of call which as usual was hot and sticky. Still the traders did well, as the many tape recorders and new cameras to be seen onboard, clearly show.

Our next stop was the island of Gan where we stayed for two weeks. A current RAF recruiting advertisement describes Gan as a tropical paradise, and they would be quite correct, except for the fact that the female population of the island is one.

The communicating side onboard has gone well except for our temperamental Type 12 teleprinters, so on several occasions one of Britains most modern frigates has had to revert to reading "ye olde type steame morse broadcast". During various exercises it has been necessary to go into 2 watches and the (W) bodies (don't switch the lights on please) have been promised more—if they are good.

Although our future programme looks bleak on paper we have a visit to Subic Bay to look forward to and several maintenance periods in Singapore. Our Longcast is hazy at the moment but there are hints of some good times to come later on in the year.

Following received from *Salisbury* when our Wasp helicopter was "buzzing" it, recently off Malta.

"If your insect comes near me again, I will swat it."

HMS/HMAS DUCHESS

by CCY E. A. Crouch

It would be fatuous to head this contribution "24th Escort Squadron". Over this period, the only time we have seen the rest of the Squadron was when they were alongside a neighbouring wall in Singapore Dockyard. The Squadron is still being administered from aboard, and administration will continue to be exercised by Captain Bitmead, from a shore office in Singapore, until *Ajax* arrives on the Far East Station.

Long before *Duchess* left the face-lifting salon under the big cranes, it was obvious that her arrival in Australia was going to be an Occasion. The Australians were anxious to show their appreciation of being freely loaned a destroyer for an indefinite period, to replace the ill-fated *Voyager*, and we "Pommies" were equally keen to ensure that the said destroyer was the best possible envoy of the Royal Navy's goodwill. Three weeks were spent adjusting stores, completing outstanding A & A's, remedying the run-of-the-mill scars of service and buffing-up the appearance of the ship to a state equalling the day when she was the apple of Thorneycroft's eye. Not that *Duchess* has ever been less than sparkling, but on this occasion the elbow-grease was larded with hexachlorophene and "WM7".

Departure from Singapore was a noisy affair. The Royal Marine Band added "Waltzing Matilda" to its Divisions repertoire of nautical airs, and competed with the ship's loudspeakers strident version of "Tie me kangaroo down, Sport". Both were drowned by a thousand Chinese crackers exploding as the Jack came down and the paying-off pennant went up.

A week later we were being greeted at Darwin by a guardboat manned by specially trained WRANS. The message had not said what they were specially trained for, but they handled their boat well. The next visitors were a horde of Customs Officers, also specially trained to finish their commitments before relaxing over noontime hospitality. They quickly relaxed; one was heard to say, "I declare thish a beaut custom" before collapsing in a corner. During the evening, the Communicators worked an exchange scheme with Coonawara W/T, and were not exactly dewy-eyed for the dawn sailing. A few days later, a short stop at Townsville, after a harassing transit of the Great Barrier Reef in blinding rain, and then on to Sydney. The rain followed.

Despite the weather, a fair section of Sydney's population turned out to greet us. Yachts, motor boats and family runabouts escorted us up harbour, and Manly Ferries gave a root-de-toot as they passed. Crowds of sightseers were gathered under the approaches at each end of "the bridge", and a R.A.N. bluejacket band at the quay refused to be rained off. The official speeches of welcome,however, were made in the Wardroom, but a short break in the rain was siezed on by our enterprising "Voyager Fund Raiser", CPOM(E) Ellis, who had a stall on the quay in a flash selling the entire canteen store of "*Duchess*" souvenirs at grossly inflated charity prices before the rains came once more.

Then came six days of Sydney hospitality with the ship manned only by a glum duty watch. Sydney is all things to all sailors. Most of the crew soon learned that the bars in King's Cross serve breakfast, while others were in the outback enjoying life on sheep stations at places like Tumba-ruddy-rumba, where they hunted kanga-ruddy-roos. Nobody actually shot one. You need to be a sheep farmer before considering such a soft-eyed creature could be pestilential enough to merit swift execution.

During the stay at Sydney, the Queen's Birthday was celebrated. This called for dress-overall, and a large section of the Tactical Staff were in landrovers careering across sheep stations around Wagga Wagga, drilling next year's sea jerseys into Formation Five. The combined branch working, carefully nurtured in *Duchess*, proved its usefulness

on this auspicious occasion. CRS Banwell, i/c dress ship, is probably the only one of his clan to smile indulgently about whip aerials bent by the ancient order of communications. How combined can you get?

So to Melbourne, the final destination. Here *Duchess* formally becomes HMAS *Duchess*, and will be refitting to suit Australian conditions. So eager are the dockyard mateys in Williamstown that they were in the wireless office removing equipment before we closed down broadcast, but the lads were not tardy in "switching off" completely, with the thoughts of homegoing in a few days time uppermost in their minds.

Flash: A knock at the door heralds an RO(G) who wants the CRS. I ask if I can be of assistance. "I don't think so, Chief, it's about Colours in the morning".

Combined? Have you ever felt really redundant?

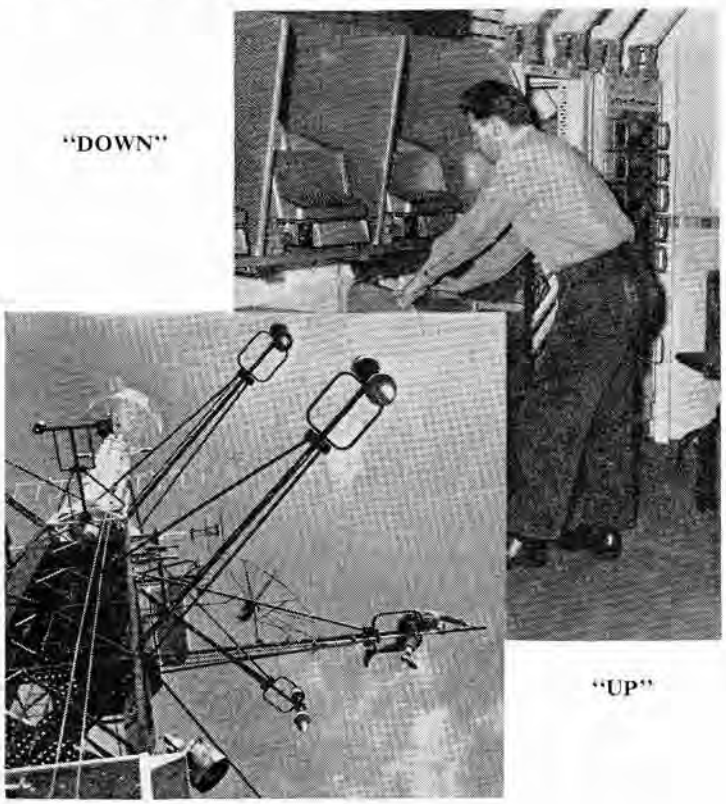
HMS EAGLE

by CRS Fleming

At last, *Eagle* has re-commissioned. After many weeks of preparation we suddenly awoke to the fact that we were actually destined to go to sea, and that Devonport Dockyard would lose one of its landmarks. From the very start *Eagle* was out to prove that she intended to give a "new look" to the many hands that joined only a few hours before the actual ceremony of commissioning. Instead of the formal Divisions, associated with "do's" of this kind, it was replaced by an informal affair with the Ship's Company and their wives comfortably seated in the upper hangar, while the service was conducted by the Ship's Chaplains.

On completion of the ceremony, families were invited to view the various displays, amongst which the Communication Division was represented. The theme of our display was "Eagle Spans the World", though at the time, we said it with our fingers hopefully crossed. I say "at the time" as up to a few days before the actual commissioning, the Communicators of *Eagle* had only been able to gaze at ICS from a distance, while the ASWE "boffins" had carried out their many "setting to work" routines.

Would we in fact "Span the World?", and would ICS prove that it was part of the answer to the Communicators prayer? To the senior rates who were to work this equipment, it seemed a maze of switches, green lights, amber lights, red lights, rejection filters, TDA's, WBA's, and strange



"DOWN"

"UP"

sounding names like synthesizers, tone keying and intermodulation products. Shortly all this was to fall into a pattern.

The PCT held in *Mercury* was very limited, as most of the units were dry, and could only help in giving some idea of what to expect in the Communication Control Room (not Central Communication Room as quoted in the last edition of THE COMMUNICATOR). To this end the *Mercury* PCT was a great success, and the *Eagle* Communicators would like to thank "T" section for their invaluable assistance in helping us to get ICS going.

The word at last came that ASWE had given us the go ahead. This was it, we could at last put into practice what we had gone over time and time again in theory. The dials were set, the maze of switches put to their correct operating positions, and *Eagle* was on the AIR.

To our amazement we found that it was not so difficult, as long as one remembers to subtract or add the correct frequency offset. The whole operation although more complex, is easier and quicker than tuning, say, a 605.

The results we have obtained during our two weeks sea trials have been very encouraging and we think that given time to iron out the teething troubles which invariably occur, we have the making of a first-class communication system.

If you are within easy reach of *Eagle*, we will be most pleased to show you around ICS, and let you see some of the problems for yourself. Please ask through official channels though as space is very limited.

"Three Leading Hands, at a very early age, have acquired their own commands. They can be seen at any time the ship is at anchor, driving round the harbour cox'ing a 42-ft. motor launch".

LIBERTY, EQUALITY AND FRATERNITY

Hey Diddle Diddle three men in a launch
Ne'er have three men been so brave or so staunch,
For Sparkers and Buntings were crewing this craft
While all of the seamen just stood back and laughed.

They stood back and laughed as we took the boat in
But when we came back no-one tried to grin,
For the seaman instructor, a Killick he be,
Joined up our launch with an old M.F.V.

The guard rail, all shiny, is twisted and bent,
'Cause our launch to a seaman the Comms. Branch had lent.
At last we can say that seamen are we
But it's only in Harbour, we daren't take it to sea.

JONAH.

VISIT TO GREECE

from HMS Falcon
by WRO S. Davies

After poring over the atlas for several weeks we decided that Greece would be an unusual country to visit. We were lucky enough to acquire two seats in a Sea Heron which was making a duty flight to Athens on the day we were due to begin our leave, thus cutting out three days of travel overland.

There was little to see during our three-hour flight until we flew over the southern part of Greece and circled in, over glorious beaches, to land. After leaving the aircraft we caught the airport bus into the teeming metropolis with the ancient monument of the Parthenon on the Acropolis towering above. We spent four sweltering days in the city exploring. We climbed up the Acropolis and marvelled at the preservation of the temples and their beauty. We also saw the tomb of the unknown warrior guarded by two sentries who marched up and down for our benefit.

Our next stop was Delphi, a tiny village clinging to the side of a mountain with a valley carpeted in olive groves stretching below down to the sea. The ancient ruins commanded a marvellous panorama and we spent an afternoon exploring them. From Delphi we travelled on to Olympia stopping at Patras overnight. Olympia is in the southern part of Greece, a small village in a very fertile part of the country. The original Olympic Games started from here and there was a band of reporters from Tokyo inspecting the place where the Olympic torch is lit before starting its journey to the 1964 Games. Another item of interest here was the museum of very fine Greek sculpture and in particular the famous statue of Hermes of Praxiteles.

From Olympia we travelled on to Corinth, but found the ruins there less spectacular and soon departed for Athens again.

Our journey home took two days starting with a pleasant voyage from Piraeus, through the Corinth Canal to Brindisi on the East coast of Italy, and on to Naples by train; from there we went south to Catania in Sicily and flew from Catania to Malta. We both agreed that a very pleasant and eventful holiday had been spent and we found the Greek people very kind and helpful and their country is well worth a visit.

HMS LOCH FADA

by LRO(G) P. Turton

Since the Easter edition of THE COMMUNICATOR was published, much has happened, but I will attempt to summarise on the more virtuous aspects. For a start we lost our Irish contingent when RO1 Madden was drafted (medically) off the station. He left just in time to miss JET, that notorious exercise about which so many unkind things are said. It proved to be quite successful communication-wise despite having been our first major commitment since sailing south from Hong Kong, where we had commissioned.

After JET many bets were lost through thinking that Borneo was next on the agenda, but in fact the most unusual thing occurred, we found ourselves heading westward for a brief stop at Gan Island and then on to Mombasa. The forecast was for a six-day visit, but for operational reasons it turned into six weeks. With that much time at hand the most was made of such places as the Tsavo and Kwali game reserves, Silversands rest camp and many pleasant Sunday trips up the coast to swim from palm fringed beaches. We were never lost for evening entertainment either, with such juicy traps as the Florida, Rainbow and Casablanca, where many memorable evenings were spent. Sport was reasonably successful, with rugby and football matches against visiting merchant ships, the Mombasa Sports Club and other local institutes.

