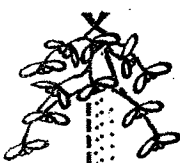
  
**R. S. R. S.**  
**Newsletter**

CHRISTMAS 1966

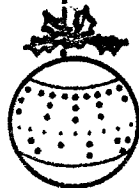
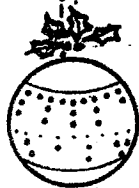
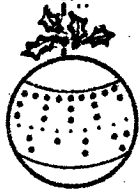
No. 68

The Editor has kindly given me the opportunity, through this newsletter, to wish all members of the Staff and their families a very happy Christmas and a prosperous and successful New Year. This I do with much pleasure and sincerity.

The big event of 1967 will undoubtedly be the Official Opening of our radio telescope at Chilbolton, but we can confidently look ahead to other interesting developments in our work and I am sure that, with everyone's help, the Station will continue to flourish in all that it does.

J. A. Saxton



Royal Society Award to Mr. Ratcliffe

Staff will be pleased to learn of the award of one of the Royal Society's Royal Medals to our former Director, Mr. Ratcliffe.

In 1825 George IV signified his wish to provide the Medals, originally two in number, and they were first awarded in 1826. Each award marks most important contributions to 'the advancement of natural knowledge', one for the physical and one for the biological sciences. Last year the Queen approved the institution of a third award for work of major significance in applied science.

The 'biological' and 'applied' medals have been awarded, respectively, to Dr. Yates of Rothamsted Experimental Station and to Mr. Cockerell, consultant to Hovercraft Development Limited. Among previous holders of the Royal Medal for work in the physical sciences have been Faraday, Rayleigh, J. J. Thomson, C. T. R. Wilson and others of equal stature. We are all pleased to know that to this distinguished roll is now added the name of J. A. Ratcliffe.

G. W. G.

Prototype of UK-3 Satellite Leaves for America

The principal prototype model of UK-3, the first all-British satellite, commissioned by the Science Research Council, and which is due to carry five British scientific experiments into space early in 1967 left this country on Tuesday, November 29, for compatibility tests in America. It will undergo mechanical and other tests with the actual launch vehicle at Dallas, Texas.

UK-3, is a 198 lb. satellite which will be launched into a circular orbit some 325 miles above the earth. As well as its scientific instruments the satellite will carry a data handling and storage system, a command receiver and telemetry system for relaying information back to ground stations and an array of thousands of solar cells for converting the sun's energy into electricity. The overall height of the satellite will be about five feet and its span with booms extended (which are erected simultaneously and symmetrically) ten feet.

Co-ordination of this most significant British project in space has been undertaken by the Space Research Management Unit of the Science Research Council, together with Ministry of Aviation, acting as the design authority.

The British Aircraft Corporation has constructed the spacecraft and GEC Electronics has been the principal firm responsible for the complex electronics system.

The design aim is that the satellite should transmit experimental data for a year.

The five experiments the satellite will be carrying will:-

measure the characteristics of radio frequency emissions from natural terrestrial sources such as thunderstorms (the Radio and Space Research Station);

study the vertical distribution of molecular oxygen in the Earth's atmosphere at about 150 km (the Meteorological Office);

study the spatial and temporal characteristics of VLF radiation (1-20 kms) above the Earth's ionosphere (Sheffield University);

effect a world wide survey of the ionosphere by measuring the electron density and temperature at frequent points along the path of the satellite (Birmingham University);

and measure the emission of radio noise from sources in the galaxy at frequencies too low to be observed on the ground. (Jodrell Bank).

Given successful launch and operation of the satellite the results of these experiments will in due course be made freely available.

(based on data contained in an S.R.C. press release)

#### STAFF NEWS

##### Congratulations to:

Dr. L. Thomas now Fellow of the Institute of Physics

##### Welcome to:

Mr. S. M. Morrissey	Perm. A.E.O.
Dr. G. W. Paltridge	N/S.S.O.
Mr. C. R. Boulton	S.O. (Perm)
Mr. I. G. MacKinlay	S.A. (Perm)
Mrs E. A. Brown	N/Canteen Assist. P/T
Mr. A. J. Marshall	N/Labourer (Winkfield)

##### Resignations

Mr. Aw. Yong Piow	T/Tech.Assist. (Singapore)
Mr. J. B. Jones	A.E.O. (Est)
Mr. Lui Pao Chuen	N/Research Officer (Singapore)
Mrs A. Duggan	N/Canteen Assist. P/T

