R.S.R.S. NEWSLETTER

No. 95 March 1969

U.K. 4 Project Scientist

For the first time in the U.S./U.K. series of satellites a U.K. project scientist has been appointed, in addition to a U.S. one. The latter has not yet been named for U.K. 4, but staff will be pleased to learn that Mr. Dalziel has been designated U.K. project scientist. This latest satellite - U.K. 4 - will require close scientific as well as engineering liaison between the United States and the United Kingdom for two reasons. One is that there will be an American experiment on board, and the other is that the payload is what is known as "mission oriented", as distinct from being a collection of experiments sharing a vehicle. The object of the satellite is to study particle-wave interactions. The University of Sheffield, and the University of Manchester in association with the R.S.R.S., will provide the experiments to measure electro-magnetic radiations which are caused by, or which may react upon, energetic particles. The R.S.R.S. will also provide a 'sferic' counter, to identify noise due to lightning flashes. An American group will provide the particle experiment. Mr. Dalziel's experience of energetic particle experiments will no doubt come in useful. To complete the list, the University of Birmingham will make measurements of the plasma in which the waves and particles interact.

The project scientist's responsibilities also extend to field of data processing and analysis. The following quotation is from the Memorandum of Understanding between NASA and the S.R.C.

> "Each agency will designate a Project Scientist responsible for assuring close liaison with his counterpart in the other agency in connection with the planning of the scientific experiments and data reduction and analysis."

We offer our congratulations to Mr. Dalziel on this important appointment, which reflects credit upon the Station as a whole.

U.K. 4

(The following overall description of the satellite is taken from the Official Press Notice.)

The British Aircraft Corporation (Space and Instrumentation Group) will be the prime contractor responsible for the structure, integration and testing of the U.K. 4 satellite and will act as the Co-ordinating Design Authority, while G.E.C.-A.E.I. (Applied Electronics Laboratories) will be responsible for the design and supply of all the common user electronics. The satellite is scheduled for launch by the National Aeronautics and Space Administration by a Scout vehicle in 1971. Excluding the launch the satellite and experiments are expected to cost about £1 million.

The satellite is expected to be launched into a 500 Km circular orbit of the earth at an inclination of 80 degrees. Like U.K. 3 it will be in the form of a polygonal cylinder with a conical top, and four large booms around its base will provide mountings for experimental sensors and a convenient platform for mounting some of the solar cells. During launch the booms will be folded around the fourth stage of the Scout rocket and after injection into orbit deployed at an angle of 65 degrees relative to the spin axis of the satellite. In addition it will have a dipole aerial, deployed after launch, with an overall length of approximately 40 ft.

Station News

The Director recently spent a week in New York as Head of the United Kingdom delegation to a meeting of the Scientific and Technical Sub-Committee of the United Nations Organisation Committee on the Peaceful Uses of Outer Space.

The Scientific and Technical Committee of the European Space Research Organisation have agreed to the launching of the spare flight model of E.S.R.O. 1. Any modifications are to be agreed by the experimenters, subject to maintaining a launch date this autumn.

It has been decided to postpone Station Open Days until October.

Mr. Meadows and Mr. Golton have recently visited the Norwegian Defence Research Establishment at Oslo.

The recent E.S.R.O. Symposium on Substorm Events, held at Kiruna, Sweden was attended by Mr. Dalziel, Dr. Dunford and Dr. G. Thomas. Suiting action to occasion, substorm conditions occurred, and visitors were able to witness considerable auroral activity.

Staff News

Congratulations to :

Mr. T. J. Bevan on his marriage to Miss Betty Seah on Friday 28th February at Singapore.

Margaret (Peart) and Tony Young (formerly R.S.R.S.) on the recent birth of their son.

Welcome to :

Mrs. B. M. Tamkin	Part-time C.A.
A. J. Lucas	S.A. perm.
C. J. Payne	A.E.O. perm.
F. J. Clark	Driver

Resignations :

J. Tetlow	S.A. perm.
Mrs. B. Crawford	A.E.O.
B. L. Garner	E.O. est. returned to D.E.S.
K. C. Siow	Technical Officer, Singapore
A. G. Vincent	Labourer (P/T) (Chilbolton)

Other Changes

C. Medhurst	S.E.O. returned to R.S.R.S. from Winkfield
J. Bell	S.E.O. transferred from Div. I to Div. IV
M. D. James	A.E.O. transferred from Div. I to Div. IV

I N C A S E O F F I R E

CALL FIRE BRIGADE — AND RAISE THE ALARM

NORMAL HOURS INFORM SWITCHBOARD — BY BREAKING GLASS IN ALARM BELL

DO NOT USE BARE HANDS

Do not be afraid to shout "FIRE" to summon aid or warn others.

AT NIGHT

CALL 999 ASK FOR FIRE SERVICE AND GIVE FULL ADDRESS AND STATE POSITION OF FIRE

Radio and Space Research Station,
Ditton Park,
SLOUGH, Bucks.