However, all was not play, for in the middle of this good life we were ordered to northern Kenya on a two-day operation, which involved rescuing sixty-odd policeman and their trucks, which had been cut off by flood waters whilst chasing 'Shifta' tribesmen, those nomadic Somalis whose favourite pastime is crossing the border and plundering villages. After this successful deed was accomplished and with *Fada's* name firmly established in large print on many a local newspaper, we settled once again at our buoy.

At last we left our haven and set forth for Aden to spend two days before coming up to the Persian Gulf furnace, from where this report is being made. We all hope to be returning eastward again, for although we like bananas and coconuts, we all swear by a good plate of Nasi Goreng.

HMS GALATEA

by LRO(G) D. J. Whitcher

Galatea is a Leander class frigate built by Swan Hunter and Wigham Richardson at Wallsend-on-Tyne. We commissioned on Saturday, 25th April '64. The commissioning ceremony went very smoothly, with many relations and friends witnessing the service. Our Commanding Officer is Captain R. F. Plugge, D.S.C., R.N., who is also Captain (D) 27th E.S.

Our first spell of sea time commenced on 27th April for our final acceptance trials, thence on to our base port of Portsmouth. No sooner had we arrived than the ASWE and Dockyard personnel swarmed aboard to carry out their very complex testing and tuning programme. As yet we are not allowed to touch any of the I.C.S. equipment, consequently our practical knowledge concerning this gear is very limited. However, I am sure by the time our work up is completed we will be competent and able to work anyone anywhere.

by courtesy of Rank Film Distributors Ltd.

"He's no ass!"

Miss JANETTE SCOTT

We have a comms staff of thirty-two and surprisingly enough everyone is employed to the fullest extent. A special mention must be made at this stage concerning the MSO in which LRO(T) Ginger Hart has put in many long and arduous hours to compile the logs, etc., and make the system run efficiently.

Certain members of the staff have thoroughly enjoyed the fortnightly trips to the *Mercury* Club, to partake in the dances and escort some of the excellent female company. It will be sad to say goodbye to the good runs ashore, when we finally get down to the task of being Leader.

HMS HARTLAND POINT

(Escort Maintenance)

by LRO(T) H. M. Clarke

We commissioned on 1st March '63 and after a week of storing ship and de-storing the Armada Club, left Singapore for Langkawi, where, to the astonishment of the JET Fleet, we eventually arrived. After a few days working up, complete with banyans we returned to Singapore and settled down to what turned out to be our only aim in life—maintaining escorts.

The monotony was broken in May by a trip to "Honkers" and from there to even greener pastures in Sasebo where we were entertained by our American allies and the CY lost his watch, I.D card and cap. On the haul back, skirting typhoons, we found that the 'Point' actually could move, even if only from side to side.

On our return in August from a jolly to Penang, the ship drifted into dry dock for a two-month refit and we took residence in *Terror*. The ship was invaded by dockyard mat'ies, who promptly went on strike. (The bloke who muttered, "If I had to work on THAT, I'd strike as well", was eventually proved wrong, the dockies assured us that 'Point' had nothing to do with it).

By the time it was over, President Sukarno was holding his diversions which resulted in the staff shooting up to Borneo, Brunei, Sabah and Sarawak as boat parties. At one stage the staff was reduced to the RS, 1 RO(T) and 1 RO(G), so things were a bit hectic for a while.

We eventualy sailed again on the 16th April, our refit having lasted seven-and-a-half months, and then broke down just after leaving Flagship Buoy. To the dismay of our RA's, however, no leave was granted and we continued our trip to Hong Kong at 6 a.m. the following morning. From "Honkers" we proceeded to Manila where we made a big hit with the children.

In August RS Childs relieved RS Solley who went back to *Mercury* for his S/LT (SD) (C) course. In spite of what we told him, we wish him luck. (He may be our next S.C.O.).

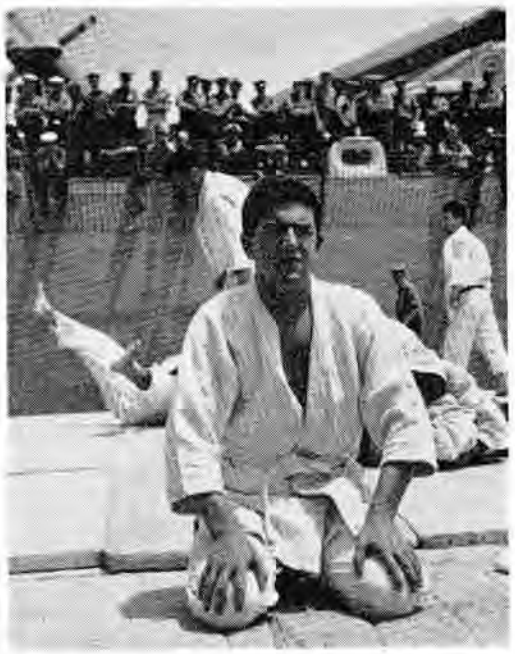
"WE ALSO SERVE . . ."

from HMS Hampshire

The title of this article has been chosen to remind readers that *Hampshire* is also part of the Fighting Fleet. Apparently our last contribution was either misplaced or suppressed. However, after reading the contributions from our sister ships this is understandable. It would not have been fair on them had all our numerous exploits been mentioned. Undaunted we will try again.

Being summoned to the presence of the S.C.O. (Lt.-Cdr. Lord) this morning, and seeing a note reminding readers of dates for articles, orders, etc., it was fairly evident that being one of the few Communicators onboard who could both read and write, I had again been selected—who says that (W)'s are not adaptable? However, on recollection I remembered that for the past week those other two, Big Jim Surridge and Eddy Hayward, had been unaccountably busy; they must have heard the buzz first.

We left Portsmouth in March for a fortnight's demonstration of our unquestioned missile superiority followed by a week-end in "Guzz" (plenty long enough) and then began the 'voyage'.



RO 1 (G) HALL who combined with members of the Japanese M.S.D.F. Judo team in a demonstration at Kure.

We stopped en route for a day each at Gibraltar, Malta, Aden and Gan, and arrived in Singapore on 12th April; the uneventful passage marked only by the increase in coloured gentlemen onboard. This tropical routine is wonderful and the air conditioning really does work.

After two-and-a-half weeks at Singapore in which we reverted to our normal function of being visited by every official and dignitary possible, we sailed to commence our first real cruise to Hong Kong and Japan.

Wearing the Flag of COMFEF (formerly FOC-INCFEF) our next port of call was Kure; briefly, "fabs". This was my first experience of Japan as it was for quite a few others and everybody seemed to enjoy themselves very much. It was very noticeable that after a few Japanese type baths the majority of people regained their British type complexions. A bus trip to Hiroshima proved particularly popular and a visit to the peace park (scene of the Atomic explosion) and the museum of Atomic warfare was certainly a sobering experience.

Next came Tokyo and Yokohama which completed a most enjoyable visit. Incidentally it was found that the principal currencies in Japan were Yen and Hong Kong rabbits, both of which were eagerly received in exchange for Japanese hospitality. Truly—Sayonara.

Leaving Tokyo and the Flag we departed for Singapore again, carrying out exercises en route with *Victorious* and other Far East ships.

With a few exceptions, the staff is virtually unchanged since commissioning. RS(W) Pritchard has replaced CRS(W) Sanders, who is to be the next CRS(W) of *Devonshire*, while CY Davies and LRO(G) Mitchell left us before our foreign leg, and several juniors have joined and left.

Sport-wise the Communicators manage to keep well up with the leaders, the football team being unbeaten, and RO Hall-San being the undefeated (and unchallenged) Judo champion.

STOP PRESS: Congratulations to RO3 Kay who won the first monthly F.E.F Morse Transmitting competition. F.C.O. (Commander Prince) came onboard to present him with his prize—a gold-plated pencil—on June 12th.

HMS LION

by Lieut. (SD) (C) P. Mytton

After commissioning on April 17th we had a quiet four weeks in "Guzz", during which time everyone took advantage of week-ends. The coach company must have made quite a profit as the greater percentage of the ship's company are "Pompey". It was during this period that we lost our first SCO, Lt. Mills, due to illness, and for a couple of weeks we were administered by a Seaman Officer as SCO, and almost found ourselves in Port and Starboard watches, until Lt. Mytton arrived at the rush from *Ark Royal*.

The smiles on the RA's faces were not destined to last, as we sailed for Gib. on 11th May with FOFH embarked, *Wave Prince*, *Falmouth*, *Cassandra*, *Aisne* in company, all participating in exercise GIBEX en route. This trip, and the exercise, proved reasonably quiet communications wise, and surprisingly, we found ourselves not unduly overworked.

On arrival day at Gib. on 15th May, we disembarked FOFH, said goodbye to the remaining ships and sailed independently for Malta.

We have since had a ten-day self-maintenance period alongside at Parlatorio and during this period we entered a team in the inter-part soccer and cricket tournaments, but unfortunately we didn't win any cups. However, what we lack in the outdoor sports we more than make up for in the indoor type, because we haven't lost a darts match yet.

A banyan to Golden Beach with the Wrens from Lascaris proved to be highly entertaining, intoxicating and most certainly not relaxing. This turned out to be the most enjoyable day of the commission for those who went, and we extend our gratitude to the Wrens of Lascaris.

Before sailing for UK we have visits to Malta, Argostoli, Corfu, Venice and Malta, also exercises with Italian Helicopters and American Carriers.

Most of the comms department were dragged from the delightful domesticity of Kranji, Mauritius, Afrikander or *Mercury* and I am sure Communicators will recognise a name or two in the following list:—

Lt. Mytton (SCO); CRS Warrington; CCY Crook; RS French; RS Parkes; RS Godley; CY Cooper; CY Briggs; LRO(G) Monger; Groves; Goodspeed; Beach; LRO(T) White; Clarke; Elder; Goldsborough.

HMS LONDON

by JRO C. White

Now that our teething troubles are almost over, we are more than ready to commence the rest of our Home and Far East commission. At the time of writing we are nearing the completion of our "work-up", which has so far gone very well, and we are currently working on our 3rd SCO and 3rd RS since commissioning. Lieut. Saunders and RS Mitchell having relieved Lieut. Schofield and RS Hamlett respectively.

During April we visited Lossiemouth, then spent several days on the Aberporth range for a very successful missile firing programme, and finally went off to Liverpool for a week-end where we had visits from CRS Johnson and his RNR's from Birmingham, and also from the staff of NLO's MSO (we gather she was very much impressed).

We arrived at Portland on May 8th and for the first week were alongside the wall so of course nearly all the staff were nowhere to be seen during the week-end. The watch which happened to be duty on arrival weren't very happy when "bunts" went for the hand messages and came back with more messages than there was stationery to deal with them. During the two weeks in harbour we have, of course, undertaken many communication evolutions in which a great deal was learnt by everyone, and the five sea weeks have seen us stretched to the limit in everything except our bunks.

A series of VIP visits has been thrown in for good measure, including one from the Duchess of Gloucester, and an all-day demonstration with *Penelope*, *Odin* and *Olna* for the benefit of senior CENTO officers. Then on June 11th the Duke of Edinburgh came on board for twenty-four hours. During the forenoon he witnessed tactical manoeuvres, which kept the "buntings" on their toes, and to round it off the ships reversed the column from the rear and HRH took the salute of the ships in company before they dispersed on their various exercises. After this he toured the ship meeting some of the ship's company and, when offered a tot of rum, he turned it down, preferring a glass of beer. To round off his visit a presentation was made to him and he finally flew off in a helicopter of the Queen's Flight to Yeovilton.

As we are nearing the end of our "work-up", we

have just had our comms. inspection, which was an all-day task for FOST's signal officers, and everything seems to have gone off very well. All we have left now is our sea and harbour inspections which come up very shortly and then we will be off to Pompey for a week to cheer the RA's up, followed by visits to London, Gib, Pompey for leave, then the States and South America to show the flag.

Heard in Passing—

"Jock, have you seen an old Communicator loafing?"

"Only the one sitting in the corner". (The CRS was not amused).

EXTRACT FROM AFO 97/64

Herbert Lott Naval Trust Fund awards—
Lt.-Cdr. A. G. Worsley, R.N.:
Use of SARBE as a communications link.—£10.

Lt. B. Hulme, R.N.:
Mod. to type 900C—Radio Doppler Trace Simulator and Trainer.—£10.

Shipwright Lt. P. S. Lewis, R.N.:
Design of toilet roll holder!—£12.

LONDONDERRY COMCEN

The marriage market booms. Invest now. If you value your bachelorhood—(or spinsterhood?) avoid Derry Wireless Office. A draft to Gan would be infinitely preferable. The Irish air, impregnated with delicate aromas from the Foyle, and the gentle rain caressing weary brows, plus the occasional glimpse of green hills through the mists, create a romantic illusion that puts Paris in the shade.

RO'S have now been successfully caged. On leaving the handsome building of XMHQ (noted in the best of tourist pamphlets as being of a unique style of architecture) one is faced by a towering fence calculated to scare everybody away. Indeed, it is not an uncommon sight to see weary RO's crawling round and round peering helplessly out at the deserted parade ground, searching vainly for the exit. Their feeble cries for freedom can be heard mournfully echoing throughout the City.

