

No 3

(MARCH 1962)



AVIATION SERVICE AND REPAIR DIVISION

## Technical Services-

Since the last issue of our News Letter it became necessary for the Technical Services Manager, Mr. H. Milroy, to sever his connections with the Company under circumstances which most of you will be aware.

With the projected expansion during the ensuing year the opportunity has been taken to re-organise the Management of this particular department. In effect there will be four sections, two of which are Field Service Engineering, one Technical Training and one for our responsibilities in the Inertial Navigator. I have decided that control of the department shall be vested in a Technical Services Manager with overall administration responsibilities who will also be directly concerned with the running of the Technical Training School. He will be assisted by three Controllers, one civil, one military, one Inertial Navigation.

By the number of applications I have received many of you are already aware of this arrangement, but I must emphasise that it is my intention not to rush into decisions and appointments will not be finalised for some little time to come. Confirmed appointments will be published as the positions are filled.

## Technical Training-

It is with regret I inform you that Mr. R. K. Hibbard has resigned his position as Chief Instructor to take up a post as a teacher in a local Technical College. I am naturally glad that Mr. Hibbard has been able to obtain a post which he feels meets his ambitions and wish him every success.

It will be appreciated that the post of Chief Instructor demands specialised experience in the teaching field and therefore not a position that can be freely offered to everyone. Mr. R. W. Leach, who is responsible for Inertial Navigation instruction and has had many years experience in this general field of teaching, has been promoted to the position vacated by Mr. Hibbard.

N E W S L E T T E R

of the

A V I A T I O N

S E R V I C E   A N D   R E P A I R   D I V I S I O N

A member of the E-A FLIGHT AUTOMATION GROUP

COVER - depicting the symbol of SERVICE in orbit on world-wide coverage.  
The EA-SERVICE flash has become established as the Divisional  
insignia and will be appearing in a variety of ways in the near  
future.

#### Car Hire Scheme.

The car hire scheme is now going into action, the cars being made available from Russels Garage, Chatham, at about one a week. The hiring of Morris Traveller models was completely abandoned, by instructions from the Divisional Manager, when he heard that these cars would be subject to a Car 'C' license cover and consequent Ministry of Transport Log Sheets where the driver would probably spend more time filling in his movements than he would Service Engineering. It was, therefore, decided that the Austin A.40 new model would be adopted.

At the Service Engineers meeting just before Christmas several opinions were expressed as to the reliability of the A.40, but it was felt that these opinions were based on a vehicle hired by Mr. S. Wells which was certainly badly serviced. This will not happen with the present vehicles and the Division will be taking a very keen interest in the general condition of the cars. It is hoped that the people allocated these cars will be as careful with them as they would be their own vehicle; a forlorn hope, maybe, but the means of retaining a hard won privilege.

Staff Increase-

Mr. N. Pearson has been given the extra duty of looking after the Borehamwood commercial activities. To assist at the Rochester department an applicant has been interviewed recently and will probably be joining us in the near future.

Anglo-American Agreement-

In the last News Letter it was mentioned that we were expecting to conclude a License Agreement with Aviation Instrument Manufacturing Corporation of Houston, Texas, for the marketing of a range of Attitude and Directional Indicators.

We have now received three types of these instruments from the U.S.A. which we intend to mount in a suitable cabinet for subsequent display at the Shackleton Light Aircraft Show at Sywell on the 13th-15th April, and the West German Air Show at Hanover commencing 29th April. At both these shows the company will be exhibiting a representative display of aviation products. The Division will of course be in evidence on both occasions.

Take-over-

The Company has taken over part of the Firth Cleveland Group at Treforest, South Wales. A party from the Division visited these people to secure extra machining capacity from their quite extensive machine shop, and to renew old friendships. The Engineer Director, Mr. D. Broadbent, was in fact at one time Chief Engineer of the original Aviation Division. The particular part of the Firth Cleveland Group bought over is comparatively small and deals mainly with Fuel Contents measuring equipment for the Comet, Buccaneer and Argosy aircraft. At present it is unlikely that our Division will be handling these equipments, Elliott (Treforest) Limited as it is now called, not being a member of the Guided Flight Group. If therefore you should be asked to give advice on service or repair of this equipment refer the query to our friends at Treforest, pointing out that at the moment, since it is a comparatively new take-over, we have no mandate to touch their equipment.