##### Letter to the Staff

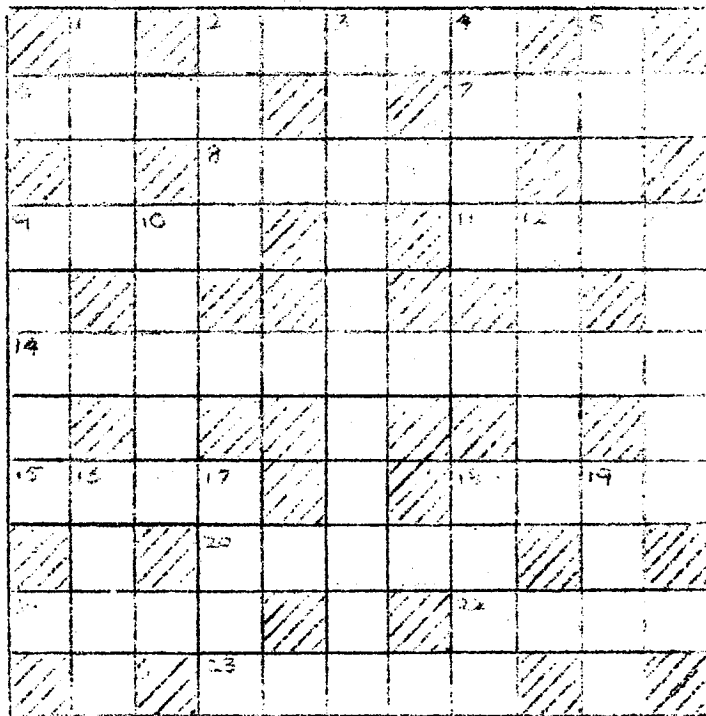
Dear Everyone,

Thank you very much for giving me such a pleasant farewell on December 2nd. I was sorry not to be able to say many personal goodbyes before ceasing to be one of Her Majesty's civil servants, but, of course, we shall be in Slough until the end of January and I hope to be able to see most of you before we leave for ESDAC and a staple diet of frankfurters and sauerkraut - or perhaps that won't be obligatory - I think Geoff at least hopes not!

Thank you all very much for the mysterious envelope. I feel it can most suitably be transformed into a card table which we have been wanting for some time. After all, regular Bridge evenings will be rather difficult to fit in between feeding times for at least a few months! Thank you very much indeed, the table will be a splendid memento of my years at Ditton Park.

Jean Fooks

SPACEWORD



CLUES ACROSS

- 2. Turns up in all the workshops ! (5)
- 6. Sometimes seen around the moon (4)
- 7. Resistance initially from government envelopes (4)
- 8. The hunter constellation (5)
- 9. A current after the Dec is moisture (4)
- 11. Vend in tinsel lights (4)
- 14,1. down. Abundant in the W.D.C. (11,4)
- 15. Instrument, perhaps for angels in heavenly repose (4)
- 18. Dull impact (4)
- 20. Before us, in early evening you see this ! (5)
- 21. Timber in the entree (4)
- 22. In addition (4)
- 23. This moving part goes backwards and forwards ! (5)

DOWN

- 1. See 14 across
- 2. An effective aerial (4)
- 3. Our location in the solar system (5,6)
- 4. Ages of the universe (4)
- 5. Pear-drops acetate (4)
- 9. Boring part of amy life ! (5)
- 10. See 19 down
- 12. Change of heart for a planet (5)
- 13. Euclid lost his head; confused? Clear ! (5)
- 16. Woolly tale (4)
- 17. Infinite time (4)
- 18. Ruler now a fallen star ! (4)
- 19,10.down. Constellation (4,5)

MENTAL EXERCISE

1. A clock strikes six in five seconds. How long does it take to strike twelve?
2. A farmer sold his eggs to three customers. He sold half his eggs and half an egg to his first customer. To his second he sold half of what he had left and half an egg. To his last customer he sold half of what he then had left and half an egg. Three eggs remained. He never broke an egg during any transaction. How many eggs did he start with?
3. A visitor to a small town asked the local barber if he had much competition. "None", answered the barber. "Of all the men in the village I naturally don't shave those who shave themselves, but I do shave those who don't shave themselves". Is this a reasonable answer?
4. Solve the cryptogram below which has only one solution.

L Y N D O N  
          B  
-----  
J O H N S O N  
-----

5. Four beetles A,B,C,D occupy the corners of a square of side 10 inches. At a given instant A starts to crawl towards B, B towards C, etc. All beetles crawl at the same speed and they describe congruent logarithmic spirals which meet at the centre of the square. How far does each beetle travel before they meet?

M. C.

(ANSWERS NEXT MONTH)

SPORTS AND SOCIAL CLUB NEWS

CAMERA CLUB

For the first lunchtime slide shows this winter, the themes were "Peru" and "London and the Zoo". All are welcome at these sessions, which are held at approximately monthly intervals.

H. Rishbeth

SNOOKER

A Snooker contest will be held during mid-January as part of the Smith-Rose Cup Competition. Will all those interested in taking part please sign their names on the list on the Sports and Social Club notice board.

K. Slater

BRIDGE CLUB

The main event in November was the home match against N.P.L. on the 18th. Our team consisted of Dr. and Mrs Bain, Dr. and Mrs Bramley, Dr. Dickinson and Mr. Zavody and Mr. and Mrs Gordon-Smith. We won by a clear margin of thirty-five international match points, thus maintaining our unbeaten record for this season.

On December 7th we were hosts to the Road Research Laboratory and won by a narrow margin. We hope in spite of Christmas distractions to hold at least one internal match this month.

Martin Bowman

LETTER TO THE OUTSTATIONS

Dear Colleagues,

A merry Christmas to you. The signs of the times are upon us here; we have to sort out our lunch arrangements, wonder how to get the most out of a judicious mixture of special and annual leave and try to feel good-will toward all, including the Treasury.

A sort of cottage industry (paper tree and snowflake manufacture) has sprung up in various parts of the building. Father Christmas heads beam down at us from the canteen in a profusion which would gladden the heart of a hydra-slaying head hunter. Soon we shall try to obey music's power as best we can at the coming dance.

The Long-range weather forecast predicts a better than usual chance of a white Christmas this year. Whether you think this is a good thing or not is up to you. For my part, let a simple addition to my opening greeting suffice.

A happy New Year from

Yours sincerely,

THE EDITOR

STOP PRESS

RECORD ATTENDANCE AT THE CHRISTMAS DANCE - OVER 150.

20th December

Congratulations to Jean and Geoff Fooks on the birth of their daughter.