The lazy, carefree days of early summer are over—days when the sun shone and work was non-existent. Each afternoon crowds of happy Communicators proceeded to cricket at Clooney Park, singing 'Summer is A'Cuming in' and other lyrical ballads.

Then the rain started; new POTS's arrived from all corners of the earth; equipment appeared and broke down; a new W/K list was made out; ships arrived and runs ashore were postponed.

So now it is 0200z—a time when lights should be dimmed, music soft, and sleep unravelling web of tangled care (or something like that).

HMS NARWHAL

by CRS Lillington

Surfaced in a lead near the ice edge.

In February of this year seventy men, a Hydrographic P.O. and an American scientist were inveigled into taking H.M. S/M *Narwhal* north into the Arctic by being promised a polar bear hunt. Five weeks later we returned, sporting beards and a mass of statistics but not even a picture postcard of a bear. During this period *Narwhal* and H.M. S/M *Otter* carried out trials of many types beneath the polar ice cap, which is on average 30 to 50 ft. thick. Although many submariners now talk of 'Polynyas' and 'bummocks' as befit Arctic veterans, this was a first for all *Narwhal*'s crew. The long endurance of these modern conventional submarines, while not in the same class as that of the nuclears, enables them to penetrate a considerable distance from the ice edge. Part of the trials was to find a hole in the solid ice and surface, a tricky art known as 'polynya-ing'. We were lucky enough to be able to walk and even hold a cricket practice on the ice. An enterprising bear could have won for himself more than twenty cameras, but all that was seen were two seals, and those from a distance. The water under the ice cap is crystal clear at that time of year and a favourite pastime with the crew was looking through the periscope at the under-surface of the ice while the submarine cruised beneath it.

Communicators, as always, provided the vital link (two or three at times), and by virtue of the amount of typing of records accomplished, they should have no trouble finding alternative jobs as secretaries.

MHQ PLYMOUTH

by RS Weaver

In a recent issue of THE COMMUNICATOR we noticed an interesting article on long watchkeeping using the Port and Starboard method and the "Chow to Chow" system (what a horrible expression . . . is it something to do with Chinese dog watches?) Anyway, one slice of this article caught our eye. To quote (near enough) "It is essential that during long spells on, to relieve boredom, jobs be swopped

around". Sounds very reasonable, but how do you do this, we wonder, when the bods available can't do a particular job? Not through any fault of their own, but because they just aren't trained to be utilitarian. Take our case in the Moat for instance. We sent out a heartfelt plea, prompted by much muttering from the CRS, for "More hands" for reliefs, etc. and we got 'em. But what bright spark induced the sending of RO(T)s, very good at their job on TP's and the like, and handy for HIC, but how about thumping a key and pushing a "Stick" on CCN? We are told that all will be well eventually when integration of the Branch is really achieved, but as we all know that is many moons from now. It's going to take a long time to train and familiarise operators to this extent. From various things that have happened of late it seems training has gone astray somewhere. For example, an incident (one of many) where a chappie from a "big ship" obviously a sparker, came up on HIC and passed a signal as follows:

"Mike Tango India this is "——"
break Tango break Romeo break
121212Z Foxtrot Mike "—— ——"

Evidently someone must have heard him, because there came a loud squawk and after a shakey "disregard out" he re-sent the message with a chanting voice in the background.

Obviously, you say, a junior. Well, maybe . . . but let not the senior ones among us look so smug either. I expect other shore stations will bear us out on this too, with reference to Routeing Indicators and procedure on RATT Ship-Shore. Some efforts we've had to handle have been very good, but there are far too many *very* poor efforts, and some ships don't seem to realise, or have never bothered to find out, that routeing responsibilities using Columns A, B or C from Section 2 of the Routeing Indicator Book also apply to traffic passed by CW. (Example B on page xii of the "Routers Bible" is there for that purpose).

The CRS has a draft on his shoulders, but no news has been received as yet as to who his relief is (any excited heart flutters?).

One of our WRNS is at the moment in *Mercury* ploughing through a Leading WRNS course, but will rejoin us on completion. We wish her all the best of luck. Drafts come and go, some stay very briefly, others for a decent spell. Also some more new gear to play with on "Test Days" should arrive next month or sometime.

To conclude. . . . If our new home address is now MOD(NAVY), is there any truth that R.A.F. SIGNALS are routed to ROCKER(AIR).

TRISTAN DA CUNHA

from HMS Protector

As you may know, a couple of years ago a small volcano erupted about 300 yards from 'Edinburgh Settlement' on the island. The lava flowed from the volcano down to the sea where it engulfed the crayfish canning factory and covered the island's best beach. The islanders were hurriedly evacuated and eventually arrived in UK where they were found accommodation at Calshot.

RS Randall inspecting radio equipment ashore at Tristan da Cunha.

In July 1963 the Colonial Office agreed to the islanders' request to return, after a favourable report had been received from the advance party which had gone back to the island earlier.

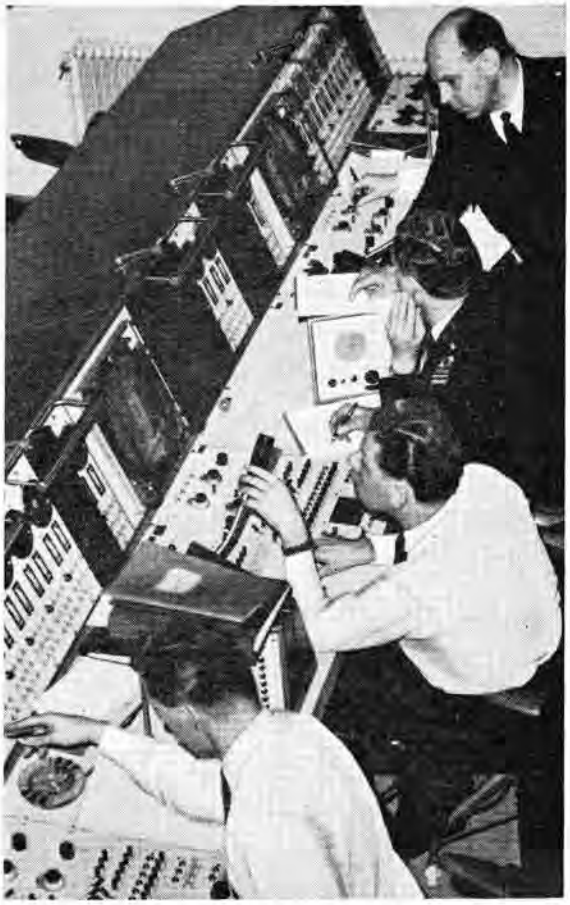
After having been left for two years, things were in a pretty poor state, and when *Protector* arrived at the 'Cape' in April this year, we were requested to carry out a full survey of the radio installations.

I was selected to go with the party. We were flown ashore by the ship's helicopters and under the direction of the ship's electrical officer, work was soon started.

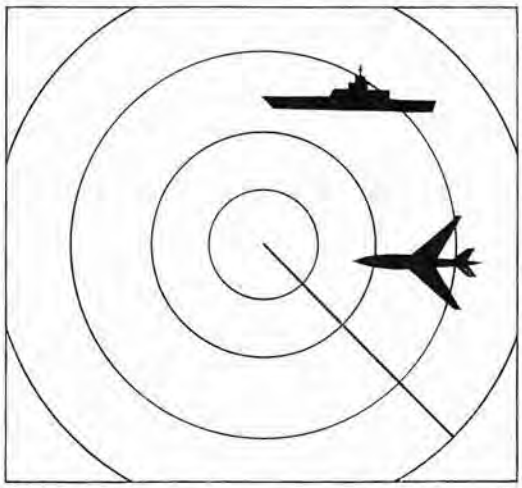
The equipment consisted of type 612 and all accessories, two of type 89Q (one of which was covered in rust) and three B40s. There was a good selection of aerials, mostly long wires, one of which must have been about quarter of a mile long. Power was supplied from a diesel engined generator in the hut and an emergency AC generator about half a mile away from the station. The 612 was supplied from alkaline cells in the battery shop about 100 yards away.

The work to be done on the serviceable 89Q was to wire up the speech amplifier so that the TX could be used on R/T and the REA, assisted by a technical boffin from neighbouring Gough Island, soon got to work on this task.

I discovered that the aerial changeover relay was broken on the 612 and also that the rotary transformer on the DC power and modulator unit was U/S. So a request was made to the ship for these units from our 612 to be sent off. With these units replaced all should have been well, but there was still no joy. The receivers were both working very well and in fact GBR on 16 Kc/s was brought in QSA 3 QRK 5, something that couldn't be done onboard with a B41.



Part of Controller's Desk in the large action speed tactical trainer supplied to the Swedish Royal Navy.



Simulator Target Control Units in Equipment Room, Central Air Traffic Control School, Royal Air Force, Shawbury.

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A visit to the battery shop soon showed the cause of the defective transmitter. We learned from the station 'electrician', Frank Glass (a descendant of the original Sergeant Glass) that the alkaline cells had been on the island for twenty years and what with standing uncharged for two years as well, it was not surprising that some were 'duff'.

With cells that were supposed to give 1.2 volts each, one would expect that 20 cells in series should give 24 volts. But with current having to travel about 100 yards through ordinary twin flex, some volts would be lost and on the 612 voltmeter the initial 20 volts dropped to 16 volts with the filaments on and down to 2 when the HT was switched on. No wonder the HT rotary transformer wouldn't start. Even after helping Frank Glass to carry 20 cells down to the radio shack, the initial current required to start the rotary transformer was more than the cells were capable of, so it was decided to take 24 volts directly from the battery charger motor and turn the voltage up until we had 24 volts at the transmitter. This was done and eventually the set was fully operational with 35 volts at the generator and 24 volts on full load at the transmitter.

Due to bad weather on the first day, we had to stay ashore all night. The islander's hospitality was sampled and very much enjoyed. The majority of the stone cottages have thatched roofs but the more prosperous among them have corrugated iron roofs.

It was Frank Glass who told us that the radio station and a couple of the other buildings were built by the Royal Navy and in 1941 was commissioned as HMS *Atlantic Isle*. He also recalled one morning sighting the German pocket battleship *Admiral Graf Spee* steaming past the island quite close and apparently when they saw the White Ensign flying and a base established, they steamed off out of sight.

The station staff at the moment consists of one radio operator, Bill Evans, employed by the Colonial Office, he also acts as the Postmaster, selling vast quantities of Tristan da Cunha stamps to collectors all over the world. Stamp collectors might be interested to know that the current issue of stamps from the island are St. Helena overprinted Tristan da Cunha and are available in many different colours.

Anyone going outside in about two years time and wanting to get away from it all should slap in to the Colonial Office as Bill's relief.

HMS ROTHESAY

This is our first article since *Rothesay* lost her 'black hat' and we would like to thank CCY Morgan, CRS Lewington and their respective staffs for an excellent turnover.

We commissioned on Tuesday, 17th March, and the following Monday we started our work up at Portland. To coin a phrase, "we didn't hang about".

Running the Communication department 'ranch' is 'marshal' Lt. J. Trinder (N), his deputies being CY (Tom) Dalby and RS (Charlie) Tee while the remainder of the posse are LRO(T) Dick, LRO(G) Dodgson, RO(T) Chapman, RO(T) Jacklin, RO Williams, RO Wardill, RO(G) Turley, RO Coward, RO Moore, RO(G) McDowall and Mne. Sig. Kelly.

Due to leave periods our work-up lasted eight-and-a-half weeks, but much to everyone's surprise it went down pretty well. We left with a feeling of jubilation which soon disappeared when fog stopped us getting into 'Pompey' for the night.

We've just spent ten days in the Bay of Biscay where the weather, living up to its reputation, was none too pleasant.

So now it's back to 'Pompey' for some leave and then to the West Indies.

HMS SCOTT

by LRO(G) D. Frater, RO2(T) P. J. Langford, RO3 M. H. Kirby

We, the Communicators of the present, and no doubt all the Communicators of the past, would like to pay homage in our magazine to *Scott*. Detailed for the junk yard at the end of the year, after twenty-six years valuable service to all vessels who use the waterways of the world, in particular the surrounding (sounding) depths of the United Kingdom.

At the moment of writing we are surveying an area in the North Sea, continuing the work started last season. Having erected Decca slave sites, Red and Green, and also laying new beacons (our last season's beacons being removed by Neptune, mermaids or by some other undesirable alien), we resumed our task and all being well we should finish by November.

We were hoping to make a bit of interesting reading with some of *Scott*'s records but the only one we could find was the ship's mileage, which after a few attempts by the LRO came to a total of 258,713.23 miles. The distance steamed was taken from the ship's book dating back to 31st March, 1939. Even during the war when fitted with a couple of guns the ship continued surveying the coastal waters of U.K., and hostile waters such as the approaches for the Narvik landing and Dunkirk.