Mk. 13 Autopilot-

The Division is about to undertake overhaul and repair of the Mk. 13 Autopilot equipment which, it is thought, will extend into the Flight Control and Air Data Systems at a later date. Many of the service engineers will have had experience of particular faults in the equipment and if he thinks that his specialised knowledge could be of any value to Mr. G. Townsend, by all means get in touch with him. With contracts of this nature we are expected by the Ministry to publish Repair Instructions based on an Inspection Analysis and it is requested that anyone who has been working on the Mk.13 and has any personal notes, to contact Mr. G. Townsend. A further advantage with the Division having these repair contracts is that a considerable backing of spares will be available which will improve any difficulty being experienced by service engineers in securing such spares.

The Division is now receiving repair and spares orders to support the Inertial Navigator programme.

N.A.T.O.

Our N.A.T.O. representative, Mr. R. S. Fortney, continues his labours in foreign parts and it is hoped that the near future will show some positive results of his efforts. It is thought that these will initially be repair contracts, but could develop into extra work for service engineers. Further information will be issued later as and when the situation develops.

At the last meeting of Service Engineers, held at Rochester in December 1961, a request was made during discussions that information be issued to our out-stations regarding standardisation of wiring techniques. A promise was made that the position would be investigated in the issue of copies of specification DEF 5000 to all concerned. On reflection however, it is felt that while the specification constitutes part of the wiring standards for the United Kingdom, it left much to be desired from the aspect of conciseness. It is with this in mind that we propose to await Mr. Rastal's completion of a course on wiremanship in the United States, so that we can combine in easy reference form the standards for both countries. Preliminary discussions with the Electrical Inspection Directorate have indicated that the proposal has been favourably received, so we can anticipate sympathetic consideration of the finalised schemes. The results of this exercise should prove beneficial to all concerned.

It was reported in the last issue of the NEWSLETTER that we were applying for approval, from the Federal Aviation Agency of America, as a Certified Repair Station. The latest information on this project is that an agreement has been made between the FAA and the ARB to recognise and accept each other's authority. This agreement will cancel the need for our application: We shall in due course be informed officially of this agreement.

## EDITORIAL

Your first quarterly issue of the 1962 NEWSLETTER has taken on a new look which I trust you find pleasing.

Attractive covers, printing and layout however are possible improvements of presentation only, the value of which is lost unless they accompany attractive and interesting contents. This is where you, the share-holder reader, can help enormously by contributing items of news, personal experiences, short reports or stories - in fact anything which you feel would be of interest to the other readers.

In addition to the prime purpose of the NEWSLETTER, which is to keep everyone informed of the current business activities of the Division, it is intended to allocate a section to social news and general interest. The measure of success of this section is almost entirely in your hands (particularly the hand with which you write).

So, having sent the invitations, I look forward to being showered with your literary contributions (fear not that I shall complain) ready for the next issue - reaching me please not later than April 30th.

A.C. ADAMS

PUBLICATIONS DEPARTMENT



Almost everyone nowadays enjoys, in some way or another, the comfort and convenience of electricity in the home, indeed this boon is accepted as normal a part of the house as windows, roofing and plumbing. Yet it is only just over 30 years since electricity was being installed as a standard item in new property.

Today, a host of time and labour saving devices help to reduce the tedium of housekeeping and most of them dependent upon the phenomena of electricity. With the modern housewife's demand (and quite rightly) for yet more such devices it is not surprising that running costs cause alarm and despondancy each time the quarterly reckoning comes along. Let us then consider how the costs are made up and what sort of service value we get for our money.

Your quarterly account shows a column marked "UNITS USED" which to the layman does not, perhaps, mean very much, except that it is usually more than expected. What anyway is a UNIT? - obviously a quantity of electricity; but how much?