ATTACK THE FIRE WITH AVAILABLE EQUIPMENT

Information about fire extinguishers can be obtained from the Fire Precautions Officer.

Do not use water or foam on live electrical apparatus.

IF FIRE IS LARGE OR THE SEAT OF THE FIRE OBSCURE

Slow its progress by closing doors or windows. Keep staircase doors closed.

Warn others who may be in danger: do not rely on their having heard an alarm.

ON HEARING AN ALARM

(a) EVACUATE THE BUILDING BY NEAREST EXIT.

ASSEMBLE NEAR MAIN ENTRANCE AND AWAIT INSTURCTIONS.

MEANS OF ESCAPE

Staircase(s) in normal use.

NEAREST EXIT. WINDOWS.

Lifts should not normally be used for escape from fire.

FIRE DRILLS

THE ALARM BELLS WILL BE TESTED FROM TIME TO TIME.

WHEN THE ALARM BELLS SOUND STAFF SHOULD CARRY OUT INSTRUCTIONS GIVEN AT (a) ABOVE.

Song of Space

("For they that held us captive required of us a song" Psalm CXXXVII)
("Yon's a right 'un" Anon.)

Oh! Let us sing a roundelay,
For 'tis the merry Open Day;
A day of pregnant happiness
Fraternising with the Press,
Philosophers and V.I.P.s,
And visitors from overseas;
Perhaps exchanging formal nods
With persons very near to Gods.
Let's sing in round euphonious chords
Of exhibits and display boards;
Material very carefully picked
So's not to get ones bottom kicked
By workers from just down the way,
Whose eyes are cold and steely grey,
Contemptuous, and faintly odd,
And slightly glassy, like a cod.
Sing hey! Sing ho! Sing hey the holly!
O let us be most jolly!

Let's sing of regions F and E,
And getting out too late for tea,
Of ionized layers and meteorites,
And rocketry and satellites,
Of visitors who twiddle knobs,
Of others looking round for jobs -
White teeth, grey suits and extreme unction;
Of exhibits that will not function.
Lets sing a cheery choral hymn
Of being left out on a limb,
Because the man whose work it is
Has gone off with a pal of his;
Of microwaves and thunder showers,
And standing up for seven hours;
Of scattering from rough terrain,
And being too late to catch your train.
Sing ho! Sing hey! Sing ho the berry!
O let us be most merry!

Carole Lewis

Sports and Social Club News

Bridge Club

The Smith-Rose match was held on Tuesday 4th March during a normal bridge evening, when five pairs entered. The result was a draw caused by a North pair being the overall winners, with South pairs coming 2nd and 3rd.

The match against R.R.L. which was played at R.S.R.S. on 26th March resulted in a win by 113-38 IMP's - despite R.R.L. being in the lead at half-time.

It is hoped that the next bridge evening will be Friday 11th April at 7 p.m.

R. PRATT

Badminton Section

The Smith-Rose Cup Badminton tournament will be played at the Baldwin Institute on Monday 14th April, commencing at 7.30 p.m.

More names are needed on the list to be found on the Sports and Social Club Notice Board, particularly under the North column.

A. F. SMITH

Letter to the Outstations

Dear Colleagues,

Some names are evocative of times past. Has not the prefix 'Great' a distinctly nineteenth century sound, redolent of ships, exhibitions and railways. No? - well, too bad; it has for me, and it serves as a lead - in to the fact that the Station car park and roads have been subjected to treatment by a firm calling itself the Mechanical Grouting and Tar Spraying Company.

We have now been grouted and sprayed, and mechanically at that. 'You can't beat a good hand grout' cries the voice of reaction. Perhaps not, Sir, perhaps not; but these are days of expanding technology and it is up to us to make full use of the power of steam, cranks, and great wheels.

One member of the Staff who ventured in at the weekend was confronted by THE ENGINE itself - all brass and belt, flywheeling about. A fine thing manufactured in 1929 and still at it. 'The only one of its kind in Europe' said its keeper; though that could be taken in two ways. Anyway we now have new surfaces and an ample supply of small sharp chippings to fill up shoes and cars in coming months.

Meantime, over against the Admin. block, a siege tower has been erected and men from M.P.B.W. are performing the ritual of strip-the-gutter. I watched as

one group of workers brought about the collapse of several lengths. Rendered rotten by a decade of refreshing rain, it crashed upon the rose beds beneath (Tom thou should'st be living at this hour). Now a fresh decade's worth of metal will, we hope, guide the rains where they should go, not overspill them on to the heads of passers by, one of whom might be,

Yours sincerely,

The Editor

Reprint List

M. R. Bowman, A. J. Gibson and M. C. W. Sandford

Atmospheric Sodium measured by a Tuned Laser Radar

Nature 1969 221 456-457

Internal Memoranda

323 Rishbeth, H. and Dunford, E.

Notes on the Third International Symposium on Equatorial Aeronomy

Ahmedabad, India 3-8 February, 1969