So the files begin to close on a ship whose life-span has been given mainly to valuable survey work. She will not die in harness but fade from the limelight having paved the way for her modern successors. *Scott*'s name will, we hope, be revived, but one thing is certain, she will never be forgotten in the Survey Fleet.

M.S.C. SINGAPORE

It is always encouraging when you find that a rejection slip was not your lot in the previous edition so I'll start this time by getting well in with the staff of THE COMMUNICATOR and offer a large bouquet for the appearance of the last edition, greatly

Crown copyright Photo.

This telephone 'hangs on'

ACTION STATIONS!... conditions where a breakdown in communications can be disastrous, yet all too easy when a hand-set is accidentally dislodged. In conditions such as these the STC hand-set for shipboard automatic telephone exchanges hangs on like a bulldog. Yet it lifts just as easily as an ordinary hand-set. STC hand-sets are installed in Hermes and Eagle and 50 have been put through their paces by the Royal Navy. There was not a single instance of detachment or breakdown during full shock testing. The secret of this success lies in the hand-set support... jaws which are locked by spring-loaded plungers and sliding weights held in tension by springs. STC hand-sets for shipboard communications have set a new standard for reliability and efficiency and remove all fears of accidental dislodgement. Standard Telephones and Cables Limited, Connaught House, 63 Aldwych, London, W.C.2.

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enchanced indeed and comparable with the other Departmental Magazines that are issued in these days. Considering THE COMMUNICATOR always has been virtually its own Pioneer it reflects great credit on those responsible for its design, compilation and production. Bouquet thrown.

From the work side, at last we see in the not too far distant the birth of the Naval Communication Centre, air conditioned throughout and with all mod cons.

Work has begun on transferring circuits from Kranji and no doubt by the time we get our next edition of THE COMMUNICATOR we shall be running as one Combined Comcen with Kranji becoming more and more rural, and indeed who can grudge RNWS a rest, it has served well through many years.

It is encouraging to see the Senior Rates of ships dropping in on us more often, sometimes to clear up a snag wth the personal touch and 'at others just to pay a social call, it helps us to understand the ship problems more (after all we are here to serve them), and them to realise the difficulties encountered from time to time ashore.

Faces come and go with frequent regularity which is one of the reasons that I do not list comings/goings, but once again to those ex-M.S.C. who will read this in the comfort of their homes or in their messdecks on the Grey Funnel Line ships, we wish you well, and drop in for a cool down sometime.

Traffic wise, we continue to increase—it seems that signal-means is definitely more popular than letter, but thanks to Banda TP rolls and Electric duplicating aids we manage to keep our heads above water.

Our next article should (thanks to the boffins) be a little more on the Technical side but at the moment, I feel content to stick to Bow and Arrow material until we are really running.

HMS VICTORIOUS

Since our last time in print—written, most ably, by our Mole Type Yeoman who lives on Five Deck —we have travelled around quite a bit.

Having fought, and won, the war against the Rebels of the East Coast of Africa, we sailed at high speed to take part in JET 64, to fight another war, this time of languages, though which side won it is still hard to tell. According to one of the Indian Communications Officers at the 'wash up', he had signalmen speaking English with a Scottish/Irish/ Canadian brogue. He should hear ours. . . .

On completion of Exercise JET the Fleet entered Singapore in company and it must have been the largest number of ships that the Naval Base had seen for some time. Just about every buoy was occupied and certainly every alongside berth. Luckily for us, we were due for a Self Maintenance Period so we secured at our usual berth—No. 8.

Sailing from Singapore to Hong Kong with Exercise HIGH UP en-route (*Centaur*'s Inspection) we started on our long-awaited trip to the Orient

JRO Mitchell at work in HMS "Victorious"

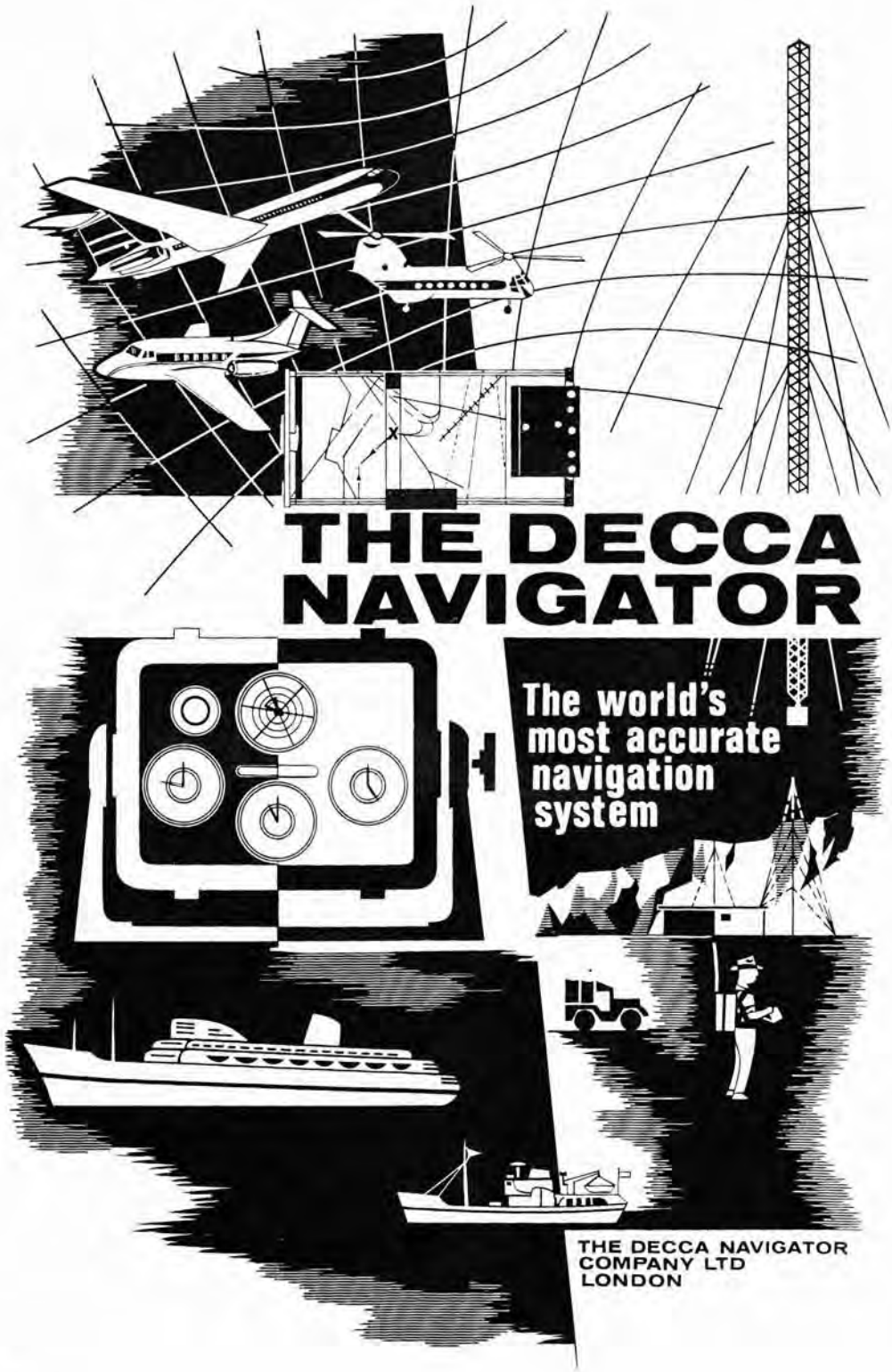
Hong Kong, of course, lived up to its reputation of expensive drinks, even more expensive women, and cheap "rabbits". Being our second trip this commission, quite a few of the staff, both V/S and W/T, were fixed up from the beginning, and it was quite a common sight to see a Communicator leaping ashore with his "little brown case" at the ready. Who was the one that said he stayed ashore reading until 0500?

Eventually owing to lack of money the whole of the ship's company were rather glad to leave the 'Pearly', though it is true there were a few misty eyes as Lie Mun faded astern.

Those same eyes soon brightened however as the air turned colder and Yokosuka appeared over the horizon. . . . The mysteries of the Land of the Rising Sun were soon to be unfolded to our Ords., (*again* for the older members). With the band of COMFLEACTPAC to welcome us in to the tune of "Sukiyaki", we were there.

For those who wanted them, plenty of scenic tours were organised, but the majority of the staff seemed to spend their time in the 'time old tradition of the Navy'. Some, it is said, never even found the Main Gate of the Dockyard while others had so many baths that they will smell sweet for years.

Then on to Subic, where this time to the disappointment of many, we were forced to anchor far out (about three miles) from the Fleet Landing. This did not deter our stalwarts though, they still managed to make the hazardous journey to Olongapo and back. Don't let the name Subic fool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you, it's the American abbreviation for 'A good run ashore'.

We have just sailed from Subic for Exercise LIGTAS, with four other carriers and sixty-four other ships in company and with ten days of exercises to look forward to.

In the future we have our annual docking-down period, during which time we live in *Terror* (R.A. again) and then we make history by being the first British Strike Carrier to re-commission by air. This involves two lifts, the first, for the lucky, in August, and the second in November for those not so lucky.

HMS WARRIOR

Just fourteen miles from the City of London, in a setting of woodland so green it would make even an Irishman look twice, stands, serene in its supremity, NATO HQ NORTHWOOD.

New buildings tower from the verdant pastures making the old R.A.F. wooden huts look like something from a far-off desert isle. And the tall radio masts add that touch of deft incongruance that is suggestive of our prime task—COMMUNICATIONS.

Northwood is the abode of such personalities as CINCEASTLANT/CINCHF/COMAIRCHAN/COMAIREASTLANT/HQCC/RAF NORTHWOOD and last but by no means least, *Warrior*.

The latter being a first rate 3-deck "Stone Frigate", boasting two cannons, one in number ship's bell, two TV's and an ultra modern washing machine RPO i/c. Also a motley crew of swabs, deck apes, cooks, stewards and scribes plus the elite, "com-bus-ti-cation branch". And, at hand to quell any mutiny, a handful of Royal Marines.

The staff of COMCEN comprises a goodly portion of both T's, G's and UA's. TACTICAL-WISE, one Senior Bowman, six Bowman and numerous varlets for the work. RADIO-WISE, a few Senior Radio Super-visions and far too many other types of Radio Serfs. WRNS-WISE—we can boast of two Mam's, one Bow-woman and three Jennies.

The remainder of the COMCEN personnel comprises bods from the R.A.F., three of our allies from Stateside, a couple of bookies runners, two bus conductors plus four acting barmen. The Telex is manned by the R.A.F. and British Civil Servants.

Traffic load is fairly high but working hours are bearable, while non-working hours are taken up with mooning, goggling, slurping, eating, snoozing and courting.

WHITEHALL WIRELESS

PO Wren RS. S. Pawsey

Whitehall Wireless is the one draft the Wren Communicators seem to dread being given, but why no-one has really discovered and it is about time that some facts about the place, as a draft for Wrens, were printed.

During the past two years much has been done to improve the so-called bad working conditions.

"NOT BEFORE TOT-TIME IS IT ?"

The watch-keeping system was changed to 48-hours about enabling one to have a complete rest and change of surroundings for a clear two-and-a-half days. To allow longer sleeping time before the night-watch, special arrangements were made by the Quarters' Staff for a watchkeepers' supper to be served later than the normal time; needless to say this was appreciated by all. At the moment a trial period of hot meals served on the night watch is in force. It would be wonderful to see this scheme succeed after all the hard work put into the organition by different people. Nowadays we travel to work on the watchkeepers' bus, and have no fear of falling asleep on the Tube after a night watch, which meant passing straight through one's station and waking up with surprise at the end of the line.

Our most hectic times at work, communications wise, are at Christmas dealing with telegrams, and each September when an exercise usually occurs. During this time no leave is allowed at all and in some ways this is an advantage as we are apt to miss the normal holiday rush period by taking leave in an off-peak period.

Being up here we have the world of entertainment at out fingertips and going to the theatre need not be a great expense as complimentary tickets can be obtained from the Nuffield Centre and the Divisional Officer. Also tickets for Cinema Previews, Radio and Television Shows are available frequently and one might be fortunate enough to win a prize of substantial value as Wren Lesley Taylor did on "Take Your Pick", although mink and diamonds are not quite accepted as part of one's uniform.

Besides the theatrical entertainment there is much else of interest in London, art galleries, museums historical monuments—for nearly all of which the entrance is free. There are also numerous wonderful parks and gardens to which one can easily travel by Underground or bus. There are also river trips up and down the Thames for those who prefer the water to the land.

The W.R.N.S. Quarters, at Furse House, are situated in Kensington very near to the Royal Albert Hall where we can enjoy a first-class symphony concert or a concert given by Top Pop Recording Artists or Jazz Musicians.