In the same way that liquid quantity is measured in pints and gallons, so electrical quantity is measured in WATTS and KILOWATTS (1000 watts)- a UNIT is in fact ONE KILOWATT or 1000 watts worth of electrical work.

The rate at which the 1000 watts are consumed however varies with the particular appliance being used. All appliances have their wattage rating marked, this denoting the number of watts that the appliance will consume in ONE HOUR. For example, a 100 watt lamp consumes 100 watts per hour and will therefore give 10 hours light for one unit. The average cost of one unit is approximately  $1\frac{1}{4}$ d. (though this varies for different areas of the country) so we can by simple arithmetic assess fairly accurately the weekly cost.

Next week-end, check each of your appliances, including lighting lamps, and note the wattage rating; then make an accurate as possible estimate of the number of hours that each appliance is used weekly. Multiplying the hours by the wattage rating for each appliance gives the total watts used, which at  $1\frac{1}{4}$ d. per 1000 gives your approximate weekly cost. If, like myself, you have a number of appliances, it is almost unbelievable how the watts mount up. Foreknowledge of what to expect on next quarter's account however does nothing to reduce the bill so perhaps the moral is to set aside the weekly cost - each week! In this way at least the bitter pill is split into twelve parts instead of taking the whole lot in one diabolical gulp.

Even so, a final comment on the value of this service; if you have never experienced living with gas-light, heating your bath water in huge heavy boilers, or frozen stiff whilst waiting for the coal fire to blaze up on a cold frosty January morning - in the writer's opinion it may be expensive but compared with most of today's necessary luxuries - indeed value for money.

"A ROSE BY ANY OTHER NAME"

K. TUCKWELL

This little story, which happens to be true, is related at the possible risk of inviting the traditional comments.

Some weeks ago, the Chief Inspector, sitting quietly in his office contemplating the sins of the Production Department, was disturbed by the entrance of two maintenance men complete with tools and a hand towel dispenser. A decision was respectfully requested as to where in the office this appliance should be fitted. Profoundly moved by this demonstration of his importance the Chief Inspector haltingly enquired as to when he could expect delivery of the remaining sanitary fitments associated with the article in question. It was at this moment that the significance of the situation dawned upon the two worthies. With broad grins they retired with the fitting and tools to check on the accuracy of their instructions.

Sadly gathering the shattered remnants of his ego about him the Inspector returned to his contemplations!

COMMENT- if we might assume that this incident happened before certain places had their FACE-LIFT - are we to wonder why the two worthies imagined they were in the right place?

## ROBOT-

"It is said of a new device developed there that it forms possibly the first artificial creature that can deal with the outside world and have a limited understanding of it.

The device consists of a mechanical hand and arm, linked to a computer, that can explore its surroundings in the manner of a child groping in a dark room. The hand gropes slowly about a half inch from the floor in an area approximately five feet square.

It can locate a box, and explore it by touch to determine its size. It can then search for and find blocks and place them into the box. Another of its exercises is the piling of blocks or other objects one on top of the other.

Its most distinctive feature is that it adapts itself to the unexpected, much in the way that a child does. If an obstruction is placed to bar the path of the searching hand, the hand will feel its way round the obstructing object.

The hand-computer system could find practical applications in industry or in robots for space exploration. More immediately, however, it may further efforts being made to understand how man thinks and adapts himself to the world around him.

The hand is fitted with 30 "sense organs", by which it can detect pressure and orient its position".

(Electronics Weekly 31.1.62)

COMMENT- cinema going ladies "look before you slap" - it could hurt you more than him/he/it!!

MATTHEW-

"Matthew aged sixteen months is able to sit in his chair because he is tucked into a plaster cast, made to fit his legless trunk. He has no arms, but enough shoulders to carry a special harness. In only a few weeks he has learnt to butt with his arms, to move things where he wants them. Sadly incomplete?.... Matthew is intelligent...."

(She, February 1962)

COMMENT- This child is being cared for at Chailey Heritage Craft School and Hospital, in Sussex. The staff do what they can to bring a little movement into his stationary life, but if anybody in the automation field is suffering from frustrated inventive genius - Matthew could do with a robot playmate. He is now sixteen months - in this day and age of apparent scientific progress what are his prospects at sixteen years?