Also there are always invitations for the Wrens to the dances held at RAF Stanmore Park where many of the male Communicators have their quarters; transport is provided and there is no worry about missing the last train back to W.R.N.S. quarters.

Perhaps the word Admiralty will now no longer conjure up a picture of a dull dreary place where one does nothing but work. After all a place is what one makes it and London, even for the poorest of us can be very interesting.

"NO JACK". I WILL NOT TAKE OFF MY TROUSERS - I SUGGEST YOU TRY ORDERING IN ENGLISH."

HMS ZULU

by LRO Corner

Being the newest of the Tribals, this is our first contribution to THE COMMUNICATOR, and although we can, as yet, give no epic accounts of exotic runs ashore, nor anecdotes of the 'Heard in Passing' variety (they'll come though, they'll come), we still thought our three month's history justified being in 'at the start' with a bit in the mag.

The standing-by period at Glasgow was undoubtedly a pleasant one for those who joined early enough to get familiar with the City. All the ship's company were accommodated in approved lodgings, and despite a few gruesome and possibly false tales about cold porridge, etc., the almost civilian routine we were working was a pleasant change from the usual naval one.

Whisky, soft-living and Glasgow's peculiar inability to distinguish between ballroom dancing and field sport, were all facets of our stay there which helped to make it bright and memorable.

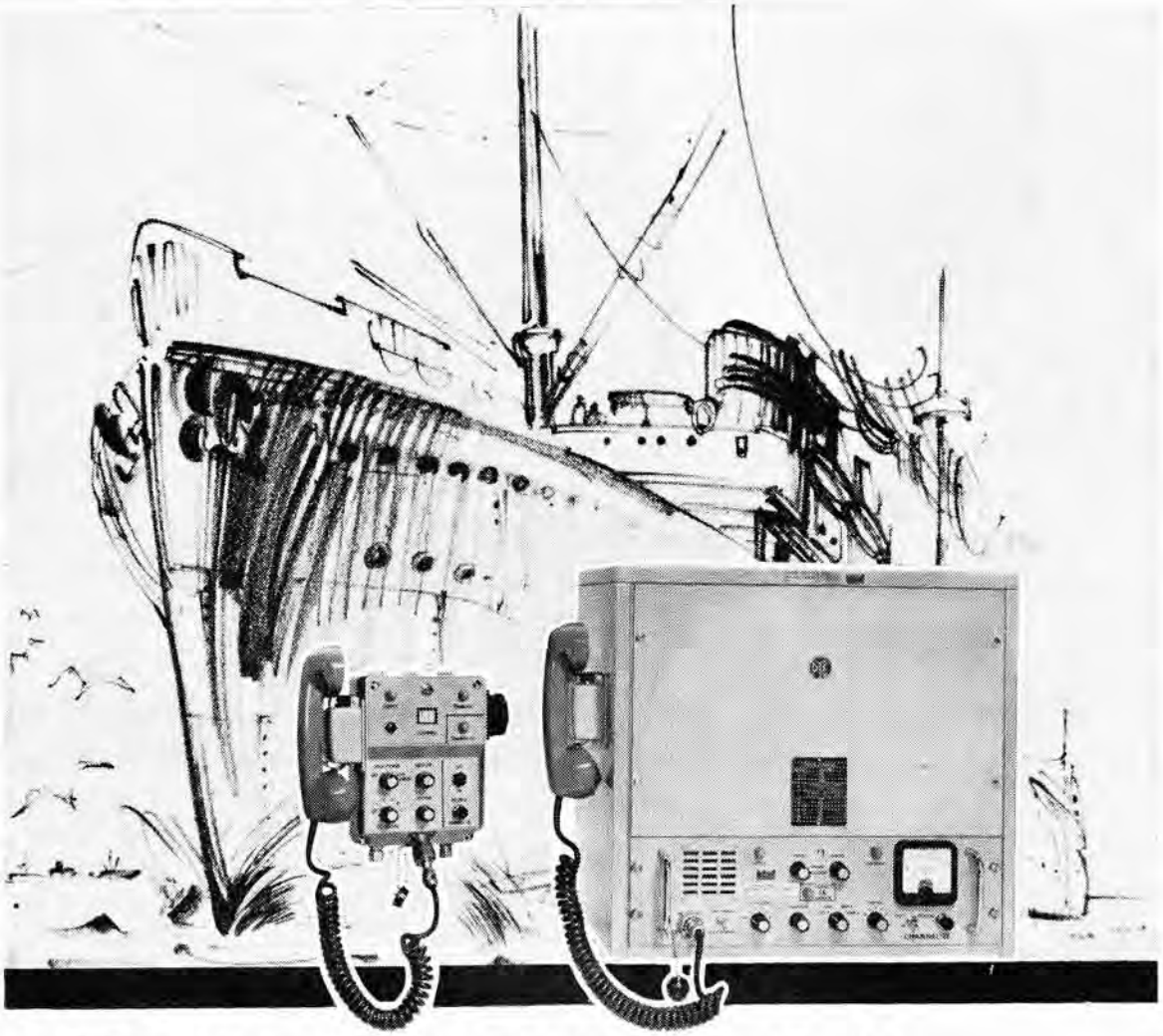
At this time, the comms. staff worked in a hut on the quayside and were soon pressed into service as a rather reluctant typing pool. The presence of a pub just outside the Dockyard gates made it virtually impossible for this unit to function properly during the afternoon, except of course in the sphere of body organics, yet somehow the work got done. Towards the end of our stay in the hut we were engaged on the task of compiling a Ship's Orders, so big, that it appeared the only way to distribute it round the messdecks would be by the monthly instalment plan.

Finally, the work was completed, and on the 16th April we held our commissioning ceremony on board. The following day we sailed for the shake-down cruise and Portsmouth, leaving behind a hundred weeping landladies (Grief or Relief?)

The unfamiliarities of the new branch structure caused a good deal more thumbing through C.T.M's than the publication has ever previously received. Hardly a day passed without some hopeful being seen clutching it to his chest in search of the Yeoman or the RS, an inserted slip of paper marking the exact location of his claim to fame. The 9d a day sub-specialist category pay caused a brief but sincere dispute.

We are now making good use of *Mercury* exercise facilities, line Papa especially, and have settled down into a good weekly training routine on the VS side. Fleetwork lectures and exercises are a regular thing; these, and the Seaman Higher Rate Training keep the LRO(T) pretty busy.

Branch integration is being accelerated by the requirements of the (U) category to receive a broader training. The RO(T) mans the HF portable in the landing party, and on one occasion the Captain's call down the voice pipe for a "Good signalman, on the bridge now" was responded to immediately by an RO2(G).



28 CHANNEL F.M.

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The equipment meets fully the requirements of the Hague Convention and provides communication between ships and port authorities, harbour master, docking and port services in any port area in the world using the Hague channels. Direct communication between ships is also provided. Calls can be made to any telephone subscriber via the Public Correspondence channels. The equipment is supplied with a watertight bulkhead mounting remote control enables it to be mounted in any convenient position in the ship.

- Type approved by Royal Navy and British Post Office and fulfils all international v.h.f. marine requirements.
- 28 switched channels.
- 20 watts output.
- Simplex or duplex operation.
- Simple to operate.
- Channel 16 automatic reversion facility—optional extra.
- Low-power switch for close range working.

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ROYAL NAVY AMATEUR RADIO SOCIETY

The highlight of Society activity since the last edition of THE COMMUNICATOR has without doubt been the presentation of a receiver to John Hall, a Short Wave listener, who is paralysed as a result of a swimming accident at *Ganges* two years ago. Earlier this year the Society was approached by G3KQK, who was residing at the Leonard Cheshire home at Sandbach in Cheshire, to see if we could assist in getting a communications receiver that would be capable of modification to allow John to follow his hobby more actively. Enquiries were made and on completion of negotiations the Society was in possession of a CR 100 receiver. The Committee decided that the Secretary, G3JFF, and Sub.-Lieutenant D. Davies, G3SJQ, should present the receiver to John at his home in Crewe. They left in the early hours of the morning so as to arrive in Crewe before lunch. On arrival they were met by Bernard, G3ALE, who had fixed up a room at a nearby hotel where they could change. After lunch the party proceeded to "Coronation Street" where they were met by a large gathering of local amateurs, including G8IX (one time chairman of R.N.A.R.S. committee), G3JJA, GSOZJ, G3DTD, G3RCU, G3OOA, G3SIQ, G3KQK, G3JAS, G3DGD and G3AQW. Several Short Wave listeners and the local press completed the gathering. During the presentation John was told that "he would never be without a friend now he had this receiver". Extensive publicity was given by the Crewe and Manchester press and the visit was recorded in several RN newspapers.

As reported in the last issue the Society took part in the Radio Society of Great Britain Affiliated Societies contest. The results have now been published and we were well up the list of contestants —coming 14th out of 54 entries. The Royal Air Force Amateur Radio Society managed to come 19th in the same contest.

by courtesy of The Crewe Chronicle.
Gift for paralysed Youth.

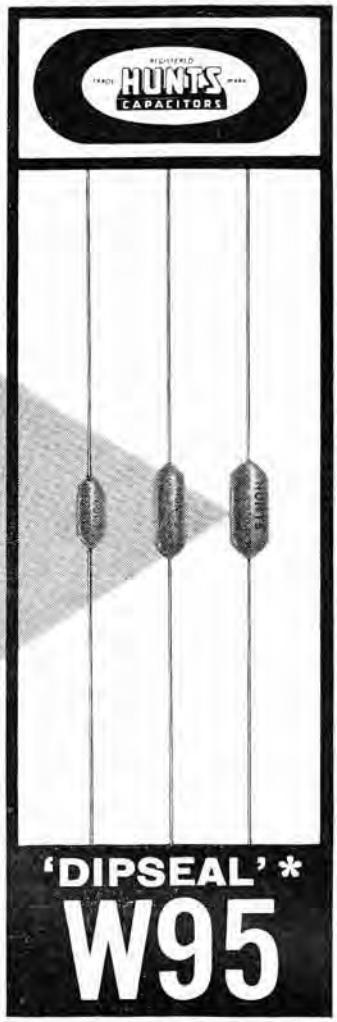
Since the beginning of this term H.Q. station has been rather conspicuous by its absence on the amateur bands. This has been due to an extensive refit. After the paint had dried RS "Gordon" Perry started work on a new console for the main equipment which promises to make the station look "tres elegant" in due course. The committee are looking into the possibility of providing a rotary three-element beam to give our 500 watts of S.S.B. a great deal more punch into DX 'otic parts. It is also hoped that we will soon be able to replace the present Top Band transmitter with a more modern one, and also get a 144 Mc/s transmitter of more modern design than that at present at G3BZU.

Amongst the early RNR visitors to *Mercury* has been "Irwin" Walker, G3RJF, who put in some excellent work helping with the painting of the shack. Later in the term we look forward to meeting one of our members from north of the border, also with the RNR, CRS "Bill" Hunter, GM3HUN, of Edinburgh.

By the time this magazine appears the Navy Days held in August, over the Bank Holiday period, will be over. At present it is intended that four stations will be on show operating on all bands from 1.8 Mc/s to 144 Mc/s. The special callsign GB3RN has been allocated and contacts will count as two points towards the *Mercury* Award. This callsign was also used during July as RNAS Lossiemouth where an amateur radio display was put on by GM3SDZ at their "air day".

Members wishing to have QSO's which will count towards the *Mercury* Award would do well to check the 80-metre band during the weekends. Particularly they might like to call in on a regular QSO between G3BQR in Christchurch and G3HIS in Stoke on Trent. They meet every Sunday morning on 3540 Kc/s at 0900 local time and both George and Chas' will be delighted to meet R.N.A.R.S. members. You might also come across G3JFF/G3LIK/G3SJQ on this frequency. In addition both G3OPQ and G3FMN can be found on 3519 Kc/s around 1200/1300 each Sunday and will only be too glad to provide additional points for this award.

Our awards manager, G3HZL, in his latest letter to H.Q., says that so far twenty certificates have been issued to amateurs in ten countries. Latest listings are: ZB1RM (Malta), VU2MD (India),



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* Better humidity performance than thermoplastic cased units.

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D.C. Working Voltage	Capacitance (μF)	Dimensions
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500	0.002 to 0.01	
750	50pf to 0.004μF	
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OK2QX (Czechoslovakia), DL3MO (Germany), K1IJU (USA), ON4CE (Belgium), G3LIK and G3JFF (England), WA2PWI (USA), DJ1QP (Germany), K4AUL (USA), SP6FZ (Poland), W8JIN (USA), and IT1AGA (Sicily). The Short Wave listener stakes point to an award being made to a West country S.W.L. in the very near future.

It is now over three years since the Society first approached the G.P.O. for a revision of the existing licensing regulations for Maritime Mobile operating. Additional frequencies, above 28 Mc/s, were made available in 1960, but no relaxation in the use of the International H.F. amateur bands was forthcoming. Co-operating with the Radio Society of Great Britain G.P.O. liaison team, the Society have been actively engaged in trying to get some relaxations for seagoing amateurs. The production of a new licence is a large undertaking requiring consultation with all marine radio users before a new set of regulations can be drawn up for our use. In 1962 D.S.D. informed the G.P.O. that he had no objection to operation on the 7, 14 and 21 Mc/s amateur bands by amateurs in RN ships and the reply was that the whole structure of the present Maritime Mobile licence was being investigated with the view to the production of a new one. In a recent letter from the Ministry of Defence (Navy) we learn that moves are afoot to produce this licence and "... that the final result should prove most acceptable to Maritime Mobile amateurs" All seagoing amateurs will agree that this latest information is most welcome and they can remain assured that the R.N.A.R.S. will continue to co-operate with the R.S.G.B. and the G.P.O. on this matter.

The recent announcement by the G.P.O. that the present 4 metre allocation should be extended from 70.1 Mc/s to 70.7 Mc/s will obviously make this rather sparsely populated band a useful addition to these we already have. The B44 transceiver (of army origin) has proved a cheap piece of equipment that lends itself to easy modification for this band. In the Portsmouth area this VHF band has partly taken over some of the traffic that used to occupy Top Band and amongst its regular users can be heard R.N.A.R.S. members G3HLW and G3SJQ operating from their cars. Other R.N.A.R.S. members in the district who possess B44's are G3ENI, G3JKI, G3JFF, G3SJQ and G2LIK. Most of these sets are set up for operation on 70.26 Mc s but with the recent extension of the band the present congestion on this frequency should diminish.

This hobby of ours has, in times of disaster and distress, often been called upon to provide sources of communications to replace public services that have become disrupted. In the U.S.A. amateurs along the notorious Gulf Coast are always ready with equipment, especially during the hurricane season, to provide emergency communications. In the United Kingdom the Radio Amateur Emergency Network was brought into existence after the disastrous east coast floods in 1953 and exercises are held with the Police and the Red Cross at regular intervals to keep the operators and equipment up to scratch. Amongst the services we might be called upon to assist is the Civil Defence Corps which has amongst its sections a Signals and Reconnaissance division. To those ex RN amateurs who might be able to spare a little of their time this would seem a very worthwhile job. It lends itself to the ingenuity and self-training that we amateurs already possess, and seems to offer an ideal chance for ex RN Communicators to act as instructors. If you feel that you would be able to assist in this field why not contact your local Civil Defence section?

The results of the Radio Amateurs examination held in May should soon be known. Three members of the Society are eagerly awaiting their results. They are RS "Bill" Metcalfe of *Mercury*. Mr. Churcher of Waterlooville and Nigel Hardy (2753) of Stafford. We hope to be able to record their personal callsigns in the very near future.

The following new members are welcomed to the society having joined since the last edition of this column. G3SVV, G3SFJ, MP4BEV, GM3SDZ and G2FVC. Also S.W.L's GW 10819 of Anglesey and GM 10175 at present serving in *Victorious*. G3SVV joins those others of the fair sex—G3MER and Jane Blois. Jane has been a member of the society since it was first formed.

The secretary of the Australian branch of the RNARS, Surgeon Commander "Jim" Lloyd, RAN, is at present undergoing an intensive medical course at HMAS *Kuttabul* which he tells us has kept him off the ham bands for a while. Australian naval personnel wanting information on the RNARS can now get this from CNO 191/64. The latest recruit from "down under" is an ex RN Telegraphist, J. Heggie of Brisbane who used to belong to Chatham division.

Next year the Society will be celebrating five years of existence. The committee have been asked several times if it would be possible to hold a get-together for members and they have decided that this should take place in the spring of next year. It will take the form of a Mobile Rally to be held at *Mercury* on Sunday, 30th May, 1965. The Signal School lies on top of one of the highest spots in south Hampshire and also on the edge of the Meon Valley. *Mercury* is easily accessible from the main London/Portsmouth (A3) road and we hope that many RNARS members and those seasoned mobile fans that turn up at Longleat and Dartmouth, will make this a date on next year's "Ham" calendar. Further details will be given in future editions of THE COMMUNICATOR and also in the radio press.

The Radio Society of Great Britain will hold its annual Radio Hobbies Exhibition in the Seymour Hall, London, during the period October 28th to 31st. As usual the Society will be exhibiting on a combined RNR/RNARS stand and it is hoped that

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the station this year will be a complete "home brew" s.s.b. rig built by one of our members. The annual general meeting of the Society will be held in the committee room at Seymour Hall at 1600 on Saturday, 31st October and we hope that as many members as possible will attend so as to meet the President and also the committee for 1965.

PERSONALITY PIECE

Lieutenant (SD) (C) A. E. Howell, Royal Navy, G3JKI, ex-VQ8BC, 4S7AE, ZB1BN

Arthur was born at the "Four in Hand" pub in Chester in 1921, although most of his education was at Blackburn Grammar School. At the age of fifteen he joined the Royal Navy and did his initial training at *Caledonia*, then housed in the old liner s.s. *Majestic*.

Having always wanted to be a "sparker" he was most disgusted to find that on completion of his twelve weeks initial training he was categorised as a Boy Signalman. Having set his sights on this ambition he went through the normal Service channels to set things right. At the Captain's table the Signal Officer told those assembled that Boy Signalman Howell did not possess either the ability or intelligence to make even an average Boy Telegraphist and that there was no future for him in that Branch. The schoolmaster was asked his opinion and was unable to offer even a glimmer of hope, but young Howell stuck to his guns declaring that if he couldn't be a "sparker" then he had no further interest in the Navy and would rather be sent home. The Captain, Sir Atwell Lake, ordered a stand-over and after much consideration told Arthur that he would take a chance and let him continue his career as a Boy Telegraphist.

On completion of his training he went to Malta by troopship where *Resource* was based. He took passage to Alexandria and joined the battleship *Barham*, serving in her until 1941 when he joined *Queen Elizabeth*. A few months later he joined *Flamingo*.

In 1942 Arthur joined Delta W/T transmitting station which was situated about fifteen miles outside Alexandria. It was during this period that he got really interested in the theoretical side of radio and he teamed up with an H.O. who had held an amateur licence before the war. This friendship laid the foundations for future amateur activity which was to cover operating in many parts of the world.

In 1945 he joined the minesweeper base *Prometheus* and a year later he returned to the United Kingdom for a long spell of accumulated leave. On completion of this he spent a period at *Scotia*, Billy Butlin's holiday camp at Ayr, and later at Cookham Camp instructing H.O's: in 1947 he joined *Liverpool* in the Mediterranean Fleet.

1949 saw Arthur's first visit to *Mercury* when he went there for his C.C.O's course. On completion of the course, and subsequent promotion, he returned to the Mediterranean and joined the Submarine depot ship *Forth*. Whilst serving there he consolidated his interest in amateur radio by becoming ZB1BN. With a ten-watt crystal controlled transmitter feeding a 14 Mc/s dipole and a B28 receiver he was soon working the excellent DX that was to be heard on the H.F. bands at that time.

In 1952 Arthur returned to the Signal School and joined the E.W. section and at the same time became a licensed U.K. amateur with the callsign G3JKI. Three years later he joined *Royal Prince* in Germany and became licensed as DL2BE. His next seagoing appointment was in *Victorious* (1958) and as the Maritime Mobile licence had not yet been made available he spent a commission constructing a 150-watt AM/CW transmitter for use when he returned home.

In 1960 the new wireless station at Mauritius was being built and Arthur was sent out to select and train locally employed personnel for ship/shore operators when the station was completed. Ham radio once again provided an interesting pastime and with a K.W. Victor transmitter (150 watts), cubical quad beam and an AR 88 receiver, signals were heard emanating from VQ8BC. During his stay on the island Arthur made over 10,000 contacts and managed to get 166 countries confirmed before he returned to the United Kingdom.

From his home in Horndean, not very far from the Signal School, he can be heard on the amateur bands with his Mosley Commando II S.S.B. transmitter. The antenna at present is a 14 Mc/s dipole—though he hopes to get his beam back up in the near future. The receiver is the same AR 88 that was used in Mauritius. Future plans include operation on 70 Mc/s with a B44 transceiver.

As a final note Arthur tells us that he has always shunned organised radio activity, clubs, etc. He however says that R.N.A.R.S. is not at all "dictatorial" in its ways and he enjoys being an active member.

"CQ"

They CQ here, they CQ there,
They CQ every bloomin' where,
The amateurs are on the air,
Keen on finding who and where.
To this noble cause aspiring,
Never weary, never tiring;
They want a QSL sent to their station
From every "Ham Shack" in creation.

On through the night, while others sleep,
Their CQ's on the air they heap,
'Til, at last, the dawn will find them
With lots of QSO's behind them.

Now this may be a pleasant way
For some to pass the time of day.
But carried on into the night
They're keen—or else their minds ain't right.

"73"

THE FIRST MEN ON THE MOON

Editor's Note.—This article, written by an LRO, is printed as another example of the wide variety of interests displayed by members of the Communication Branch.

Since the end of World War II, two of the greatest powers on earth have been marshalling their resources for the greatest engineering and scientific project in history; America and Russia are trying to place a man on the surface of the Moon. Such an excursion would provide data which would be invaluable in the preparation of other proposed interplanetary trips.

The reasons for this sudden frenzy of activity are numerous and involved. It is not only man's urge to explore and conquer that enables him to accept this challenge, but in the age of the cold war, there are a number of factors involved. The enhancement of a nation's prestige on the successful completion of each new stage of the race, especially if it is the first of its type, is of great value in the political field. The technological advances required to achieve these goals reflect admirably upon that particular country's research, and the development of its industries. Not least among the reasons for the continuance of this race is the economic disruption that would follow its cessation. There has also been a great deal of discussion as to the military value of a moon base. Apart from the commanding position of such a base for retaliatory purposes in the event of thermonuclear war, it would provide an observation platform for detecting tests of thermonuclear weapons. It would also prove invaluable to astronomers and astrophysicists, at present hampered by our atmosphere, in their various research programmes.

For centuries man has aspired to reach the moon. Legends and folk tales are rich in such flights, but only recently have the dreams been turned to a practical possibility. The invention of the fire arrow by the Chinese was the first application of the rocket principle, but the real purpose of the rocket was not realised until much later. Hermann Ganswin Ganswindt—a German, and Konstantin Tsialkovsky —a Russian, both discovered, independently, that a rocket was the only feasible method of propulsion in a vacuum. Technical developments at the time, however, offered little likelihood of their theory being proved.

Since the days of the German V1 and V2, rocket development has become more organised and is dealt with on a more massive scale. The problems involved in present day rocketry are so immense and complex that, in the United States, a separate department has been set up to deal exclusively with space research problems. (No doubt Russia has a similar department.) Some of the rockets that have been, and are still being, developed by the National Aeronautics and Space Administration Board (NASA) are: Scout, Thor-Able, Atlas, Agena, Delta, Star, Centaur, Saturn and the giant Nova. Of the rockets so far developed, Saturn V, which is a combination of other rockets, is the one scheduled to take part in project Apollo, the landing of men upon the surface of the moon.

The first stage of Saturn will be 138 feet long, 33 feet in diameter and powered by five F1 Rocketdyne engines consuming 15 tons of fuel per second, and each engine producing 1,500,000 lbs thrust. This stage uses conventional propellant of liquid oxygen and kerosene, and will be under powered flight for 2½ minutes. It performed the first full duration/full thrust firings in May 1962, and will provide the initial lift for the succeeding stages and will separate on burn-out.

The second stage is also 33 feet in diameter and has five engines giving a total thrust of 1,000,000 lbs; it will burn for 6½ minutes and will also separate on burn out. This stage uses a liquid hydrogen and oxygen fuel which gives 40% more thrust per lb. weight than liquid oxygen and kerosene at the height involved. Over 140 test firings of this engine have been made to date.

The third stage will use only part of its fuel to place the rocket into Earth orbit at a speed of 18,000 m.p.h. and a height of 300 miles. This stage will remain attached to the spacecraft and will remain in orbit until it and the remaining stages have been checked by the crew and the ground control. Then, at a carefully calculated moment, the third stage will re-ignite and burn for 5 minutes in order to achieve escape velocity (25,000 m.p.h.). The third stage will be detached on completion.

At the time of writing there has been no announcement by the United States as to whether they intend sending their Moon rocket into orbit with the third and fourth stages fully fuelled. If this method is adopted, it will add considerably to the weight that has to be placed in orbit and could cause a further delay to the American project. The alternative is to refuel the third and fourth stages in orbit by placing tanker versions of Saturn into a similar orbit, and effecting a rendezvous in space. The latest statement by the Russians seems to indicate that they favour the rendezvous technique and their recent achievement of placing two manned satellites into close orbit seems to confirm this.

The difficulties that surround such a project are at times sufficient to make one wonder if such a scheme is at all possible.