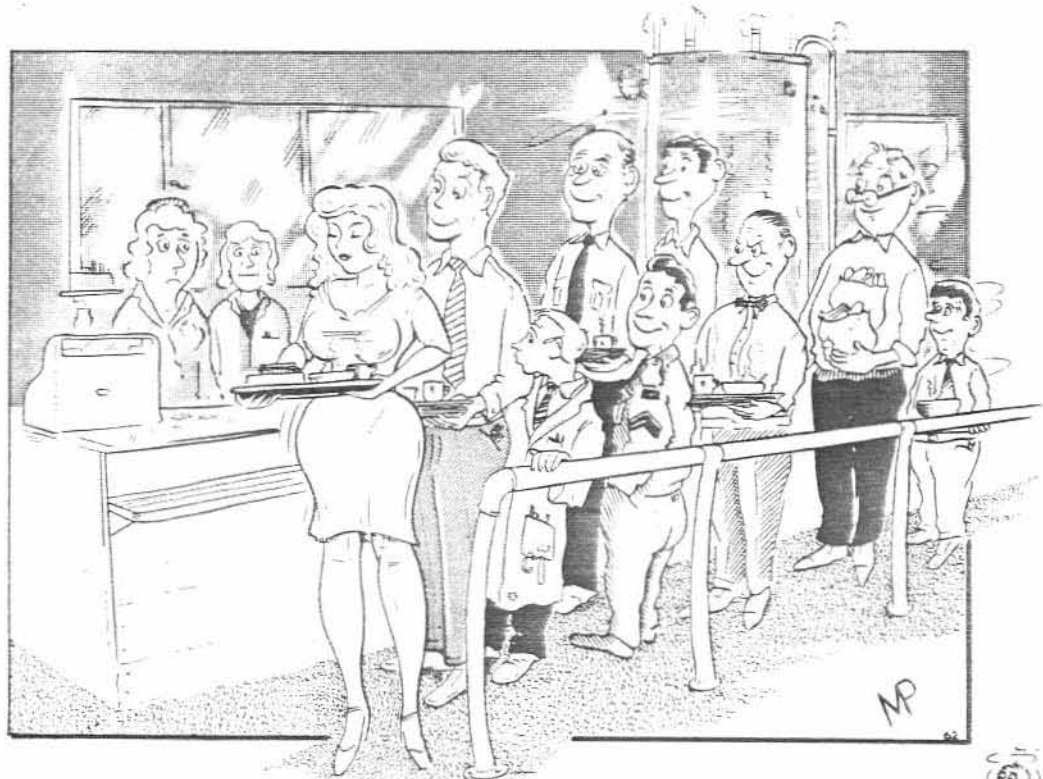
ADULT I.Q.-

A.C.A.

A report issued by the County Education Authority on the findings of an investigation into adult I.Q. The report stated that although the average level was quite good, it was found that about 80 per cent of those below average.

COULD NOT READ UPSIDE DOWN PRINTING!!

Being a Welshman, I feel partially justified to think how amusing the ambiguity of the English language can be on occasions. For instance, talking recently with one of the young bloods of the department I was pleasantly surprised to hear of one of his pastimes. It was only after ten minutes further discourse however I ultimately realised that although we were talking about the "same name" subject, our ideas just could not be so completely different - as the cartoon below makes all too clear. The only question is - who thought what?



## BIRD WATCHING

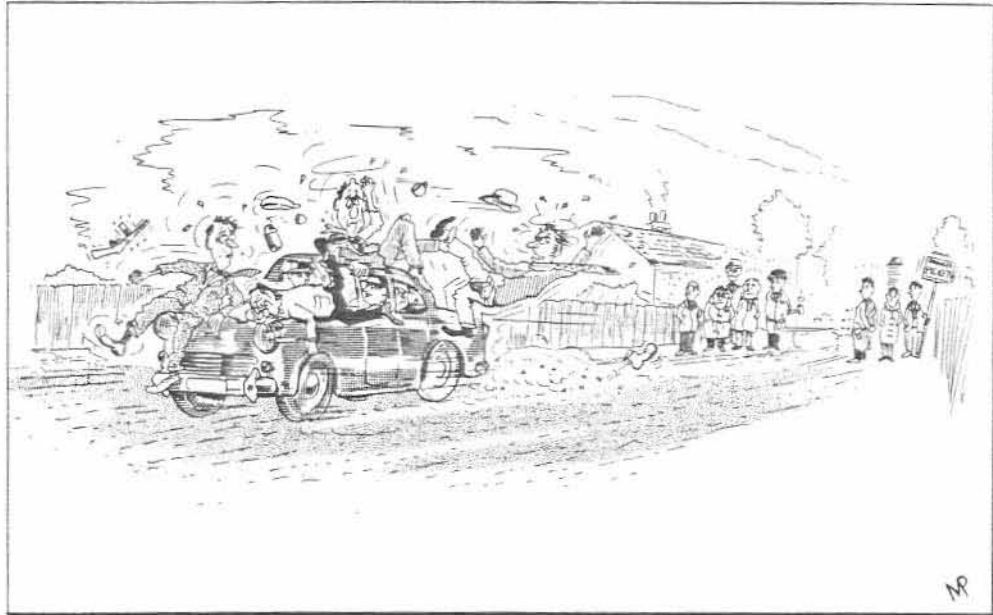


And finally, to end off the NEWSLETTER, "honalable gleetings" to that elusive, never-been-seen oriental member of the staff somewhere at Borehamwood. Having seen your latest effort:

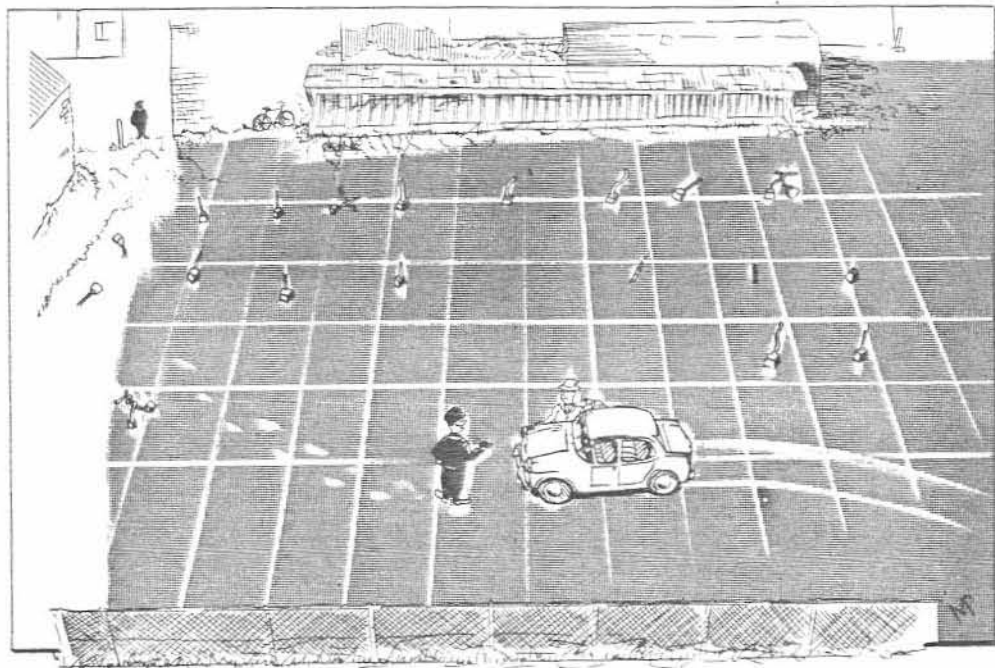
新  
中

and a CHAR SHUI FAN to you too- YOGI!

THE WAY THE **ED** SAW FEB 5TH ✓



"BINGO! FULL HOUSE"



"E 'AS 'IS ORDERS 'E SEZ!"