A rocket's range depends upon the amount of fuel available and its thermal efficiency, and so the fuel must be selected with great care, and consist of mixtures of some of the following: Nitric acid, hydrogen peroxide, ethyl alcohol, dimethylhydrazine (UDMH), diethylenetriamine, ammonia, hydrocarbons and fluorine. Each of these must be in the correct proportion and their energy values, handling qualities, density, availability and cost must all be taken into account. Having decided which fuel was to be used, methods of handling it had to be devised. Liquid oxygen boils at a temperature of 90 K,

liquid nitrogen at 77.3 K and hydrogen at 20.5 K. These must be pumped under pressure, to the engines, therefore a pump that does not jam at these temperatures had to be devised. This pump had also to be able to work with liquids floating in globules as gravity will no longer be available to keep the fuel in one position in the environment of free fall. The combustion chamber must be able to withstand the enormous pressures that such fuels generate upon ignition and metals or alloys must be used that are not corroded by the propellant in use. The jet nozzle of the engine has to withstand temperatures in the region of 5,000 to 8,000 F. without melting and lubricants which would withstand the enormous temperatures and highly reactive chemicals had to be found.

Another important detail about the materials used in the rocket and spacecraft which must not be forgotten, is that they must retain their characteristics while being subjected to hard radiation. Certain semi-conducting materials for instance, when subjected to the hard radiation emitted by the sun, undergo changes in their electrical characteristics. Certain metals are also liable to undergo chemical changes which would seriously weaken them.

"And don't forget, Chief, regard me as a sort of father confessor. Never hesitate to bring any of your personal problems to me, I'll be only too glad to sort them out for you".

While all these problems were being dealt with, it had to be remembered that the rocket's function was to carry a three-man crew to the moon and back. As early as 1959, volunteers were being enrolled for America's various space projects and in particular for project Apollo, the landing of a man on the lunar surface. The physical fitness of a candidate is of paramount importance, as anyone with a weak heart would almost certainly suffer a fatal stroke on launching, when he is subjected to a force of 7 to 8 times that of normal gravity. Complete orientation while under negative gravity conditions is also an essential qualification, as the absence of gravity makes it extremely difficult for an astronaut to judge the force required to execute any particular piece of work, which in turn produces a loss of co-ordination. The marital status of a volunteer also had to be taken into consideration as an astronaut may accidentally suffer a severe dose of radiation. The production of genetic mutations however is a negligible factor since such a small proportion of the population are directly involved with space flight.

On being selected, candidates have to undergo intensive training and familiarisation with the equipment in use. They are also required to learn something about spectroscopy, geography, ballistics, spatiology and rocketry. This task is further complicated by the rapid advances in design and construction, and the subsequent modifications that are made. They must be able to correct the course and attitude of their spacecraft when in orbit, a very difficult operation, as the craft is moving at high speed in three planes at the same time.

If the astronaut is to survive in space, he must be provided with the conditions which will support life, and must be protected against the hostile environment of space. These two problems, while very closely allied, must be considered as two totally different aspects of spaceflight.

During the launching period, the astronaut is subjected to many forms of stress. The two main forms of physical stress to which the pilot is subjected are vibration, and an increased gravitational force. Vibration can be diminished by mounting the astronaut and his couch on resilient supports, virtually isolating him from the main body of the rocket. Gravity cannot be defeated quite so easily. In order to achieve an orbital velocity of 5 mps, or an escape velocity of 7 mps, a constant acceleration is required if the rocket is to follow a parabolic curve into its orbit. The length of this curve is determined mainly by the amount of fuel that the rocket is able to carry and the height at which the rocket is intended to orbit. In order to achieve orbital or escape velocity within the time set by the limitations of fuel capacity, the astronaut must be subjected to 7 or 8 times the normal gravitational force which has serious effects upon his circulatory system and may result in the blood collecting in

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only one part of his body. This increased force may also cause the displacement or rupture of body organs, such as the eyes or kidneys, as well as intense pain thereby disabling the pilot.

A certain degree of protection against the various dangers brought about by this increase in gravity is achieved by positioning the astronaut on a resilient, form-fitting couch, and encasing him in a pressure suit. The attitude of the astronaut is arranged so that he lies horizontally, with his head at the same level as his body, but with the legs slightly raised.

Once in orbit, the astronaut must be continuously supplied with air and he must be protected against a sudden drop in pressure. Both of these requirements are met by encasing the astronaut in what is popularly known as a space suit. This is a tailor-made capsule which begins to function only when the cabin pressure drops below a predetermined level. An interesting fact here, is that, like the deep sea diver, an astronaut is liable to suffer from decompression sickness if the pressure drop is too great to too sudden. (The pressure in the American Mercury capsule is maintained at about one-third of an atmosphere while the Russians appear to have used sea-level pressures in their Vostoks.)

Radiation presents the greatest hazard to the astronaut. Heat, which may come from the sun, the capsule or the astronaut himself, must be dissipated or conserved, according to the circumstances, and hard radiation must be reduced.

Primary cosmic rays, while the most energetic of all particles, do not in themselves constitute a serious hazard. Even with the recent discovery of a 10^{20} eV particle, the average dose rate from primary particles, as calculated by two Russian radiologists, should not exceed 10 millirads per day. The inner and outer parts of the Van Allen belt, which consist mainly of protons and electrons with energy values of between 10^5 and 10^8 eV, are a much more serious hazard and dose rates are expected to be between 100 rads/hour and 10^4 rads/hour. Shielding would effectively reduce this hazard to a tolerable level, but the weight of such shielding would be about 500 lbs and this would drastically reduce the payload of the spacecraft. However, with a combination of light shielding sufficient speed, and choice of exit from the Earth, a tolerable level of radiation would be achieved.

The greatest radiation hazard that will be encountered by the astronaut is presented by the sun. Solar flares, which produce energies up to 10^{10} eV, may produce dose rates between 3×10^4 rads/hour and 10^{10} rads/hour and so cause rapid death. It is generally accepted that a manned lunar landing would be impracticable during or near the Sunspot maximum owing to the unpredictability of Solar flares, but there has recently been a claim made by Russian scientists that by measuring variations in the sun's magnetic field, they are able to give forecasts of Solar activity with a fair degree of accuracy. If this claim is correct, it could mean that the race to place a man on the moon during the sunspot minimum could be prolonged, at least for a few more years. Even so, the maximum permissible dose of radiation for an astronaut is set by the onset of vomiting; this is because there is a danger that the astronaut may be suffocated by a weightless mass of vomit floating inside his helmet. Experiments have indicated that nausea may be expected after a dose of 20 rads, and vomiting after a dose of hard X-rays or Gamma rays of about 100 rads. Doses of above 400-500 rads will cause death within about two months in 50% of all cases.

The question of what tests and experiments an astronaut should carry out when he lands on the moon has been under discussion for some considerable time. Undoubtedly geological specimens will be brought back to earth for analysis, and measurements of the moon's gravitational force and magnetic field will be taken. Numerous other tests will also be made, but the astronaut will be handicapped by the limited payload capacity of his vehicle. Instruments will probably be left on the moon's surface to record data, and radio the information back to earth; this way a systematic search could be made for mineral deposits, gases or life.

The astronaut's return will be eagerly awaited by the whole world and, probably, he will be like the explorers of old, bearing strange gifts from distant lands. Unfortunately, the strange gifts borne by this modern explorer will not be readily available to the average man. He will bear gifts of knowledge, in the form of facts and figures. It is unlikely that any strange unearthly fruits will appear on the market for some considerable time, if at all. The gain will be intangible to the man in the street. No gold or jewels will be seen; no direct material benefit whatever that can be purchased from the shop on the corner will be available. The gain will be more of a scientific and technological nature and many branches of science will benefit from the successful completion of project Apollo. The so-called 'fall-out' from the space race has already benefited numerous industrial processes and will continue to do so while the race itself continues. The technological advances that have been made during the last ten years would not have been possible without the incentive of the space race. Research into electronic devices in particular has been responsible for some of the recent rapid advances in circuit design and the development of microminiaturisation techniques and semi-conductor devices.

This additional knowledge will eventually be put to practical use as it becomes available, whether for good or for evil is a matter for speculation, but if mankind survives the terrors of the cold war, and manages to avoid thermonuclear destruction, he may one day find himself master of this minute corner of the Universe and perhaps by then, man will have lost his hereditary destructive capabilities and will know how to live with himself.

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ON THE RAILS

by D801 of 82A

Since my story, entitled "Predestination", appeared in THE COMMUNICATOR, I have had the opportunity of making a trip from London to Plymouth on The Cornish Riviera Express. There was, however, a slight difference, because the Western Region of British Railways had arranged for me to make the trip on the footplate (or in the cab) of the locomotive of this famous train, and I was very excited with the prospect.

At 1000, one Saturday morning, I arrived at Paddington station and met Mr. Percy Hancocks, who was to be my guide for the day. He is a locomotive inspector on the Western Region, and has spent many years first as a fireman and later as a driver on British Railways. It was a beautiful August day, during my seasonal leave, and I waited anxiously on platform one of Paddington Station for the locomotive to be coupled to its heavy train of twelve coaches weighing about 425 tons. Mr. Hancocks and I were deeply involved in what was about to happen, and what I must do and not do. Then at about 1020 we saw the locomotive running down, to be coupled up to its train; this was soon accomplished and then I was taken into the driving cab to meet the driver and fireman; I was shown my chair for the journey, and was given a brief explanation of the controls. The main things I remember were the brake and the throttle, or controller. It was clear that the driver was very pleased to have me with him on the trip, but Mr. Hancocks made me sit down in a corner, out of the way, so that preparations for the journey could be completed on time. The train guard came up to the driver, to give him the loading figures for his train; this he did with a friendly "Twelve for four twenty-five, Jim. Next stop Taunton". This meant twelve coaches weighing roughly four-hundred-and-twenty-five tons and, having said it the guard hurried off to the rear of the train to check in the mails and keep his eye on them. Normally, the Riviera Express is non-stop to Newton Abbot, but that day there was a big farming show on in the Somerset capital and we were to make a brief unscheduled stop here.

At 1029, I saw a line of amber signals suddenly change to a lovely green and a small illuminated sign at the end of the platform came on and indicated RA for "right away". A shrill whistle blast was heard and our driver released the train brakes and allowed the engine speed to increase. At exactly 1030 we began to roll down the line, and when we had the whole train on the move, Jim pulled the throttle right back to notch seven on the control desk. Then we began to move faster and, with scarcely a sound from the two powerful Bristol-Siddeley engines in the engine room behind us, the speedometer quickly crept up and we were doing about 65 m.p.h. and still accelerating, even though we had travelled only three-and-a-half miles. The fireman then went to do his routines in the engine room, as the machinery section is called, and I went with him. He suggested that, as there was very little to see in the suburbs, he would show me the pride and joy of his part of "ship". I was pleased to find that he was an ex-RN Ldg. Stoker, and of course, he asked me about ships and places all the time. The locomotive was a "Warship" class diesel hydraulic, number D.817, and its name was "Foxhound". There are a number of engines of this class of locomotive on the W.R. and both the driver and fireman said what good locomotives they were. When I returned to the driving cab, Inspector Hancocks gave me a detailed diagram of our route which showed the names of stations and mileages from Paddington, so that I could follow the train's progress on its journey.

I just could not get over the lovely view from the driving cab as our train was moving through Buckinghamshire and Berkshire at over 80 m.p.h. Within thirty-three minutes we were through Reading station, where a slight brake application was made as we had sighted some men on the track and it was necessary to ease our speed to 60 m.p.h. to make the left fork, as I called it, for the line to Westbury from the Bristol road.

I was fascinated by the approach of trains on adjacent tracks as they closed us at about 140; it was hair-raising. Our driver told me that sometimes, careless passengers had thrown empty bottles through compartment windows and the bottles had hit the windscreens of locomotives on adjacent tracks with terrifying results and serious injuries to train crews. So if any thirsty sailors wish to dispose of their empty bottles please leave them under the seats of the train and not as little pieces in somebody's eye.

Just after we had passed the junction beyond Reading, the driver pulled the throttle lever round to the stop and with scarcely a change in the note of the engine I watched the speedometer of "Foxhound" gradually creep up to 90 m.p.h. It was a warm day, but we had a cool breeze circulating in the cab as we opened the draught-proof windows and I was fascinated by the calm and apparent nonchalance of the crew as our train swiftly sped through the Kennett Valley and the Vale of the White Horse. We went through Newbury racecourse station and I could see the horses being exercised on the course and wondered how many spectators watched us speed along the centre track of the station.

Our locomotive was one of the few of its class which is allowed to run up to 90, the majority of the class being restricted to a maximum speed of 80 m.p.h. because of a slight defect in the transmission. This fault is being rectified as soon as possible and by now, it is probable that they can all run up to the maximum of 90 m.p.h. This upper speed limit is imposed because the conditions of the

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track together with certain conditions of speed and curvature may cause the train to roll too much for the passengers' comfort. Contrary to my beliefs, I was told that the travelling public also complain if the trains run at an excessive speed for their comfort—as the crew told me, "We just can't win" . . . For mile after mile, "Foxhound" lived up to her name and I was thrilled with my experience—after all, not many naval ratings have travelled as I did that day.

I was shown how to use a stop watch to obtain the train speed; there is a post every quarter of a mile throughout the entire 226 miles from Paddington to Plymouth, and I soon learnt how to obtain the speed without recourse to the speedometer. For example, if the train took exactly 15 seconds to pass successive quarter-mile posts then our train was travelling at exactly 60 m.p.h.; we clocked 10 seconds for each post which, as you can see, was exactly 90 m.p.h. At this speed the two engines were developing their maximum of 2,200 horsepower and were consuming diesel fuel at the rate of about one gallon per mile. When we remember that in the old days of steam locomotives, the poor fireman would be shovelling coal at the rate of about half hundredweight per mile (43 lbs per mile to be exact), we can see how difficult it must have been on a lively engine. The riding of "Foxhound" was superb; I had a mug of tea and was able to place it on a shelf, above the control panel, quite safely. There was also a steak grille fitted in the cab, and our train crew had bought some lovely steaks to grill on the long journey—to be sure, I was being well treated.

I was very interested in the system of signalling which is used on the Western Region: when a signal is at danger, or "on" as railwaymen call it, a siren is sounded in the cab and if appropriate action is not taken to cancel this warning, a brake is automatically applied which will bring a train to a stop in less than a quarter-of-a-mile. If the signal is clear, or "off", then a bell rings in the cab and so the train can run at speed and in safety during fog and darkness. This system has been in use on this particular railway for well over twenty-five years, and the whole of the Railway system of Britain is now being fitted with a similar device, which will also give a visual indication in the cab.

Our speed had been restricted to 80 m.p.h. through the Forest of Savernake, but we reached Westbury, 95 miles from London in ninety-one minutes—dead on schedule. Then we went up the rising grades to Brewham in Somerset, and our speed dropped, but we passed the summit at 69 m.p.h. Then we went down to Castle Cary, but reduced speed to 60 m.p.h. for the junction with the Weymouth line and to take the curve in safety and comfort. Just after entering Somerton tunnel, the driver closed the throttles to idling speed and our momentum was sufficient to keep us running until we rolled to a stop at Taunton, exactly two hours seventeen minutes after leaving London.

Then came the most interesting and, for me, the best part of all—climbing hills, which appeared quite formidable from the engine. After five minutes of maximum power we ascended Wellington Bank and, at the top, we were doing 57. But here we had a penalty for our efforts, and had to slow right down at Burlescombe because of a laggard freight dragging its tail into the loop at Samford Peverell. But for this, we should have been on time at Exeter; as it was, we were now two minutes late. If we had made a non-stop run to Plymouth our driver reckoned that the nett time to Exeter would have been 151 minutes.

The proceedings at St. David's was painfully slow, and after a stop of 13 minutes we were off to do battle with the famous Devon banks, some of the most fearsome in our railway system. This is where a locomotive is really tested and also where drivers show their skill at handling these powerful engines, for they are very prone to slip on banks, especially on wet days with a strong westerly wind blowing against the collar. This last leg of the journey to Plymouth was up one bank and down another; the scenery was superb and everchanging and the track never seemed to be in sight for more than about a quarter-of-a-mile. I was told that, in the days of steam, the engines starting out cold from North Road to London were faced with a very hard job to get their trains up over Hemerdon bank in the winter and sometimes they slipped to a standstill and had to wait on the bank until an assistant engine was sent up from Plymouth to get them moving. We had none of these problems and had shut off power and drifted down the last descent into Plymouth, gradually slowing down to bring the Cornish Riviera Express to a stop, four hours and twenty minutes after leaving London, 226 miles away.

So ended one of the most memorable days of my last leave. I shall always treasure the thrills and excitement of that journey, and especially I shall remember my three friends on the footplate that day. In Plymouth they were off duty for four hours and we had a drink at one of Plymouth's convivial public houses. (No! Not the Foxhound.) The driver and fireman had to return to London that same evening, so it was with regret that I said goodbye to them before they were off to their hostel for a few hours "shut-eye". I made my way to Aggie Weston's for a few hours in a nice comfortable chair, and was soon asleep and dreaming of the return journey with me at the controls.

ACKNOWLEDGEMENTS

Cartoons:

LRO(G) R. W. Thomas	page 85
Wilkie	page 89
'Jan' Foster	pages 68, 107, 119
Anon	page 109

COMMUNICATIONS GAZETTE

EDITOR'S NOTE.—*Although every endeavour is made to ensure that the information in this section is correct, we ask readers not to treat it as authoritative in the strict sense.*

Name	Rank	Whence	Whither
R. BENNETT	Lieut.Cdr.	Kranji Officer in Charge	Mercury II
A. E. P. BRIGGS	Lieut.	F.3	Whitehall W/T
M. A. BROOMFIELD	Lieut.	Mercury	Dartmouth T.S.
M. P. H. BRYAN	Lieut.Cdr.	Mercury II	Albion
R. H. W. BUNTING	Sub.-Lt. (SD) (C)	Staff of C-in-C. Portsmouth	Kranji
C. D. CARTER	Sub.-Lt. (SD) (C)	Decoy	Staff of C-in-C Portsmouth
G. D. CARTER	Lieut. (SD) (C)	Mercury	Com Hong Kong
G. C. CLARKE	Lieut.-Cdr.	F. C. A. Med.	Advanced C Course
C. S. COLLINS	Sub.-Lt. (SD) (C)	Lion	Mercury
H. R. CORNELL	Lieut.-Cdr.	C-inC H.F.	Mercury II
D. H. CREMER	Lieut.-Cdr.	Mercury	Victorious
W. G. DARTNELL	Lieut.	Sheba	Staff of C-inC Portsmouth
J. W. DAUBNEY	Lieut.-Cdr.	Staff of C-in-C F.E.	Mercury
J. R. EDWARDS	Lieut.	Terror	Mercury
G. EVATT	Sub.-Lt. (SD) (C)	Whitehall W/T	Staff of C.B.F. Borneo
N. F. FAWCETT	Commander	C-in-C Plymouth	Personnel Panel (TY) Hampshire as XO
D. A. K. FINDLAY	Lieut.-Cdr.	Puncheston in Command	D.N.S.
L. G. FOOT	Sub.-Lt. (SD) (C)	Nubian	Mercury
J. A. FULTON	Third Officer W.R.N.S.	Whitehall W/T	Mercury
E. M. GOUGH	Lieut. (SD) (C)	Whitehall W/T	D.C.C.
A. M. GORDON	Sub.-Lt. (SD) (C)	Plover	Mercury
E. Y. C. GORING	Lieut.	Mercury	Staff of F.O. C-in-C F.E.F.
M. C. GWINNER	Lieut.	Staff Capt. I.F.	Mercury
B. HANCOCK	Lieut.-Cdr.	F.O.F.T.	B.J.S.T.T. Ghana
P. A. C. HARLAND	Lieut.-Cdr.	C-in-C SASA	Ghurka as 1st Lieut.
D. H. HEAPE	Third Officer W.R.N.S.	Mercury	Whitehall W/T
M. G. HEWITT	Lieut.-Cdr.	Victorious	Staff C-in-C H.F.
C. R. HOLLAND	Lieut.	F.O.F.H.	Capt. A.W.
J. B. R. HORNE	Commander	SHAPE	SACLANT
S. JACKSON	Sub.-Lt. (SD) (C)	Mercury	Relentless
P. A. JENKINS	Third Officer W.R.N.S.	CINCEASTLANT	CINCAFMED
J. M. JESSOP	Commander	Alert in Command	Staff CINCEASTLANT
M. M. JONES	Second Officer W.R.N.S.	Staff C-in-C Med	CINCAFNORTH
G. JUBB	Sub.Lt. (SD) (C)	Mercury	Victorious
R. W. KEOGH	Lieut.-Cdr.	Mauritius	Ulster as 1st Lieut.
A. J. S. KNOCKER	Lieut.-Cdr.	Staff C-in-C H.F.	Mercury
D. LARKINS	Lieut (SD) (C)	Hermes	Rampart as 1st Lieut.
D. A. LORAM	Captain	Personnel Panel	N.A. Paris
A. H. LORIMER	Lieut.-Cdr.	Staff of FOCINCFEF	Special Sqdn.
G. H. MANN	Commander	COMNAVBALTAP	Olympic Sailing
J. H. MCDERMOTT	A/Sub.-Lt. (SD) (C)	Diana	Terror
V. E. MCDOWELL	Sub.-Lt. (SD) (C)	Mercury	Hartland Point
K. MILLER	Sub.-Lt. (SD) (C)	Leander	Mercury
R. C. MORGAN	Commander	Saker	Lochinvar as XO
A. S. MORTON	Captain	Mercury	Capt. F.20
M. MURPHY	A/Sub.-Lt. (SD) (C)	Lowestoft	Chilcompton
P. A. MYTTON	Lieut. (SD) (C)	Ark Royal	Lion
D. A. P. O'REILLY	Commander	F.O.N.A.C.	Personnel Panel

Name	Rank	Whence	Whither
A. C. O'Riordan	Commander	D.N.S.	Defence Ops Staff
A. T. S. Perry	A/Sub.-Lt. (SD) (C)	Centaur	Mercury
M. A. H. Richards	Lieut. (SD) (C)	Mercury	Meon
C. W. Robertson	Commander	SACLANT	D.S.S. (Co-ord)
I. Rothwell	Lieut. (SD) (C)	Wizard	Capt. SM 2
J. C. Rushbrooke	Commander	D.S.S. (Co-ord)	J. W. Staff
A. V. Salter	Lieut.-Cdr. (SD) (C)	Kranji as 1st Lt.	Kranji O.I.C.
B. D. Salway	Lieut.	D 29	Glasserton in Command
C. H. Sanders	A/Sub.-Lt. (SD) (C)	Diamond	Mercury
K. Schofield	Lieut. (SD) (C)	RAF Tangmere	Ark Royal
D. E. Shutt	Lieut. (SD) (C)	Pembroke	Whitehall W T
I. F. Sommerville	Captain	S.O.W.C.	Commander Naval Forces Borneo
P. J. Stembridge	A/Sub.-Lt. (SD) (C)	Mercury	Terror for Naval Party KILO
M. A. Stockton	Lieut.-Cdr.	Mercury	Dartington in Command
R. A. Thompson	Lieut. (SD) (C)	Chilcompton as 1st Lieut.	Mercury
G. M. Timpson	Lieut.	Mercury	D. 30
C. G. Traill	Lieut.	Capt. A.W.	Advanced C Course
P. J. V. Tuke	Lieut.-Cdr.	Duchess	St. Vincent
J. B. Wells, R.A.N.	Lieut.	SM 2 (TY)	F.O.F.H.
P. K. Wigram	Lieut.	Mercury	F.O.M.E. as Flag Lt.
C. W. Williams	Lieut.	Mercury	D. 29
D. A. Wilson	Lieut. (SD) (C)	Mercury	F.O. Gibraltar

PROMOTIONS

To Rear Admiral

P. N. Howes, D.S.C.

To Captain

D. A. Loram A. S. Morton

To Commander

St. J. H. Herbert

To Lieutenant-Commander

G. C. Clark N. I. C. Kettlewell A. N. A. Macdonald
C. Maitland-Dougall P. J. V. Tuke A. A. Waugh
D. Whitehead

To Lieutenant-Commander (SD) (C)

H. Gormley

To Lieutenant (SD) (C)

J. N. Allcock H. Brown M. A. H. Richards I. Rothwell

To Act/Sub.-Lieutenant (SD) (C)

W. J. Carter D. C. Sayce J. T. Hudson M. A. Robinson
B. A. Davies A. H. Brooks J. R. T. Jarman S. G. Solley
C. A. O'Brien D. G. Cooper R. V. McDonnell, R.A.N.
J. W. Purvis P. R. Feiler N. J. Phelps G. A. Stratton

Communication Yeoman to Chief Communication Yeoman

Brooks, A. H.	JX871315	(6.3.64) (since promoted Sub-Lieut. SD(C)
Counihan, D.	JX818006	(9.4.64)
Ward, R.	JX778001	(19.4.64)
Hoffmayer, V. H.	JX712162	(21.4.64)
English, E. A.	JX246306	(21.4.64)
Constantine, C. V.	JX388255	(24.4.64)

Radio Supervisor (W) to Chief Radio Supervisor (W)

Jackson, I. G.	JX712481	(1.2.64)
O'Clee, P. D.	JX905246	(1.3.64)
Aldrige, A. D.	JX890085	(1.4.64)

Radio Supervisor to Chief Radio Supervisors

Eames, O.	JX660333	(13.2.64)
Trappitt, F. J.	JX735106	(13.64)
Hopp, K. W.	JX843620	(1.4.64)

RETIREMENTS

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High power ground station – three-man load
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Plessey UK

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For further details please write for publication No. 233

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